



ENJOYMENT, RESISTANCE TO CHANGE AND MLEARNING ACCEPTANCE AMONG PRE- SERVICE TEACHERS

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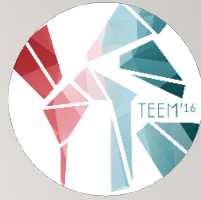
GRupo de Investigación en **InterA**cción y **eL**earning

Instituto Universitario de Ciencias de la Educación (IUCE)

Universidad de Salamanca

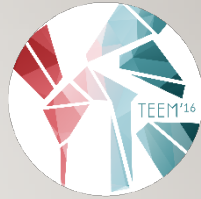


INTRODUCTION

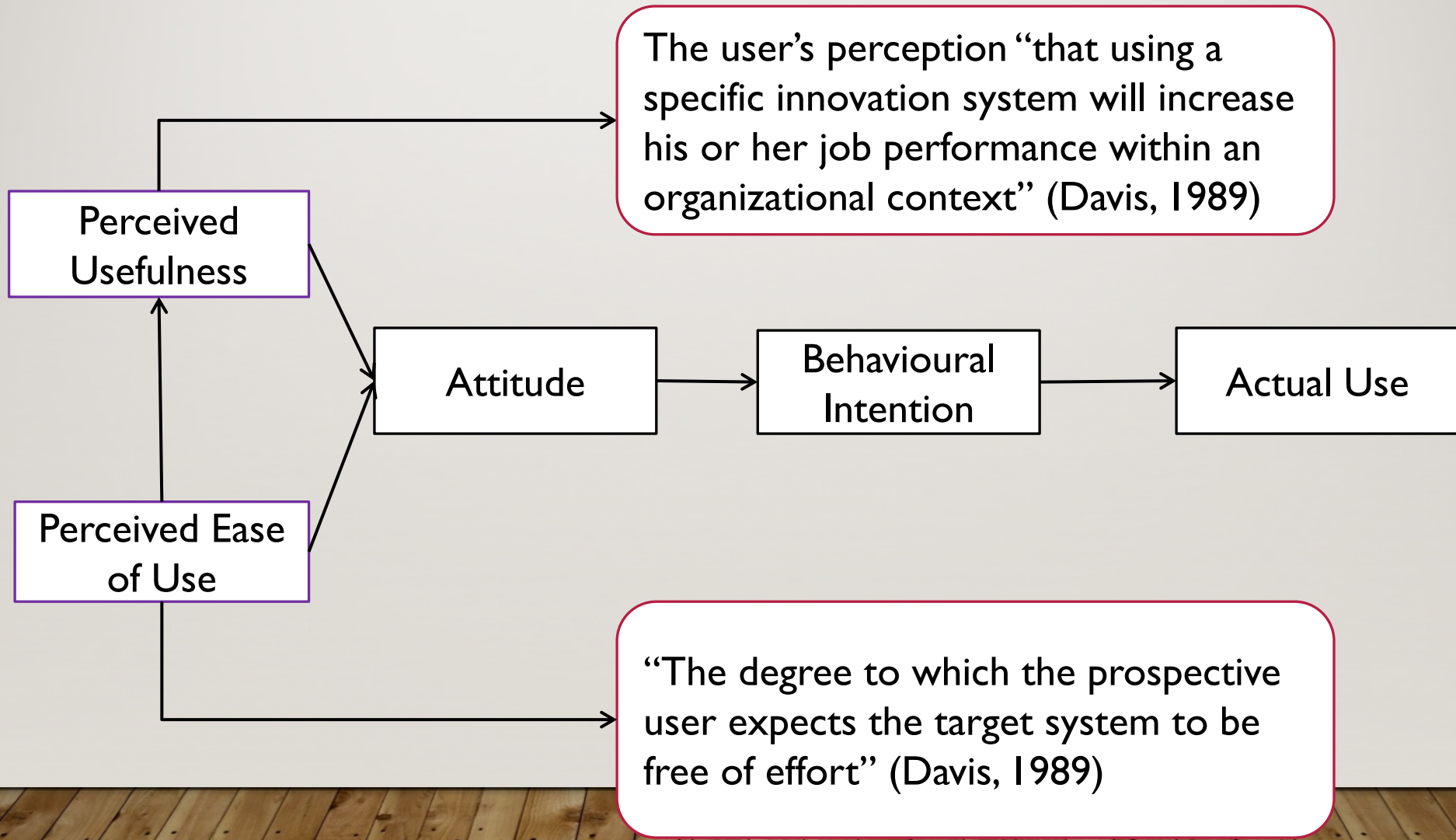


I: TECHNOLOGICAL CHANGE

- The analysis of the process of technological change in organizations entails a growing field of interest.
- Fast cycle of technological development and penetration of IS in all the layer of our society.
- One of the main determinants of the success of this processes is the position of the user.
- In order to analyze the factors that influence the decision to use a IS the researchers develop technology adoption models.



I:TAM





I:TAM IN THE EDUCATIONAL CONTEXT

FORMAL FIELD

USERS

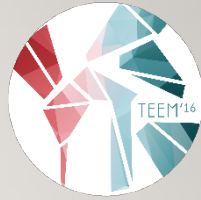
- Students
- In-Service Teachers
- Pre-Service Teachers

•ICTS

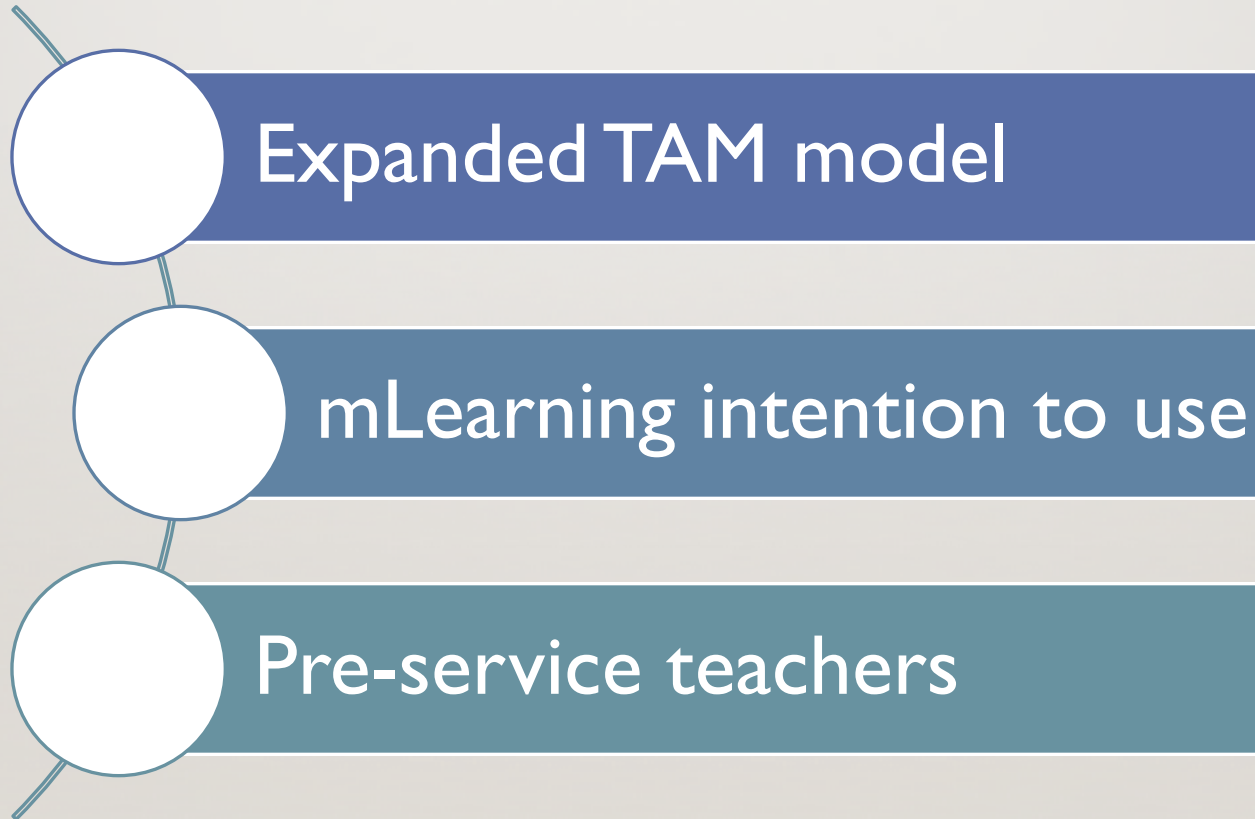
- LMS
- Social networks
- Mobile learning

MODEL

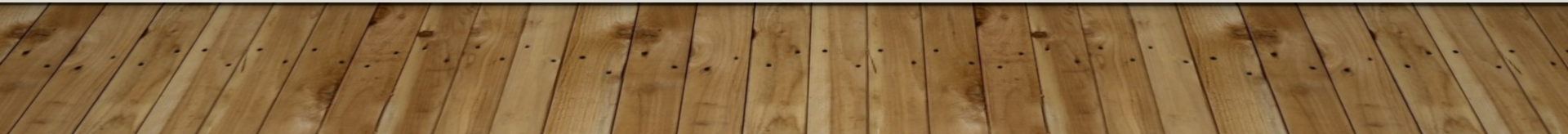
- Original
- TAM2
- TAM3
- Expanded TAM



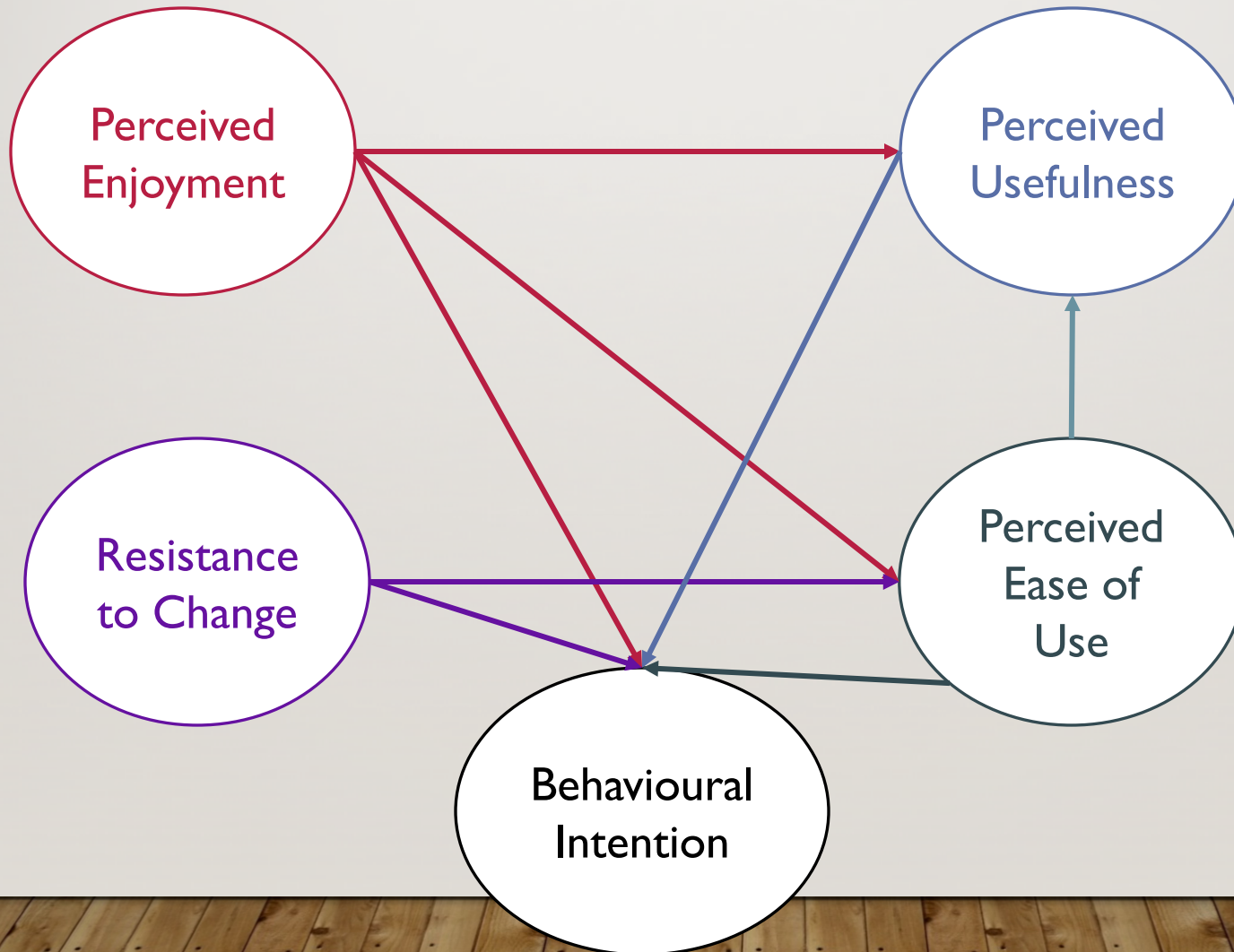
I: OUR PROPOSAL



METHODOLOGY



M: RESEARCH MODEL



M: NEW CONSTRUCTS

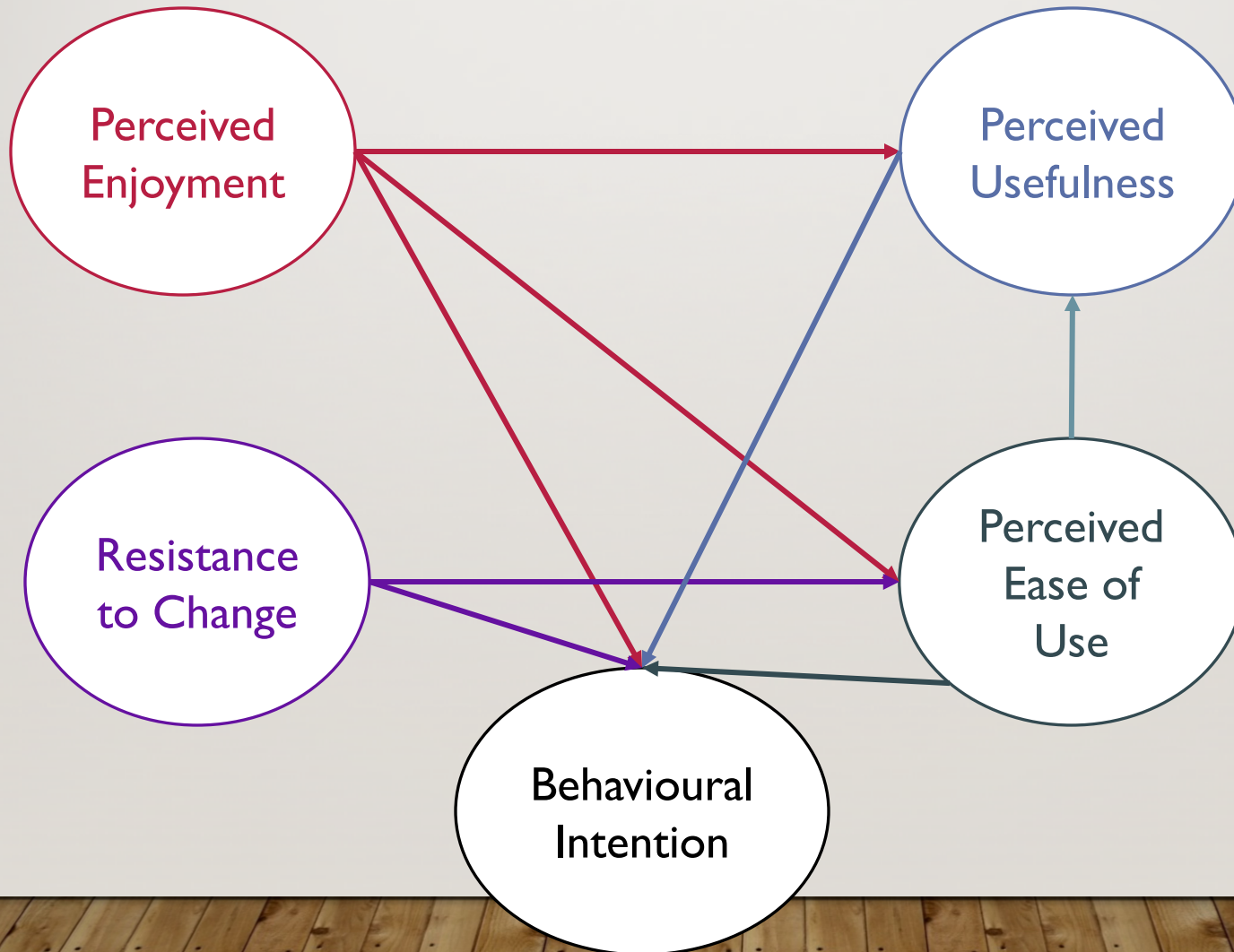
PE

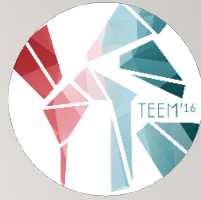
“The extent to which the activity of using the computer is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated” (Davis Bagozzi and Barsaw, 1992)

RC

The difficulty to break routines or the attitude of opposition to the rupture of the status quo

M: RESEARCH MODEL





M: VARIABLES

Exogenous

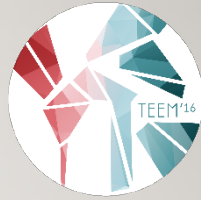
- Perceived Usefulness
- Perceived ease of use
- Enjoyment
- Resistance to change

Endogenous

- Behavioural Intention

Other Variables

- Age
- Gender
- Branch

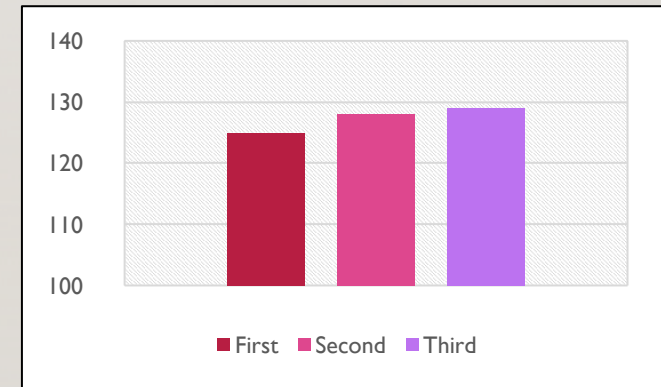
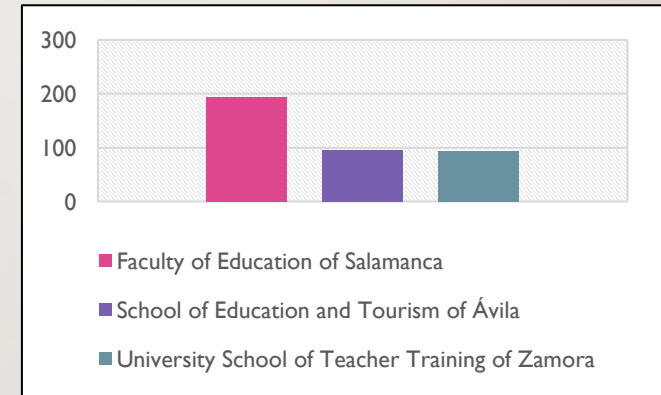


M: INSTRUMENT

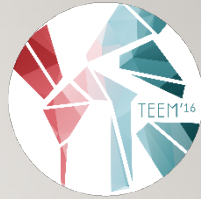
- Identification data: Age, gender, course year and branch.
- 18 Likert type items (0-7):
 - TAM 3 (11): Perceived usefulness (4), perceived ease of use (4) and behavioural intention (3).
 - Perceived Enjoyment (4): Teo and Noyes (2011), Al-Debei (2014).
 - Resistance to change (3): Guo et al (2013), Al-Somali, Gholami and Clegg (2009).
- Alfa de Cronbach: .917

M: SAMPLE

- Sample: 382 students.
- Branch:
 - Salamanca: 50.8%
 - Ávila: 24.9%
 - Zamora: 24.3%
- Course year:
 - First year: 32.7
 - Second year: 33.2
 - Third year: 33.8
- Age:
 - Average: 21.3
 - Standard deviation: 3



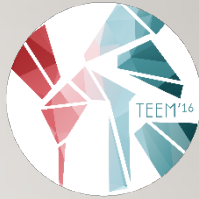
RESULTS



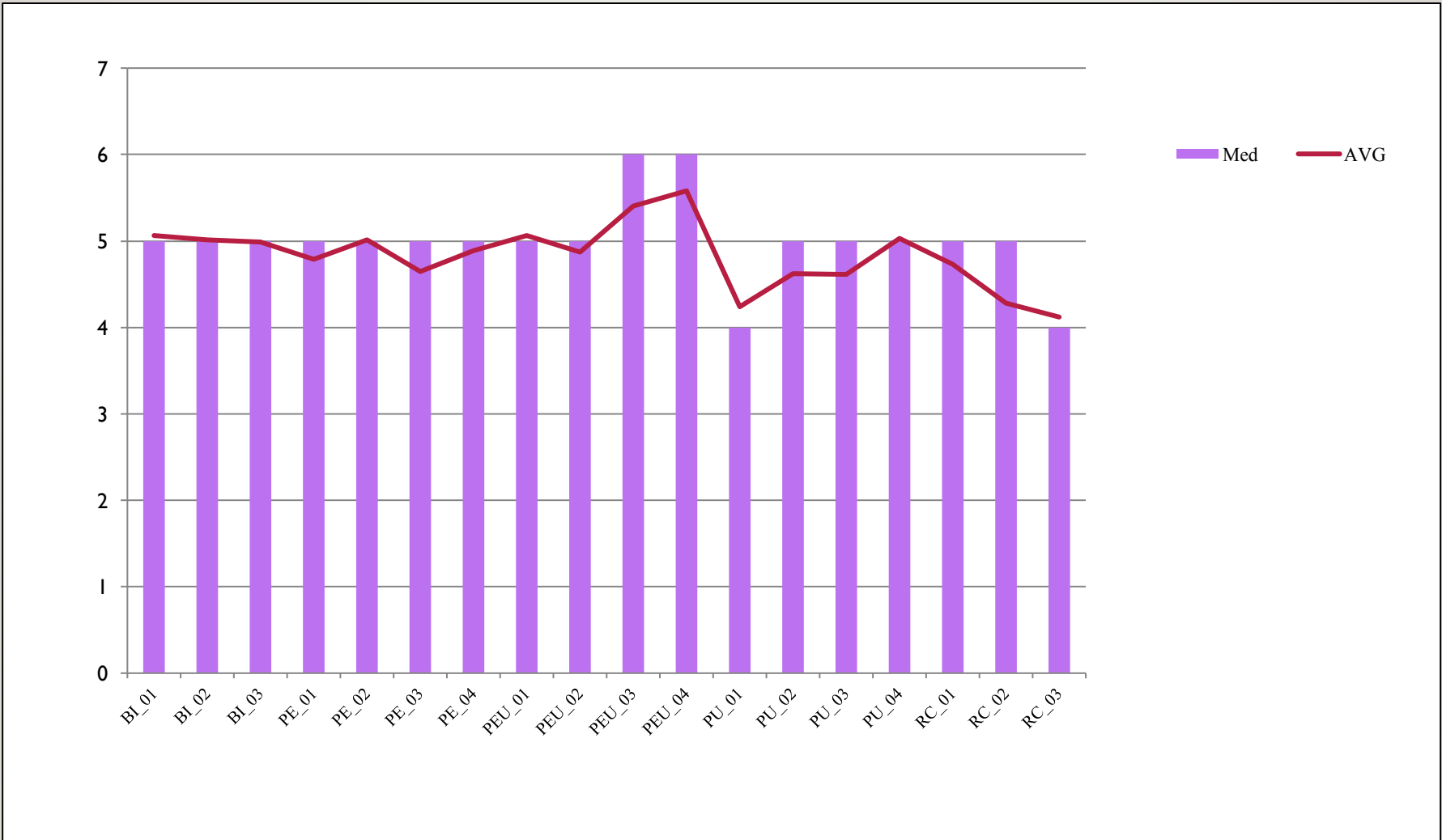
R: DESCRIPTIVES

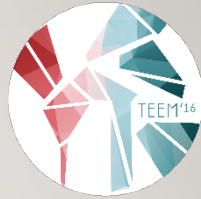
	AVG	STD	MED	% Valid							N
				1	2	3	4	5	6	7	
PEU_04	5.58	1.190	6	0	1.8	4.7	10.5	22.8	37.4	22.8	382
PEU_03	5.40	1.099	6	0	1.1	6.3	9.2	31.8	37.9	13.7	380
BI_01	5.06	1.604	5	4.5	4.7	7.3	12.6	23.6	29.3	18.1	382
PEU_01	5.06	1.551	5	2.4	5.3	9.8	14.3	20.7	29.7	17.8	377
PU_04	5.03	1.477	5	2.6	4.7	8.9	12.6	27	30.6	13.6	382
PE_02	5.01	1.480	5	3.7	3.7	6.8	16.3	25.5	31.1	12.9	380
BI_02	5.01	1.531	5	2.1	7.1	7.9	13.2	25.7	28.3	15.6	378
BI_03	4.99	1.573	5	3.7	5.8	8.4	12.6	23.4	31.6	14.5	380
PE_04	4.89	1.469	5	3.7	4.8	6.9	17	29.2	28.1	10.3	377
PEU_02	4.87	1.293	5	1.1	3.4	10.1	20.6	30.7	25.7	8.5	378
PE_01	4.79	1.559	5	4.2	5.3	11.1	14.8	27.7	25.1	11.9	379
RC_01	4.73	1.498	5	2.6	5.8	10.3	24.7	22.1	22.4	12.1	380
PE_03	4.65	1.457	5	4	5.8	6.9	27.2	24.	25.1	7.1	379
PU_02	4.62	1.431	5	3.7	5.8	9.9	20.4	32.2	21.5	6.5	382
PU_03	4.61	1.467	5	3.7	6.6	10.5	19.7	29.5	23.4	6.6	380
RC_02	4.28	1.601	5	7.9	7.9	12.2	21.4	26.5	19	5	378
PU_01	4.24	1.686	4	8.4	9.4	13.6	18.9	25.2	16.5	7.9	381
RC_03	4.12	1.554	4	9.2	6.6	14.2	26.1	24.7	15.8	3.4	380

Indicators sorted by average value



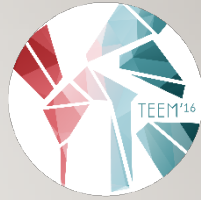
R: DESCRIPTIVES





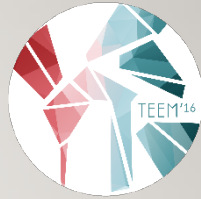
R: BRANCH

	Branch of the students								
	Salamanca			Ávila			Zamora		
	AVG	STD	N	AVG	STD	N	AVG	STD	N
BI_01	4.89	1.732	194	5.38	1.474	95	5.10	1.407	93
BI_02	4.89	1.591	192	5.10	1.437	94	5.16	1.492	92
BI_03	4.81	1.669	194	5.29	1.456	93	5.05	1.440	93
PE_01	4.62	1.610	193	5.11	1.491	95	4.82	1.480	91
PE_02	4.85	1.542	194	5.34	1.380	94	5.01	1.402	92
PE_03	4.52	1.500	192	4.82	1.480	95	4.75	1.323	92
PE_04	4.72	1.553	191	5.11	1.418	94	5.01	1.305	92
PEU_01	5.25	1.446	191	4.77	1.634	95	4.97	1.636	91
PEU_02	5.03	1.203	193	4.65	1.390	95	4.77	1.341	90
PEU_03	5.51	1.054	194	5.30	1.115	94	5.29	1.163	92
PEU_04	5.74	1.052	194	5.49	1.287	95	5.32	1.312	93
PU_01	4.15	1.664	193	4.34	1.894	95	4.34	1.500	93
PU_02	4.64	1.465	194	4.55	1.427	95	4.66	1.371	93
PU_03	4.55	1.524	194	4.65	1.373	94	4.72	1.447	92
PU_04	4.98	1.527	194	5.08	1.449	95	5.08	1.408	93
RC_01	4.63	1.599	194	4.63	1.488	95	5.07	1.227	91
RC_02	4.04	1.640	192	4.28	1.649	94	4.77	1.351	92
RC_03	3.91	1.580	193	4.02	1.584	95	4.64	1.347	92



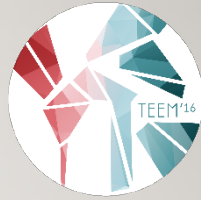
R: BRANCH

	Chi squared	df	Asympt. sig.
BI_01	5.149	2	.076
BI_02	2.177	2	.337
BI_03	5.377	2	.068
PE_01	6.676	2	.036
PE_02	8.158	2	.017
PE_03	3.406	2	.182
PE_04	5.131	2	.077
PEU_01	6.151	2	.046
PEU_02	5.144	2	.076
PEU_03	3.131	2	.209
PEU_04	5.882	2	.053
PU_01	1.786	2	.409
PU_02	.546	2	.761
PU_03	.890	2	.641
PU_04	.119	2	.942
RC_01	5.174	2	.075
RC_02	12.630	2	.002
RC_03	13.435	2	.001



R: BRANCH

	Branch of the students								
	Salamanca			Ávila			Zamora		
	AVG	STD	N	AVG	STD	N	AVG	STD	N
BI_01	4.89	1.732	194	5.38	1.474	95	5.10	1.407	93
BI_02	4.89	1.591	192	5.10	1.437	94	5.16	1.492	92
BI_03	4.81	1.669	194	5.29	1.456	93	5.05	1.440	93
PE_01	4.62	1.610	193	5.11	1.491	95	4.82	1.480	91
PE_02	4.85	1.542	194	5.34	1.380	94	5.01	1.402	92
PE_03	4.52	1.500	192	4.82	1.480	95	4.75	1.323	92
PE_04	4.72	1.553	191	5.11	1.418	94	5.01	1.305	92
PEU_01	5.25	1.446	191	4.77	1.634	95	4.97	1.636	91
PEU_02	5.03	1.203	193	4.65	1.390	95	4.77	1.341	90
PEU_03	5.51	1.054	194	5.30	1.115	94	5.29	1.163	92
PEU_04	5.74	1.052	194	5.49	1.287	95	5.32	1.312	93
PU_01	4.15	1.664	193	4.34	1.894	95	4.34	1.500	93
PU_02	4.64	1.465	194	4.55	1.427	95	4.66	1.371	93
PU_03	4.55	1.524	194	4.65	1.373	94	4.72	1.447	92
PU_04	4.98	1.527	194	5.08	1.449	95	5.08	1.408	93
RC_01	4.63	1.599	194	4.63	1.488	95	5.07	1.227	91
RC_02	4.04	1.640	192	4.28	1.649	94	4.77	1.351	92
RC_03	3.91	1.580	193	4.02	1.584	95	4.64	1.347	92



R: COURSE YEAR

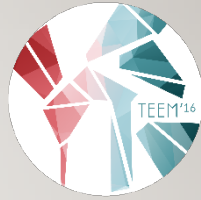
	Course year of the students								
	1			2			3		
	AVG	STD	N	AVG	STD	N	AVG	STD	N
BI_01	5.14	1.455	125	4.84	1.756	128	5.22	1.571	129
BI_02	5.08	1.305	125	4.83	1.670	128	5.11	1.587	125
BI_03	5.13	1.374	125	4.72	1.754	127	5.13	1.542	128
PE_01	4.86	1.375	124	4.63	1.587	128	4.89	1.691	127
PE_02	5.06	1.441	124	4.87	1.523	128	5.10	1.473	128
PE_03	4.62	1.383	124	4.58	1.571	127	4.75	1.414	128
PE_04	4.97	1.319	124	4.70	1.540	127	5.00	1.528	126
PEU_01	4.94	1.601	123	5.18	1.530	127	5.05	1.527	127
PEU_02	4.83	1.234	124	4.93	1.328	127	4.86	1.320	127
PEU_03	5.38	1.033	124	5.44	1.078	128	5.39	1.185	128
PEU_04	5.46	1.140	125	5.65	1.147	128	5.61	1.277	129
PU_01	4.25	1.548	125	4.06	1.698	127	4.41	1.792	129
PU_02	4.78	1.235	125	4.45	1.489	128	4.64	1.535	129
PU_03	4.61	1.395	124	4.40	1.455	128	4.83	1.527	128
PU_04	5.03	1.464	125	4.91	1.522	128	5.14	1.446	129
RC_01	4.60	1.454	125	4.68	1.547	128	4.92	1.483	127
RC_02	4.34	1.530	123	4.00	1.582	128	4.50	1.657	127
RC_03	4.23	1.561	125	3.85	1.537	128	4.27	1.540	127



R: COURSE YEAR

	Chi squared	df	Asympt. sig.
BI_01	2.839	2	.242
BI_02	2.043	2	.360
BI_03	3.670	2	.160
PE_01	3.021	2	.221
PE_02	1.613	2	.446
PE_03	.841	2	.657
PE_04	2.714	2	.257
PEU_01	1.759	2	.415
PEU_02	1.070	2	.586
PEU_03	.390	2	.823
PEU_04	2.480	2	.289
PU_01	2.353	2	.308
PU_02	2.520	2	.284
PU_03	5.745	2	.057
PU_04	1.356	2	.508
RC_01	4.201	2	.122
RC_02	7.858	2	.020
RC_03	5.284	2	.071

CONCLUSIONS



CONCLUSIONS

- Students present a favorable disposition towards the use of new technologies in their future teaching practice.
- Low values obtained by perceived usefulness and resistance to change.
- We have barely found any significant differences at indicator level according to the course year of the students
- It would be beneficial to design educational initiatives that underscore the educational possibilities of mobile devices.



THANKS FOR
YOUR
ATTENTION



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