POLISH POST-SECONDARY VOCATIONAL SCHOOLS AND CANADIAN COMMUNITY COLLEGES: INTERNATIONAL PERSPECTIVES

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ABSTRACT

The aim of this study was to compare Polish post-secondary vocational institutions with Canadian community colleges. The research concentrated upon programs in nursing, tourism and information technology delivered by the following three Polish schools Krakowska Szkoła Medyczna, (Cracow, Poland), Policealne Studium Zawodowe (Cracow, Poland), Cracow School of Information Technology and four Canadian community colleges Red Deer (Red Deer, Alberta), Centennial (Scarborough, Ontario), Durham (Oshawa, Ontario) and Confederation (Thunder Bay, Ontario).

Two research approaches were used in this study: qualitative and quantitative mixed research methodologies. Moreover, the theoretical framework was supplied by the general notion of the school as an organization and social institution.

The investigators tried to answer the following research questions.

1. Are Polish post-secondary vocational institutions meeting the requirements of the nation’s labor market as well as Canadian community colleges?

The predicted answer was ‘no’ because it is easier for Canadian community colleges to form articulation agreements with schools of higher education than it is for their Polish counterparts. Community Colleges in Canada are part of the same post-secondary system of schooling as schools of higher education whereas post-secondary vocational institutions are not-they are part of a secondary school scheme. Articulation agreements allow learners to begin their vocational or academic training in one institution and continue it in another. Labor market requirements are better addressed with comprehensive course transfer agreements.

2. Do Canadian college students have a higher perception of their programs than their Polish post-secondary vocational counterparts?

The predicted answer was ‘yes’ because colleges in Canada are higher up in the school structure ‘pecking order’ than post-secondary vocational schools in Poland: post-secondary as opposed to secondary. It was hypothesized that college learners ought to place more value on their programs than their Polish counterparts.

The results of our investigation partially supported the predicted answer “no” for question 1-Centennial College’s program in tourism has more articulation agreements than their Polish counterpart (Policealne Studium Zawodowe). The predicted answer “yes” was fully confirmed, with regard to question 2.
INTRODUCTION

Definitions:

What are post-secondary (grammar) vocational schools 
(szkóły professionalne)? Post-secondary vocational institutions, which are part of the Polish secondary school system of schooling, prepare secondary school graduates for employment as “skilled manual workers or their equivalent” and specializations requiring secondary school qualifications (Ministry of National Education, 1994, p.10). There are three types of schools: 1) public (state), 2) non-public and 3) non-public with state-school status. These post-grammar vocational institution programs, which lead to a diploma, can be completed within three years, depending on the occupational track (Ministry of National Education, 1994, p.10). All programs insist upon the completion of secondary school prior to entry, and medical ones require that a person hold a school-leaving certificate (the matura) as well (Kucińska, 23 February, 1998).

What are Canadian community colleges?

The term community college is generic. According to the Association of Canadian Community Colleges, community colleges are characterized by a number of designations including college of applied arts and technology, College d’Enseignement General et Professionnel (CEGEP) institute of technology and university college (Association of Canadian Community Colleges). The main task of the institutions is to respond to the educational concerns of vocationally orientated school graduates and the training needs of both the public and the private sector (Association of Canadian Community Colleges). In the beginning, colleges offered learners only certificates and diplomas, however, at the moment, some of them award university degrees as well, and a number offer university transfer programs (Association of Canadian Community Colleges).

Objectives of this investigation

The aim of this study was to compare Polish post-secondary vocational institutions with Canadian community colleges. The rationale for doing so is because on one hand many college courses in Canada are occupationally directed and require at least
some secondary school attendance prior to admission; on the other hand, in Poland, one must complete secondary school prior to starting a post-grammar vocational institution course. Moreover, post-secondary vocational schools in Poland do not award university degrees, nor do most community colleges. Finally, it must be stressed that these two kinds of institutions are comparable, but not equivalent.

Our comparison focused upon programs in:

1. Information technology (3) because we live in an information age (Kupisiewicz, 1999, 111).
2. Nursing (2) owing to the fact that universal health care is available to both Poles and Canadians. Furthermore, populations in Canada and in Poland are aging which presents challenges to the health care schemes in both countries: 19% of the people in both countries are between 0-14 years of age, about 68% are between 15-64, and about 13% are 65 years of age and over (http://www.odci.gov/cia/publications/factbook/geos/ca.html) and (http://www.odci.gov/cia/publications/factbook/geos/pl.html). The present life expectancy for a Pole is 73.2 years and the Canadians life expectancy is slightly longer (79.4 years) possibly based on better living conditions within Canada. The life expectancies for both countries will continue to increase presenting unique health and nursing training needs that will shape training programs of the future.
3. Tourism (2) because it closely reflects the economic and political changes that have taken place in Poland since 1989 (the opening up of the country to outsiders and the removal of restrictions on foreign travel). Five times more people visited Poland (87.8 million) in 1997 than in 1990 (18.2 million) and the number of Poles traveling to foreign countries increased from 19.3 million in 1989 to 48.6 million in 1997 (Institute of Tourism, 1998, 8 and 18). Moreover, tourism is an important source of revenue for both Poland and Canada, as well as many other countries.

Following a very considerable number of inquiries four Canadian and three Polish institutions agreed to participate in this study: Red Deer College, Confederation College, Durham College, Centennial College, Policjalne Studium Zawodowe, Cracow School of Information Technology (Szkoła Informatyki AE) and Krakowska Szkoła Medyczna.

This investigation was undertaken to provide information in Canada and Poland about programs with a common mission (nursing, tourism and information technology) and because of: 1) the changes that have been taking place in the Polish primary and secondary school system of education and 2) the anticipated reforms to the Polish post-secondary vocational school sector (Kucińska, 11 October, 2001; Ministerstwo Edukacji Narodowej, 1999, pages 3-72; Ministerstwo Edukacji Narodowej, 1999, pages 3-80; Ministerstwo Edukacji Narodowej, 1999, pages 3-48).
THE SCHOOL AS AN ORGANIZATION AND SOCIAL INSTITUTION

Schooling (whether it be primary, secondary or higher) usually occurs in classrooms (Husén, 1974,p. 3). Pupils or students are seated in these rooms where they actively listen to a man or woman who is referred to as a teacher. A great deal of effort is expended by the teacher in “maintaining discipline” in order to establish the necessary conditions for instruction (Husén, 1974,p. 22). All the learners are taught the same subjects, and are expected to progress at the same rate (Mercieca). No learning is deemed to take place without teaching. Formal education is compulsory in many countries, and young people stay in school beyond the mandatory age, which prolongs their “childhood” (Husén, 1974,p. 9).

Professor Husén has put forth an interesting theory as to why mandatory primary education took root in 19th century Europe (Husén, 1974,p. 10). According to him, parents began to work in factories and therefore the family could no longer operate as an educational institution. The task of educating children in the Christian Faith and teaching them how “to read and write” then had to be given to a separate institution thus ensuring that industry’s future labour force was appropriately educated. It should be noted that this approach to education does not value childhood for “its own sake”, but only as a preparation for adulthood (http://www.pdkintl.org/kappan/kgoo0009.htm)

The school system fosters individualism because it acts as a screening device for the workplace (Husén, 1979, p.134). It controls the allocation of job opportunities. Furthermore, there is a hierarchy of school structures, which might not be the same in each country (King, 1979, p. 55). This means that academic achievement is valued in terms of school structure.

Research question 1

Are post-secondary vocational institutions in Poland meeting the requirements of the nation’s labour market as well as Canadian community colleges?

We predicted that the answer to the above question would be “no” because it is easier for colleges in Canada to form articulation agreements with schools of higher education than it is for post-grammar vocational institutions in Poland. Colleges are part of the same post-secondary system whereas post-secondary vocational schools are not – they are part of a secondary school scheme. Articulation agreements are formed between educational institutions so that learners can continue their vocational or occupational education enabling them to meet additional labour market requirements.
Research question 2

Do Canadian college students have a higher perception of their programs than their Polish post-secondary vocational school counterparts?

The fact that colleges are part of a higher system of schooling than post-grammar vocational schools we predicted that the answer to the above question would be “yes”. This is based on the perception that academic achievement is valued in terms of school structure.

THE RESEARCH METHODOLOGY

The research approaches

Two research approaches were used in this study: qualitative and quantitative mixed research methodologies.

Methods of data collection

Data collection involved.
1) Visits to post-grammar vocational schools.
2) Using the Internet.
3) Open-ended interviews.
4) Semi-structured interviews accompanied by an interview guide or questions.
5) Telephone conversations.
6) Contacting community colleges by e-mail and telephone.
7) Administering a program evaluation form to learners in both Poland and Canada.

The program evaluation form

The program evaluation form used in this investigation consisted of 33 statements, and covered three areas curriculum (8 statements), learning materials (5 statements) and instruction (20 statements). Furthermore, space was available following each group of statements for comments and recommendations. At the top of the first page
provisions were made for students to: 1) write the name of their institution and their program of studies and 2) indicate the year of their studies and sex (male/female).

The form and the instructions associated with it were translated from English into Polish.

Copies of the form were given to eight Cracow School of Information Technology students in order to confirm that the instructions to it were understood and that 30 minutes was sufficient time for it to be completed. The results of these learners were included in our investigation.

Methodological concerns

Reliability:

Lack of reliability is a major fault of the qualitative approach to research owing to the fact that the individual research worker is closely associated to the process and consequently it is unlikely that another worker would be able to duplicate the findings. This shortcoming was taken into account by tape-recording interviews or by leaving the interview guide with the interviewee (Kasolik, 15 December, 1999) for completion that in turn was reviewed by the researcher in the presence of the interviewee.

The Procedure

Initial and follow-up interviews began in 1998 (Kucińska, 23 February, 1998) and lasted until 2001 (Masio, 18 December, 2001). Interviews were carried out in English or with the assistance of an English-speaking interpreter.

The program evaluation forms were completed between January 2001 (Cracow School of Information Technology) and the fall of 2002 (Confederation).

The recorded interviews were transcribed during the summer of 2002.
THE ANALYSIS

Research question 1

Are post-secondary vocational institutions in Poland meeting the requirements of the nation’s labour market as well as Canadian community colleges?

In Canada, Red Deer College’s nursing program is delivered in collaboration with the University of Alberta (Red Deer College). At the end of their second year at the College, students decide whether they would like to end their studies in one more year earning a college diploma or spend two additional years to receive a university degree. All learners follow the same course of studies for the first two years.

In Poland, Krakowska Szkola Medyczna nursing graduates (as well as ones from other post-grammar vocational school nursing programs) can earn an MA degree at the Jagiellonian University in four years instead of five (Lenartowicz, 23 June, 1999).

Centennial College has articulation agreements with a number of universities (e.g. the University of Guelph and Ryerson University, both of which are in Ontario) when really Policealne Studium Zawodowe has only one transfer agreement with the Academy of Physical Education (Akademia Wychowania Fizycznego) in Cracow. This means that Centennial students have more opportunities to continue their studies beyond the diploma level than do their Polish counterparts (Centennial College; Kasolik, 15 December, 1999).

Durham College has no university articulation agreements, which makes it difficult for their graduates to continue their studies beyond college (Mather, personal communication, October, 2002). Perhaps, the reason for this is because their Information Technology (IT) program may not always require “hands-on”, cooperative education, practicums, internships or other field experiences. Confederation College has an arrangement with the University of Athabasca in Alberta (Confederation College, Wilusz, 27 October, 1999). Cracow School of Information Technology has an articulation agreement with their patron Cracow University of Economics. Unfortunately, this agreement only applies to part-time degree studies (Wilusz, 27 October, 1999). Cracow School of Information Technology graduates who want to study towards a degree on a full-time basis must write the University's entrance exam.

Research question 2

Do Canadian college students have a higher perception of their programs than their Polish post-secondary vocational school counterparts?
Data collection

Responses to each of the 33 program evaluation statements were coded and placed on Excel® (Microsoft Office) spreadsheets.

Data analysis

With regard to each student sample:

1. The mean, median mode, standard deviation and of the responses were computed.
2. Response percentages were calculated for statements 1-8 (Curriculum), 9-13 (Learning materials) and 14-33 (Instruction).

Following this, the resulting information was put into histogram format.

The nursing programs

The respondents

A. Krakowska Szkoła Medyczna: Twenty-two learners completed our program evaluation form: 1) 11 first year, 2) 5 second year and 3) 6 first or second year.

B. Red Deer College: One-hundred and twenty-five diploma students filled out our appraisal instrument: 1) 63 first year (of which 3 were male, 57 were female and 3 were male or female), 2) 56 second year (of which 4 were male, 51 were female and 1 was male or female) and 3) 6 third year (of which 1 was male and 5 were female).

The percentage of learners sampled was greater for both the Red Deer diploma and degree populations than it was for the Krakowska Szkoła Medyczna one meaning that the participation level in our study was larger for the Canadian students than for their Polish counterparts: 82.4% (125 out of 153), 63.5% (40 out of 63) and 55% (22 out of 40), respectively.
The Results

Figure 1, and 2 below illustrate the value for the measures of central tendency and the standard deviation for each of the nursing distributions.

Figure 1

**Nursing program, Krakowska Szkoła Medyczna, Poland**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.6</td>
</tr>
<tr>
<td>Median</td>
<td>1</td>
</tr>
<tr>
<td>Mode</td>
<td>1</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.6</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Figure 2

**Diploma nursing program, Red Deer College, Red Deer, Alberta, Canada**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.2</td>
</tr>
<tr>
<td>Median</td>
<td>1</td>
</tr>
<tr>
<td>Mode</td>
<td>1</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.3</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Response percentages for assertions 1-8, 9-13 and 14-33 for the Krakowska Szkoła Medyczna, Red Deer diploma and degree learners are illustrated by figures 3 and 4 underneath.

Figure 3

Nursing program, Krakowska Szkoła Medyczna, Poland
Response percentages for statements 1-8 (Curriculum), 9-13 (Learning materials) and 14-33 (Instruction)

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Learning materials</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>52,3%</td>
<td>49,1%</td>
<td>53,2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>28,4%</td>
<td>33,6%</td>
<td>29,5%</td>
</tr>
<tr>
<td>Don't know</td>
<td>16,5%</td>
<td>16,4%</td>
<td>15,0%</td>
</tr>
<tr>
<td>No answer</td>
<td>2,8%</td>
<td>0,9%</td>
<td>2,3%</td>
</tr>
</tbody>
</table>

Figure 4

Diploma nursing program, Red Deer College, Red Deer, Alberta, Canada
Response percentages for statements 1-8 (Curriculum), 9-13 (Learning materials) and 14-33 (Instruction)

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Learning materials</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>75,3%</td>
<td>84,8%</td>
<td>83,7%</td>
</tr>
<tr>
<td>Disagree</td>
<td>12,8%</td>
<td>9,0%</td>
<td>9,2%</td>
</tr>
<tr>
<td>Don't know</td>
<td>8,6%</td>
<td>4,2%</td>
<td>3,9%</td>
</tr>
<tr>
<td>No answer</td>
<td>3,3%</td>
<td>2,1%</td>
<td>3,2%</td>
</tr>
</tbody>
</table>
Discussion

The value for both the mode and the median for the Krakowska Szkoła Medyczna and the Red Deer College nursing program sample distributions shown in Figures 1 and 2 is 1 which means that category Agree contains the highest frequency of responses and is the point in each of the distributions where 50% of the sample falls below and 50% falls above (see figures 1 and 2).

The value for the mean is greater for the Polish distribution than for the Red Deer diploma one: 1.6 and 1.2, respectively (see Figures 1 and 2). This signifies that the average response for both groups of participants lies between categories Agree and Disagree and that the Krakowska Szkoła Medyczna learners were more likely to choose category Disagree than were the Red Deer Diploma students. Moreover, the Red Deer degree respondents also tended to decide upon designation Disagree (slightly) more often than the diploma ones given that the value of the mean of their responses is larger than it is for their Canadian counterparts: 1.3 as opposed to 1.2 (see Figures 1 and 2).

The value for the standard deviation is greater for the Polish distribution (.6) than for the Canadian diploma one (.3) which means that the dispersion of responses is larger around the mean for the Krakowska Szkoła Medyczna learners than for the Red Deer one (see Figures 1 and 2).

Response percentages for assertions 1-8 are higher for category Agree and lower for designation Disagree for the Red Deer Diploma participants that for the Krakowska Szkoła Medyczna respondents: 75.3% and 12.8% and 52.3% and 28.4%, respectively (see Figures 3-4). This suggests that the Canadian nursing diploma curriculum was more highly valued by learners than the Polish one. Furthermore, answer percentages indicate that the Canadian diploma curriculum was held in higher esteem by students than the degree one (see Figures 3-4).

Answer percentages for statements 14-33 are higher for designation Agree and lower for category Disagree for the Red Deer diploma respondents (84.8% and 9%) than for the Krakowska Szkoła Medyczna participants (49.1% and 33.6%) (see Figures 3 and 4 ). This suggests that the learning materials that are in use in the Canadian nursing diploma program were more highly regarded by students than those employed in the Polish one.

As a matter of interest, Red Deer respondents commented on the evaluation form that the textbooks required for their program are too expensive, hard to read and written with American students in mind. Greater care in the selection of textbooks with Canadian based scenarios may lead to increased student class participation.

Our findings indicate that the Red Deer diploma students valued instruction more than their Polish counterparts; response percentages for assertions 14-33 are higher for category Agree and lower for designation Disagree for them (83.7% and 9.2%) than for the Krakowska Szkoła Medyczna (53.2% and 29.5%) learners (see Figures 3-4).

With regard to assertions 1-33, response percentages for category Don’t know indicate that program knowledge was considerably less for the Polish learners than for the Red Deer diploma ones: 1) 16.5%, 16.4% and 15% (Krakowska Szkoła Medyczna),
2) 8.6%, 4.2% and 3.9% (Red Deer diploma) and 3) 9.4%, 4% and 5.5% (see Figures 3 and 4).

Lastly, the percentages of learners that did not choose a category (No answer) ranges from .9-3.3, which suggests that, the level of interest demonstrated by the nursing program participants in our investigation in both Canada and in Poland was very high (see figures 3-4).

The information technology programs

The respondents

A. Cracow School of Information Technology. Thirty-two full-time students took part in our investigation:
   1) 17 first year (of which 13 were male and 4 were female) and
   2) 15 second year (of which 14 were male and 1 was female).
B. Durham College. Fifteen full-time learners filled out our program evaluation instrument (of which 10 were male, 4 were female and 1 was male or female).
C. Confederation College. Fifty-seven full-time students participated in our research:
   1) Eighteen first year (of which 14 were male and 4 were female).
   2) Twenty four second year (of which 21 were male and 3 were female).
   3) Fifteen third year (of which 12 were male, 2 were female and 1 was male or female).

The percentage of learners sampled was greater for the Cracow School of Information Technology population than for the Confederation and Durham ones: 80% (32 out of 40), 64% (15 out of 89) and 60% (15 out of 25) respectively. This means that the participation level in our study was larger for the Polish students than it was for both of their Canadian counterparts.

The Results

Figures 5, 6, 7 and 8 below illustrate the value for the measures of central tendency and the standard deviation for each of the information technology program sample distributions.
Figure 5

Information technology program,
Cracow School of Information Technology, Poland

Figure 6

Information technology program,
Cracow School of Information Technology, Poland
Responses for second year students only
Figure 7

Computer programmer program,
Durham College, Oshawa, Ontario, Canada

Figure 8

Computer programmer analyst program,
Confederation College, Thunder Bay, Ontario, Canada
Response percentages for assertions 1-8, 9-14 and 15-33 are shown in Figures 9-12 underneath for each group of information technology participants.

**Figure 9**

![Figure 9](image-url)

**Figure 10**

![Figure 10](image-url)
Figure 11

Computer programmer program, Durham College, Oshawa, Ontario, Canada
Response percentages for statements 1-8 (Curriculum), 9-13 (Learning materials) and 14-33 (Instruction)

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Learning materials</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agree</strong></td>
<td>75.0%</td>
<td>77.3%</td>
<td>84.3%</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>15.8%</td>
<td>14.7%</td>
<td>11.3%</td>
</tr>
<tr>
<td><strong>Don't know</strong></td>
<td>8.3%</td>
<td>8.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>No answer</strong></td>
<td>0.8%</td>
<td>0.0%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Figure 12

Computer programmer analyst program, Confederation College, Thunder Bay, Ontario, Canada
Response percentages for statements 1-8 (Curriculum), 9-13 (Learning materials) and 14-33 (Instruction)

<table>
<thead>
<tr>
<th></th>
<th>Curriculum</th>
<th>Learning materials</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agree</strong></td>
<td>74.6%</td>
<td>74.1%</td>
<td>80.7%</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>15.1%</td>
<td>23.8%</td>
<td>14.3%</td>
</tr>
<tr>
<td><strong>Don't know</strong></td>
<td>8.8%</td>
<td>2.1%</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>No answer</strong></td>
<td>1.5%</td>
<td>0.0%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
Discussion

The value for both the mode and the median for the Cracow School of Information Technology, Durham College and Confederation College sample distributions is 1 which means that category Agree contains the highest number of answers and is the point in each of the distributions where 50% of the sample falls below and 50% falls above (see Figures 5-8).

The value for the mean is greater for the Polish sample distribution than for either the Confederation or the Durham one: 1.5 and 1.6 (2nd year students only), 1.3 and 1.2, respectively (see Figures 5-8). This means that the Polish learners were more likely to choose category Disagree than their Canadian counterparts and that the average response for each of the three groups of students lies between designations Agree and Disagree.

The value for the standard deviation is smaller for both of the Canadian distributions than for the Polish one: .3 (Confederation), .3 (Durham) and .5 (Cracow School of Information Technology (see Figures 5-8). This signifies that the spread of answers for the Polish distribution is larger around the mean than for either of the Canadian ones.

Response percentages for statements 1-8 are higher for category Agree and lower for designation Disagree for both the Confederation and the Durham students (74.6% and 15.1% and 75% and 15.8%, respectively) than for the Cracow School of Information Technology respondents (64.1% and 20.3% and 58.3% and 22.9%) (second year students only) which implies that the Polish information technology curriculum was not as highly valued by learners as the Canadian ones (see Figures 9-12).

Interestingly, Confederation participants indicated on our program evaluation instrument that they would like statistics, banking, English and accounting courses removed from their curriculum that suggests that they are not interested in studying avocational subjects.

With regard to statements 9-13, the percentage of answers is higher for designation Agree and lower for category Disagree for both the Confederation and the Durham respondents (74.1% and 23.8% and 77.3% and 14.7%, respectively) than for the Polish sample: 56.3% and 33.1% and 47.8% and 38.9% (second year students only) (see Figures 9, 10, 11 and 12). This indicates that the learning materials that are used in the Cracow School of Information Technology program were not highly regarded by students as those employed in the Canadian ones.

Likewise, instruction was not as highly valued by the Polish respondents as it was by their Canadian counterparts given that response percentages for statements 14-33 are higher for category Agree and lower for designation Disagree for both the Durham and the Confederation participants (84.3% and 11.3% and 80.7% and 14.3%, respectively) than for the Cracow School of Information Technology ones (60.3% and 25.8% (second year students only) and 62.5% and 23.9%) (see Figures 9-12).

Figures 9-12 illustrate that the percentage of Polish students who decided upon designation Don’t know for assertions pertaining to curriculum, learning materials and instruction is higher in each case than for their Canadian tallies: 13.7%, 10.6% and 13.4%
as opposed to 8.8%, 2.1% and 4.5% and 16.7%, 13.3% and 13.9% (second year students only) as opposed to 8.3%, 8% and 4%. This indicates that the Cracow School of Information Technology learners had less information about their program than their Canadian counterparts.

The percentage of Cracow School of Information Technology, Durham and Confederation learners that did not choose a category (No answer) for statements 1-33 ranges from 0-2.1 suggesting that the level of interest shown by the information technology program participants in our investigation in both Canada and in Poland was very high (see Figures 9-12).

CONCLUSIONS AND RECOMMENDATIONS

This study compared Canadian community colleges with post-secondary (grammar) vocational schools in Poland. The comparison concentrated upon programs in nursing, tourism and information technology that are delivered by three Polish schools Krakowska Szkoła Medyczna, Policealne Studium Zawodowe, Cracow School of Information Technology and four Canadian community colleges: Red Deer, Centennial, Durham and Confederation.

Two research approaches were used in this study: qualitative and quantitative mixed research methodologies. Moreover, the theoretical framework was provided by the concept of the school as an organization and social institution.

With regard to the qualitative analysis, all of the Polish program heads were interviewed (at their respective locations), however, it was not possible to meet in person with their Canadian counterparts due to financial considerations. Nevertheless, when the principal investigator lived in Toronto during the late 1980s he had a number of opportunities to visit Durham and Centennial colleges.

No individual or group commissioned this research study and therefore the investigators were unrestricted in conducting this work. Since this study consisted of a close examination of only seven programs, the results obtained are limited in their scope and applicability. The findings are perhaps more important to the participating Polish post-grammar vocational institutions than to the Canadian colleges due to the changes that are expected to occur in Poland’s post-secondary vocational school system by the end of 2005. It is recommended that additional research be carried out, in the future, involving a larger number of institutions.

Future researchers may want to include private post-grammar vocational schools that do not have public-institution status and Colleges d’Enseignement General et Professionel (CEGEPs) in their work. (CÉGEP learners do not have to pay tuition as is the case for students who attend government-run post-secondary vocational institutions).

Given that Poland has recently entered the European Union, it would be useful to compare post-grammar vocational schools with their counterparts in EU member states.
Research questions:

1. Are post-secondary vocational institutions meeting the requirements of the nation’s labor market, as well as, Canadian community colleges?
2. Do Canadian college students have a higher perception of their programs than their Polish post-secondary vocational school counterparts?

Research question 1

Our investigation revealed that all of the educational institutions (with the exception of Durham College) have articulation agreements with universities and higher schools. Centennial has agreements with more than one educational institution. Therefore, we must partially accept our research hypothesis that Polish post-secondary vocational institutions are not meeting the demands of the labor market as well as Canadian colleges.

Research question 2

Our results indicate that both the Polish and the Canadian students valued their programs given that answer category agree is the most popular one for all of the samples and is the point in each of the distributions where half of the sample falls below and half falls above. However, response percentages for the three program areas and the value for the sample means suggest that the Red Deer, Durham and Confederation learners held their programs in higher esteem than their Polish counterparts. Therefore, we can fully accept our research hypothesis that Canadian college students have a higher perception of their programs than their Polish counterparts.

It seems that students in both Canada and Poland took our investigation seriously given that they provided the information that was asked for (about themselves, their programs and their institutions) and made comments in the appropriate places on the evaluation form.

Our findings should be taken in earnest due to the fact that the percentage of Canadian and Polish students sampled was high ranging from 60% to 82.4% (http://www.wnh.edu/pff.seminar/studentexp/classval.htm). This means that more than half of all the student populations were directly involved in our research. Moreover, the percentage of learners that did not choose a response category fluctuated from 0-3.3% suggesting that the degree of interest of the participants was also very high.

It should be noted that learner evaluations of instruction (as well as of curriculum and learning materials) are ‘subjective by nature’ and therefore we ought to keep this in
mind when making use of them (Adams). They can be influenced by such things as: 1) grades received and 2) socialization with faculty outside of the classroom.

Also, we should think about, how qualified are post-secondary vocational school and college students to make judgments concerning the effectiveness of their programs (Adams). It has been suggested that evaluations are a ‘measure of student satisfaction’, which is an aspect of program quality (Adams). Because formal learning is now a lifelong process (due to rapid advances in technology), it is therefore important for students to be satisfied with their programs so that they will have a lifelong affinity for education (Husen, 1979, p. 153).

Other sources of information besides student’s ratings should be employed when evaluating programs, such as: administrator and peer appraisals and ‘faculty self-reports’ (http://www.wky.edu/ir/dsi/tce/tce7016.html).

A suggestion for improvement to the program form is to consider adding statements pertaining to student internships. However, if one were to do this, it would take longer to administer the assessment form, which might result in fewer learners completing it. Additional research is recommended on comparative studies between aspects of Polish and Canadian education.

Notes

1. The statements and the format were drawn from two forms (Program Evaluation Form and Performance Appraisal) that have been used by Durham College to evaluate faculty performance. Permission was granted via e-mail on 25 January 2001 to use the material.

2. Seven interviews (three of which were follow-up ones) were carried out without the benefit of a tape-recorder:
   4) Kasolik, 6 December, 1999.

3. The interview guide was used during the initial interviews.

4. Follow-up interviews occurred for the purpose of confirming and/or clarifying information.

5. Excel 2000 PL was used to compute the responses: agree, disagree and don’t know.

6. Population sizes for the Red Deer’s nursing program were given to me by Ms. Sheila Mc Kay (personal communication, 25 October 2001).

7. It should be noted that Durham was asked to restrict their sampling to second year students due to the anticipated completion date of our research.
8. This point was made by one of my students during a class discussion, which took place at the University of Science and Technology on 1 April, 2003.

INTERVIEWS


Lenartowicz, Helena, (PhD), Director, The faculty of Health Protection, The Institute of Nursing, Jagiellonian University, Collegium Medium. Interviewed: 23 June, 1999.


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