

Quality assurance of university
education from the perspective of
outcome in profession

-Necessity of data accumulation for empirical research-

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Increased interest in policies for “quality assurance of university education”

- Formulation of the **Model Core Curriculum**, led by academic societies and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in fields for professional development: medicine (2001-), dentistry (2001-), pharmacy (2002-), veterinary (2011-), nursing (2017), teacher training (2017)
- Report from the Central Council for Education (CCE) as of January 28, 2005, “The Future of Higher Education in Japan” “It is desirable that a core curriculum is made each field.”
- Similar statement in the report from CCE as of March 25, “Towards Formation of the Undergraduate Education Program”
- In June 3, 2008, “Deliberation regarding Ideal Quality Assurance of University Education by Field” was requested from the MEXT Higher Education Bureau to the Science Council of Japan (SCJ)
- Answer from SCJ as of August 17, 2010 “Ideal Quality Assurance of University Education by Field” -> Formulation of “Reference Standards in Organizing Education Program for Quality Assurance of University Education,” **Reference standards** in 31 fields are shown on the SCJ website as of October 2017

Lack of discussion regarding quality assurance by field and evidence for measures

- “Reference standards” and the “model core curriculum” are not based on verification by evidence and have been rarely referred to
- “Notice” from the Minister of MEXT regarding direction of mid-term targets and plans for the third period of each national university corporation as of June 8, 2015: “In particular, departments and graduate schools of teacher training, and humanities and social sciences shall formulate an organizational review in consideration of the shrinking of the 18-year-old population, demand for human resources, securing the level of education and research, and the role as a national university, etc. and endeavor to take active steps to abolish organizations or to convert them to serve areas that better meet the needs of society”
- Statement from SCJ Executive Board as of July 23, 2015 “On the Future Direction of the University: In Relation to the Departments/Graduate Schools of Teacher Training and Humanities and Social Sciences”: “with its specific focus on the HSS(*), raises a number of alarming questions.” “It cannot be denied that academics in the HSS have clarified in full neither the vision of human resources that HSS departments/graduate schools nurture on behalf of society, nor the potential role that the HSS could play within the overarching world of academia.” (*) Humanities and social studies
- These discussions regarding humanities and social sciences has been held without evidence
- -> It is needed to empirically study what kind of impact the content and methods of university education in each field has on the outcome after graduation, especially an occupational outcome

Domestic research trends regarding outcome in profession brought about by university education

- Most domestic research and studies regarding this theme have been cross-sectional. When the target is university students, they have not experienced a working life, and when the target is graduates, the content and methods of university education can be grasped only retrospectively
 - > **Panel survey** is desirable. However, in Japan, the government and public institutions have not carried out any large-scale, long-term panel surveys on university students and graduates
- Example of a panel survey carried out by universities and corporations
 - Kyoto University and Kawaijuku “10-year Transition Survey”: Follow up targets who were in 11th grade in 2013. Currently, they are in their junior year in university. About 5,000 people. Analysis focusing more on the changes in the qualities and skills of individual students rather than the fields, content, and methods of the field in university education
- Examples of panel surveys while in university and after graduation
 - Center for Research on University Management and Policy, Department of University Management and Policy Studies, The University of Tokyo “Cross-country Survey on University Students” (follow-up survey): Follow-up only once in 2009, 348 graduates
 - Institute of Social Science, The University of Tokyo “Panel Survey on High School Graduates”: 11th time as of 2016 (30 years old), 461 people

It is difficult to analyze by field as areas of study at university are varied within a limited size of samples

Research projects regarding relevance in profession by field of university education in humanities and social sciences

- Data A (10 fields, cross-section survey)

	Law	Politics	Economics	Commercial science, business administration	Sociology	Pedagogy	Psychology	Literature, language	Philosophy, ethics, religion	History	Total
Number of cases	227	171	227	227	227	227	227	227	84	222	2066
Of which, employed	204	155	204	204	204	204	204	204	73	201	1857
Of which, male	103	76	122	100	47	38	37	22	26	69	640

- Data B (four fields, panel survey)

	Timing of survey	Law	Pedagogy	Sociology	Economics	Total
Number of valid responses in first wave (2013)	In junior year	201	114	134		449
Number of valid responses in second wave (2014)		204	182	187	102	675
Of which, continuation from first wave	In senior year	107	82	85		274
Supplementary survey		97	100	102	102	401
Number of valid responses in third wave (2015)		101	90	101	32	324
Of which, continuation from first wave	One year after graduation	71	53	66		190
Continuation from supplemental survey		30	37	35	32	134
Of which, employed		91	80	90	27	288
Number of valid responses in fourth wave (2016)		77	60	76	16	229
Of which, continuation from first wave	Two years after graduation	61	45	59		165
Continuation from supplemental survey		16	15	17	16	64
Of which, employed		73	56	70	15	214
Of which, male		36	11	18	5	70

* Study supported by Grants-in-aid for Scientific Research "Panel Survey Study regarding Contents and Methods of University Education in Humanities and Social Sciences and Their Occupational Relevance" (Period: 2012-2016, representative: Yuki Honda)

Difference in content and methods of education by field (Data A)

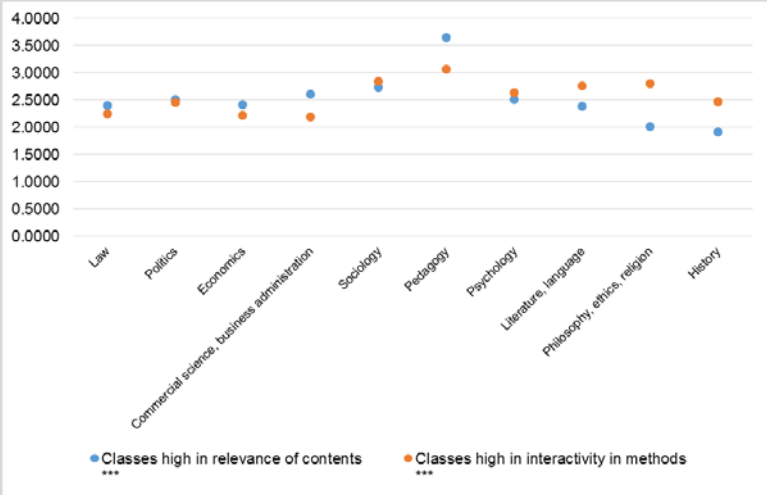
- Frequency of various classes by field (unit: 10%)

	(a) Classes where there is a connection between things you learn and the future	(b) Classes where you can acquire practical knowledge and skills that will be useful in the future	(c) Classes which are well-thought-out so that you would be interested in the contents	(d) Classes where you write comments and opinions on the contents	(e) Classes where a lot of tasks and homework are assigned	(f) Classes where submitted documents are returned with comments from the teacher	(g) Classes where students have opportunities to participate in discussions, group work, etc.
Law	2.32	2.46	2.61	2.47	2.23	1.73	2.20
Politics	2.54	2.49	2.95	2.73	2.29	1.78	2.54
Economics	2.48	2.35	2.41	2.50	2.18	1.77	2.18
Commercial science, business administration	2.54	2.65	2.56	2.37	2.20	1.64	2.13
Sociology	2.78	2.68	3.07	3.32	2.60	2.06	3.12
Pedagogy	3.66	3.62	3.28	3.51	3.05	2.15	3.35
Psychology	2.49	2.53	2.98	3.01	2.54	1.82	2.77
Literature, language	2.31	2.44	2.92	2.87	3.08	2.11	2.82
Philosophy, ethics, religion	1.98	2.04	2.93	3.35	2.85	2.07	2.81
History	1.95	1.87	2.88	2.91	2.25	1.80	2.49

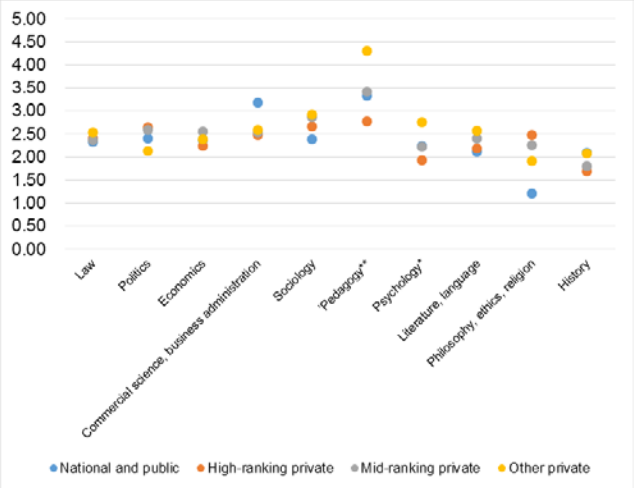
- (a), (b): “Classes high in relevance of content”
- (c) - (g): “Classes high in interactivity in methods”

-> Scoring

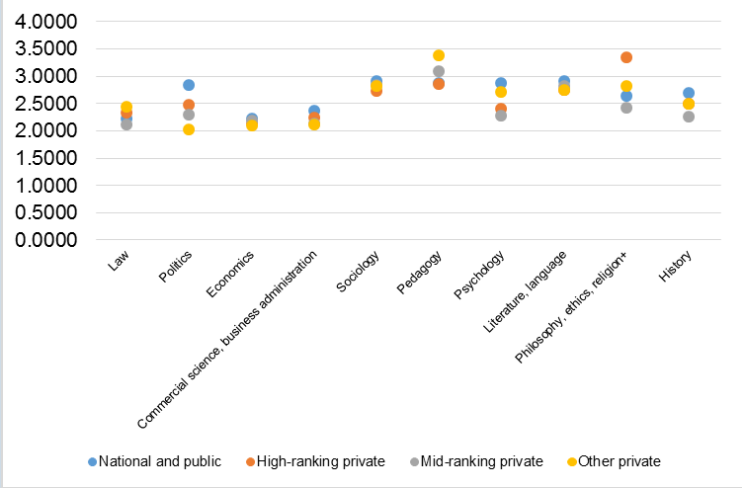
Difference in frequency by class type (Data A)



Frequency of classes high in relevance of content

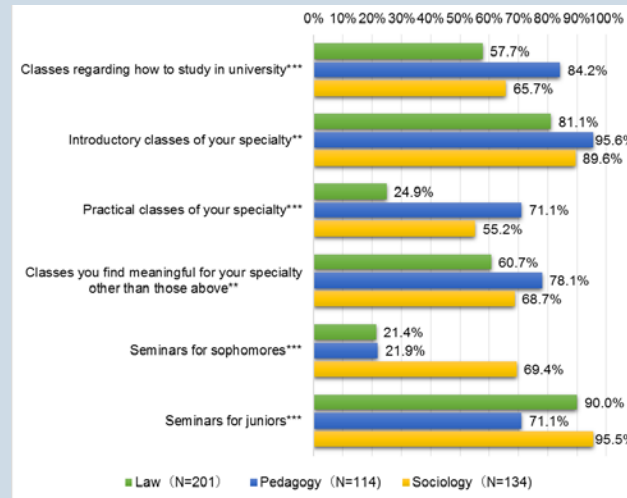


Frequency of classes high in interactivity in methods

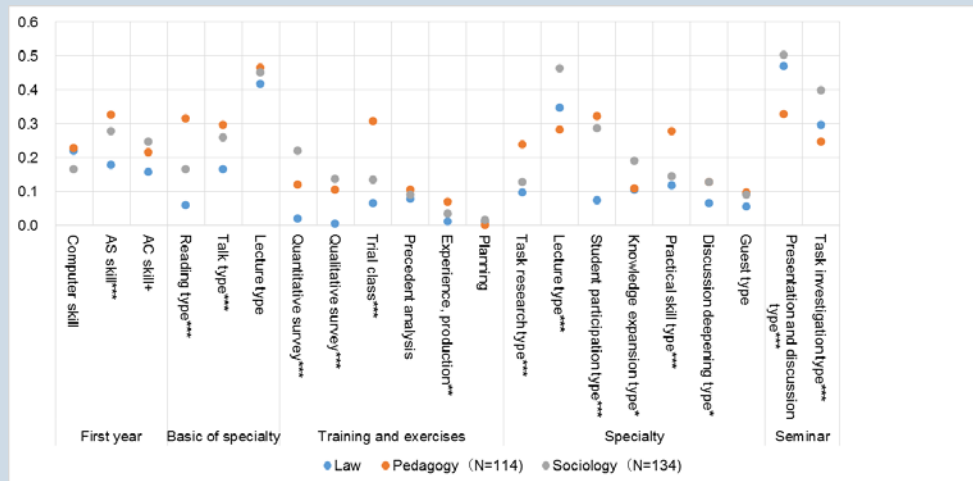


DIFFERENCE IN SPECIFIC EDUCATION BY FIELD (DATA B)

Registration for classes of each type in university by field (in the junior year)

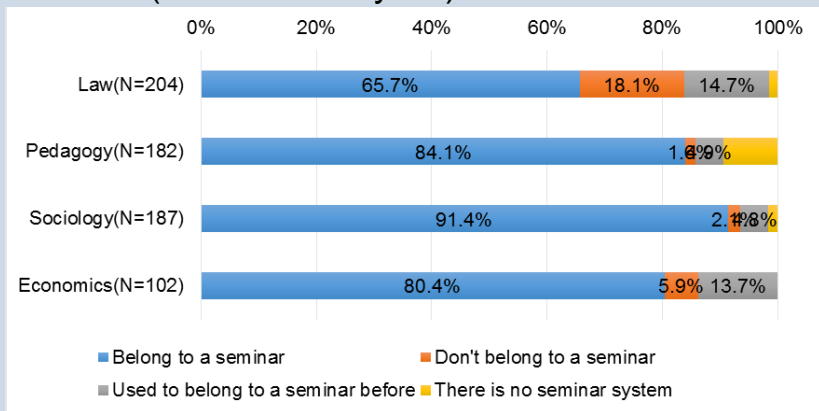


Specific content of classes of each type by field (experience rate, in junior year)

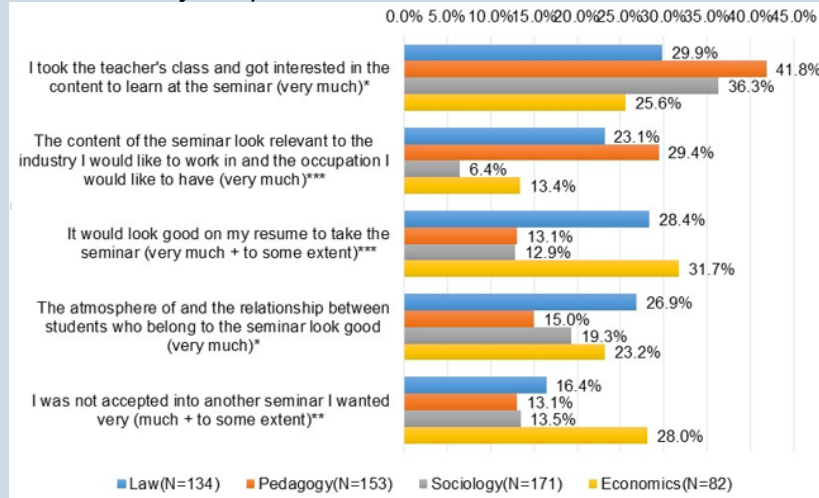


DIFFERENCE IN CONTENT OF SEMINARS BY FIELD (DATA B)

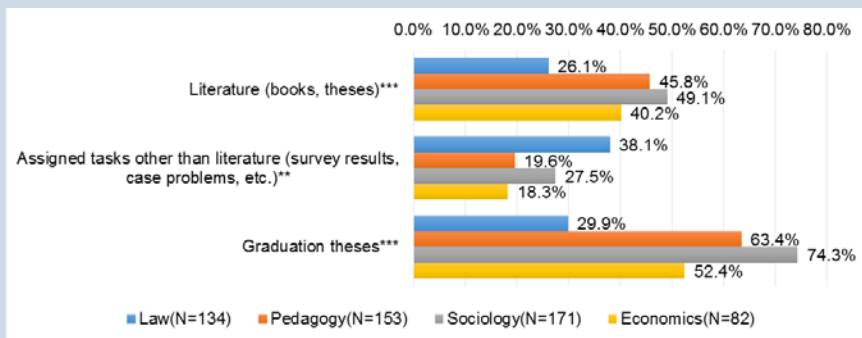
Whether or not belonging to a seminar by field (in the senior year)



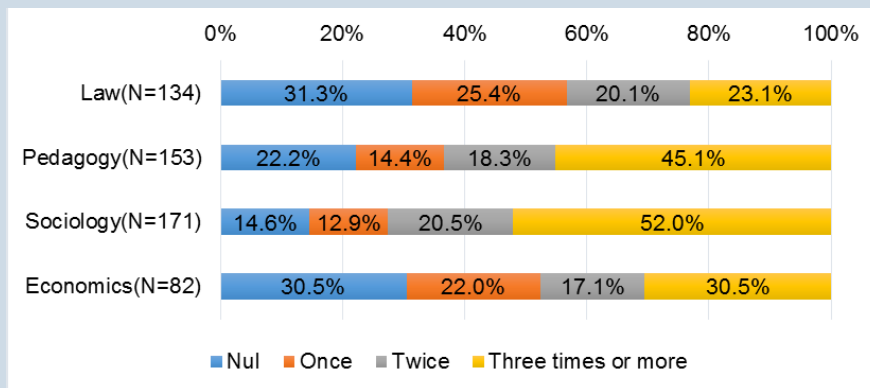
Reason of belonging to a seminar by field (in senior year)



Content to present about in a seminar by field (in senior year)

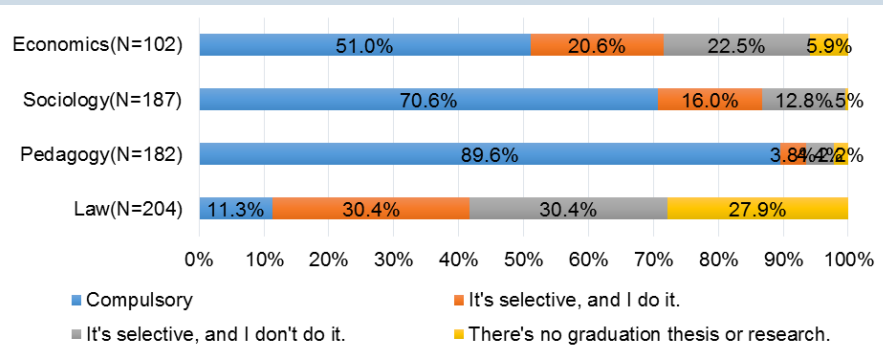


Number of presentations to make in the seminar by field (in senior year)

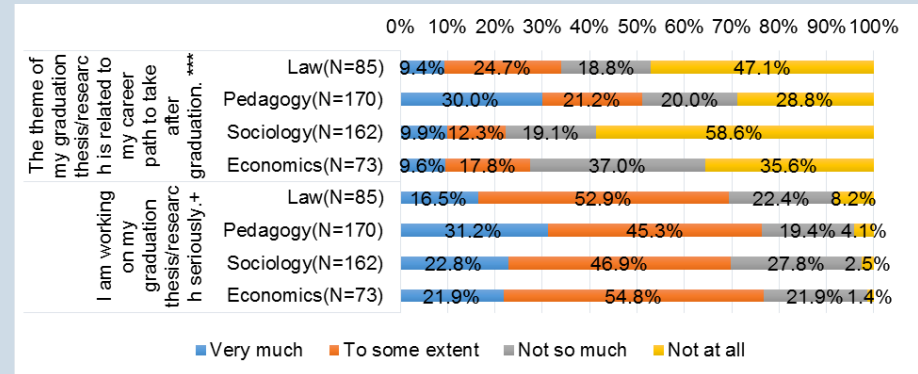


Difference in graduation thesis by field (data B)

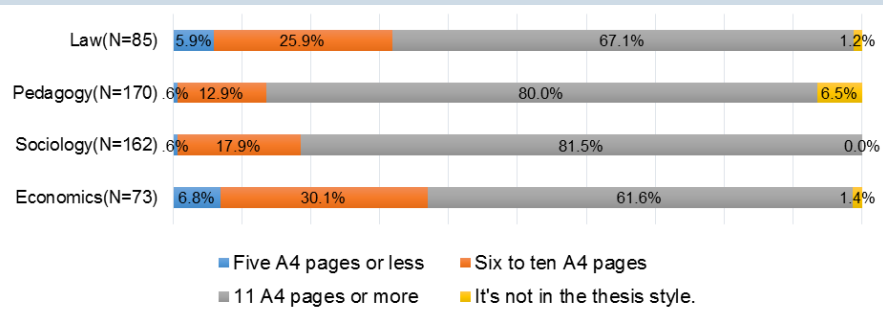
Positioning of graduation thesis by field (in senior year)



Approach to graduation thesis by field (in senior year)



Volume of graduation theses by field (in senior year)



Impact of university education on business skills (Data A)

		Standardizing coefficient		
		Information skill	Judgment skill	negotiation skill
Gender	Male dummy	.053*	.084**	.086**
Age	Age (years old)	.070**	.159***	.125***
Educational background of parents	Father being university graduates	.046+	-.005	.036
	Mother being university graduates	-.008	.038	.023
Type of university (Basis: Other private university)	Former imperial university	.067**	.053*	.047*
	National and public university	.072**	.071**	.075**
	High-ranking private university	.068*	.135***	.119***
	Mid-ranking private university	-.011	.022	.001
Specialty (Basis: Psychology)	Law	.013	.068*	.037
	Politics	.015	.067*	.033
	Economics	.008	.046	.026
	Business administration	-.030	.005	-.025
	Sociology	-.032	.028	-.018
	Pedagogy	-.071*	.006	-.036
	Literature	-.019	.015	.002
	Philosophy	.020	.056*	.022
	History	-.038	.007	-.022
Variable of university education	Frequency of relevance classes	.038	.079**	.077**
	Frequency of interactivity classes	.082**	.066*	.111***
University life related variable	Part-time job experience as a university student	.088***	.074**	.084***
	Club activity experience as a university student	.032	.029	.057**
	Degree of self-enquiry as a university student	.096**	.070*	.050+
	Degree of understanding relevance as a university student	.007	.059*	.022
	Degree of taking advanced classes in university	.021	.042	.040
	Academic results in university (ratio of excellent)	.070**	.025	.049*
Current occupation	Professional job	.090***	.067**	.059*
	Technical job	.099***	.026	.051*
	Clerical job	.222***	.038	.088*
	Sales job	.079*	.084*	.140***
	Service job	.018	.068+	.029
	Teacher	.070*	.084**	.086**
Job related variable	Regular employment	.096***	.055*	.133***
	Company size of the current workplace	.002	-.001	.016
	Number of job changes	.050*	.006	.029
	Number of training days	.010	.065**	.056*
	Self-enlightenment in the current job	.105***	.118***	.103***
	N		1857	1857
Square of the adjusted R		0.142	0.173	0.186
Significant probability		0.000	0.000	0.000

There are significant positive correlations between the frequency of classes high in relevance of content and judgmental and negotiation skills, and between the frequency of classes high in interactivity in methods and all three business skills respectively.

Difference in confluent relation by field

	Information skill		Judgment skill		Negotiation skill	
	Relevance class	Interactivity class	Relevance class	Interactivity class	Relevance class	Interactivity class
Law	+		+			+
Politics					(*)	*
Economics	**				*	
Commercial science, business administration		*				
Sociology						
Pedagogy						
Psychology		**			+	*
Literature, language		+	*		*	
Philosophy, ethics, religion						
History				*		**

Knowledge gained from this analysis

- There are considerable differences in the content and methods of university education among individual fields of academic study within humanities and social sciences
 - Social sciences, which has relatively less interactivity in methods
 - Humanities, which is relatively low in relevance of contents
 - Pedagogy, where both is high but especially relevance of content is high
 - Sociology and psychology, which are moderate and well-balanced
 - Law focusing on theories/pedagogy focusing on actual practices/sociology focusing on seminars/economics whose education concentration is low
- The content and methods of university education in humanities and social sciences have a certain level of impact on the skill formation in the final year in university and after graduation
 - Data A: Both relevance of content and interactivity in methods of university education relate to the judgment and negotiation skills at that age. Interactivity in methods relates to the information skill as well
 - Data B: Classes high in relevance of content, those high in interactivity in methods, and highly concentrated seminars enhanced judgmental and negotiation skills two years after graduation through the flexibility skill in senior year

Limitations of data and necessity of further study

- Limitations of this data
 - Small sample size
 - Limitation of target fields
 - Short follow-up period
 - Way of grasping contents and methods of university education
 - Way of grasping job content and business skills after graduation
 - Way of grasping personal traits before entering university etc.
 - Nevertheless, a certain level of tendency and relevance was uncovered
- > It is necessary to understand the actual conditions of the content and methods of university education by field, examine their effects on the outcome such as business skills, career, and citizenship after graduation with more sufficient, large-scale data, and use this to improve the quality of university education!