

Student Knowledge About Canada: A Hint of Optimism*

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Using a questionnaire of 60 cognitive items, the authors investigated general knowledge about Canada in Canadian students in grades 7, 10 and 12. The criteria of relevance, pervasiveness and durability guided the selection of items. The questionnaire was administered in both French and English to 14,051 students from all 10 provinces and 2 territories. Judging from their responses, students do indeed possess an adequate level of knowledge about Canada. Furthermore, this knowledge level increases significantly between grades 7 and 12.

Cette recherche s'est intéressée aux connaissances générales sur le Canada des élèves canadiens des 7e, 10e et 12e années. Un questionnaire réunissant 60 éléments cognitifs a été mis au point. Les critères de base qui ont présidé à la sélection de ces éléments étaient la pertinence, l'importance et la durabilité. Le questionnaire a été administré en anglais et en français à 14 501 élèves dans les dix provinces et les deux territoires canadiens. À en juger d'après leurs réponses, les élèves possèdent effectivement des connaissances de base sur le Canada. En outre, leur niveau de connaissances s'accroît nettement entre la 7e et la 12e année.

Few people would gainsay the impact on Canadian culture of the publication of *What Culture? What Heritage?* (Hodgetts, 1968). In fact, it provoked a nation-wide debate about Canadian studies in the school was provoked. This debate involved people from all sections of the public and has not ceased to this day.

One reason for the impact of Hodgetts' findings was the wide variety of data upon which his conclusion were based. The following examples are only a

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partial listing of the data sources utilized by Hodgetts and his fellow researchers: an opinion survey administered in French and English to 10,000 students across Canada, mainly in grade 12; open-ended essays written by more than 1,000 students in five provinces; structured interviews, each an hour and a half in length, conducted with over 500 teachers across Canada; and direct classroom observations carried out in 847 elementary and secondary classrooms in 247 schools in twenty cities across Canada.

These varied data-collection procedures, carried out over a two-year period, provided the basis for Hodgetts' condemnation of almost all aspects of civic education in Canada. Among other things, provincial curricula were criticized, teaching practices were faulted, materials were found sadly lacking, and teacher-education institutions were criticized. Perhaps Hodgetts' most thought-provoking conclusion was:

that the legitimate national interests of this country are not being served by our present Canadian Studies programs and that the need for radical reforms is urgent. . . . Not only are the schools failing to serve the interests of the wider society, but the reasonable expectations of the individual student while he is in school—as distinct from the role he may play as a citizen after graduation—are not being fulfilled either. (pp. 15–16)

Since the publication of these comments, the development of materials and the teaching of Canadian studies in the formal school curriculum have grown apace. A brief comparison of provincial curriculum documents then and now suffices to show this. Furthermore, the theoretical rationale recommended by Hodgetts in 1968 has been developed and widely disseminated under the title *Teaching Canada for the 80's* (Hodgetts & Gallagher, 1978).

What, then, is the outcome so far? Do elementary and secondary school children know more about Canada than their peers in the Hodgetts' study? To find out, we conducted a survey of grade 7, 10, and 12 students in Canada. The results provide base-line data for the purpose of comparison and replication in future studies.

This report is based upon the results of two recent studies of student knowledge about Canada. In the first study, grade 7 and 10 students were surveyed (Kirkwood & Nediger, 1982); in the second study, grade 12 students were surveyed (Kirkwood, Anderson, & Khan, 1984). The study attempted to answer two questions:

1. What level of general knowledge do students in grades 7, 10, and 12 possess regarding Canada?
2. Is there a difference in the knowledge level between the three grade levels?

METHOD

Instrumentation

Three criteria helped us to choose among the multitude of issues and concerns that in some manner affect the life of every Canadian. The first criterion was that of relevance. Was an issue meaningful within the Canadian context? The second criterion was that of pervasiveness. We chose issues and concerns that were national in scope and presumably touched the lives of a majority of Canadians. The third criterion was that of relative durability. If an issue was only temporary and transitory in nature, we did not choose it.

The political process was chosen since it was relevant, pervasive in its effects, and continuous. Although one might reasonably view everything that affects the lives of Canadians as an outcome of the political process, this process might be manifested in different, though not exclusive, subprocesses. These subprocesses, among others, could include environmental issues, economic issues, special issues and concerns, and political issues. Not incidentally, these subprocesses are the four broad areas of the ideal Canada Studies program identified by Hodgetts and Gallagher in *Teaching Canada for the 80's* (1978).

This conceptual framework led us to write 126 multiple-choice items, submitted to experts in Canadian studies at universities and schools across Canada for review before pilot-testing. They were also criticized by a national steering committee of non-educators. A final instrument consisting of 60 items resulted from the comments and suggestions of the reviewers and the results of the pilot testing.

Sample

The sample comprised students from all 10 provinces and the two territories. A total of 14,051 students enrolled in grades 7, 10, and 12 participated in this study. The questionnaire was administered in both official languages. Breaking the sample down by grade, there were 4,403 grade 7 students; 6,418 grade 10 students, and 3,230 grade 12 students. School boards were chosen randomly by province from the list of school boards prepared by the Canadian Education Association (CEA). Once a school board or district was chosen, schools which had the desired grade levels were selected within that school district.

RESULTS

The means, standard deviations, and the reliability coefficients for the Knowledge scale are presented in Table 1. Not surprisingly, the data reveal that there is a positive linear relationship between grade and score; the

TABLE 1
*Means, Standard Deviations, and Reliability Coefficients
for the Knowledge Scale*

	$\bar{X}$	S.D.	r
Grade 7 ($n = 4403$)	24.88	7.66	.79
Grade 10 ($n = 6418$)	32.76	9.69	.87
Grade 12 ($n = 3230$)	36.10	10.55	.90

TABLE 2
Summary of Analysis of Variance of Scores by Grades

Source	SS	df	MS	F	p
Between	268756.287	2	134378.143	1547.06	<.0001
Within	1220217.03	14048	86.86		

higher the grade, the higher the score. Grade 10 students scored higher than grade 7 students, and grade 12 students scored the highest. The mean and standard deviation for the knowledge scale for grades 7, 10, and 12 are 24.88, 7.66; 32.76, 9.69, 36.10, 10.55 respectively.

The differences among the grades are significant ($p < .01$) as is revealed in Table 2.

As implied earlier, the instrument consisted of four subscales: the Canadian Environment, the Canadian Political System, the Canadian Economic System and Specific Issues and Concerns. Table 3 gives the means, standard deviations, and reliability coefficients for the four subscales. A marked similarity in student performance on the four subscales at each grade level is evident. Furthermore, student performance on the subscales corresponded to overall scores; grade 12 students scored higher than the grade 10 students on all four subscales. Similarly, grade 10 students scored higher than grade 7 students on all the subscales.

Judging from the responses to the knowledge scale, students do indeed possess a basic level of knowledge about Canada. Furthermore, this knowledge level significantly increases between grades 7 and 12. A mean score of 36.10 (60%) for the grade 12 students, 32.76 (55%) for the grade 10 students and 24.88 (42%) for the grade 7 students is the basis for this observation.

DISCUSSION

A study of optional and compulsory Canadian studies courses across the country (Council of Ministers of Education, Canada, 1982) leads to the generalization that the formal study of Canada occurs primarily in the

TABLE 3
Means, Standard Deviations, and Reliability Coefficients for the Four Knowledge Subscales for Grade 7, Grade 10, and Grade 12

Grade 7 (n = 4403)			Grade 10 (n = 6418)			Grade 12 (n = 3230)		
$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r
[1] 6.35	2.50	.54	7.76	2.72	.62	8.66	2.76	.66
[2] 5.95	2.33	.47	7.77	2.60	.59	8.66	2.76	.66
[3] 5.59	2.19	.47	7.48	2.64	.63	8.23	2.79	.68
[4] 6.99	2.87	.54	9.75	3.64	.72	10.81	4.07	.79

Subscales: [1] Environmental Issues (14 items) [2] Economic Issues (14 items)
[3] Special Issues (14 items) [4] Political Issues (18 items)

intermediate grades (grades 7 to 10). If relatively little Canadian content is studied after grade 10, the score of the grade 12 students would indicate that general knowledge is being retained. As well, it is likely that students get some knowledge of Canada outside the formal classroom.

The similarity in student performance at each grade level on the four subscales is encouraging; no single subscale representing a domain of content can be identified as “neglected.” The percentage of correct responses for grade 12 students, for example, ranged from 59% to 62% for the subscales identified as Environmental, Political, Economic, and Special Issues. However, these are broad categories and probably highly interrelated.

Any complacency concerning the students’ knowledge disappeared when specific items were studied. A study of responses to individual items revealed many important up-to-date topics and issues about which students should be better informed. For example, about money, materials, machinery and factories necessary for producing goods in Canada, only 34% of the grade 12 respondents knew these “are mostly privately owned.” The fact that 40% of the grade 12 students incorrectly responded that they “are approximately half private and half government owned” demonstrates the impact of incorrect sources of information. Another item also showed this impact. Fifty-eight per cent of the grade 12 students incorrectly identified Alberta as the province with the highest per capita yearly income; only 33% selected the correct response—Ontario. In this same area of public perception, only 17% of the grade 7 students, 28% of the grade 10 students, and 38% of the grade 12 students identified Telidon as a new internationally famous technology of Canada.

Other important areas of the curriculum deserve more emphasis. Only 25% of the grade 7 students, 39% of the grade 10 students, and 42% of the grade 13 students correctly identified leaders in the Canadian women’s rights

movement. Only 34% of the grade 7 students and 39% of the grade 10 students could identify the Haida and the Nootka Indian Tribes as Pacific Coast tribes; while only 41% of the grade 12 students could answer this item correctly. The study of these tribes is certainly listed in provincial curriculum guidelines; therefore, the low proportion of correct responses might indicate that the study of our native peoples could be conducted in some other way. Few students knew that Canada's land area is approximately 9,100,000 square kilometers (grade 7, 27%; grade 10, 34%; grade 13, 32%). As well, most students could not locate the border between Canada and the United States using the North Pole and the Equator as points of reference (grade 7, 29%, grade 10, 34%; grade 12, 37%).

On a more positive note, many items were very easy for the students in all three grades. Students found it easiest to identify the continent in which Canada is situated. By order of grade from 7 to 12, 92%, 96% and 96% answered this question correctly. Eighty-four percent, 86% and 89% of the students correctly identified Canada's official languages. Seventy-nine per cent, 90% and 89% of the students understood that inflation has been a "world-wide problem in recent years." Sixty-one percent, 80% and 81% of the students knew that Petrocan was established by the Canadian government to "establish greater Canadian control over the oil and gas business."

It is reassuring to see a monotonic trend as indicated by the increase in means over the three grades: grade 7, 24.88; grade 10, 32.76; and grade 12, 36.10 (all being significantly different from each other). These results show that the level of knowledge about Canada increases with increased schooling. It would now be worthwhile to conduct similar studies at lower and higher grade levels. As well, it will be of interest to conduct a similar study involving the adult population. Finally, further research efforts should be directed toward the development and testing of an expanded item pool in the area of Canadian studies. This pool would be a valuable asset as a teaching and evaluation aid for Canadian studies programs.

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Diese Untersuchung des Allgemeinwissens kanadischer Studenten über Kanada basiert auf einem in der 7., 10. und 12. Klasse verteilten Fragebogen mit 60 Wissensfragen. Die Fragenauswahl wurde bestimmt durch Kriterien der Relevanz, allgemeiner Bekanntheitsgrad und Beständigkeit. Der Fragebogen wurde in französischer und englischer Sprache an 14051 Schüler aus allen zehn Provinzen und zwei Territorien verteilt. Von den Antworten der Schüler her zu urteilen, besitzen diese tatsächlich ein adäquates Wissensniveau über Kanada. Darüberhinaus steigt dieser Wissensgrad zwischen der 7. und 12. Klasse bedeutend an.

Este estudio sobre el conocimiento general del Canadá de parte de los estudiantes canadienses, empleó un cuestionario de 60 ítems en los años 7, 10 y 12. Los criterios de relevancia, capacidad de penetración y durabilidad, determinaron los ítems. El cuestionario fue administrado, en francés e inglés, a 14,051 estudiantes de las 10 provincias y de los dos territorios. Juzgando por las respuestas, los estudiantes sin duda poseen un nivel de conocimiento adecuado sobre el Canadá. Además, este nivel de conocimiento aumenta significativamente entre los años 7 y 12.

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