

CAFCE Conference - Atlantic

May 24-25, 2005

Co-operative Education: What are the added values for the student, the teacher and the business?

Part 1

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(Interdisciplinary group on training for employment)*

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Canadian Association For Co-operative Education

CAFCE – Atlantic chapter

**«Co-operative Education: What are the added values for the
student, the teacher and the business?»**

May 24-25, 2005 - Moncton

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- Created at Collège Limoilou between the years 2000 and 2004
- The follow-up to research conducted at the École Nationale d'Aérotechnique (Col. Édouard-Montpetit)
- Research is integrated in the GIRFE program
- Financed by the SSHRCC and the FQRSC
- Results are still really descriptive
- Exploratory character

*I would like to thank **Pierre Duchaine**, once Training and Placement office Director at Collège Limoilou, and to his counseling team, for their very active participation in this project. I would also like to thank **Nicole Rousseau** having et initiate and deploy this long research process in excellent conditions.*

Research protocol

Research Objectives

1

Explaining the process used by work-study programs

- as lived by students
- as lived by those concerned in business
- as lived by representatives in the school

2

Explaining the dynamics at work within work-study programs: education, integration, socialization, etc. and trace their explicative variables

3

Understanding the internal logic of alternating between school terms and work terms

- Transitions and synergy «theory and practice»
- transitions and synergy «work terms 1 and 2»
- transitions and synergy «school-business»

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Research Objectives

AT THE END OF THE DAY...

Exploring the theoretical:

- 1) level of competency earned from work-study programs, as a learning strategy, for the students and the educational path
- 2) structuring effect of work-study programs regarding the personal and professional roles, functions and positioning of those concerned:
 - tutors
 - HR managers
 - Teachers

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Where was this research conducted?

- Collège Limoilou in Quebec (approx. 6000 students)
- Pre-university level
- Work-study program pioneer, with 10 technical programs in 2004
- Cohabiting CO-OP and regular programs

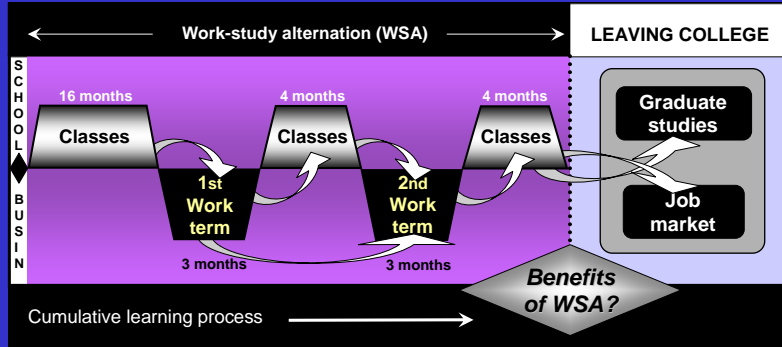
Programs studied:

- business computing*
- business administration: finance*
- mechanical engineering: development and fabrication*
- electronics: communications*
- electronics: electrodynamics*
- building services*
- industrial engineering*

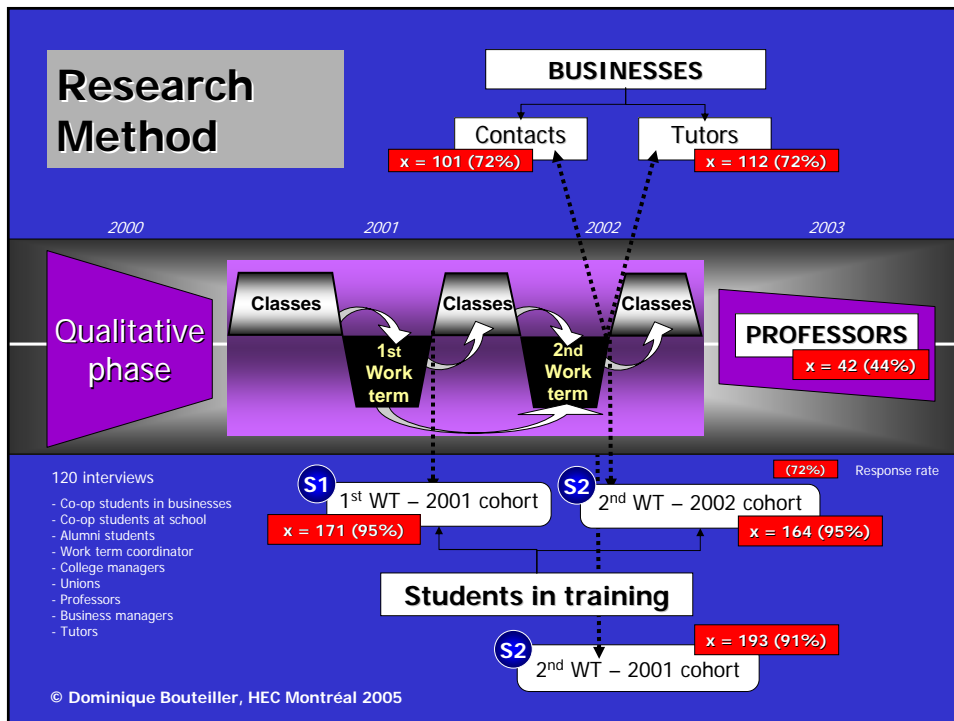
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What do we mean by alternating ?

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- Students sign up for work-study programs on a voluntary basis
- Paid work terms
- Both work terms in the same business, or in different on
- Cycle ends in class
- Management and follow-up of the work terms by dedicated personnel



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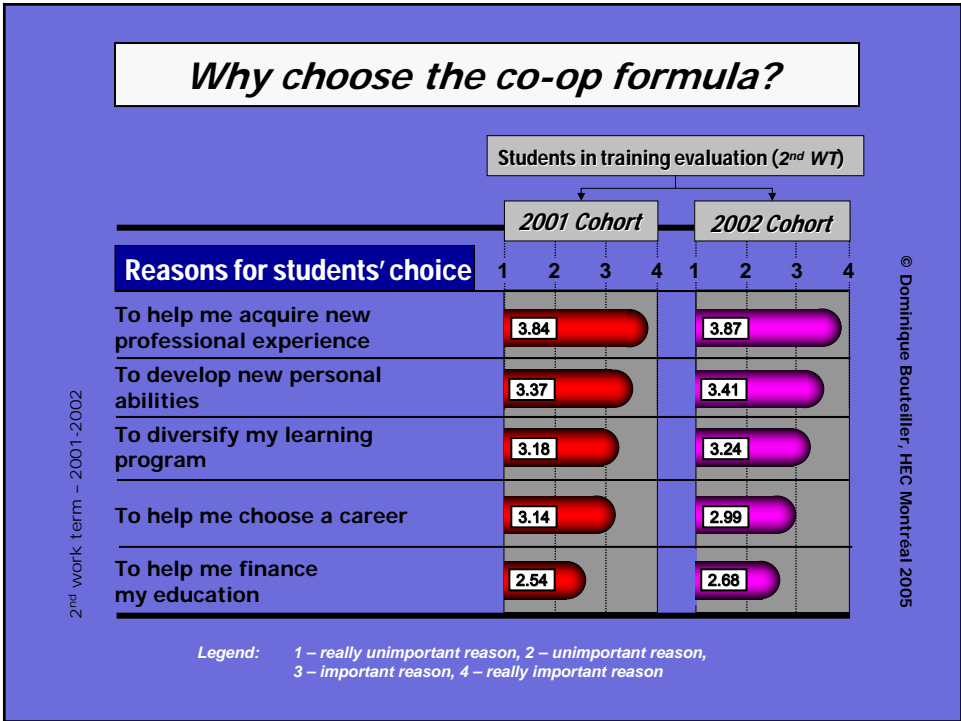
The results

- 1 Students in training and tutors:
work study alternations participants
- 2 Transfers, teaching and dynamics
of work study alternation
- 3 Professor' role concerning alternation

PARTIE 1

Student in training and
tutors: work study
alternation participants

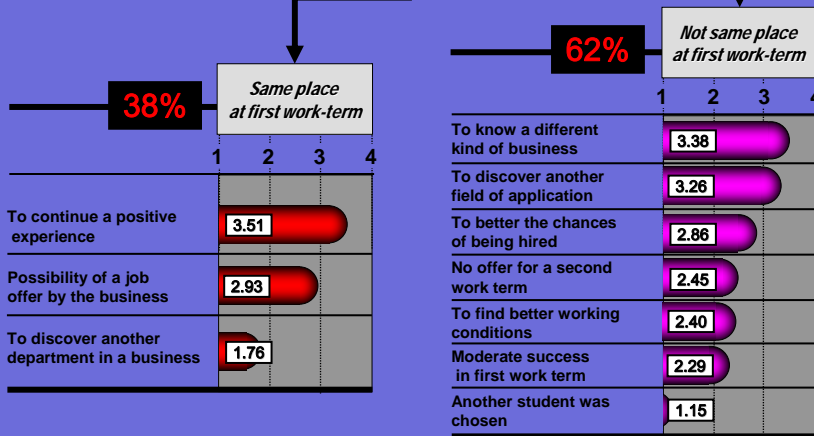
Why does the students choose the co-op formula?



How does the student choose his second work term?

Reasons for choosing where a student will do his 2nd work term!!!

2nd work term - 2002

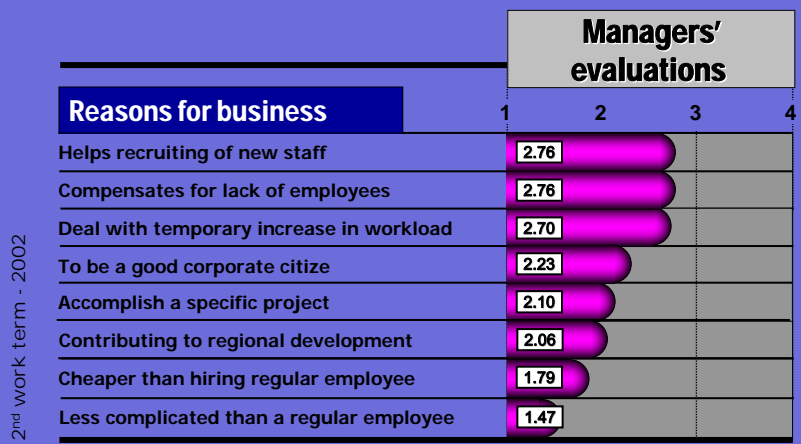


Legend: 1 – really unimportant reason, 2 – unimportant reason, 3 – important reason, 4 – really important reason

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Why does a business choose to hire a co-op student ?

Students are welcome in the business



2nd work term - 2002

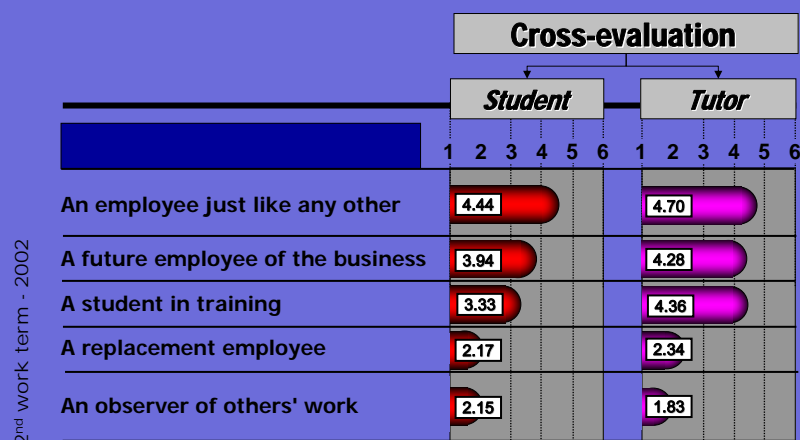
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Legend: 1 – really unimportant reason, 2 – unimportant reason, 3 – important reason, 4 – really important reason

What is the position of the *student's*
And the *tutor's* identify in the
business?

«Student» or «Employee» ?
«Teacher» or «Boss» ?

What is perceived by the Student?

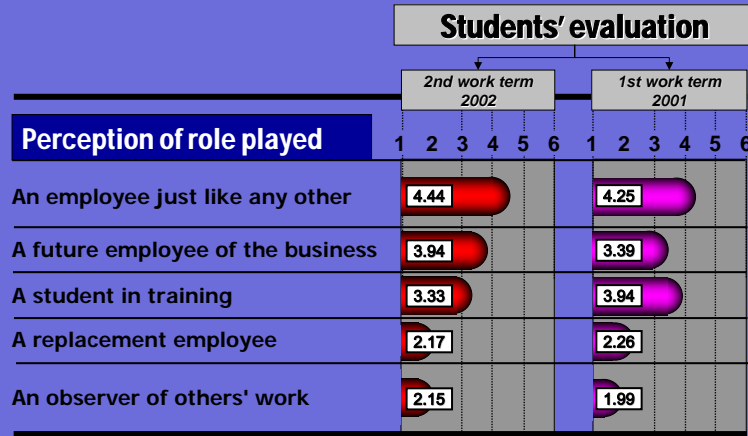


2nd work term - 2002

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Legend: 1 – never, 2 – seldom, 3 – sometimes, 4 – often, 5 – very often, 6 – all the time

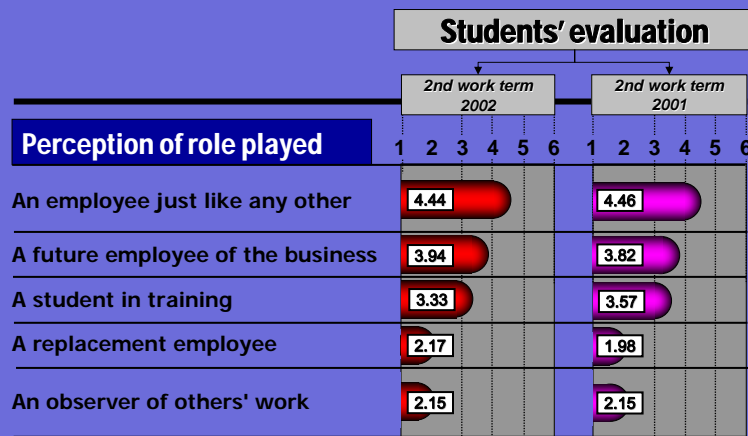
What is perceived by the Student?



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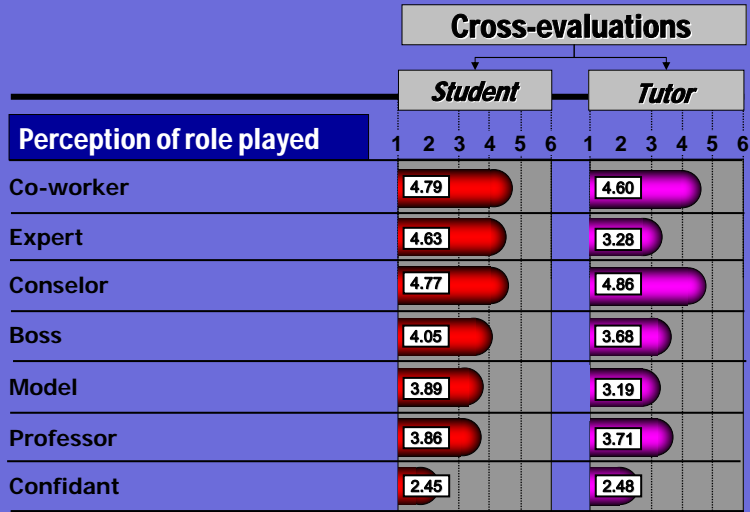
What is perceived by the Student?



Legend: 1 – never, 2 – seldom, 3 – sometimes, 4 – often, 5 – very often, 6 – all the time

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What is perceived by the tutor?

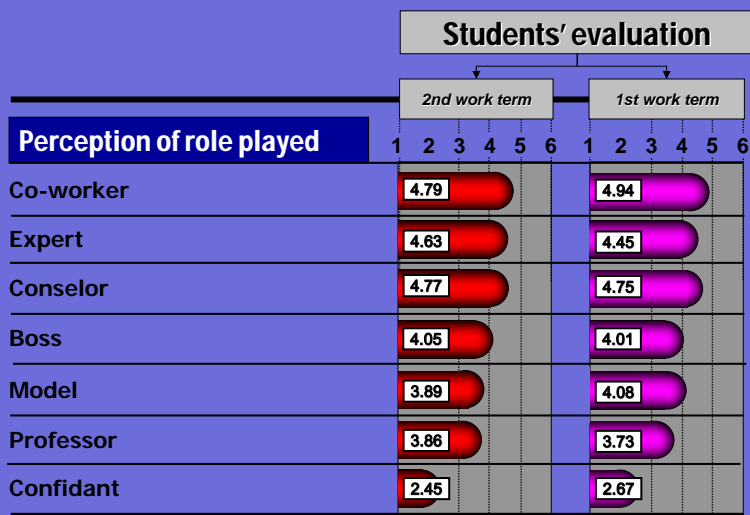


Legend: 1 – never, 2 – seldom, 3 – sometimes, 4 – often, 5 – very often, 6 – all the time

2nd work term - 2002

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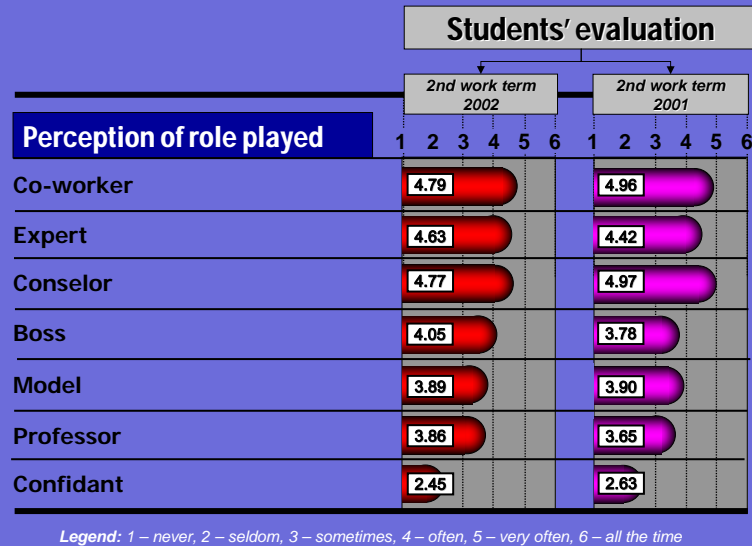
What is perceived by the tutor?



Legend: 1 – never, 2 – seldom, 3 – sometimes, 4 – often, 5 – very often, 6 – all the time

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What is perceived by the tutor?



How deeply is the student implicated in the business's production system ?

«Real integration»

VS

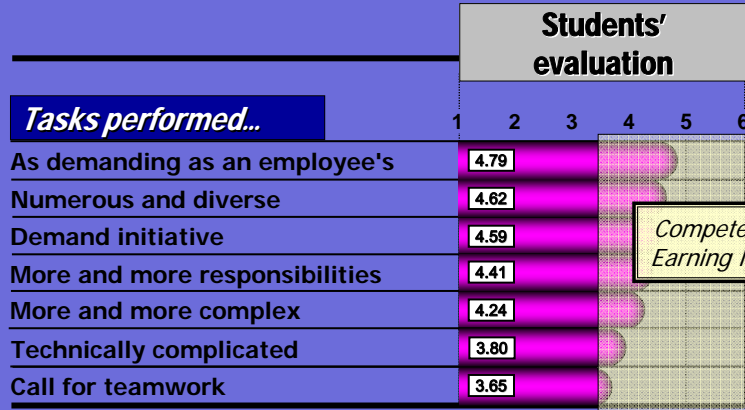
«Student tourism »

VS

« Cheap labor »?

Contents of Students' workload

2nd work term - 2002

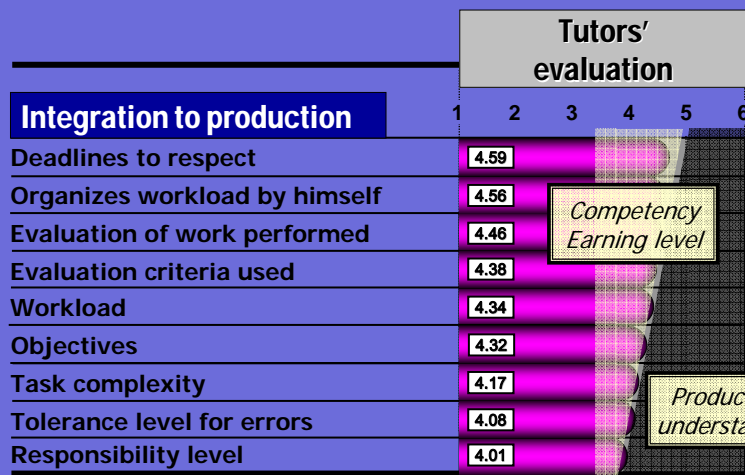


Legend: 1 – totally disagree, 2 – strongly disagree, 3 – disagree slightly, 4 – agree slightly, 5 – strongly agree, 6 – totally agree

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Organisation of Students' workload

2nd work term - 2002

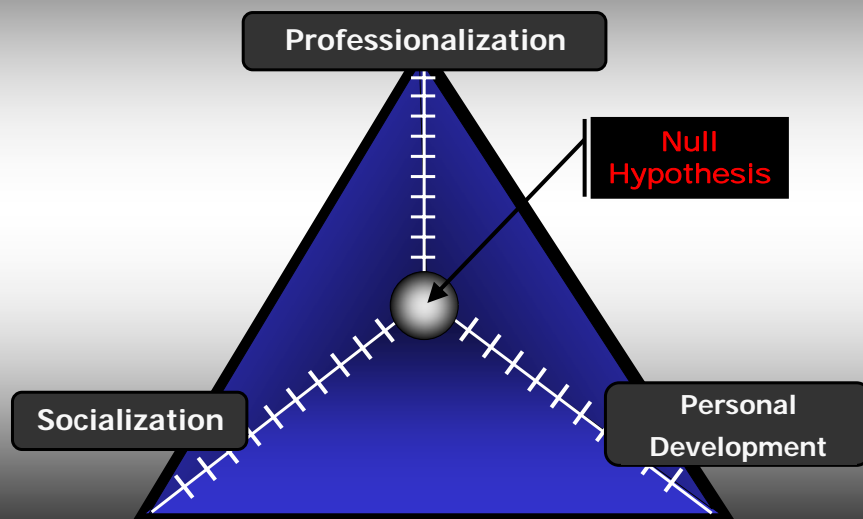


Legend: 1 – completely different tasks, 2 – very different tasks, 3 – relatively different tasks, 4 – similar tasks, 5 – very similar tasks, 6 – identical tasks

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Do students learn anything during their work terms ?

Students' fields of learning



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Professionalization

| What students have learned | Student's evaluation | | | | | | | | | | | |
|--|---------------------------|---|---|---|---|---|---------------------------|---|---|---|---|---|
| | 1 st work term | | | | | | 2 nd work term | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Technical skills related to student's field of study | 4.39 | | | | | | 4.34 | | | | | |
| Technical know-how related to student's field of study | 4.42 | | | | | | 4.48 | | | | | |
| <i>Professionalization level</i> | 4.41 | | | | | | 4.41 | | | | | |

Legend: 1 – student has learned nothing, 2 – student has learned very little, 3 – student has learned a little, 4 – student has learned quite a bit, 5 – student has learned a lot, 6 – student has learned enormously

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Socialization

| What students have learned | Student's evaluation | | | | | | | | | | | |
|---|---------------------------|---|---|---|---|---|---------------------------|---|---|---|---|---|
| | 1 st work term | | | | | | 2 nd work term | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Understanding of the business's functioning | 4.61 | | | | | | 4.45 | | | | | |
| Understanding of the "employer-employee" relationship | 4.25 | | | | | | 4.29 | | | | | |
| <i>Socialization level</i> | 4.43 | | | | | | 4.37 | | | | | |

Legend: 1 – student has learned nothing, 2 – student has learned very little, 3 – student has learned a little, 4 – student has learned quite a bit, 5 – student has learned a lot, 6 – student has learned enormously

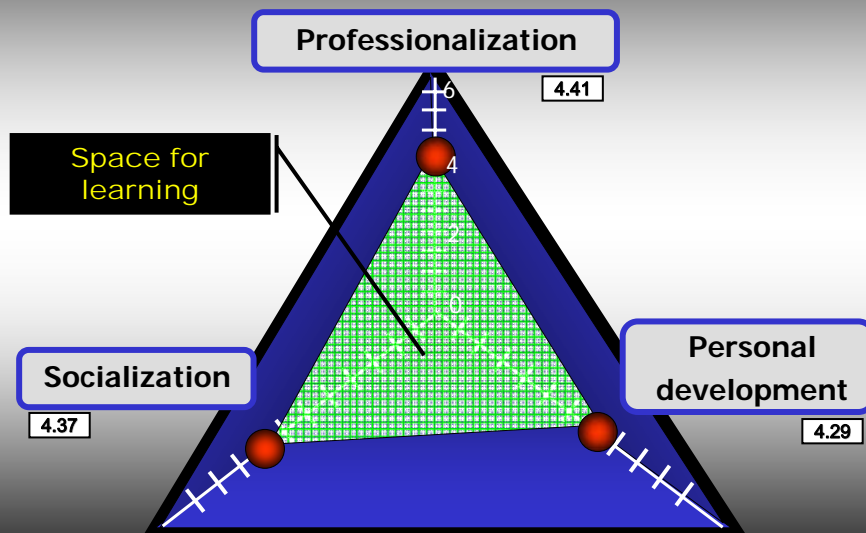
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Personal development

| What students have learned | 1 st work term | | | | | | 2 nd work term | | | | | |
|--|---------------------------|---|---|---|---|---|---------------------------|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Ability to work alone | 4.69 | | | | | | 4.80 | | | | | |
| Sense of responsibility | 4.50 | | | | | | 4.42 | | | | | |
| Ability to identify problems | 4.49 | | | | | | 4.57 | | | | | |
| Self-confidence | 4.45 | | | | | | 4.41 | | | | | |
| Ability to plan and organize work | 4.32 | | | | | | 4.33 | | | | | |
| Ability to work in groups | 3.98 | | | | | | 3.88 | | | | | |
| Ability to express himself and argue his point of view | 3.96 | | | | | | 4.09 | | | | | |
| Ability to negotiate with others | 3.64 | | | | | | 3.85 | | | | | |
| <i>Personal development level</i> | 4.25 | | | | | | 4.29 | | | | | |

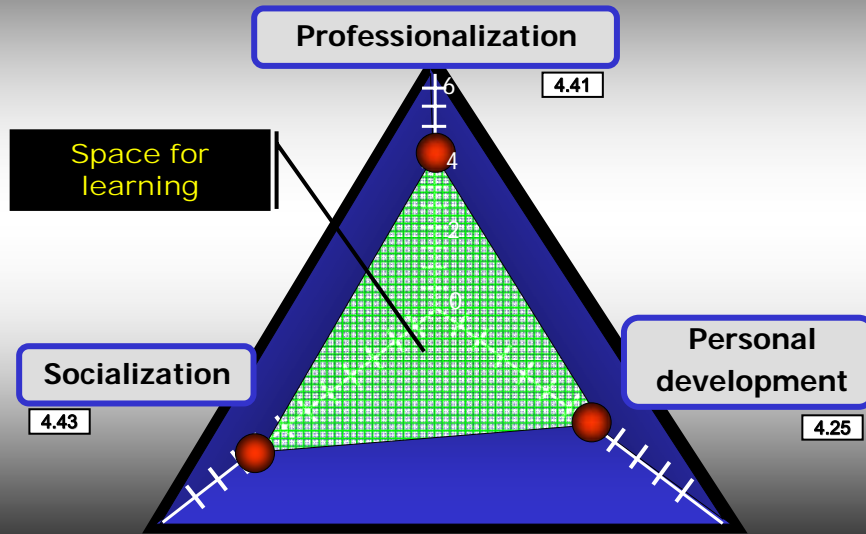
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Students' learning – 2nd Work Term



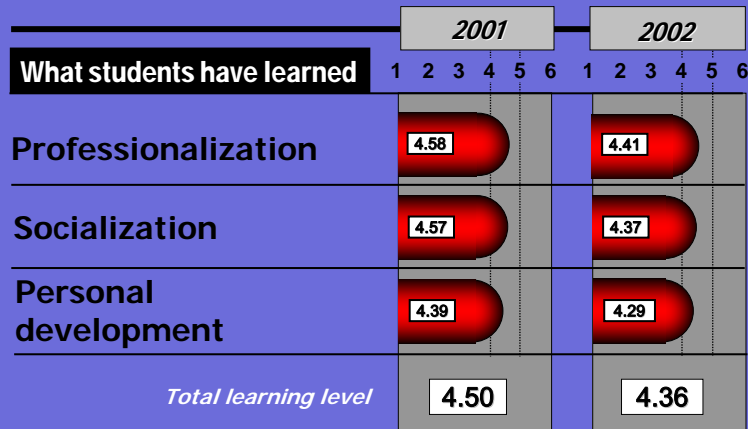
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Students' learning – 1st Work Term



Do students of the **2nd work term – 2001** evaluate what they have learned to be the same as students of the **2nd work term – 2002?**

What students have learned comparing the 2001 and 2002 2nd work terms



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Legend: 1 – student has learned nothing, 2 – student has learned very little, 3 – student has learned a little, 4 – student has learned quite a bit, 5 – student has learned a lot, 6 – student has learned enormously

Do **students** evaluate
what they have learned
to be the same as what their
tutors evaluate?

Cross-evaluations...

| What students have learned | Students | | | | | | Tutors | | | | | |
|-----------------------------|----------|---|---|---|---|---|--------|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Professionalization | 4.41 | | | | | | 4.82 | | | | | |
| Socialization | 4.37 | | | | | | 4.37 | | | | | |
| Personal development | 4.29 | | | | | | 4.64 | | | | | |
| <i>Total learning level</i> | 4.36 | | | | | | 4.61 | | | | | |

2nd work term - 2002

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Legend: 1 – student has learned nothing, 2 – student has learned very little, 3 – student has learned a little, 4 – student has learned quite a bit, 5 – student has learned a lot, 6 – student has learned enormously

Learning and integration to the whole

PROPOSITION: At the end of his work term, the student had become an “operational” and “productive” person, when one looks at the operations as a whole.

Tutor' evaluation

4% No, not even close!

34% No, but they were on their way

62% Yes

After how much time ?

6,5 semaines

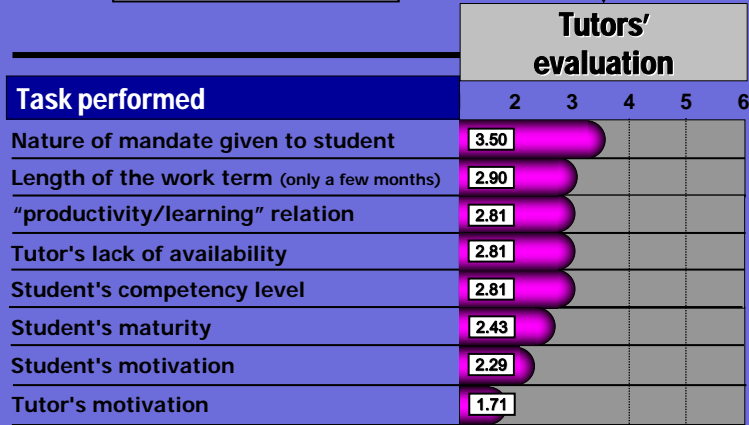
2nd work term - 2002

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Proposition: Work term = a good setting for the student, and both parties have gained as much as they could from it

83% Yes, it is effectively the case

17% Yes, but only partly



2nd work term - 2002

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Legend: 1 – not an important factor, 2 – very unimportant factor, 3 – unimportant factor, 4 – important factor, 5 – very important factor, 6 – determining factor