The needs of students entering Higher Education: Implications for their integration

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TOPICS

Higher Education (HE): some challenges, students´ transition and adaptation

ObservatoriUM: Some data about 1rst year students in UMinho

Higher Education (HE):

Some challenges, students´ transition and adaptation (difficulties)

IE: Changes and challenges

- Increase in the number of institutions and degrees in the last decades, and a major diversification of HE students (non traditional students)

- Declaration of Bologna: Change in the traditional teaching-learning processes, focused in a more active role of the students

- Progressive social depreciation of the academic titles (the crisis has decreased the protective factor of Higher Education in terms of employment – Eurostat, 2014)

Transition process (Portugal)

- "Numerus Clausus" based in "grade point average – GPA": in 2016/ 2017 only 55% have entered in their first option (DGES, 2016). "Cascading effect": large number of students in 2nd or 3rd option. "Moratorium/ suspension" in the first year.

- Changing home, being away from the affective and supportive bonds: need of social support or begin of homesick, anxiety and depression

- High expectations and aspirations when entering: weak knowledge of the academic reality

- Family without HE tradition: lower expectations and competences. Social economic levels and choice of the course in accordance to their social prestige

Adjustment process

- Lack or insufficient institutional wellcoming, starting rituals in the academic life promoted by older students; large institutions and lack of belonging feelings

- High perception of liberty and autonomy, though few self management skills for the daily activities and learning; flexible classes schedules; scarce economic resources

- Spread or lack of support services in the socio-economic and academic/learning fields
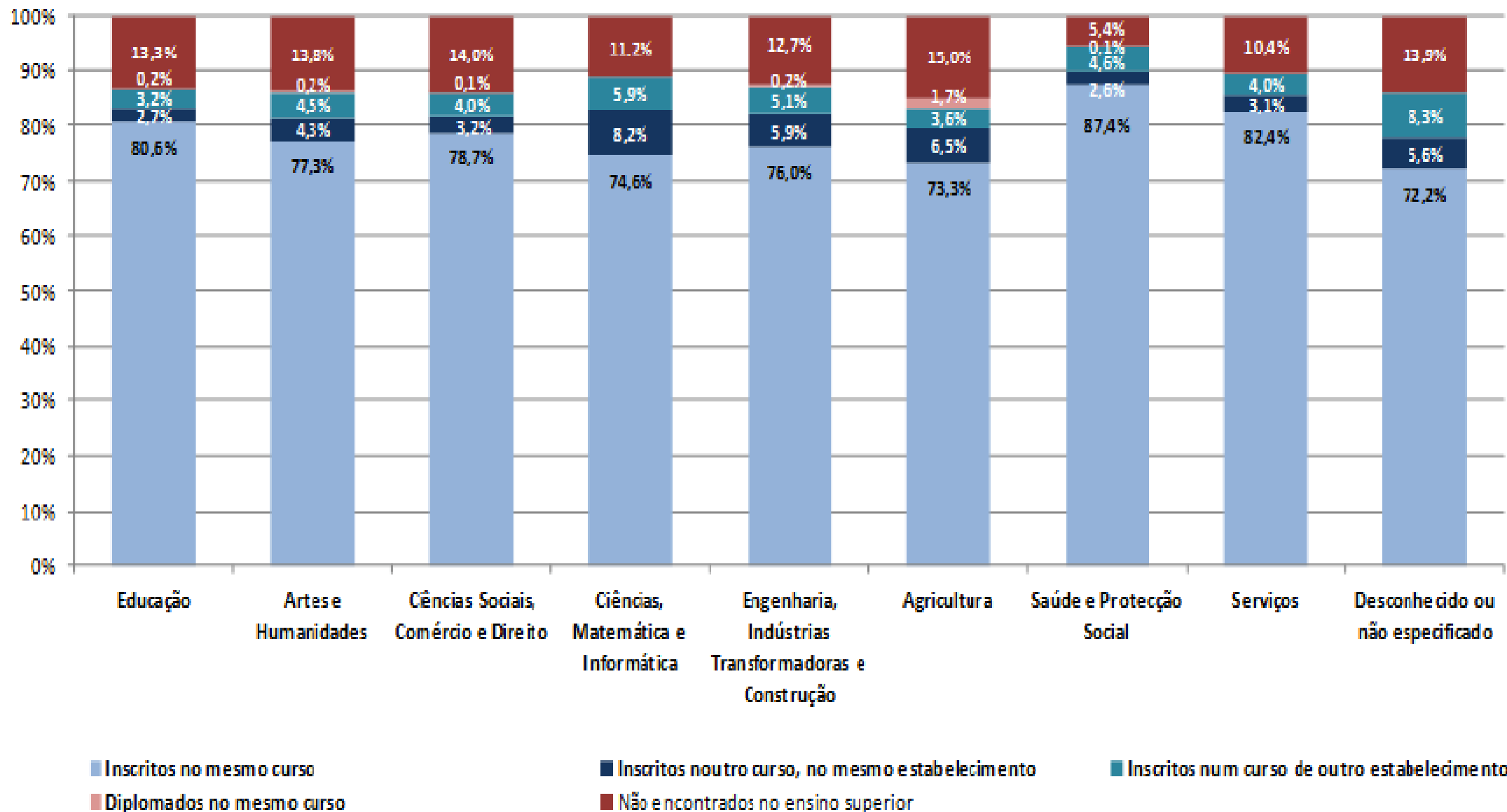
Learning problems

- Insufficient academic background, for example in the field of sciences (STEM: Science, Technology, Engineering and Mathematics), few investment in the theoretical and preparatory subjects

- Distance and infrequent relationships with the teachers, feeling that the teaching is disorganized and that the teachers do not meet/ assist students; higher flexibility in the teaching and learning processes; absence of handbook for the disciplines

- Lack in study methods, superficial approaches to learning, weak self-regulation in learning; few skills to work in small groups; study concentrated in the evaluation moments

2011/2012 – Early dropout in public HE

Novos Inscritos 2011	2064	7045	17576	4564	7536	846	6034	3704	36

Chart categories (x-axis):
- Educação
- Artes e Humanidades
- Ciências Sociais, Comércio e Direito
- Ciências, Matemática e Informática
- Engenharia, Indústrias Transformadoras e Construção
- Agricultura
- Saúde e Protecção Social
- Serviços
- Desconhecido ou não especificado

Educação: 80,6% / 2,7% / 3,2% / 0,2% / 13,3%
Artes e Humanidades: 77,3% / 4,3% / 4,5% / 0,2% / 13,8%
Ciências Sociais, Comércio e Direito: 78,7% / 3,2% / 4,0% / 0,1% / 14,0%
Ciências, Matemática e Informática: 74,6% / 8,2% / 5,9% / 11,2%
Engenharia, Indústrias Transformadoras e Construção: 76,0% / 5,9% / 5,1% / 0,2% / 12,7%
Agricultura: 73,3% / 6,5% / 3,6% / 1,7% / 15,0%
Saúde e Protecção Social: 87,4% / 2,6% / 4,6% / 0,1% / 5,4%
Serviços: 82,4% / 3,1% / 4,0% / 10,4%
Desconhecido ou não especificado: 72,2% / 5,6% / 8,3% / 13,9%

Legend:
- Inscritos no mesmo curso
- Inscritos noutro curso, no mesmo estabelecimento
- Inscritos num curso de outro estabelecimento
- Diplomados no mesmo curso
- Não encontrados no ensino superior

ObservatoriUM:

Some data about 1rst year students in UMinho

Focus

- Longitudinal approach

- Multivariate model

- Attention to specific groups

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OBSERVATORIUM

Know the students profile, giving a special attention to the "new public"

Identify the different profiles of the students that every year are taken in UMinho
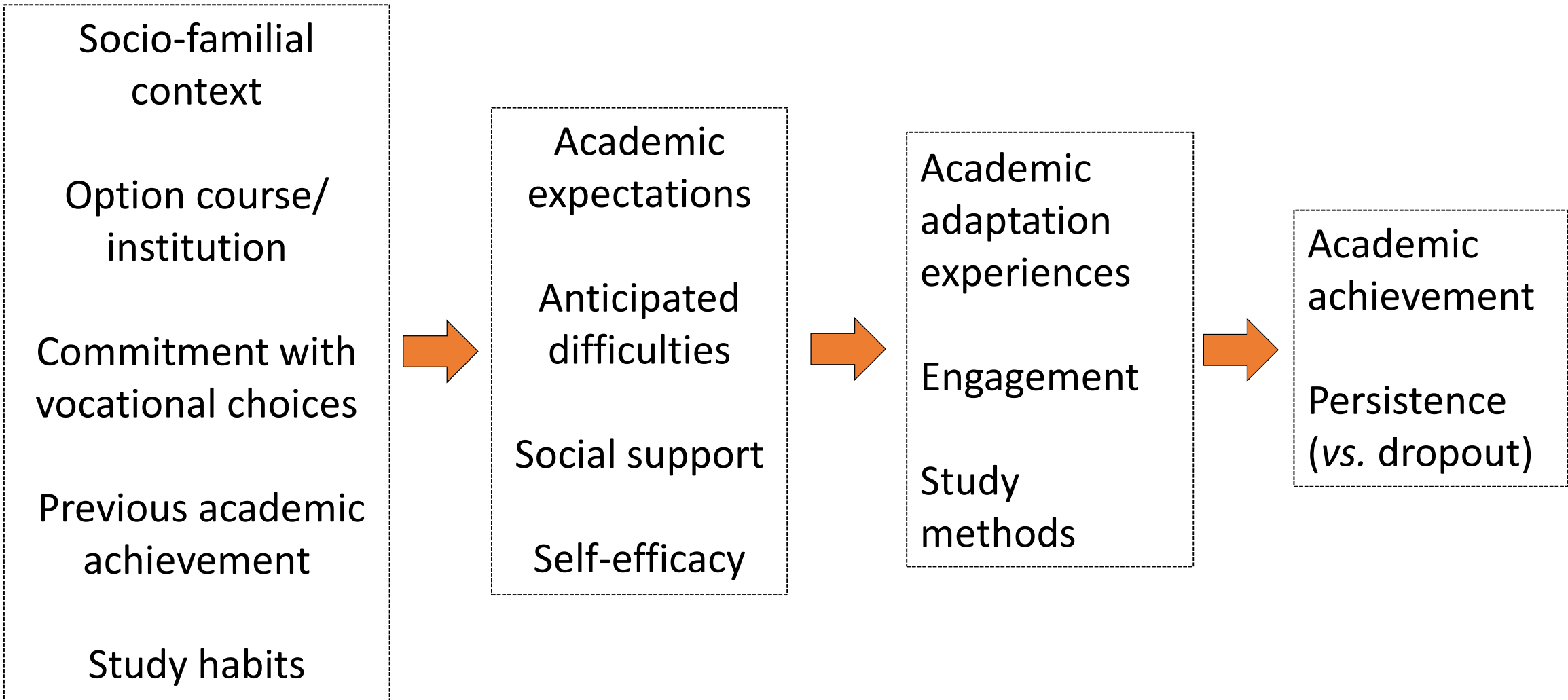
Characterize the trajectories of the students, both in the academic and psychosocial dimensions

Analyse the impact of social, academic and environmental variables in the performance, satisfaction and future employment skills.

Give to the pedagogic responsible of the courses, information about their students

Support the University policies in what teaching and learning is concerned

Multidimensional and Longitudinal Model of Students Adaptation to Higher Education (3P's: presage, process & product)

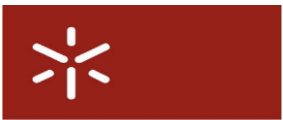| Socio-familial context	Academic expectations	Academic adaptation experiences	Academic achievement
Option course/ institution	Anticipated difficulties	Engagement	Persistence (*vs.* dropout)
Commitment with vocational choices	Social support	Study methods	
Previous academic achievement	Self-efficacy		
Study habits			

Ongoing Studies

- Expectations
- Anticipated difficulties
- Adapted academic experiences
- Self-efficacy
- Learning approaches
- Academic engagement
- Dropout risk (intentions)
...
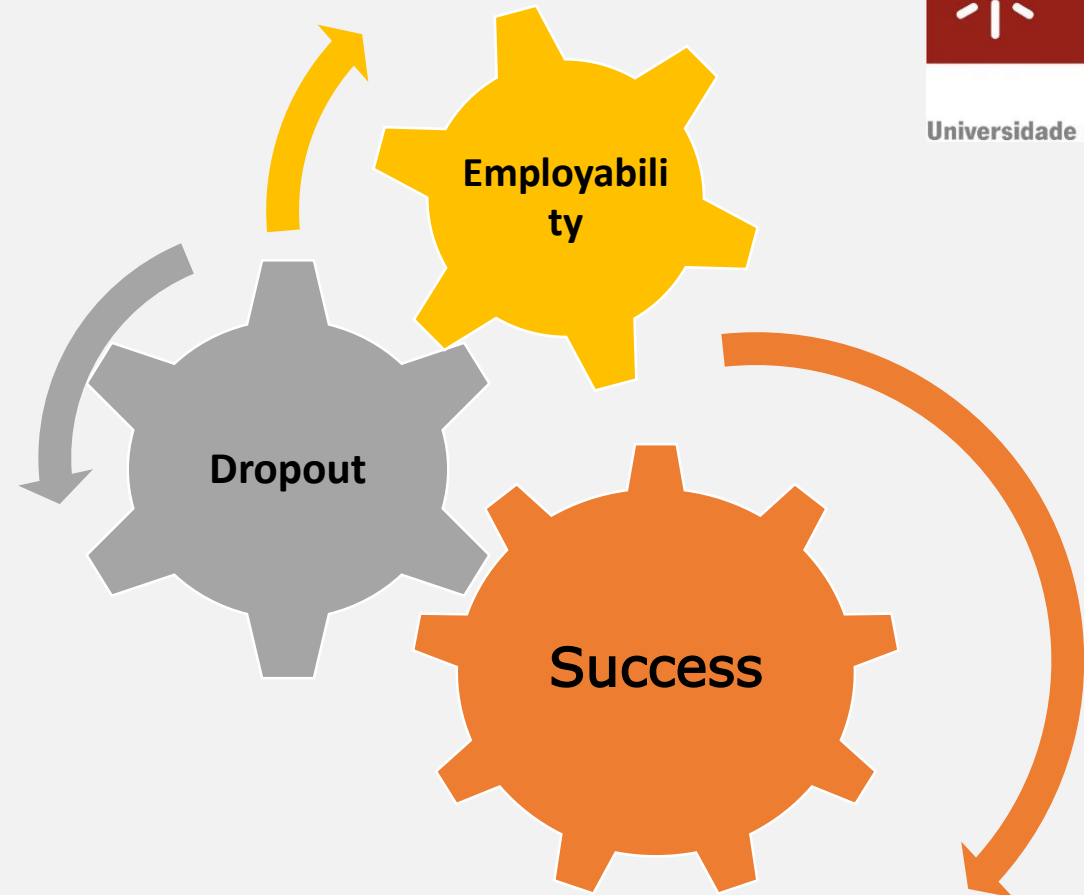
Who are first-year students in UMinho?

Students by 11 schools/institutes (2 campi)

Schools/Institutes	N	%
Arquitectura	105	2,9
Ciências	484	13,2
Medicina	142	3,9
Direito	211	5,8
Economia & Gestão	508	13,9
Engenharia	1156	31,6
Psicologia	101	2,8
Enfermagem	103	2,8
Ciencias Sociais	355	9,7
Educação	154	4,2
Línguas & Ciencias Humanas	342	9,3

First-year students: Entrance 2016/2017

- 3661 students; 54.9% female students

- Age from 16 to 58 years old (M = 19,63; SD = 4.83)

- 64.4% in 1rst degree option; 77.5% in 1rst univeristy option

- Father level of education: basic - 52.6%; higher education – 20.8%

- Mother level of education: basic – 45.1%; higher education – 26.4%

- Acess Mean (GPA) between 10.0 and 19.70 (M = 15.26; SD =1.81)

- 43.2% students with vocational guidance in basic or secondary school
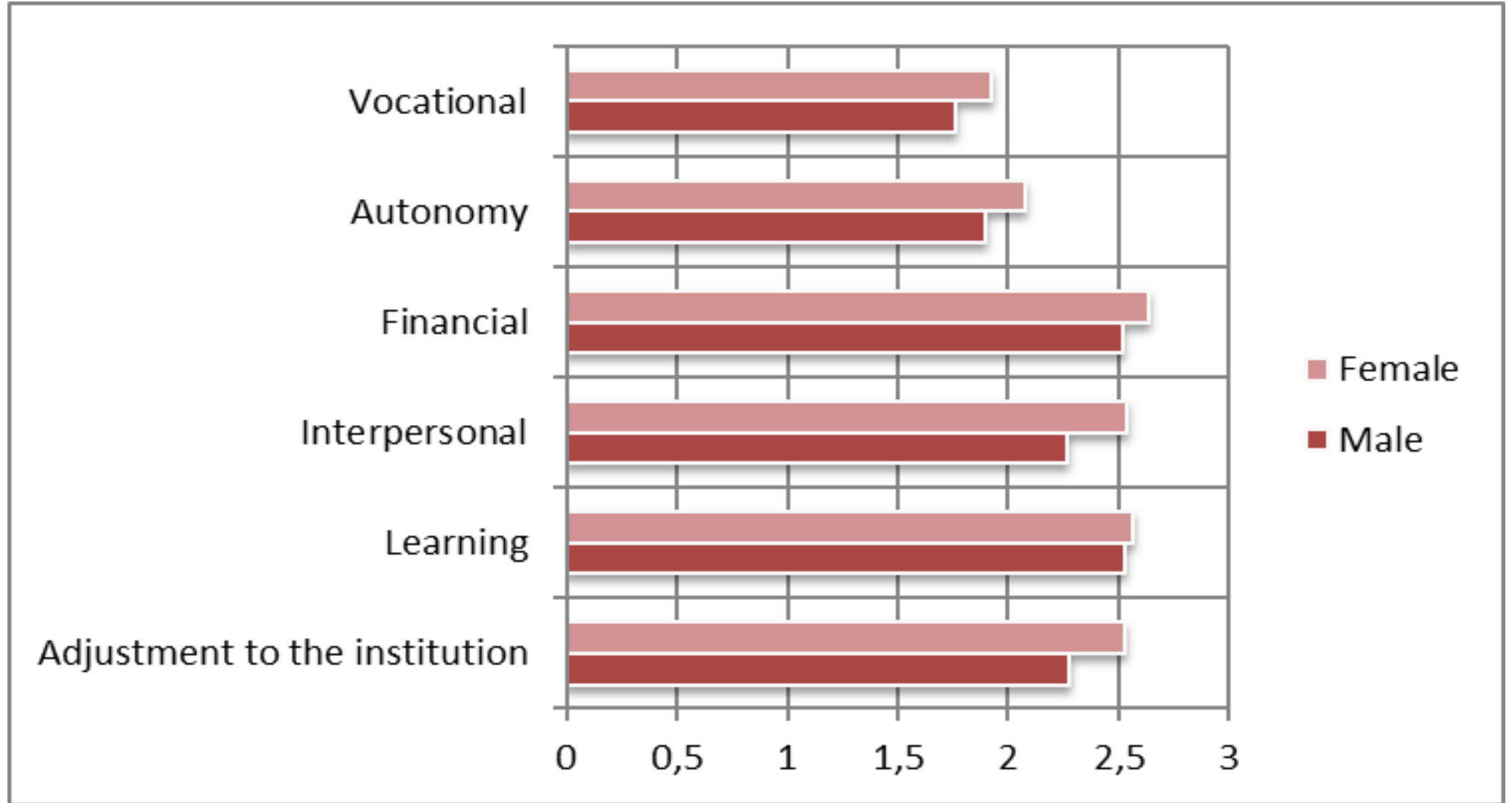
- 14.4% students with some academic retention(s) in basic or secondary school

- Study hours per week in secondary school: 0 to 50hs (M = 8.06; ST = 6.59)

- Workers (full and part-time): 11.5%;

  Leaving home: 37.2%

Expectations evolution after 6-8 weeks in university (n=426)

Expectations	Increase	Remain	Decrease
Employment	8,2%	81.1%	10.6%
Citizenship	16.9%	69.0%	14.1%
International mobility	18.6%	64.9%	16.5%
Family pressure	28.3%	55.3%	16.4%
Social Interaction	16.9%	64.2%	18.9%
Self-development	12.9%	74.6%	12.4%

Predictive variables of academic achievement

Predictive variables

Academic background: Access grade (GPA), academic retentions, study methods, vocational orientation.

Social and family: SES, educational level of the parents, siblings in HE, gender

Transition/ Adaptation: Course option, university option, academic expectations, anticipated difficulties, leaving home

Academic achievement

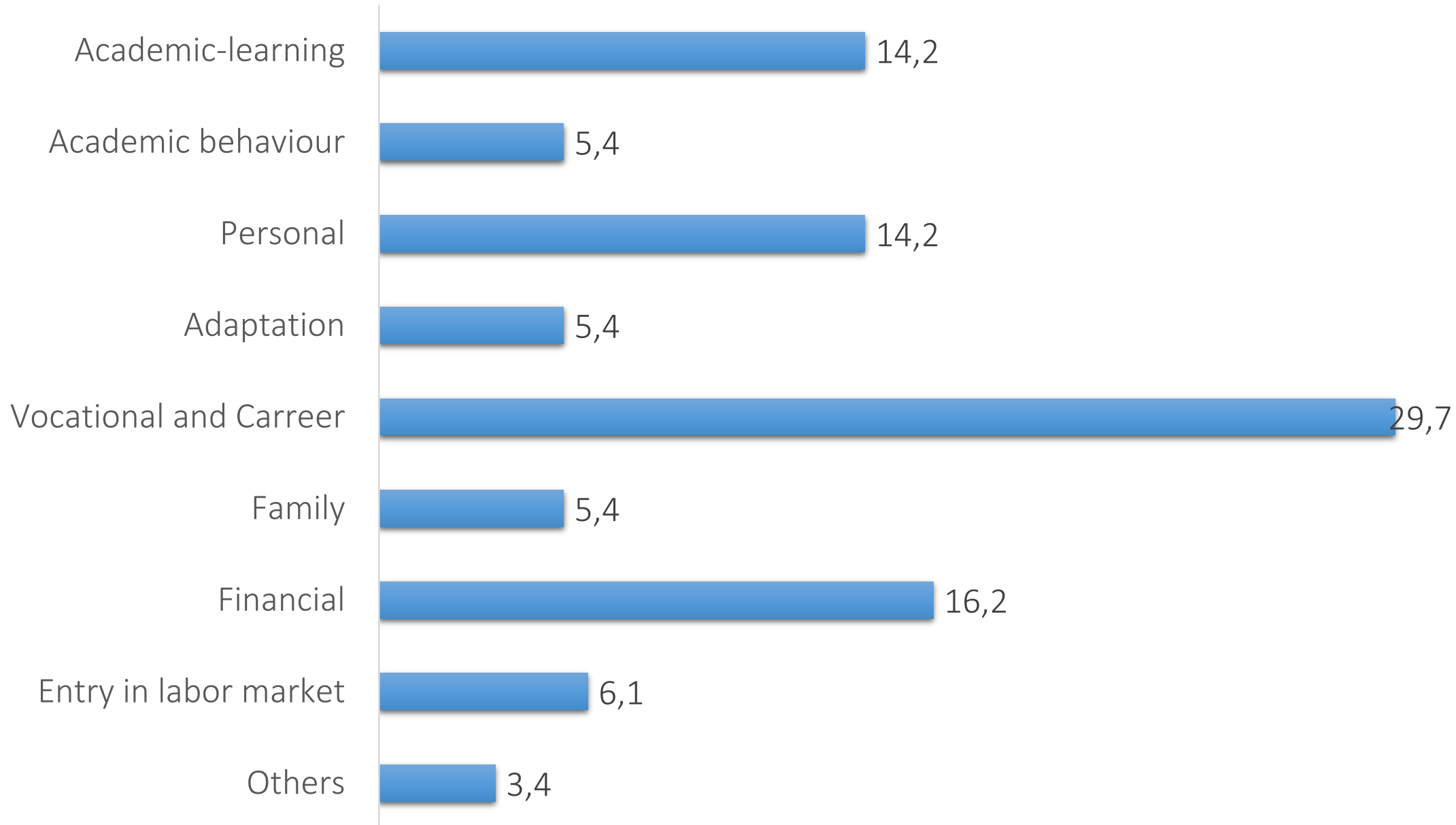Ratio UC approved / total

Mean in UC approved

Criterion: Ratio of UC approved

Courses	Variables	R	R²Adj	Courses	Variables	R	R²Adj
Sciences	GPA Access	.39	.15	Engineering	GPA Access	.34	.11
	+CourseOpt	.42	.17		+ExpecInterp	.36	.13
	+Gender	.44	.19		+StudyHab	.38	.14
	+DifEconom	.45	.20		+EducParents	.41	.16
	+LeavingHome	.47	.21		+VocatGuidance	.42	**.17**
	+Retention	.48	**.22**				
Econ&Gest	EducParents	.25	.06	Soc&Hum	GPA Access	.34	.11
	+GPA Access	.35	.12		+StudyHab	.39	.14
	+Retention	.39	.14		+CourseOpt	.41	.16
	+StudyHab	.41	.16		+SES	.42	.17
	+ExpecMobilit	.43	**.17**		+ExpecInterp	.44	.18
					+VocatGuidance	.45	**.19**

Criterion: Mean of clasifications on UC approved

Courses	Variables	R	R²Adj	Courses	Variables	R	R²Adj
Sciences	GPA Access	.54	**.29**	Engineering	GPA Access	.42	**.18**
	+DifInterpers	.58	.33		+Gender	.47	.21
	+StudyHabits	.59	.34		+StudyHabits	.50	.24
	+CourseOption	.60	**.35**		+ExpectInterp	.52	.27
					+SES	.53	**.28**
Econ&Gest	GPA Access	.53	**.28**	Soc&Hum	GPA Access	.61	**.37**
	+EducParents	.57	.32		+DifEconom	.63	.39
	+DifEconom	.59	.34		+DifVocac	.64	.40
	+LeavingHome	.61	.36		+ExpectCityz	.65	.41
	+DifLearning	.62	.37		+Gender	.66	**.42**
	+StudyHabits	.63	**.38**				

Motives related to dropout intention at the end of 1rst semester (12,2%)

Motive	Value
Academic-learning	14,2
Academic behaviour	5,4
Personal	14,2
Adaptation	5,4
Vocational and Carreer	29,7
Family	5,4
Financial	16,2
Entry in labor market	6,1
Others	3,4

Limitations of these studies

- ✓ Samples based on students that go to classes (or the most adapted...)

- ✓ Little resource to multidimensional models and structural analysis or longitudinal studies

- ✓ Lack of studies with specific groups of students

- ✓ Lack of national parameters when analysing results in the evaluation scales used

- ✓ Difficult to operationalize a reliable national measure, or by institution, in order to get a standard measure of academic achievement

- ✓ Instruments of self-report; low ecologic validity (...)

Conclusions

- ✓ Most of students in UMinho belong to "traditional students" group
- ✓ About 30% of the students are not in the course/university of first choice
- ✓ Only 25-30% of students are from families (at least mother or father) with tradition in Higher Education
- ✓ Entering students show high expectations in all dimensions
- ✓ The GPA (secondary school) is the strongest predictor of the academic achievement on first semester, changing its impact according to the course
- ✓ A smooth transition from secondary school to university increases the chances of student success… (literature)

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Implications for their integration!