Business Education in Latin America
Future of educational system

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JOB MARKET

- Companies said they have difficult to get technicians and find workers
- Young people prefer study at universities instead of have technician education (double)
- Return of investment in university education is greater than technician education
- What´s the problem?

Peru - Numbers

Cuadro Nº 02
Perú: Alumnos Matriculados según tipo de universidad. 2005 - 2012

Tipo de Universidad	2005	2006	2007	2008	2009	2010	2011*	2012*
Pública	281374	288505	285978	286031	291279	309175	310630	315884
Privada	277906	307243	363521	418600	486817	473795	508817	543409
TOTAL	559280	595748	649499	704631	778096	782970	819447	859293
Tasa de crecimiento %	8,6%	6,5%	9,0%	8,5%	10,4%	0,6%	4,7%	4,9%

* Cifra Proyectada
Fuente y Elaboración: Dirección de Estadística – ANR

Cuadro Nº 03
Perú: Docentes universitarios según tipo de universidad. 2005 - 2012

Tipo de Universidad	2005	2006	2007	2008	2009	2010	2011*	2012*
Pública	22398	22919	22155	23520	24080	21434	23761	24066
Privada	22244	23733	28058	28379	31985	37651	38471	41233
TOTAL	44642	46652	50213	51899	56065	59085	62232	65299
Tasa de crecimiento %	6,8%	4,5%	7,6%	3,4%	8,0%	5,4%	5,3%	4,9%

* Cifra Proyectada
Fuente y Elaboración: Dirección de Estadística – ANR

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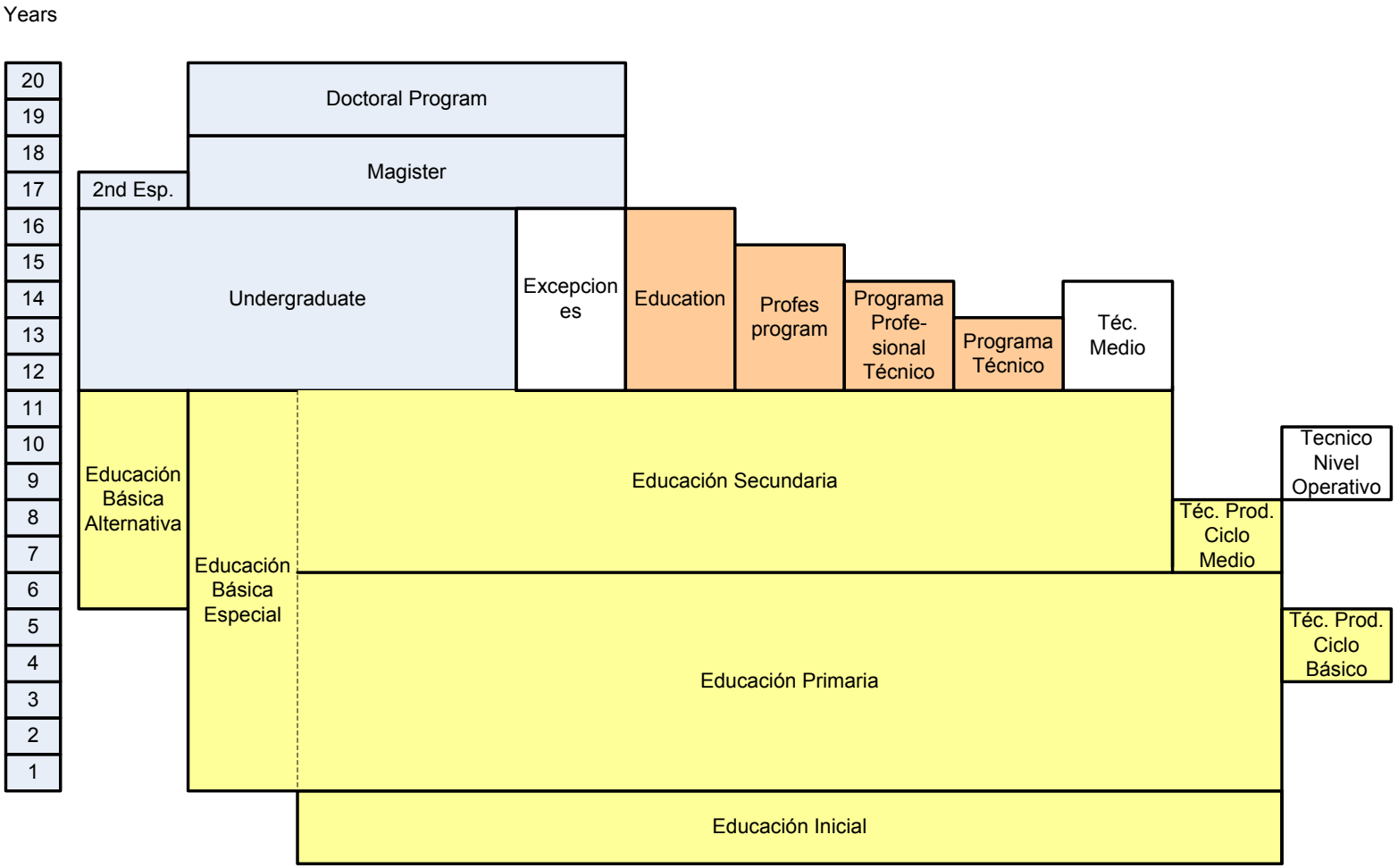
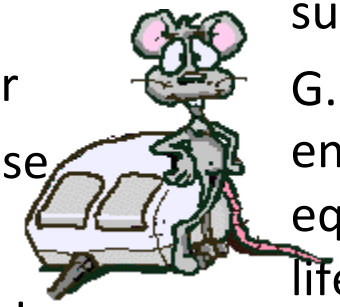
Actual system of education



Do we need to rethink education?

World change: drivers

- Need to save time
- Need to reduce costs
- Need to do things faster
- Make things easier to use
- Safe and reliability
- Protect the environment
- Offs shore (moving to places with low costs, move less risk activities
- Home delivery
- **Emerging countries**



Generation to serve:

- G. Baby boom: 1946-1964, wants success

  G. X: 1965-1976 & 1971-1984. entrepreneurship and freedom; equilibrium between work and life
- G. Y: 1977-1996 & 1985-1992, pragmatics, requires immediate gratification, individualistic
- G. Z: 1997-now, Digitals natives: good education, social networks, multilingual, ecological sensitivity

Model of Research

1. Literature review about employability
   a. Harvey et al. Model (2002-2003)
   b. Yorke & Knight Model (2004)
2. Business School and Universities, situation according to our research
3. Results
4. Discussion

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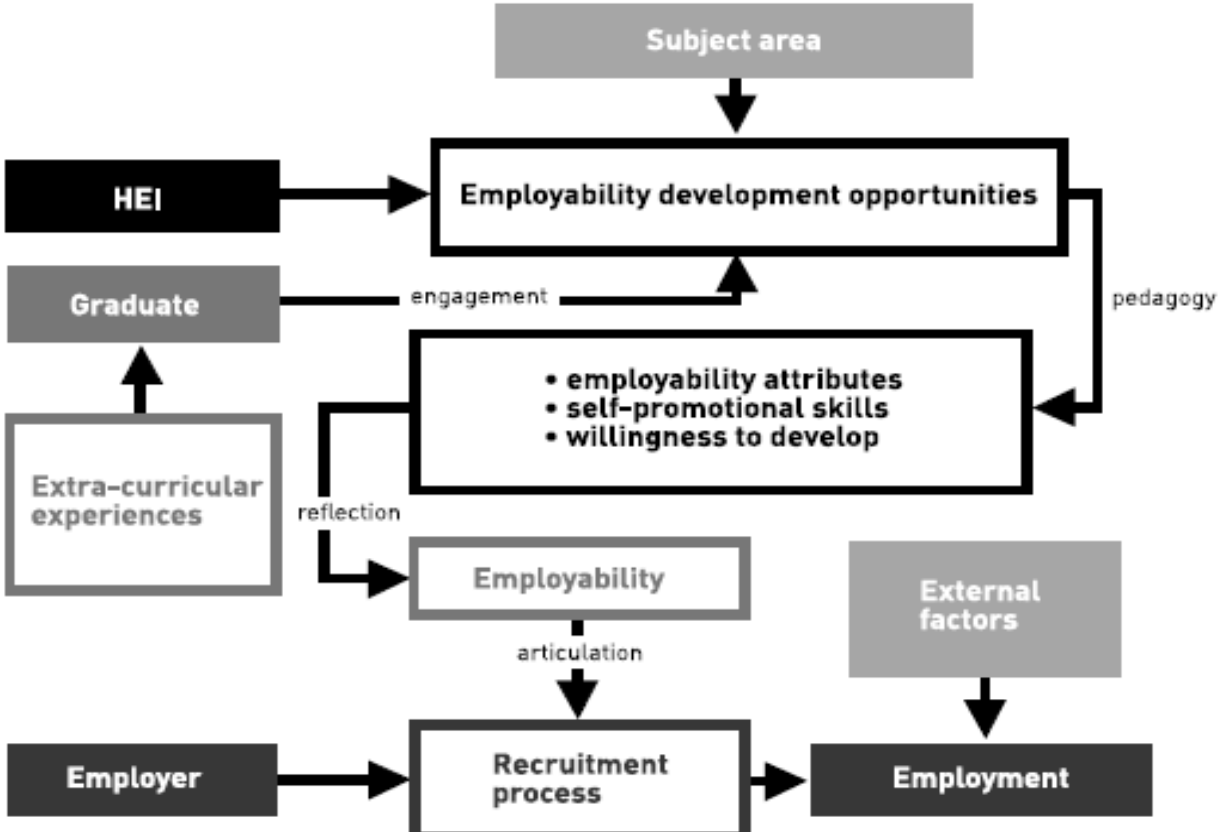
1. Literature Review

a. Harvey et al. (2002-2003)
b. Yorke and Knight (2004)

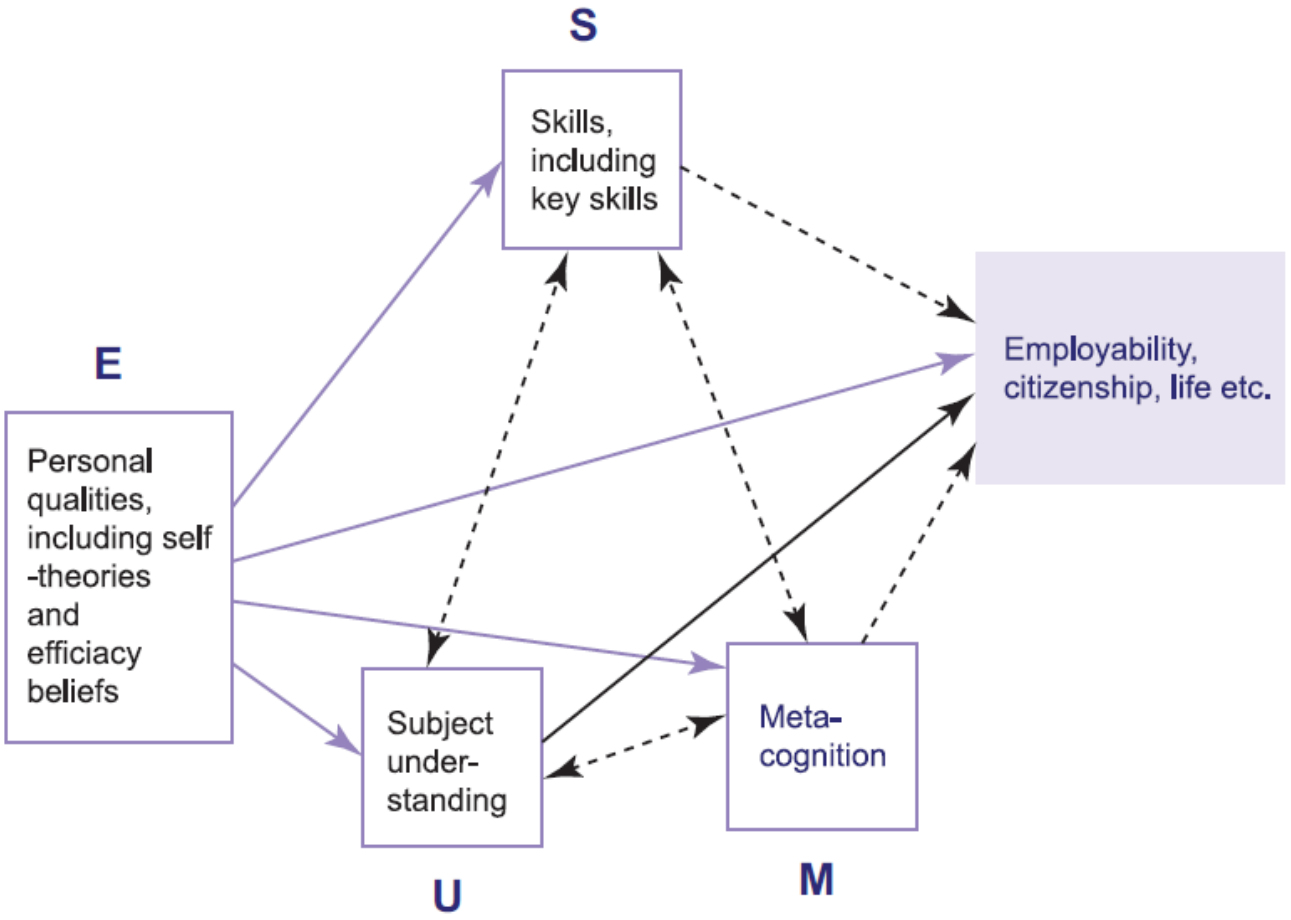
Employability

- Employability from the perspective of HEIs is producing graduates who are capable and able, and this impact all areas of university life, in terms of the delivery of academic programs and extra curricula activities. Fundamentally employability is about learning – learning how to learn – employability is not a product, but a process (LTSN - cited Lee, 2002).
- Employability has many definitions but they break down into two broad groups.
  - Emp. 1 relate to the ability of the student to get (and retain and develop in) a job after graduation.
  - Emp. 2 are concerned with enhancing the students‟ attributes (skills, knowledge, attitudes and abilities) and ultimately with empowering the student as a critical life-long learner (Hillage and Pollard, 1998; Harvey, 2001)

a. Harvey et al. Model Employability 1



b. Yorke & Knight Model Employability 2



Embedding employability SEUM

- Skills, takes time – months and years.
- Efficacy beliefs, requires practice.
- Understanding, requires Students to hear, repeatedly, what it is intended that they learn, what that means, to know ways of judging what they have achieved, and to see how to improve.
- Metacognition, Ideally requires a program-level planning over all the modules to let the students to mix their knowledge and apply them to real situations.

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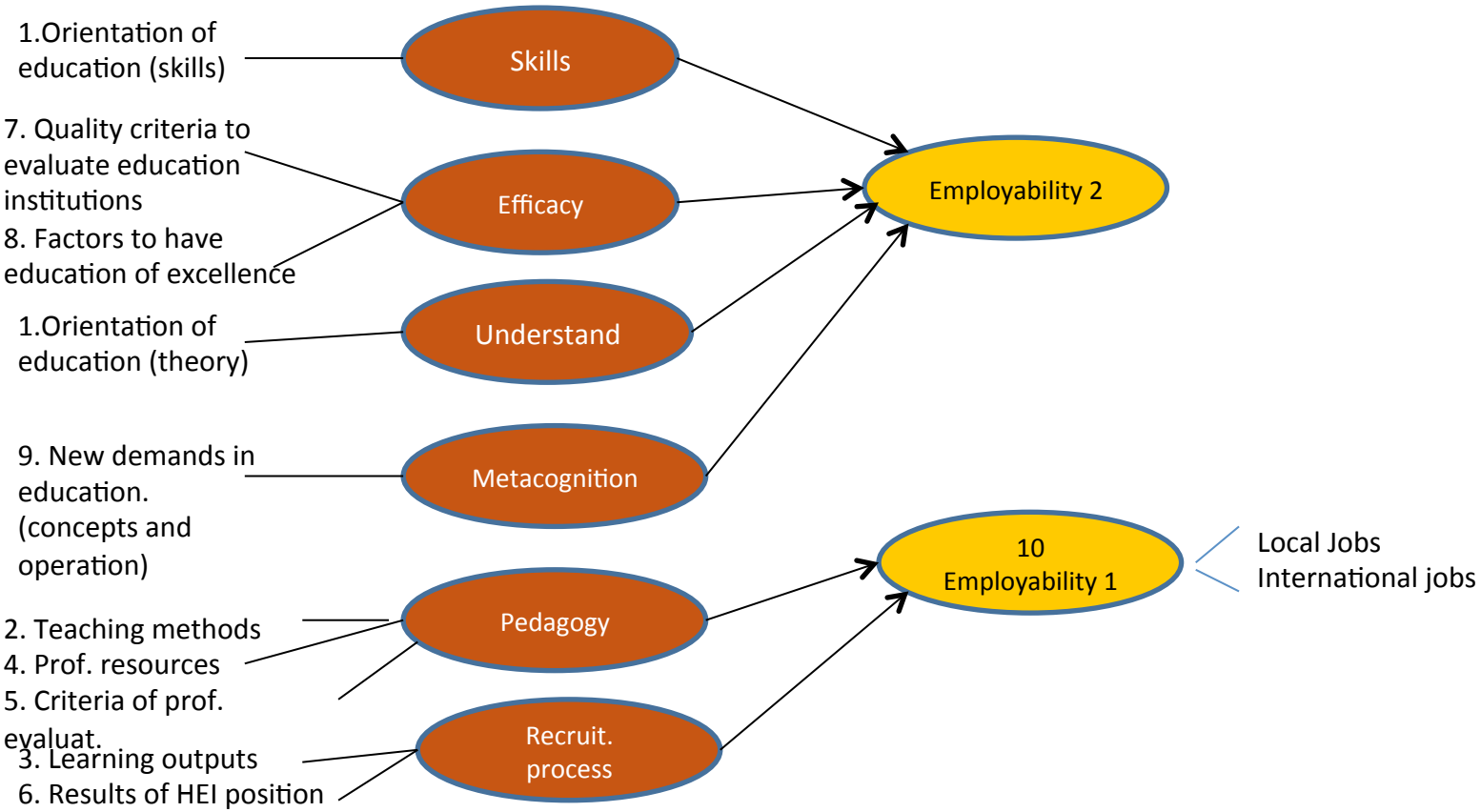
2. Our exploratory Research

- Aims to know:
  - What are the perceptions of Universities (Professors), Students and Executives about the connections between employability and the actions of HEI in our countries?
  - How are this two models working and in which grade?
  - Adjustment between the perceptions of this three actors (execut-prof-stud)
  - What are the executives perception about the careers of the future?

Model


1.Orientation of education (skills)
Skills
7. Quality criteria to evaluate education institutions
8. Factors to have education of excellence
Efficacy
Employability 2
1.Orientation of education (theory)
Understand
9. New demands in education. (concepts and operation)
Metacognition
10 Employability 1
Local Jobs
International jobs
2. Teaching methods
4. Prof. resources
5. Criteria of prof. evaluat.
Pedagogy
3. Learning outputs
6. Results of HEI position
Recruit. process

Instruments

1. Orientation of education: Theory and skills (understand and Skills)
2. Teaching Methods (pedagogy)
3. Learning outputs (recruitment process)
4. Professors resources (pedagogy)
5. Criteria Professors evaluation (pedagogy)
6. Results of Institution position (recruitment process)
7. Quality criteria to evaluate education institutions (efficacy beliefs)
8. Factors to have education of excellence (efficacy beliefs)
9. New demands in education (Metacognition: concepts and operation)
10. Employability 1
11. Careers for the future

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Sample

- 28 Executives
- 40 Professors
- 331 Students
- Total 399 participants
- 3 countries: Peru, Ecuador & Colombia
- Data Collection: September 2012

Validity of our scales (Robustness)

	SCALES	Nº de Ítems	Alfa Cronbach	Rank
1-a	Orientation of education- Theory	10	,7302	1-5
1-b	Orientation of education- Skills	10	,8315	1-5
2	Teaching Methods	10	,8362	1-5
3	Learning outputs	6	,8787	1-5
4	Professors resources	11	,7863	1-5
5	Criteria Professors evaluation	10	,8368	1-5
6	Results of Institution position	4	,8415	1-5
7	Quality criteria to evaluate education institutions	11	,8317	1-5
8	Factors to have education of excellence	7	,8525	0-4
9-a	New demands in education - Concepts	11	,8710	1-5
9-b	New demands in education - Operations	7	,7996	1-5
10	Employability as results of teaching	2	,6711 (***)	1-5
		W Kendall	**Significance**	**Rank**
11	Careers for the future	0,30	(****)	0-2
	*Signif < ,05 **Signif < , 01 ***Signif< 001			

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Comparison analysis of 3 populations

Scales with no significant difference

	SCALE	EXECUTIVES		PROFESSORS		STUDENTS	
	(Mean of ítems)	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
1	Orientation of education (theory and skills)	4,551	,540	4,418	,571	4,482	,615
5	Criteria Professor evaluation			3,597	,986		
8	Factors to have education of excellence (0-4)	2.413	0.853	2.623	0.951	2.621	0.983

Model 2: the 3 populations show no difference concerning
Skills and understanding,
One dimension of efficacy beliefs
Meaning that they agree with the directions of the education authorities and the conditions of the environment to allow education of excellence (value of education)
Model 1: Criteria of professors evaluation shows no difference concerning
One dimension of pedagogy

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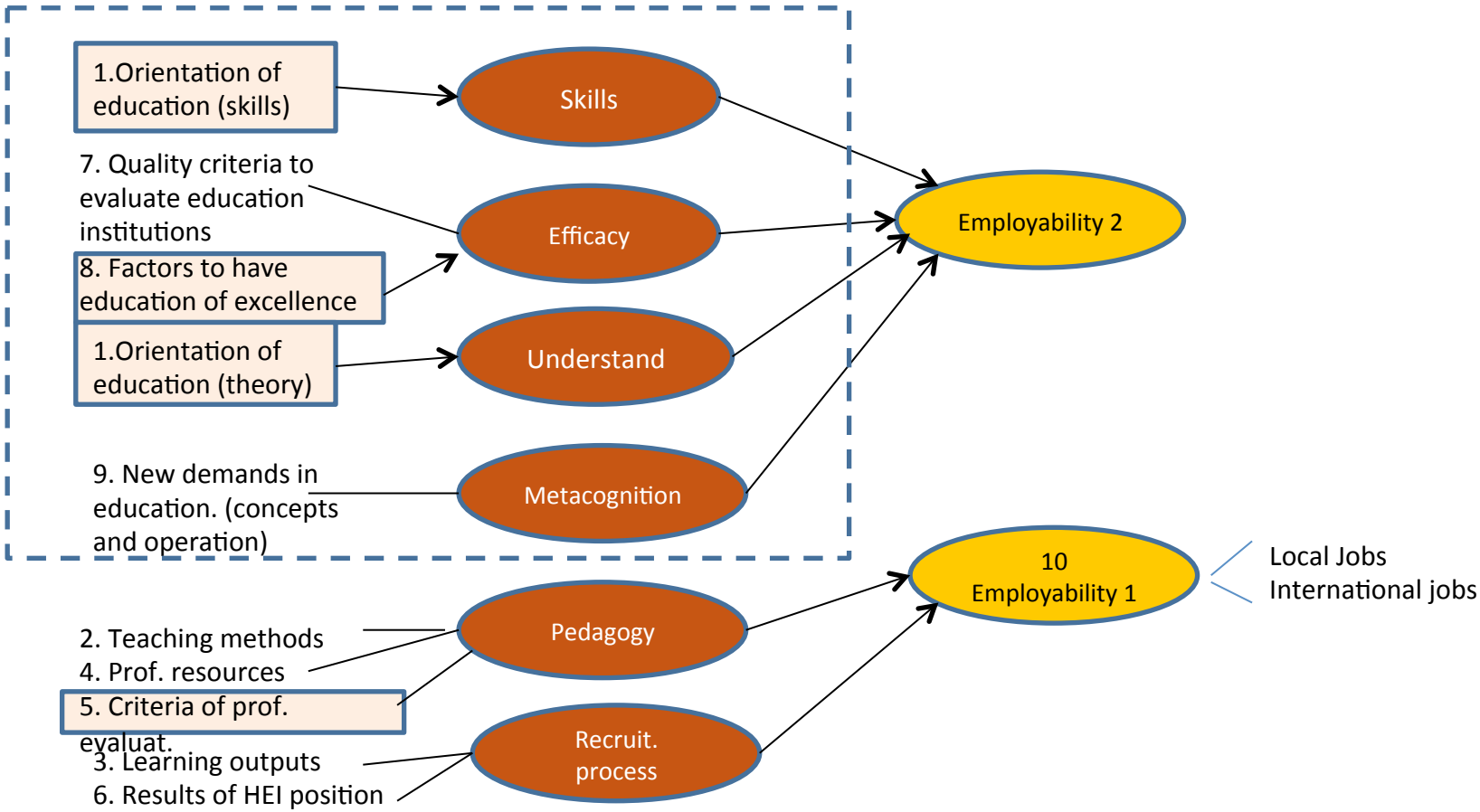
Model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10 Employability 1
Local Jobs
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2. Teaching methods
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3. Learning outputs
6. Results of HEI position
Recruit. process

Employability 2

- The three populations shows significant differences in:
  - Efficacy beliefs (quality criteria to evaluate HEI)
  - New demands in education:
    - Business ethics (concept)
    - Promoting entrepreneurial culture (application)

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Efficacy beliefs

7 Quality Criteria to Evaluate HEI						
SCALE	**EXECUTIVES**		**PROFESSORS**		**STUDENTS**	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Inquire about the labor needs of employers	3,57	,84	3,77 (*)	,81	3,34 (*)	,91
Incorporate into their programs the national guidelines about employability	3,76	,74	3,73 (*)	,99	3,34 (*)	,88
Train students in personal skills related to employment	4,14 (*)	,74	3,90	,78	3,71 (*)	,89
Train students on intellectual skills related to employment	4,28 (*)	,70	3,95	,75	3,79 (*)	,86
Develop an international curriculum oriented to the needs of companies	4,04	,84	4,30	,65	3,77	2,43
Methodologies used to develop employability skills	3,76	,79	3,95 (*)	,64	3,54 (*)	,91
Obtaining and maintaining international quality certifications	4,00	,80	4,20 (*)	,65	3,63 (*)	1,01
Recruit teachers with research quality	4,31 (*)	,93	4,40 (*)	,71	3,80 (*)	,87
Recruit teachers with teaching quality	4,48 (*)	,69	4,47 (*)	,68	3,85 (*)	,89
Recrut teachers with consultant abilities	4,34 (*)	,81	3,93	,76	3,80 (*)	,88
Develop an orientation toward social responsibility	3,86	,74	4,20 (*)	,85	3,74 (*)	,89
Quality (average)	3,72	,62	4,00 (*)	,63	3,54 (*)	,75
	* signif <5%					

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Employability 1

- The three populations shows significant differences in:
  - Pedagogy:
    - Teaching methods: cases, business games, role playing, “in company practice”
    - Prof. resources: library, digital access and political economic support
  - Recruitment process
    - Learning outputs: solution of problems and leadership

Opinion about the careers in the future

11. Careers for the future (0-2)		
	Demanda	
	(Mean)	Std Dev
Business: Comercio Exterior, Contabilidad, Economía, Estadística, Ingeniería Industrial, Marketing Empresarial, Relaciones Industriales	1,76	,44
Medical: Biología, Enfermería, Estomatología, Farmacia, Medicina Humana, Nutrición, Veterinaria	1,75	,44
Science and Engineering: Bioquímica, Computación e Informática, Física, Geofísica, Geografía y Medio Ambiente, Ingeniería Civil, Ingeniería de Minas, Ingeniería de Sonido, Ingeniería Mecánico – Electricista	1,71	,46
Administratives: Administración, Administración de Negocios Internacionales	1,70	,47
Ecological: Agronomía Tropical, Agropecuaria, Ecología, Ingeniería Acuícola, Ingeniería Agrícola, Ingeniería Zootecnia, Veterinaria y Zootecnia	1,68	,48
Turisme: Administración de Servicios de Hostelería, Administración Hotelera, Guía Oficial de Turismo, Turismo y Hotelería	1,68	,48
Architecture and urbanism: Arquitectura, Arquitectura Interiores, Edificaciones	1,37	,49
Communications: Ciencias de la Comunicación, Comunicación Audiovisual, Periodismo, Publicidad, Radiodifusión	1,36	,49
Law: Ciencias Políticas, Derecho, Derecho Corporativo, Ingeniería Derecho	1,33	,68
Technical: Asistente de Administración, Asistente de Gerencia, Automotores y Diesel, Cajero Promotor de Servicios, Cerámica Industrial, Construcción Civil, Construcciones Metálicas, Refrigeración, Secretariado	1,32	,67
Social Careers: Comunicación para el desarrollo, Comunicación Social, Cooperativismo, Psicología Social, Sociología, Trabajo social	1,17	,47
Non Traditionals: Aviación Comercial, Ciencias del Deporte, Cosmetología, Director Técnico Fútbol, Gestión Textil, Teleoperador	1,14	,52
Education : Educación	1,11	,69
Gastronomy: Alta Cocina, Bar, Gastronomía, Pastelería	1,04	,72
Public Service: Ejército, Fuerza Aérea – FAP,Marina de Guerra, Policía - Fuerzas Policiales	1,00	,48
Art: Cine, Conservación y Restauración, Dibujo Arquitectónico, Dibujo de Construcción Civil, •Dirección y realización de Cine y TV, Diseño Arquitectónico, Diseño Gráfico, Diseño Industrial	,96	,51
Humanities: Antropología, Arqueología, Ciencias de la Información, Ciencias Sociales, Filosofía, Historia, Teología	,79	,62

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Connecting relations

- Integrating variables to employability as dependent variable with the 3 populations give us support for the two models
  - Employability 1. Connected to the ability to get a job (local or international). Not linked with teaching methods but with professional experience of professors.
  - Employability 2. Connected with teaching methods. Development of students skills are connected with knowledge (understanding) and operations of the new environment (entrepreneurship, ethics).

Comparison analysis of 3 populations

EMPLOYABILITY (1)				
SKILLS-MEAN	,2593*		TEACHING RESOURCES	
International vision	,3149*		Salaries for support staff	,4232*
Managing Diversity	,2985*		Digital access to computer databases	,3213
Developing learning habits	,2933*		Library	,2739
RESULTS -MEAN	,8866**		Study rooms	,2908
It is adapted to the needs of companies	,5908**		Computer resources (hardware and software)	,3544*
It is useful to solve the country's problems	,5880**		Support for attending international conferences	,7202**
It allows them to solve real problems	,5488**		Incentives to research and publish	,2743
It allows them to work together	,6173**		Political support for the university	,4567**
It helps them to develop innovative solutions	,7598**		PROFESSORS EVALUATION CRITERIA	
It helps them to behave as leaders	,6514**		**Contact hours with students**	,3057 *
INSTITUTION POSITION	,4726**		CONDITIONS OF EDUCATIONAL ENVIRONMENT	
Quality positioning forto his students	,3504*		Valuation of the teaching activity	,2416*
Its position in the opinion of society	,3263*		Valuation of teaching as a source of income	,3892**
Its ranking of quality compared to its competitors	,3956*		Valuetion of academic research activity	,3139*
Its position, in the opinion of employer firms	,4702**		Valuation of research as a source of income is ...	,2509*
QUALITY CRITERIA			Presence of universities with international certifications	,3113*
Inquire about the needs of employers	,2810*		YEARS OF PROFESSIONAL EXPERIENCE	,3376*
Right Methodologies to develop employability skills	,3801**			
Train students in personal skills	,4232*			
Train students on intellectual skills	,3213*			
Obtaining and maintaining international quality certifications	,3544*			
Recruit teachers with research quality	,7202**			
Recruit teachers with consulting skills	,4567**			

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Comparison analysis of 3 populations

EMPLOYABILITY (2)				
RESULTS -MEAN	,1271**		TEACHING RESOURCES	
It is adapted to the needs of companies	,1237**		Salaries for support staff	,3121*
It is useful to solve the country's problems	,1293**		Digital access to computer databases	,2278
It allows them to solve real problems	,1247**		Political support for the university	,2187
It allows them to work together	,1764**		**TEACHING METHODS**	
It helps them to develop innovative solutions	,1191**		Lectures	,1137*
It helps them to behave as leaders	,1062*		Assigned reading to present	,1284*
It helps them to get local jobs	,1246 **		On line classes	,0928*
INSTITUTION POSITION	,1802**		Conferences	,1115*
Quality positioning for his students	,1885**		Role playing	,1952**
Its position in the opinion of society	,1673**		International Stage	,1021*
Its ranking of quality compared to its competitors	,1314**		PROFESSORS EVALUATION CRITERIA	
Its position, in the opinion of employer firms	,1272**		**Contracts and Consulting**	,2475 *
QUALITY CRITERIA	,1934**		CONDITIONS OF EDUCATIONAL ENVIRONMENT	
Inquire about the needs of employers	,1745**		Valuation of the teaching activity	,0945*
Right Methodologies to develop employability skills	,1412**		Valuation of teaching as a source of income	,0958*
Train students in personal skills	,1520**		Valuation of academic research activity	,0975*
Train students on intellectual skills	,1086*		Valuation of research as a source of income	,1026*
Obtaining and maintaining international quality certifications	,1516**		Presence of universities with international certifications	,1416**
Recruit teachers with research quality	,1454**			
Recruit teachers with consulting skills	,1347**			
Orientation toward social responsibility	,1412**			

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Employability 1,2

Employability 1 is not connected to the methodologies but professional experience of professors is important.

Employability 2 is connected to the influence of the environment meaning that to have the skills and knowledge you need to satisfy the new demands on education (concepts and operational requirements)

EMPLOYABILITY (2)	
NEW DEMANDS IN EDUCATION (CONCEPTS)	
Growing of Complexity problems	,1527**
Multidisciplinary	,1809**
Production and Social use of Knowledge	,2181**
Technological influence on the production and use of knowledge	,1001*
Cognitive role in the production of knowledge	,1639**
Skills vs. Knowledge	,1906**
Business Ethics	,1270**
Ecological aspects of business	,1217**
Cultural factors in business management	,1797**
Using information technology in education	,1902**
Prof. grounded in local and international	,1378**
OPERATIONAL REQUIREMENTS	
Orient education to the management of SMEs	,1284**
Orient education to family business management	,1300**
Orient education to the training of entrepreneurs	,2206**
Orient education to work in business corporations	,3192**
Promoting entrepreneurial culture	,2524**
Applied education to present and future	,1413**

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Conclusions

- More than conclusion I have questions.
  - We need to emphasize employability as a entrepreneurship perspective?
  - What quality criteria to follow? the academic, the ranking position
  - Multidisciplinary against more in deep education?
  - Less in school and more in practice?

THANK YOU!

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