

**Eapril Conference /  
4th European Conference on Practice-based and  
Practitioner Research on Learning and Instruction**

**Can the syllabus actually impact  
student's perceptions of a course  
regarding their personal needs and  
motivation?**



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Trier - November 18th 2009

<b>Research object</b>	<b>Motivation / Needs</b>	<b>Collected data</b>	<b>Data processing</b>	<b>Global results</b>
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## The course syllabus : functions for students

<i>Communication device</i>	establishes an early point of contact and connection between student and instructor, sets the tone for a course (Altman & Cashin, 1992 ; Rubin, 1985, Grunert, 1997...)
<i>Cognitive map</i>	indicates the course destination, path, ways to travel... shows the course as a whole, promotes self-regulation (Matejka & Kurke, 1994 ; Leeds, 1992 ; Nilson, 2007...)
<i>Learning tool</i>	guides the student's autonomous part of learning, anticipates risks, gives various working advices (Parkes & Harris, 2002 ; Woolcock, 2003; Madson <i>et al.</i> , 2004...)
<i>Contract</i>	defines the responsibilities and roles of students and teacher in the meeting of course goals (Johnson, 2006; Duffy & Jones, 1995; Hammons & Shock, 1994...)

→ a tool *likely* to favourably impact students' perceptions and attitude toward a course regarding personal **needs** and **motivation**

Research object	Motivation / Needs	Collected data	Data processing	Global results
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## The course syllabus & student's motivation

Frequent general assertions disseminated in literature:

- “warm syllabi explain expectations in a clear and friendly fashion, encourage and **motivate** students” (Slattery & Carlson, 2005) ;
- “a syllabus can be used as a teaching tool to **motivate** students and keep both the teacher and the students focused on course objectives (Albers, 2003)”...

Concretely: how could the syllabus affect the motivation to study, focusing on which perceptions of the students?

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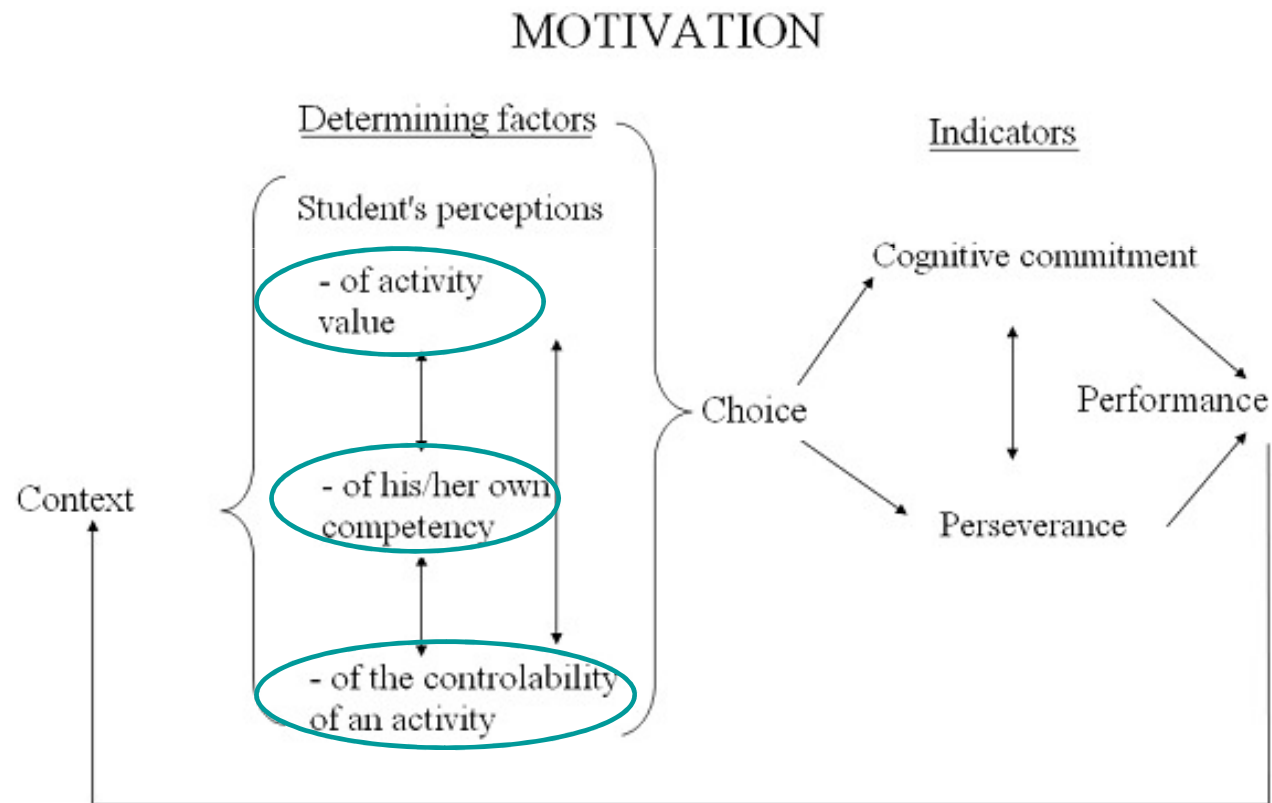
## The course syllabus & student's motivation

Discussing influences on specific motivational factors :

- “the *promising syllabus* fundamentally recognizes that people will learn best and most deeply when they have a strong sense of **control** over their own education” (Bain, quoted by Lang, 2006)
- “the syllabus conveys enthusiasm for the subject and sparks student **interest** and motivation” (Hammons & Shock, 1994);
- “by making the implicit explicit and communicating that we believe that students **can and will** succeed, faculty ensure that all students have equal opportunities in the classroom” (Slattery & Carlson, 2005).

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## Link 1: the *motivational dynamic's* model of Viau



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## The course syllabus & students' personal needs

- From “the consideration of what students **need in order to be successful** learners” (Hess & Whittington, 2003)...
- ... to the support of “**developmental needs** of the students” (Haugen, 1998), ...
- ... the *learning-centered* syllabus “ appeals to students from a variety of backgrounds and responds to their **respective needs**” (The New School - A University).
- “If thoughtfully prepared, your syllabus will demonstrate the interplay of your understanding of **students' needs and interests**; your belief and assumptions about the nature of learning and education; and your values and interests concerning course content and structures. (Grunert, 1997)”

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## Link 2 : the Theory of human motivation of Maslow

- Fundamental association of the basic need satisfactions with basic desires to know (“to be aware of reality, to get the facts, to satisfy curiosity, to see rather than to be blind”) and to understand (“to systematize, to organize, to analyze, to look for relations and meanings”).
- Proximity with students needs in academic context :
  - The need for self-actualization*
  - The esteem needs.*
  - The love needs.*
  - The safety needs.*
  - The 'physiological' needs*

- maintain a normal state (schedule, timing)  
- sleepiness

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- *The need for self-actualization*  
*The esteem needs.*  
*The love needs.*  
*The safety needs.*  
*The 'physiological' needs*

(+):

- undisrupted routine or rhythm, outline of rigidity, not only for the present but also far into the future
- fairness
- consistency, coherent, meaningful whole
- make the world look reliable, predictable, organized, orderly

(-):

- threats of punishment, tyranny
- unexpected, unmanageable things
- afraid of parents' disapproval, or of being abandoned by his parents



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- Proximity with students needs in academic context:

*The need for self-actualization*

*The esteem needs.*

*The love needs.*

*The safety needs.*

*The 'physiological' needs*

- hunger for affectionate relations with people in general, namely, for a place in his group, belongingness needs (student / scientific community; relationship with teacher)

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- Proximity with students needs in academic context:

*The need for self-actualization*

*The esteem needs.*

*The love needs.*

*The safety needs.*

*The 'physiological' needs*

- desire for strength, achievement, adequacy, confidence in the face of the world, independence and freedom

- desire for reputation or prestige recognition, attention, importance or appreciation

Research object	Motivation / Needs	Collected data	Data processing	Global results
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- Proximity with students needs in academic context:

*The need for self-actualization*

*The esteem needs.*

*The love needs.*

*The safety needs.*

*The 'physiological' needs*

- desire to become more and more what one is, to become everything that one is capable of becoming (perspectives for deepening, access to additional resources)

<b>Research object</b>	<b>Motivation / Needs</b>	<b>Collected data</b>	<b>Data processing</b>	<b>Global results</b>
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## **Research question**

- The likelihood of a given syllabus to actually impact the concerned perceptions of students in the right way has not been tested experimentally yet.
- So, for a syllabus or introduction speech whose qualities / characteristics seem to make them likely or not to impact positively or negatively learners' perceptions of courses linked to their motivation and individual needs, will consistent effects be observed on the ones who have read / heard them?

Research object	Motivation / Needs	Collected data	Data processing	Global results
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## Data collected from teachers

- In January 2008, at the University of Liège : a **thematic seminar** offering special guidelines to design syllabi was organized for new faculties. 10 participants were invited to join the research and accepted all.
- At the beginning of the following academic year, **their ten syllabi** and introduction speeches - meant to Freshmen or Sophomores - were **collected** and recorded.
- The likelihood of those materials to impact the students' perceptions was then **analyzed and rated according to 8 criteria** associated with the motivation and needs models.

Research object	Motivation / Needs	Collected data	Data processing	Global results
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## Data collected from students

- During the second class meeting of the 10 teachers, **questionnaires** were submitted **to their 1300 students** (First/Second-Year) in order to investigate the impact of those syllabus on their perceptions of *controllability*, *competency* and *activities value* (motivation factors), but also on their perceptions associated with the 5 levels of Maslow  
→ **8 items “post”** using Likert scales from “Tot. agree” to “Tot.disagree”
- **8 symmetrical “pre”** items were added to measure hypothetical gains
- 2 more items (“have you **read** the syllabus”, “did you **hear** the speech”) were added to study relations between the “post” levels of perceptions and the fact to have actually read the syllabi or attended to the presentation speech.

Research object	Motivation / Needs	Collected data	Data processing	Global results
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## Data processing

- For each group, **percentages** of students declaring good perceptions (agree + totally agree) **for the “pre” and “post”** symmetrical items were **compared** to measure hypothetical gains due to syllabus + oral speech
- Data collected from the students concerning their **“post” perceptions** and their answers about their **reading / hearing** or not of their syllabi or oral speeches have been **crossed**.  $X^2$  were calculated to identify significant relationships between them, as well as **correlations** indexes.
- **Synoptic tables** are produced to observe consistencies between ratings of teachers’ performances and students’ levels of declared perceptions.

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## 2 examples (motivation)

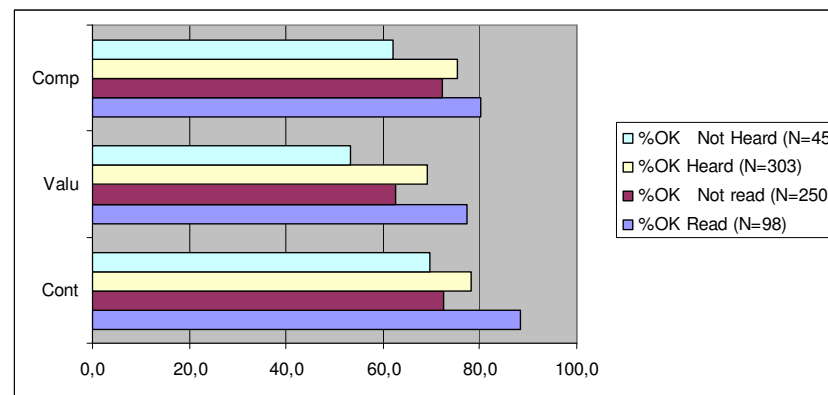
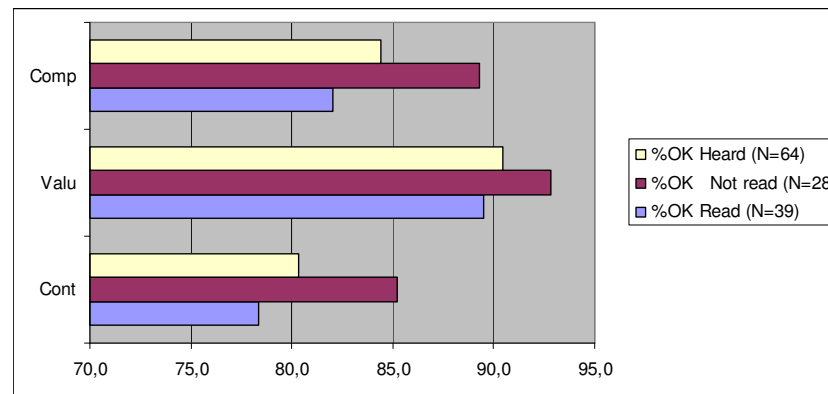
Syllabus	Speech	Items	% OK Pré (N=82)	%OK post (N=82)	Gain / Loss	Consisten stars - OK post	Consisten stars - gains	%OK Read (N=39)	Consisten stars syllabus	%OK Not read (N=28)	§ ? (X*)	C	%OK Heard (N=64)	Consisten stars speech	%OK Not Heard (N=3)	§ ? (X*)	C
*(*)	***	Cont	71,6	<b>78,8</b>	7,1		1 unit -	<b>78,4</b>	1 unit +	85,2	/	0,20	<b>80,3</b>	1 unit -	100,0	/	0,17
**	***	Valu	88,1	<b>89,6</b>	1,5			<b>89,5</b>	1 unit +	92,9	/	0,07	<b>90,5</b>		100,0	/	0,07
**	**	Comp	73,1	<b>85,1</b>	11,9	1 unit +		<b>82,1</b>	1 unit +	89,3	for 0,2	0,23	<b>84,4</b>	1 unit +	100,0	for 0,1	0,25
						Pour norme 2*=75											

Syllabus	Speech	Items	% Pré OK (N=348)	% Post OK	Gain / Loss (N=348)	Consisten stars - OK post	Consisten stars - gains	%OK Read (N=98)	Consisten stars syllabus	%OK Not read (N=250)	§ ? (X*)	C	%OK Heard (N=303)	Consisten stars speech	%OK Not Heard (N=45)	§ ? (X*)	C
**	***	Cont	75,3	<b>73,5</b>	-1,7	1 unit -		<b>88,4</b>	1 unit +	72,7	for 0,02	0,18	<b>78,2</b>		69,8	for 0,001	0,25
*	***	Valu	79,3	<b>65,3</b>	-14,1	1 unit -		<b>77,3</b>		62,7	for 0,10 - 0,5	0,16	<b>69,2</b>		53,3	for 0,0001	0,30
/	**	Comp	72,7	<b>72,5</b>	-0,2		1 unit +	<b>80,2</b>		72,2	/	0,11	<b>75,3</b>		61,9	/	0,11



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## 2 examples (motivation)



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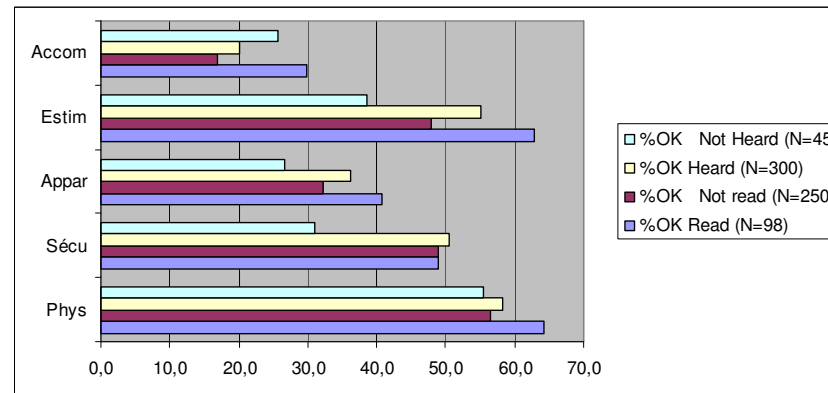
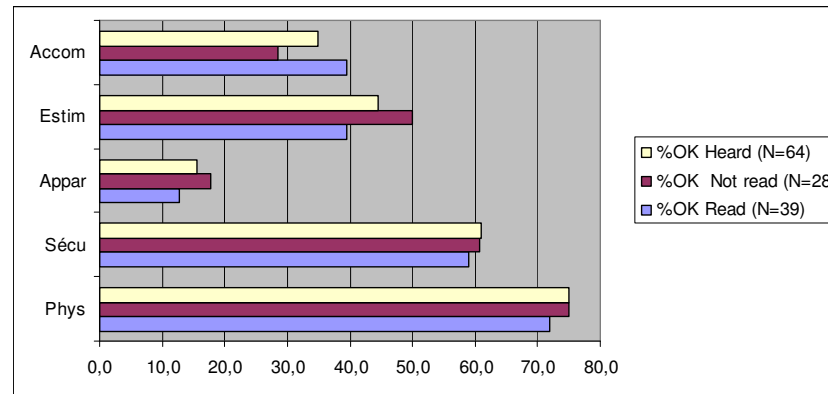
## 2 examples (needs)

Syllabus	Speech	Items	% OK Pre (N=67)	% OK Post (N=67)	Gain / Loss OK	Consisten stars - OK post	Consisten stars - gains	%OK Read (N=39)	%OK Not read (N=28)	S ? (X*)	C	%OK Heard (N=64)	%OK Not Heard (N=3)	S ? (X*)	C	
(*)	(*)	Phys	70,1	<b>73,1</b>	3,0			<b>71,8</b>	75,0	/	0,19	<b>75,0</b>	33,3	/	0,22	
(*)	**	Sécu	56,7	<b>59,7</b>	3,0		1 unit +	<b>59,0</b>	60,7	/	0,16	<b>60,9</b>		33,3	/	0,21
(*)	*	Appar	11,9	<b>14,9</b>	3,0	1 unit -		<b>12,8</b>	1 unit -	17,9	for 0,2	<b>15,6</b>		0,0	/	0,12
*	**	Estim	51,5	<b>43,3</b>	-8,2		1 unit -	<b>39,5</b>		50,0	/	<b>44,4</b>	1 unit -	33,3	/	0,17
*(*)	**(*)	Accom	32,8	<b>34,3</b>	1,5		1 unit -	<b>39,5</b>		28,6	/	<b>34,9</b>		33,3	/	0,14

Syllabus	Speech	Items	% OK Pré (N=348)	% OK Post (N=348)	Gain / Loss OK	Consisten stars - OK post	Consisten stars - gains	%OK Read (N=98)	%OK Not read (N=250)	S ? (X*)	C	%OK Heard (N=300)	%OK Not Heard (N=45)	S ? (X*)	C	
(*)	(*)	Phys	53,9	<b>56,8</b>	2,9			<b>64,3</b>	56,4	/	0,09	<b>58,3</b>		for 0,2 - 0,1	0,14	
*	**	Sécu	44,9	<b>47,9</b>	3,0			<b>49,0</b>	1 unit +	49,0	/	<b>50,5</b>		31,1	for 0,02	0,19
/	**	Appar	50,8	<b>34,7</b>	-16,1			<b>40,8</b>		32,3	for 0,2 - 0,1	<b>36,2</b>		26,7	/	0,11
*	**	Estim	68,1	<b>51,0</b>	-17,2	1 unit +		<b>62,9</b>		48,0	for 0,1	<b>55,0</b>		38,6	/	0,13
/	***	Accom	16,7	<b>19,9</b>	3,2			<b>29,9</b>	1 unit +	16,9	for 0,1	<b>20,0</b>		25,6	for 0,2 - 0,1	0,14



## 2 examples (needs)



<b>Research object</b>	<b>Motivation / Needs</b>	<b>Collected data</b>	<b>Data processing</b>	<b>Global results</b>
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## Used norms

Norm Motivation	
0,0 *	30 / 40
0,5 *	40 / 50
1,5 *	50 / 60
1,5 *	60 / 70
2,5 *	70 / 80
2,5 *	80 / 90
3,0 *	90 / 100

Norm Needs	
0,0 *	10 / 20
0,5 *	20 / 30
1,5 *	30 / 40
1,5 *	40 / 50
2,5 *	50 / 60
2,5 *	60 / 70
3,0 *	70 / 80

Norm gain / loss	
0,0 *	-35 / -25
0,5 *	-25 / -15
1,5 *	-15 / -5
1,5 *	-5 / 5
2,5 *	5 / 15
2,5 *	15 / 25
3,0 *	25 / 35

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	Stars vs % OK post	Stars vs % gain pre-post	Stars vs % OK post - Read (X <sup>2</sup> : 9 S)	Stars vs % OK post - Heard (X <sup>2</sup> : 12 S)
Controlability	3.C and 4 NC	3.C and 2 NC	1.C and 3 NC	1.C and 4 NC
Value	3.C and 3 NC	3.C and 2 NC	2.C and 2 NC	2.C and 3 NC
Competency	3.C and 4 NC	3.C and 5 NC	2.C and 3 NC	5.C and 2 NC
Total	9.C and 11 NC → 20/30	9.C and 9 NC → 18/30	5.C and 8 NC 13 → /30	8.C and 9 NC 17 → /30
	Relative consistencies between both consistencies : 13		X <sup>2</sup> when C or NC: 3 S / 13	X <sup>2</sup> when C or NC: 8 S / 17

	Stars vs % OK post	Stars vs % gain pre-post	Stars vs % OK post - Read (X <sup>2</sup> : 18 S)	Stars vs % OK post - Heard (X <sup>2</sup> : 14 S)
Physiological	1.C and 1 NC	2.C and 2 NC	0.C and 1 NC	1.C and 0 NC
Safe	2.C and 4 NC	4.C and 4 NC	2.C and 3 NC	5.C and 1 NC
Love	6.C and 4 NC	4.C and 0 NC	2.C and 7 NC	3.C and 2 NC
Esteem	3.C and 2 NC	4.C and 4 NC	2.C and 1 NC	3.C and 2 NC
Self-acc.	1.C and 4 NC	4.C and 4 NC	2.C and 4 NC	3.C and 2 NC
Total	13.C and 15 NC → 28/50	18.C and 14 NC → 32/50	8.C and 16 NC → 24/50	15.C and 7 NC → 22/50
	Relative consistencies between both consistencies : 19		X <sup>2</sup> when C or NC: 9 S / 24	X <sup>2</sup> when C or NC: 6 S / 22

- Consistencies (C) : in corresponding norm's margin
- Near consistencies (NC) : 1 unit (10%) + or – than the corresponding norm margin