

MINISTRY OF EDUCATION
AND MINISTRY RESPONSIBLE FOR MULTICULTURALISM AND HUMAN RIGHTS
INDEPENDENT SCHOOLS BRANCH



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Victoria, British Columbia, V8V 2M4

AN EVALUATION OF THE
ACCELERATED CHRISTIAN EDUCATION (A.C.E.)
PROGRAM
for the purpose of
GROUP I INDEPENDENT SCHOOL CLASSIFICATION
SUMMARY REPORT

Submitted to:

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This paper serves as a summarizing document for a 598-page Ministry of Education Report that evaluates the Accelerated Christian Education Program in terms of the curricula, instructional, and administrative criteria required for Group I independent school classification.

OVERVIEW OF THE ACE PROGRAM

The Accelerated Christian Education (ACE) program utilizes programmed learning material published in booklets termed PACES (an acronym for Packets of Accelerated Christian Education). Core Curriculum PACES are available for the core subject areas of Language Arts/English, Mathematics, Social Studies, and Science at all grade levels—Kindergarten (Year One) through Grade Twelve (Year Thirteen); and for Word Building—Kindergarten through Grade Nine (Years One through Ten). A grade level's work is viewed as the completion of approximately twelve PACES per subject. In addition to the core subjects, a limited number of additional high school elective PACES have been produced. Some Bible College PACE courses have also been published.

Each PACE contains descriptive material on a topic, frequent sets of objective questions to be answered by the student, and a corresponding test. Students are required to master a PACE's content by scoring eighty percent or higher on its test before proceeding to the next PACE. PACE exercises and tests are repeated until the required minimum test percentage is attained.

For most of the school day, students enrolled in ACE schools work at their own rates on PACES at individual carrels (or "offices") arranged within the room (or "learning centre") in a manner designed to eliminate talking or visual distraction. All student carrels are equipped with a Canadian and a Christian flag. When students display their Canadian flag, a teacher's aide (or "monitor") will give them permission to continue with a procedural matter, such as the scoring of a PACE, or any other matter that would necessitate movement from their work station. Teachers (or "supervisors") attend to all students who have raised Christian flags. Supervisors help students who have encountered difficulties with their PACE materials, check answers that may vary from student to student, give permission for students to write PACE tests, and maintain records of each student's progress. According to ACE promotional literature, supervisors do not need to be qualified teachers.

ACE CURRICULA AND INSTRUCTION (In Comparison to British Columbia Curriculum Learning Outcomes and Goals as Required for Group I Classification)

This evaluation report limits itself to the parameters required for Group I independent school classification. Therefore, its evaluation of ACE curricula and instruction is restricted to a comparison of its four core subject areas (i.e., Language Arts/ English, Mathematics, Science, and Social Studies) to the goals and learning outcomes of the British Columbia Curriculum as expressed in the Ministry of Education's appropriate Primary Program and Curriculum Guides.

When comparing ACE curricula in the four core subjects of Language Arts/English, Mathematics, Science, and Social Studies to the British Columbia curricula, as described in the goals and learning outcomes of the B.C. Primary Foundation Document and the appropriate B.C. Ministry of Education Curriculum Guides, the following ACE deficiencies are observed:

British Columbia Primary Program Goals and Foundation Statements

Due to the predominant (and near sole) use of one approach (that of individualized reading and answering of recall questions) the ACE program does not adequately meet the following broad *B.C. Primary Program Goals and Foundation Statements*:

1. Aesthetic and Artistic Goals

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

- Develop enthusiasm for the arts
- Imagine and visualize through the arts
- Respond through the arts
- Express and represent through the arts
- Interpret through the arts
- Create through the arts
- Appreciate the arts
- * • Think, learn, and communicate through the arts

2. Emotional and Social Responsibility Goals

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

- Value and respect individual contributions
- Accept and demonstrate empathy
- Establish a collaborative environment and acquire cooperative social skills

3. Intellectual Development Goals

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

- Develop thinking through meaningful learning experiences
- Use language to facilitate thinking and learning
- Use language to communicate effectively

The Kindergarten/Year One Program is an exception to the deficiencies listed above. Its program utilizes group as well as individual instruction, teacher-led discussions, student project work, and a wide variety of auditory, visual, and kinesthetic learning activities. The Kindergarten program is well-structured and meets all B.C. curricula requirements. The Kindergarten program does not limit itself to only one learning approach as the latter part of Grade One/Year Two through Grade Twelve/Year Thirteen ACE Program does.

British Columbia Goals and Learning Outcomes

1. ACE Elementary Language Arts Deficiencies

- A scarcity of literary selections (novels, short stories, essays, and poetry) for student reading, analyzing, and discussing
- A paucity of required student compositions and creative writing
- A lack of listening skill-building exercises and activities
- A deficiency of skill-developing assignments in speaking skills
- A scarcity of group discussion and collaborative work activities
- A lack of instructional use of visual, multi-media resources

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Elementary Language Arts Program:

B.C. Primary Foundation Document

- 88 Learning Outcomes (for specifics refer to Section II.C.1 and Appendix C—2 of the full report)

B.C. Ministry of Education Curriculum Guide

- 277 Learning Outcomes (for specifics refer to Section II.C.1 and Appendix C—3 of the full report)

report)

2. ACE Elementary Mathematics Deficiencies

- A lack of use of manipulatives, visual aides, and group drills
- A scarcity of word problems in the primary-level PACES
- A weakness in student work requiring rounding and estimating
- A paucity of mental drill exercises
- A deficiency in the data analysis component
- A weakness of geometry skills
- A predominant use of the imperial rather than the metric system of measurement
- A lack of calculator skills
- A delayed and weak presentation of decimal fractions and operations

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Elementary Mathematics Program:

B.C. Primary Foundation Document

- 40 Learning Outcomes (for specifics refer to Section II.C.2 and Appendix D—2 of the full report)

B.C. Ministry of Education Curriculum Guide

- 94 Learning Outcomes (for specifics refer to Section II.C.2 and Appendix D—3 of the full report)

3. ACE Elementary Science Deficiencies

- The scarcity of hands-on, science experimentation
- The lack of higher-level thinking exercises involving inquiry, analysis, and problem-solving skills

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Elementary Science Program:

B.C. Primary Foundation Document

- 13 Learning Outcomes (for specifics refer to Section II.C.3 and Appendix E—2 of the full report)

B.C. Ministry of Education Curriculum Guide

- Goals A, B, and D (for specifics refer to Section II.C.3 and Appendix E—3 of the full report)

4. ACE Elementary Social Studies Deficiencies

- The considerable content differences in Grades Two—Six/Years Three—Seven
- The lack of Canadian content and the consistent emphasis upon American patriotism and material (excepting Year Six)
- The scarcity of comparative studies of various countries and cultures in the intermediate grades
- The absence of group citizenship skills requiring discussing, listening, decision-making, communicating, and coordinating
- The sparseness of higher-level thinking and problem-solving questions
- The paucity of student research and reporting work (as well as a lack of presentation variety via various media)

Due to these curriculum deficiencies, the following provincial curriculum and learning outcomes are not being met satisfactorily by the ACE Elementary Social Studies Program:

B.C. Primary Foundation Document

- 38 Learning Outcomes (for specifics refer to Section II.C.4 and Appendix F—2 of the full report)

B.C. Ministry of Education Curriculum Guide

- Goals A, B, E, F, H, I, J, K (interpersonal, group, leadership skills)
(for specifics, refer to Section II.C.4 and Appendix F—3 of the full report)

5. ACE Secondary English Deficiencies

- A deficiency in both the amount and variety of literature being read
- The absence of Canadian literature
- The lack of in-depth examination, analysis, and discussion of literature selections
- The lack of sufficient quantity and depth of student writing assignments and in-depth analysis for improvement purposes
- The absence of listening skill-building exercises
- The scarcity of group discussion and collaborative work activities
- The paucity of speaking experiences
- The lack of instructional use of visual, multi-media resources

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Secondary English Program:

B.C. Ministry of Education Curriculum Guide

- 314 Learning Outcomes (for specifics refer to Section II.D.1. and Appendix G—2 of the full report)

6. ACE Secondary Mathematics Deficiencies

- The lack of number estimating and rounding exercises
- The absence of formal instruction in scientific notation

- A weakness in stress upon data analysis skills
- The infrequency of word problem exercises
- The lack of a Grade Twelve/Year Thirteen Mathematics course

The ACE Secondary Mathematics Program basically meets the provincial curriculum goal and learning outcomes. The above deficiencies reflect weaknesses in meeting the following provincial learning outcomes:

B.C. Ministry of Education Curriculum Guide

- 35 Learning Outcomes (for specifics refer to Section II.D.2 and Appendix H—2 of the full report)

7. ACE Secondary Science Deficiencies

- The minimization of practical topics and applications in the Years Nine through Eleven program
- The almost total lack of hands-on, laboratory experiments
- The paucity of student research and reporting
- The lack of group exploration, discussion, and analysis
- The scarcity of higher-level thinking questions—those requiring application, analysis, synthesis, and evaluation
- The lack of student involvement in scientific processes—asking questions, posing problems, making hypotheses, designing test procedures, making observations, and drawing conclusions
- The lack of Grade Twelve/Year Thirteen Science courses

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Secondary Science Program:

B.C. Ministry of Education Curriculum Guide

- Goals A, B, and D (for specifics refer to Section II.D.3 and Appendix I—2, 3, 4, and 5 of the full report)

8. ACE Secondary Social Studies Deficiencies

- The significant differences in course content
- The lack of Canadian content in the program (excluding some Canadian PACES in Years Nine and Eleven)
- The consistent American stress, perspective, and reference throughout the program
- The absence of current event study
- The lack of student research and reporting
- The paucity of exercises requiring higher-level reasoning, i.e., questions dealing with causation, interrelatedness, differentiation, and critical analysis
- The scarcity of student discussion, debates, presentation, and collaborative activities

Due to these curriculum deficiencies, the following provincial curriculum goals and learning outcomes are not being met satisfactorily by the ACE Secondary Social Studies Program:

B.C. Ministry of Education Curriculum Guide

- Goals: 1 (Contemporary), 2 (Current Events), 3 (all except Canadian Government), and 4 (all)
- Skills: A, B, E, F, H, I, J, K (all except self-worth)
(for specifics refer to Section II.D.4. and Appendix J—2 of the full report)

ACE ADMINISTRATION (In Comparison to Provincial Standards Required for Group I Classification)

Administrative factors reviewed are limited to those required for Group I independent school classification, i.e., minimum subject time, graduation, and teacher certification requirements.

When estimating ACE subject time allotments and comparing these with provincial Independent School subject time requirements, the following observations are noted:

1. Assuming that the various PACES require approximately equal time to complete, the percentages of PACE worktime in each subject would be as follows:

<i>ACE Elementary Subject Worktime Percentages: Years 5—8</i>		
<i>Subject Area</i>	<i>Course — PACES</i>	<i>Percentage of Time</i>
Language Arts	English — 12 Word Building — 12	40%
Mathematics	Math — 12	20%
Science	Science — 12	20%
Social Studies	Social Studies — 12	20%
Total PACE Worktime		100%

In comparison, the approximate provincial breakdown of early intermediate core curriculum subject time requirements as follows:

<i>Early Intermediate Subject Time Requirement Percentages</i>		
<i>Early Intermediate (Years 5—8)</i>		
Subject	Calculation	%
Language Arts	2050/4020 min.	51 %
Mathematics	910/4020 min.	23 %
Science	530/4020 min.	13 %
Social Studies	530/4020 min.	13 %
Total	4020/4020 min.	100%

When comparing early intermediate subject time allotments, a slight underemphasis of Language Arts and Mathematics and a slight overemphasis of Science and Social Studies is observed.

2. After approximating required student worktime, the completion time for most twelve-PACE secondary courses is estimated to be approximately 100 to 125 hours. This meets the 96 minimum instructional hours (80 percent of 120 hours) requirement for later intermediate and graduation courses.

While the 100-125 hours-per-course estimation applies to the ACE core subject areas, it does not, however, pertain to its elective subjects. Several ACE course electives are considerably shorter and therefore could not be justly credited as a full secondary course. Proper course classification is necessary at the secondary level; this is to be specified as follows:

- P — Prescribed Course: more than 80% of provincial course content
- E — Substantially Modified Course: 60—79%
- L — Locally-developed Course: less than 60%

3. While the previous time calculations reflect actual subject instructional times, it is important to note that they do not reflect actual teacher instructional times in an ACE school setting. Due to little or no group instruction taking place in core subject areas, teacher-student contact time is limited to individual teacher assistance or tutoring. If an ACE teacher is supervising thirty students, actual teacher-student instructional time is approximately one-thirtieth of the designated time allotment.

Schools offering a graduation (Years Twelve and Thirteen) program must meet all provincial graduation requirements.

All teachers in a Group One school must be provincially certified. Certification may be obtained:

- Via the College of Teachers (under the Teaching Profession Act), or
- Via the Inspector of Independent Schools (under the Independent School Act)

SPECIFIC SUGGESTIONS TO ASSIST AN ACE SCHOOL DESIRING TO MODIFY ITS PROGRAM TO QUALIFY FOR GROUP I CLASSIFICATION

The following charts summarize the major curriculum content and methodology changes required to remedy the deficiencies noted previously in this report.

<i>ELEMENTARY (Primary and Early Intermediate) PROGRAM ALTERATIONS</i>		
<i>Curriculum Area</i>	<i>Content Changes</i>	<i>Methodology Changes</i>
1. Language Arts	• Incorporating various literary selections for student reading by purchasing appropriate short story, poetry, and novel literature resources • Developing creative writing units • Including various listening and speaking skill-building exercises	• Teacher-led group instruction in analyzing and discussing literature, student writing, and oral presentation • Group discussions and collaborative activities • Use of visual and multi-media resources
2. Mathematics	• Enhancing word problem exercises (primary levels) • Including mental math drills • Strengthening data analysis, rounding, estimating, and geometry skills • Revising the predominant use of the imperial to the metric system of measurement	• Use of manipulatives, visual aides, and oral drill • Teacher presentations to introduce and explain complex concepts and diagnose difficult problems
3. Science	• Adding higher-level thinking exercises—inquiry, analysis, and problem-solving skills throughout the entire program • Including hands-on student experimentation (the <i>doing of science</i>, not only the <i>reading about science</i>)	• Use of teacher explanation to assist in content comprehension • The supplying of basic science facilities and equipment to render experimentation possible • Student discussions that promote higher-level thinking • Enhancing programs by using visual aids (charts, filmstrips, videos, etc.)
4. Social Studies	• Canadianization and realignment of program by purchasing appropriate Canadian-produced text-books/materials • Strengthening comparative studies of various countries and cultures (early intermediate) • Adding higher-level thinking exercises, i.e., causation, interrelatedness, differentiation, and critical analysis	• Group discussions and collaborative activities that promote higher-level thinking, as well as communication, leadership, cooperation, and other social skills • Use of student researching, writing, and reporting • Provision of a school library to facilitate research work • Adding visual aids (colour photographs, filmstrips, videos, colour maps, globes, etc.)

SECONDARY (Later Intermediate and Graduation) PROGRAM ALTERATIONS		
Curriculum Area	Content Changes	Methodology Changes
1. English	• Increasing the quantity and variety of literature for student reading by purchasing appropriate literature and novel resources • Including some Canadian literature • Increasing the quantity of required student compositions • Including various listening and speaking skill-building exercises	• Teacher-led in-depth discussions analyzing the literature selections being read • Utilizing a variety of student collaborative activities which require listening, speaking, and discussion skills • Use of visual and multi-media resources
2. Mathematics	• Strengthening the frequency of word problem and data analysis exercises • Including problems dealing with number estimating and rounding, and scientific notation • Development or adoption of a Year Thirteen course	• Use of teacher presentations to introduce and explain complex concepts and diagnose difficult problems
3. Science	• Increase of practical application examples in presentation of content matter (late intermediate) • Including higher-level thinking exercises — application, analysis, synthesis, and evaluation throughout the entire program • Development or adoption of Year Thirteen courses • Including hands-on student experimentation throughout the entire program (the <i>doing of</i> science, not only the <i>reading about</i> science)	• Incorporation of student experiments with corresponding written, observational, laboratory reports • Securing science facilities and equipment to render secondary-level experimentation possible • Inclusion of student research and reporting • Group exploration, discussion, and analysis of content that promotes higher-level thinking • Including visual aids (filmstrips, films, videos, charts, etc.)
4. Social Studies	• Canadianization and realigning of program by purchasing appropriate Canadian-produced textbooks/materials • Including current event studies • Adding higher-level thinking exercises, i.e., causation, interrelatedness, differentiation, and critical analysis throughout the program	• Student presentation, discussion, and analysis of current event matters • Group discussion that promotes listening, discussion, debating, analyzing, and higher-level thinking skills • Inclusion of student researching, writing, and reporting • Provision of a school library to facilitate secondary-level research work • Use of visual aids (filmstrips, films, videos, colour maps, globes, etc.)

If desiring Group I classification, an ACE school could feasibly implement the previous program alterations by doing the following:

1. *Providing teacher instruction in all four core subject areas.* Teacher instruction includes presenting oral/visual explanations of new concepts, leading group discussions that promote higher-level thinking and clearer comprehension, utilizing a variety of instructional approaches and means, and reviewing difficult exercises.
2. *Incorporating some group collaborative instruction in all four core subject areas.* Group settings are necessary for the required development of listening, speaking, and discussion skills, and are very useful in promoting critical analysis and in-depth understanding of content.
3. *Securing appropriate textbooks or sourcebooks for all necessary core subject areas.* These textbooks/sourcebooks can be provided by the Ministry of Education or Christian publishers. Textbook instruction includes common readings, experiments, research areas, and thought-provoking exercises which make group analysis, discussion, reporting, and presenting possible. Due to the ACE curriculum being written solely for an individualized, programmed instructional methodology, it will not work effectively for group instruction. The program's predominant use of factual-recall and fill-in-the-blank type of exercises does not lend itself to higher-level thinking or in-depth discussion. Due to the narrower scope of the ACE material (learning by reading and answering facts), it does not meet the wider goals of the B.C. Curriculum. In the more strictly-factual subject areas, the ACE materials could be used satisfactorily, i.e., Grammar, Spelling, and Math Computation. PACES do not meet provincial curriculum standards, however, in English Reading, Literature, Writing, Speaking, and Listening; Science; Social Studies; and in some Math concept areas.

ACE schools desiring Group I classification, but also desiring to retain some ACE curriculum materials, may do so according to the suggestions offered in the chart entitled "Elementary and Secondary Textbook—PACE Combination Program" located on the following pages.

4. *Procuring school desks or tables for student seating.* The ACE student carrel-divider type seating is too visually restrictive for effective group instruction. This could be accomplished by eliminating the carrel-type seating or by providing another classroom/area for group instruction.
5. *Providing basic resources necessary for group instruction.* These should reflect a variety of approaches and media, e.g., chalkboards, bulletin boards, videos, films, filmstrips, wall maps, globes, wall charts, and manipulatives.
6. *Providing basic science experiment equipment and laboratory facilities.* Demands in this regard increase as the year level increases.
7. *Establishing a basic library facility.* A basic quantity of current research and non-fiction titles in the Social Studies and Science fields are necessary to meet their respective research and reporting skills requirements. Demands in this regard also increase with the students' year level.

The charts on the following pages indicate the subject areas in which ACE curricula meet the B.C. Curriculum requirements and may be used by Group 1 schools desiring to retain some ACE materials in their education program.

PRIMARY—EARLY INTERMEDIATE: YEARS 1—8

(ELEMENTARY: GRADES K—7)

TEXTBOOK—PACE COMBINATION PROGRAM

Kindergarten—Preschool with ACE and CHRISTI Program

<i>Subject Area</i>	<i>Principal Textbook/Source</i>	<i>Supplementary Source: Enrichment/Remedial</i>
1.1 <i>Language Arts</i> • Reading/Literature	Ministry of Education or Christian Readers or Short story, poetry, and novel literature resources	
• Spelling	ACE Word Building PACES	Reduce number required; others could serve as enrichment/extra credit material
• Language/Grammar	ACE English PACES and Creative Writing Units	Reduce number required; others could serve as enrichment/extra credit material
2. <i>Mathematics</i>	Ministry of Education Textbooks or Christian Textbooks or ACE Mathematics PACES and textbook combination	ACE Mathematics PACES ACE Mathematics PACES
3. <i>Science</i>	Ministry of Education Textbooks or Christian Textbooks	ACE Science PACES
4. <i>Social Studies</i>	Ministry of Education Textbooks or Christian Textbooks (must be Canadian in content and emphasis)	ACE Social Studies PACES

If the above textbooks/sources are implemented according to the previously-stated stipulations in this section of the report, this combined curriculum program will meet the learning outcomes of the B.C. Curriculum for the four core subject areas, and will be viewed as acceptable by the Independent Schools Branch for the purposes of Group I classification. (The Christi Kindergarten program meets all B.C. curriculum learning outcomes for Year One).

LATE INTERMEDIATE—GRADUATION: YEARS 9—13

(SECONDARY: GRADES 8—12)

TEXTBOOK—PACE COMBINATION PROGRAM

<i>Subject Area</i>		<i>Principal Textbook/Source</i>	<i>Supplementary Source: Enrichment/Remedial</i>
1.	English • Grammar/Writing	ACE English PACES/Self-pacs and Creative Writing Units	Reduced number required; others could serve as enrichment/extra credit material
	• Literature	Ministry of Education literature text- books and novels or Christian literature textbooks and novels or Short story, poetry, and novel litera- ture resources	
2. <i>Mathematics</i>		Ministry of Education textbooks or ACE Mathematics PACES/Self-pacs and textbook combination (Years 9—12) Year 13—Ministry of Education text- books	
3. <i>Science</i>		Ministry of Education textbooks or <i>Christian Textbooks</i>	ACE PACES/Self-pacs
4. <i>Social Studies</i>		Ministry of Education textbooks or Christian textbooks (must be Canadian in content and emphasis)	ACE PACES/Self-pacs

If the above textbooks/sources are implemented according to the previously-stated stipulations in this section of the report, this combined curriculum program will meet the learning outcomes of the B.C. Curriculum for the four core subject areas, and will be viewed as acceptable by the Independent Schools Branch for the purposes of Group I classification.

CONCLUDING REMARKS

An ACE school does not meet the Ministry of Education—Independent Schools Branch standards for Group I classification due to the curricula, instructional, and administrative deficiencies noted previously in this report.

If an ACE school would desire to modify its program to meet Group I standards, it could do so by implementing the seven suggested alterations listed previously.

An External Evaluation Team appointed to inspect a fully or modified/transitional ACE school *should use the full report as a standard for evaluating the school's crucial curricula, instructional, and administrative factors.* Also, persons desiring supporting documentation regarding any of the previous summarized information, should consult the full report and its appendices.