GLOBAL UNIVERSITY ENTREPRENEURIAL SPIRIT STUDENTS' SURVEY

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Preface

Student entrepreneurship is booming and along with the boom, also interest for student entrepreneurship has awakened. The Global University Entrepreneurship Student Spirit Survey GUESSS focuses on student entrepreneurship. This is now the fifth time when Finland is participating the GUESSS survey. The first one took place year 2006, and later on studies were carried out in 2008, 2011 and 2016. This GUESSS report highlights the state of the art of student entrepreneurship in Finland in 2018.

We express our gratitude to all those students that spent their time answering the questions. The Global team of GUESSS has operated as the core for the survey design, data purification and project management. Finally, Ernst & Young (EY) has been the international project partner for GUESSS. Our sincere thanks!

National and international GUESSS reports can be found at: http://www.guesssurvey.org/publications

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1 INTRODUCTION

Entrepreneurship continues to grow in popularity among university students. It has become a serious choice for students that consider their career options and who make choices about their study directions and subjects. This trend has been dominant for the last ten years and is growing stronger and influential. This development could be explained in many ways:

1) change in common attitudes towards entrepreneurship. The supporting climate and culture for entrepreneurship are influential for the growth of entrepreneurial intentions.
2) entrepreneurship education. Entrepreneurship education has been included in the curriculum of Finnish general education since 1994. From that perspective, practically all present Finnish HEI students have been affected by entrepreneurship education.
3) the visibility of entrepreneurial role models. The new forms of media have strongly supported the visibility of entrepreneurial success stories. That is, the prominent self-made people are living proofs that it can be done.
4) changing work and career prospects. Changing professions and changing careers many times during one's working life has become normal at the same time the possibilities for having a 'traditional career' have grown weaker.
5) digitalization. Along with the digitalization and new ICT-tools, the initial capital requirements for establishing a business have dropped dramatically. As a result from this, students have engaged into entrepreneurial projects.

At present in Finland, student entrepreneurship has already important implications on the national entrepreneurship policy. It has also been recognized in the indicators measuring the impact of higher education, as well as it has become one of the most important tools for renewing regional competitiveness.

1.1 Aim and purpose of the report

This report highlights the overall picture of the current student entrepreneurship in Finland. Doing this, it

- provides a systematic and long-term analysis of the development of entrepreneurial intentions among Finnish students;
- analyses some of the background factors determining the level of intention; and
- evaluates the role of the entrepreneurial education and climate offered by the HEI on the level of entrepreneurial activities.

1.2 The GUESSS project: key information

GUESSS is a global project, with 54 countries participating. The project started in 2002, the second survey took place in 2004. Later on, data gathering was organized in 2006, 2008, 2011, 2013-2014, 2016 and now globally as eight time in 2018.

Year 2018, globally 208 000 students responded in the GUESSS questionnaire. So far, Finland has taken part in the GUESSS study five times: 2006, 2008, 2011, 2016, and now in 2018. In this report we highlight the results of the GUESSS survey in Finland. The survey was undertaken during the spring 2018. GUESSS 2018 survey measured the entrepreneurial intentions of Finnish university students. Unfortunately, this time the number of respondents was so low it was not meaningful to run all the analysis we intended.

In Finland, LUT University has been responsible for the collection of the data and the country report. This time, the invitation letter was sent to all Finnish HEIs in November 2018 and the survey was closed in the end of December.

The Finnish GUESSS team includes Associate professor Elena Ruskovaara and Professor Timo Pihkala from LUT University.

2 DEMOGRAPHIC INFORMATION ABOUT THE SAMPLE

For the survey, all Finnish HEIs were contacted. Altogether, there are 13 universities and 23 universities of applied sciences in Finland. The results suggest that only some of the HEIs succeeded to participate in the survey and in each of them with only some respondents. The data contains respondents from 16 (15 in 2016 survey) different universities or universities of applied sciences. The biggest number of participants came from Lahti, Oulu, Karelia and Metropolia Universities of Applied Sciences. All of the universities showed a minimal interest in participating

The Finnish survey received 181 (532 students in 2016) full responses. Table 1 presents the distribution of respondents according to their study place.

Table **1**: Universities and universities of applied sciences represented in the sample.

Name of the HEI	**Frequency**	**Percent**
Aalto University	2	1,1
Centria University of Applied Sciences	7	3,9
Diaconia University of Applied Sciences	6	3,3
Häme University of Applied Sciences	3	1,7
University of Eastern Finland	5	2,8
Karelia University of Applied Sciences	17	9,4
Lahti University of Applied Sciences	37	20,4
LUT University	1	0,6
Metropolia University of Applied Sciences	16	8,8
Oulu University of Applied Sciences	62	34,3
University of Oulu	8	4,4
The University of the Arts Helsinki (Uniarts Helsinki)	3	1,7
Tampere University of Technology	6	3,3
Turku University of Applied Sciences	5	2,8
University of Turku	2	1,1
University of Vaasa	1	0,6
Total	**181**	**100,0**

Even if the response from different HEIs was very low, respondent profile matches quite nicely with the Finnish student population. Table 2 shows that women were more active in responding than men, with 35,4 % and 64,1 % shares, respectively. According to the recent statistics, 55% of Finnish HEI students are women (Suomen virallinen tilasto, 2018). Also, in terms of age, the data matches very well with the student population; the largest age group is 22-24 years with 27,1 % of respondents. Table 2 further shows that the distribution of different nationalities follows the Finnish university students' profile. The vast majority of 78,5 % have Finnish nationality while the rest 21,5 % come from abroad.

Table **2**: Descriptive statistics of the respondents (n 181).

Respondents		N	%
Gender	Men	64	35,4
	Women	116	64,1
	no response	1	0,6
Age	19- 21	42	23,2
	22-24	49	27,1
	25-29	37	20,4
	30-35	24	13,3
	36 or more	26	14,4
	No response	3	1,7
Nationality	Finnish	142	78,5
	Russian	10	5,5
	German	1	0,6
	Other	25	13,8
	No response	3	1,7
		181	100%

One tenth of the students reported being already an entrepreneur (10,5%) or being currently preparing their own businesses (13,3%).

Table **3.** Student entrepreneurs and preparation phase.

Are you already running your own business / are you already self-employed?

	N	%
No	162	89,5
Yes	19	10,5
	181	100,0

Are you currently trying to start your own business / to become self-employed?

No	157	86,7
Yes	24	13,3
	181	100,0

The very low number of responses can relate to number of reasons. One reason may be that the questionnaire of the study was in English to ensure the access of the foreign students. It seems that the study failed to meet its target in inviting both Finnish and international students. At the same time, it may have cut down the Finnish students' willingness to participate, as some of the issues dealt with in the questionnaire requires good management of English. Further, the survey was open between November and December 2018 and it may be not the best possible time to reach the students. Finally, the information concerning the survey was sent to all Finnish HEIs, but we do not know how intensively the recipient encouraged the student to respond, and for example, when (or if) the link was sent to students.

3 CAREER CHOICE INTENTIONS AND ENTREPRENEURIAL INTENTIONS

3.1 General overview

Students' occupational preferences guide their educational choices and they also play a major role as the motivators for the studies. Traditionally, Finnish university studies have prepared students for their careers in public service or employees in the private sector. On the other hand, an entrepreneurial career has not been the students' primary choice. From this perspective the occupational preferences in the Finnish survey are as expected – the large majority of the respondents prefer a traditional career as an employee. As table 4 shows, immediately after studies more than 80% of the students prefer to become employees, while about 6% prefer entrepreneurship, and roughly 10 % do not know yet.

The attractiveness of different organization types seems interesting. Small businesses (26%) seem the be the most popular choice, followed by medium-sized (18,8%) and large business (16,6%). Approximately every tenth (11,6%) were interested in public services. When comparing the studies of 2016 and 2018, the attractiveness of small business has grown whereas public service and Academia have lowered their interest.

Table **4**: Students' occupational preferences immediately after studies (%).

	2006	2008	2011	2016	2018
an employee in a small business (1-49 employees)				15,0	26,0
an employee in a medium-sized business (50-249 employees)	44,0*	52,3*	39,1*	19,0	18,8
an employee in a large business (250 or more employees)	14,3	17,3	23,9	15,2	16,6
an employee in a non-profit organization**				4,5	3,3
an employee in Academia (academic career path)	1,7	1,0	3,7	11,5	5,5
an employee in public service	4,3	4,3	6,4	16,0	11,6
a founder (entrepreneur) working in my own business	5,1	5,1	3,0	9,8	6,1
a successor in my parents' / family's business	1,7	2,0	1,3	0,4	1,1
a successor in a business currently not controlled by my family	1,5	2,9	3,1	0,4	1,1
Other / do not know yet	14,2	6,0	11,2	8,3	9,9

* The Small and medium sized businesses together
** The non-profit organization were not included in earlier surveys

The students' career expectations seem to develop considerably during the first five years after studies (see table 5). It seems that the students' aspirations to stay as employees drop from 81,8% to 51,9%. The shift is directed from private sector (private service included) employee positions to entrepreneurship. The interest to become an entrepreneur 5 years after graduation is similar than 2016: Approximately every third (31,5%) HEI student finds this option a potential one. The attractiveness of large business seems to be stable at 16%. Interestingly, for a few years, practically all new jobs are created in SMEs and the large business sector is losing jobs, but in our study their attractiveness is now stable. As in 2016, a good tenth "do not know yet", but the attractiveness of public service has dropped to the same level (4,4%) as it was in 2011.

Table **5**: Students' occupational preferences 5 years after graduation.

	2006	2008	2011	2016	2018
an employee in a small business (1-49 employees)				6,0	8,8
an employee in a medium-sized business (50-249 employees)	17,3*	29,5*	15,2*	10,2	12,7
an employee in a large business (250 or more employees)	12,6	16,8	21,4	13,2	16,6
an employee in a non-profit organization**				4,5	5,5
an employee in Academia (academic career path)	1,3	1,7	3,4	8,1	3,9
an employee in public service	3,6	3,6	4,0	10,5	4,4
a founder (entrepreneur) working in my own business	16,1	20,1	20,1	30,8	31,5
a successor in my parents' / family's business	3,5	2,7	2,4	0,4	0,6
a successor in a business currently not controlled by my family	3,5	6,3	2,2	1,7	2,2
Other / do not know yet	17,3	6,5	15,8	14,7	13,8

* The Small and medium sized businesses together
** The non-profit organization were not included in earlier surveys

In table 5, the share of intending entrepreneurs grows significantly. Since 2006, the level of entrepreneurial intentions has doubled. It seems that entrepreneurship is by far the most attractive career option for students with 31,5% share.

3.2 Factors explaining entrepreneurial intentions

The career choices were analyzed according to the students' background. Table 6 shows the comparison between Finnish students and students with foreign nationality. Based on the 2018 data, Finnish and foreign students do not dramatically differ. It seems that foreign students rate entrepreneurship immediately after studies somewhat less attractive than Finnish students. This may reflect their lack of networks and limited social capital in Finland making it difficult to consider an entrepreneurial career in Finland immediately after the studies. In 2016 study, 47%

of foreign students wanted to become entrepreneurs after five years, but now it is lowered down to 30,6 %. As can be seen on Table 6, Finnish and foreign students have fairly similar occupational preferences.

Table **6**: Students' occupational preferences depending their nationality %.

	Finnish		Foreign	
	Directly	5 years	Directly	5 Years
Employee	80,3	51,4	86,1	52,8
Founder	6,3	31,7	5,6	30,6
Successor	2,1	2,8	2,8	2,8
Other	11,3	14,1	5,6	13,9

The career options were analyzed also according to the students' gender. Table 7 shows the comparison between male and female students. It seems that female students rate entrepreneurship immediately after studies decisively less attractive than male students. The difference is rather large – only 3,4% of female students report entrepreneurial intention immediately after studies, while almost 11 % of men intend to become entrepreneurs. The gender gap is well-identified in other studies as well, for example in the GEM report (Suomalainen et al., 2016). In Finland, the share of female early-stage entrepreneurs is 4,2% as opposed to 8,9% of men who are engaged in early-stage entrepreneurship. Men are also more active in established business ownership than women. The share of female established business owners is 6,1% while simultaneously 14,2% of men are established business owners in Finland. (Suomalainen et al., 2016) The reasons for this difference may be versatile. However, it is likely that female students consider entrepreneurship riskier than their male colleagues. Especially for women choosing an entrepreneurial career has important implications in terms of weakened social policy benefits that are often related to family and children. Thus, the personal and social risks are higher for women than for men. In the GEM report the results suggest that the fear of failure is higher among women than among men (Suomalainen et al., 2016). But it is necessary to exert caution when offering gender-based individualistic explanations for lower entrepreneurial activity rates for women. Research has documented several structural reasons for this such as gendered educational and occupational choices that are related to attractiveness of entrepreneurship for women and men (Ahl and Nelson, 2010).

For male students the share of intending entrepreneurs more than triples after five years, to 35,9%. This figure is remarkably high. However, for women the attractiveness of entrepreneurship rises also dramatically, with 29,3% of women intending to be entrepreneur

after five years. It seems that the first five years after graduation are very significant for female entrepreneurship.

Table **7**: Intentional founders by gender %.

	Directly	After 5 years
Men	10,9	35,9
Women	3,4	29,3

Traditionally, having entrepreneurial parents has been one of the best indicators to predict the entrepreneurial career. In this present study, analyzing intentions from this perspective brings out interesting results. Based on research, role models are important in entrepreneurship. The role of paternal role models is emphasized for example in a study by van Auken et al (2006). They demonstrate that the majority of students both in Mexico and the United States report their father to be the most important role model (about 62% of respondents compared to 7-10% naming their mother as the most important role model). Table 8 presents the levels of entrepreneurship intention for those students whose parents are entrepreneurs. For comparison, we added the level of intention of all respondents in the table. It seems that father's entrepreneurship is associated with student's entrepreneurial intentions. Interestingly, non (0,0%) of the students with entrepreneur mother plans to become entrepreneur right after graduation.

Table **8:** Share of intentional founders depending on parents' entrepreneurship %.

	Directly	After 5 years
All respondents	6,1	31,5
Father is an entrepreneur	7,4	25,9
Mother is an entrepreneur	0,0	33,6
Both parents are entrepreneurs	4,8	28,6

Table 8 further shows the comparison about the level of intention 5 years after graduation. Interestingly, the students' intentions do not differ dramatically whether their parents are or are not entrepreneurs. However, it is noteworthy to notice the dramatically growth in students whose mother is an entrepreneur: right after graduation none of them wanted to become an entrepreneur, however after 5 years every third of them intents to become one. This is very interesting and needs to be studied more. However, one thing to remember is the low respondent rate.

4 DRIVERS OF ENTREPRENEURIAL INTENTIONS

In this section we analyze some of the possible drivers for students' entrepreneurial intentions. These aspects are related to the university context and the student's psychological characteristics.

4.1 University context

To understand the relationship between entrepreneurship education in the universities and the students' entrepreneurship intentions, we analyze the students' attendance to different entrepreneurship offerings. The availability of entrepreneurship education within universities has risen fast in Finland, and this development can be identified in the results. According to recent study by Finnish Ministry of Education and Culture (Opetus- ja kulttuuriministeriö, 2016), Finnish HEIs provide entrepreneurship-related training and courses widely. That is, almost all Finnish HEIs organize at least some individual courses about entrepreneurship. For students, there may be both elective and compulsory courses about entrepreneurship, and some students may have chosen a specific program on entrepreneurship. Table 9 shows that roughly 38% of the respondents have not taken any entrepreneurship education in the university. On the other hand, 26% of respondents have taken an elective entrepreneurship course, 42,5% report that they have participated a compulsory course and some 5% are participating a specific program on entrepreneurship.

To better understand the current situation and the change between the 2016 and 2018 studies, we included the results from 2016 in the Table 9. The current data shows, that the attendance at compulsory entrepreneurship courses has grown dramatically whereas the number of students who have not studied entrepreneurship at all has diminished.

Table **9**: Attendance of entrepreneurship offerings %.

	2016 (%)	2018 (%)
I have not attended a course on entrepreneurship so far	52,1	37,6
I have attended at least one entrepreneurship course as elective	21,4	26,0
I have attended at least one entrepreneurship course as compulsory	25,4	42,5
I am studying in a specific program on entrepreneurship	11,7	5,5

Table 10 shows that entrepreneurship education in HEIs seems to be associated with the students' entrepreneurial intentions. From the not-participated- in-entrepreneurship-education students, only 7,4% report entrepreneurial intentions but as high number as 35,3% (21% in 2016 study) of them intend to be entrepreneurs after five years. On the other hand, of the students that have taken either an elective or a compulsory course on entrepreneurship roughly 7-10% report entrepreneurial intentions immediately after studies, and for students taken an elective course, 21,4% report entrepreneurial intentions after five years. Finally, students that have elected a specific program on entrepreneurship seem to form a special group. A total of 20% of the group seek to become entrepreneurs right after studies and 30 % intend to be entrepreneurs after five years.

Interestingly, those who have not studied entrepreneurship show the highest score in their intentions; more than every third of them intents to become entrepreneurs 5 years after graduation. This could be interesting to study further.

Table **10**: Entrepreneurship education of intentional founders %.

	Immediately	5 years
I have not attended a course on entrepreneurship so far	7,4	35,3
I have attended at least one entrepreneurship course as elective	7,1	21,4
I have attended at least one entrepreneurship course as compulsory	10,6	25,5
I am studying in a specific program on entrepreneurship	20,0	30,0

Based on our results, it seems that entrepreneurship education offered in HEIs has a positive effect on the students' entrepreneurial intentions. Moreover, entrepreneurship seems to be an interesting and potential step for the students, especially five years after their graduation.

Next, we were keen on knowing how the students perceived their studies, especially how the courses enhanced their entrepreneurial skills, competences, attitudes and knowledge. The results, presented in Table 11, show that the students perceived the entrepreneurial elements fairly positively. Highest results (4,27 of the score from 1 to 7) got the statement concerning courses ability to develop students' networks. Also courses ability identify an opportunity and increase students understanding of attitudes, values and motivations of entrepreneurs scored more than 4.

Table **11**. Students' perceptions on entrepreneurship related studies.

Please indicate the extent to which you agree with the following statements about your studies (1=not at all, 7=very much). *The courses and offerings I attended…*	
…enhanced my ability to develop networks.	4,27
…enhanced my ability to identify an opportunity.	4,23
…increased my understanding of the attitudes, values and motivations of entrepreneurs.	4,03
…increased my understanding of the actions someone has to take to start a business.	3,98
…enhanced my practical management skills to start a business.	3,62

Also, students find the university environment positively, as presented in Table 12. They experienced, from the scale from 1 to 7, that they are encouraged to engage in entrepreneurial activities (mean, 4,64). They also find, that university climate is favorable for becoming an entrepreneur (4,42) and atmosphere inspire to develop ideas for new businesses (4,06).

Table **12.** Students' perceptions on university's entrepreneurial environment.

Please indicate the extent to which you agree with the following statements about the university environment (1=not at all, 7=very much).	
At my university, students are encouraged to engage in entrepreneurial activities.	4,64
There is a favorable climate for becoming an entrepreneur at my university.	4,42
The atmosphere at my university inspires me to develop ideas for new businesses.	4,06

4.2 Locus of control, attitude, and entrepreneurial self-efficacy

Attitudes, locus of control and self-efficacy reflect the person's psychological stance towards his/her own abilities to guide his/her own life. Based on the theory of planned behavior (Ajzen, 2002), the person's behavioral control, norms and attitudes affect the person's level of intentions towards certain types of behavior. Earlier studies suggest that respondents that operate as entrepreneurs score high on various entrepreneurial dimensions. For example, they score higher on locus of control and being able to influence their own life and future. Not

surprisingly they also score high on entrepreneurial returns: they view entrepreneurship in a positive light and source of satisfaction and prefer it as a career option. This fits well with the profile of academic entrepreneurship and entrepreneurship among the HEI graduates in Finland. Becoming an entrepreneur is mainly influenced by the opportunities available and necessity-driven entrepreneurship driven by lack of other alternatives remains rare (Suomalainen et al., 2016).

In this survey, we analyzed the role of locus of control, attitude and self-efficacy on the entrepreneurial intention (see Table 13). It seems that in terms of psychological stance towards entrepreneurship, all respondents score rather high. Statement of "If I had the opportunity and resources, I would become an entrepreneur" scored highest and the mean was 4,27 (scale from 1 to 7), whereas "I am ready to do anything to be an entrepreneur (2,71) scored lowest. As can be seen on Table 13, the softer and more general expressions scored highest – e.g. Being an entrepreneur would entail great satisfactions for me, 3,82 – whereas more definite and aggressive in nature kind of statements – e.g. I will make every effort to start and run my own business, 2,81 – scored lower.

Table **13.** Students' perceptions on entrepreneur.

Please indicate your level of agreement with the following statements (1=strongly disagree, 7=strongly agree). Entrepreneur refers to someone who creates a new business.	
If I had the opportunity and resources, I would become an entrepreneur.	4,27
Being an entrepreneur would entail great satisfactions for me.	3,82
Being an entrepreneur implies more advantages than disadvantages to me.	3,63
A career as entrepreneur is attractive for me.	3,60
I have very seriously thought of starting a business.	3,30
Among various options, I would rather become an entrepreneur.	3,23
I have the strong intention to start a business someday.	3,22
My professional goal is to become an entrepreneur.	3,05
I am determined to create a business in the future.	3,04
I will make every effort to start and run my own business.	2,81
I am ready to do anything to be an entrepreneur.	2,71

The students were asked about the perception of their personal skills and competences related to creating and running a business. In table 14 below, the results suggest that students find themselves fairly positively with their competences. Statement “Being a leader and communicator” reached the highest scores (4,49) and “commercializing a new idea or development” the lowest (3,48).

Table **14**. Students' perceptions on their competences.

Please indicate your level of competence in performing the following tasks (1=very low competence, 7=very high competence).	
Being a leader and communicator	4,49
Building up a professional network	3,81
Creating new products and services	3,59
Managing innovation within a business	3,58
Successfully managing a business	3,58
Identifying new business opportunities	3,53
Commercializing a new idea or development	3,48

5 IMPLICATIONS AND SUMMARY

The survey results bring new information about the student entrepreneurship in Finland. There seems to be a lot of entrepreneurship in Finnish HEIs. Even if the number of responses stayed rather low, the results give an interesting view on the entrepreneurial activities. The main numbers are as follows:

10,5% of students are currently running a business or are self-employed
13,3% of students are currently preparing a start-up
6,1 % of students are intending to start directly after graduation
31,5% of students are intending to start 5 years after graduation

On the basis of our results, entrepreneurship has become an important part of the HEI student profile. The share of practicing and nascent entrepreneurs is fairly large and that has implications on the organization and contents of the education offered to students. It is likely that these students' expectations are likely to be different than with those not running businesses or starting up.

Students have positive entrepreneurial intentions. That is, one-third intents to be an entrepreneur five years after graduation. Interestingly, those students whose mother is an entrepreneur scored highest in their 5 year intentions, but none of them (0%) reported being willing to become an entrepreneur right after graduation. This is interesting and worth studying more in a near future.

Elective and compulsory entrepreneurship courses have become more and more popular. What is really interesting is that more than one-third of those student who have not studied entrepreneurship intent to found their own company 5 years after graduation. This group shows the highest intentions. This could be interesting to study further; is it a coincidence and biased on the low response rate, or is entrepreneurship for the students of today something that needs not to be studied? Or, do they perceive that they already have – or in five years after the graduation they will gain – the skills and competences that entrepreneurs need? Finally, do they perceive that entrepreneurship is not an academic field?

However, it seems that entrepreneurship education offered in HEIs has a positive effect on the students' entrepreneurial intentions. Moreover, entrepreneurship seems to be an interesting and potential step for the students, especially five years after their graduation.

Based on 2018 data, there are not significant differences between Finnish and foreign students, but entrepreneurship still seems to be slightly gender biased: male students are more likely to establish their own company both right after and five years after graduation.

Students' entrepreneurship seems to grow from their own interests, studies, HEI entrepreneurial culture and opportunities rather than the traditional sources. That is, the parents' entrepreneurial background explains only a part of student entrepreneurship. This line of development can be interpreted as a positive sign – the entrepreneurial drive arises from opportunity driven interest rather than necessity to earn one's living.

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