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Who are student part-time entrepreneurs  
and why should we care?

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## Who are student part-time entrepreneurs and why should we care?

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### Abstract

Higher education increasingly utilizes active modes of teaching and learning in connection with entrepreneurship education. But should we go a step further and actively encourage students to start a business while still enrolled? We take a particular interest in part-time entrepreneurship since it is compatible with completing higher education studies. Our questions for this paper are: What are the backgrounds of part-time student entrepreneurs? What explains their intentions for full-time entrepreneurship, compared to non-entrepreneur students? Are the antecedents of entrepreneurial intentions the same for part-time entrepreneurs as they are to non-entrepreneur students?

To test our ideas, we utilized two sets of Finnish data, the first drawn from a survey of an online panel, consisting of 79 responses from part-time entrepreneurs who indicate studying as their primary occupation, and the second from a survey of third year HEI students in 2020, consisting of the responses from 122 students who were neither working as an entrepreneur nor currently in the process of starting a business. The two groups were compared in relation to full-time entrepreneurial intentions and antecedents of intentions based on Theory of Planned Behavior (TPB). In addition, we tested how well the antecedents explain the variance in entrepreneurial intentions in these two groups with linear regression analysis.

The part-time entrepreneur students have higher means of entrepreneurial intentions (4.3 vs. 3.1,  $p < .001$ ) as well as PBC (4.3 vs. 3.7,  $p < .001$ ) and subjective norm (4.2 vs. 3.4,  $p < .001$ ). Results of the regression analysis show that attitudes ( $\beta .351$ ,  $p < .001$ ) and age ( $\beta .325$ ,  $p < .001$ ) are the most important factors explaining entrepreneurial intentions (intention for full-time entrepreneurship). Gender has no impact. The model explains 49 percent of the variance. With non-entrepreneur students, the model explains 65 percent of the variance in entrepreneurial intentions, the most important factor being subjective norm ( $\beta .467$ ,  $p < .001$ ) followed by attitudes ( $\beta .324$ ,  $p < .001$ ) and PBC ( $\beta .197$ ,  $p < .01$ ). Also, gender has an impact ( $\beta .127$ ,  $p < .05$ ) but age has no effect.

The results suggest that starting a business is a powerful means of learning about entrepreneurship. It is particularly interesting that the effect of gender, present in the non-entrepreneur population, disappears in the student entrepreneur group. Female students in higher education in particular need experiences to overcome mental barriers to entrepreneurship.

We are not aware of any earlier work on full-time entrepreneurial intentions of part-time entrepreneurs who are also students, although graduates have been studied (Ruiz-Rosa et al., 2021). Hägg and Kurczewska (2020) suggest that EE in higher education of young adults should include guidance tailored by taking into consideration each student's proficiency and knowledge in entrepreneurship. We also highlight the possibility of peer-to-peer learning, leveraging the experience of student entrepreneurs as vicarious learning.

Keywords: student entrepreneurship, part-time entrepreneurship, experiential learning, entrepreneurial intentions, Theory of Planned Behavior

## 1. Introduction

This paper was inspired by our desire to better understand entrepreneurial intentions of higher education students and how to better encourage students in entrepreneurial experiments. Higher education increasingly utilizes active modes of teaching and learning in connection with entrepreneurship education (EE). But should we go a step further – should we actively encourage students to start a business while they are still enrolled? Cope (2005) points out that each entrepreneur comes to entrepreneurship with a certain level of entrepreneurial preparedness, which can be viewed as the prospective entrepreneur's cumulative learning. Although the learning task faced in the beginning of a business is contextual, the task is less extended if the prospective entrepreneur is already in possession of entrepreneurial experience. Being an entrepreneur is, logically, the deepest possible immersion environment for learning.

Part-time entrepreneurship, which is compatible with completing higher education studies, is a particularly interesting. While the rise of the sc. gig-economy (see e.g. MacDonald & Giazitzogly, 2019) does not necessarily signal increase in entrepreneurship in the wider sense, there are studies suggesting that hybrid forms of self-employment are common and growing more so (Bögenhold, 2019; Landgraf, 2015). This makes part-time entrepreneurship a topic of interest in the changing labour dynamics of today, and worth investigation as such. The possibility of full or part-time entrepreneurship at some point in the working lives of those now in higher education should be recognized. Working as an entrepreneur while still in higher education is potentially useful from several perspectives. In Finland majority of higher education students work while studying (Official Statistics, 2019). If it is necessary to work for financial reasons, why not as self-employed? Starting a business of one's own affords learning opportunities not available in wage employment, albeit it is arguably a more uncertain proposition.

Entrepreneurship education (EE) does not focus solely on preparing people for entrepreneurship. While EE can take a narrow approach and focus on entrepreneurship as business creation and management, it can also take a broad approach, targeting the development and support of an entrepreneurial mindset which enables value creation in different fields of life (e.g. Lillväli & Täks, 2017). For example, Yi and Duval-Coutiel (2021) consider teaching students “how to establish and grow new ventures” a fundamental role for EE, yet European Commission published in 2016 an entrepreneurship competence framework (EntreComp, see Bacigalupo et al., 2016), with the objective of creating a shared definition of entrepreneurship competence and to have a framework to develop this competence among citizens. In this framework entrepreneurship is viewed as a transversal skill with implications for all areas of an individual's life, and the framework appears to be in wide circulation (Seikkula-Leino et al., 2021). The broad approach necessarily contains the narrow, but the converse should also be true to a degree: development of entrepreneurial capabilities with the view of business creation is likely to develop an entrepreneurial mindset. The holistic scope of EE, and the lack of overall agreement on what its aims should be, makes it difficult to determine also measures of assessment. Nabi et al. (2017) note that entrepreneurial intentions dominate as impact indicator. While new impact measures are being developed (e.g. Ilonen & Heinonen, 2018), the intention to become self-employed / to become a full-time entrepreneur is a relevant indicator in when considering the usefulness of entrepreneurial experience (part-time entrepreneurship) in EE.

Our interest in the issue derives from an initiative in our home university to encourage student to try out entrepreneurship. To work towards our overall question, we set out some intermediate objectives to investigate in this paper, using data sets available from other research projects. The questions we focus on are: First, what are the backgrounds of part-time student entrepreneurs? If part-time

entrepreneur students consistently differ from the non-entrepreneur students in terms of background, this can give us an idea on whom to focus upon. Second, what explains their intentions for full-time entrepreneurship, compared to non-entrepreneur students? If the antecedents of intentions differ, this can give us ideas on what to focus upon. Third, are the antecedents of entrepreneurial intentions the same for part-time entrepreneurs as they are to non-entrepreneur students? If there is no difference, our intuitive understanding of entrepreneurial experience as the best kind of EE is proven false.

## 2. Theoretical framework

### 2.1 Part-time entrepreneurship and entrepreneurship education

Research on part-time entrepreneurship is relatively recent and conceptually diverse. Hybrid entrepreneurship, referring to combination of paid employment and entrepreneurship (Demir et al., 2020; Folta et al., 2010), is perhaps the better-known term. In addition, terms such as part-time entrepreneurship (Mungaray & Ramirez-Urquidy, 2011; Petrova, 2012), hybrid self-employment (Bögenhold & Klinglmair, 2017), part-time self-employment (Block et al., 2019; Ebbers & Piper, 2017), second-job entrepreneurship (Gruenert, 1999) and side activity entrepreneurship (Markantoni et al., 2014; Markantoni & van Hoven, 2012) are used, with varying rationales and implications. For the purposes of this paper, we focus on part-time entrepreneurship and define it as *entrepreneurship combined with another primary occupation*. In particular, we are interested in part-time entrepreneurs whose primary occupation is higher education studies, i.e. students who are also entrepreneurs.

Studies on part-time entrepreneurship have largely approached the phenomenon through the lens of nascent full-time entrepreneurship (e.g. Folta et al., 2010; Petrova, 2012; Block & Landgraf, 2016). Part-time entrepreneurship is thus viewed as a starting phase in full-time entrepreneurship, and that if the part-time venture is successful, full-time entrepreneurship follows. Starting out part-time allows for learning (Folta et al., 2010; Ferreira, 2020) and indeed it appears that business that started out part-time have better survival rates than those that started with a full-time plunge (Raffiee & Feng, 2014). Part-time entrepreneurship can thus be considered a good strategy for starting a (later) full-time business, although there is considerable evidence to show that starting a business is not necessarily indicative of wanting to be a full-time entrepreneur: Thorgren et al. (2016) distinguish between the decision to start a business and the decision to give wage employment, and Solesvik (2017) points out that some part-time entrepreneurs have no intention of becoming full-time entrepreneurs.

Experience is a great way to learn – why not also experience of entrepreneurship? The need to venture into experiential territories in EE has been eloquently argued by many (e.g., Hannon, 2005; Neck & Greene, 2011). In practice, business plans and simulation are frequently mentioned as teaching methods for entrepreneurship (see e.g. Mwasalwiba, 2010), and the value of experiential pedagogy in EE has been demonstrated (Kozlinska et al., 2020), but descriptions of experiential entrepreneurial education (EEE) do not suggest that actually starting a business would be a common tool. The difficulty with using actual start-ups as EEE is of course inherent in the nature of entrepreneurship: we can practice ideation, analyse and plan value creation, learn business management – but actually starting a business is about initiative and ownership. Externally integrating the act of starting a business in higher education has been done (see e.g. Tosey et al., 2015), but this works only in programmes explicitly preparing for entrepreneurship.

In Finland sc. light entrepreneurship has lately become a popular means of engaging in entrepreneurship. Light entrepreneurship refers to undertaking entrepreneurial activities through an invoicing service, i.e. the individual does not establish a sole proprietorship or other legal form of

business but rather uses an umbrella company to do the billing. The light entrepreneur finds and chooses his customers and is in sole charge of the undertaking but does not actually establish a firm in the legal sense. Raijas (2021) estimates there were about 44 300 active light entrepreneurs in Finland in 2020. In several universities of applied sciences there are experiments to establish cooperatives that could have a similar function.

## 2.2 Theory of planned behaviour

We apply theory of planned behaviour in examining the full-time entrepreneurial intentions of part-time entrepreneur students and non-entrepreneur students. Theory of Planned Behavior (TPB) is probably the most used model in entrepreneurial intentions research (Maalaoui et al., 2018). The model is suitable for studying entrepreneurial behavior because entrepreneurial activity has been considered to be intentional and reasoned (Krueger et al., 2000). In TPB cognitive self-regulation is a central part.

The most important factor in TPB is intention, which is defined as “individual’s intention to perform a given behavior” (Ajzen, 1991, p. 181). Assumption is that the stronger is the intention, more likely is the given behavior. Intention has three antecedents: perceived behavioural control, attitudes towards the given behaviour, and subjective norm. Perceived behavioral control refers to individual’s “perception of the ease or difficulty of performing the behavior of interest” (Ajzen 1991, p. 183). Perceived behavioral control affects behavior in two ways: directly and indirectly via intentions. Attitudes and subjective norm have indirect effect on behavior via intentions (Ajzen, 1991).

Ajzen and Fishbein (2005) define attitudes as a latent disposition of tendency to respond with some degree of favorableness or unfavorableness to a psychological object. As such, the most essential aspect of attitude is its bipolar evaluative nature (Eagly & Chaiken, 1993; Krosnick et al., 2005). This means that attitudes can range from negative, neutral to positive point. Research has shown that the mean correlations of attitudes with intentions range from .45 to .60 (Fishbein & Ajzen, 2010).

Subjective norm refers to the assumption that social environment has an effect on people’s intentions and actions. As Fishbein and Ajzen (2010, p. 129) state, “social norms refer to what is acceptable or permissible behavior in a group or society... (and) have been conceptualized as strict rules, as general guidelines, or simply as empirical regularities”. In the context of TPB, social norms are viewed more narrowly as individual’s perception of social pressure to perform or not to perform a given behavior (Fishbein & Ajzen, 2010; Ajzen, 1991). More precisely, subjective norm refers to perceived social pressure from important others (how the most important people to individual prescribe, desire, or expect the performance of the behavior in question).

Ajzen’s Theory of Planned Behavior has been found to be valid in different situations; the meta-analysis of Armitage and Conner (2001) showed that the TPB-model explained 27 percent of the variance in behavior, and antecedents of intentions explained 39 percent of the variance in intentions. TPB has been applied in entrepreneurial intention research in many studies during the past 20 years (Krueger & Carsrud, 1993; Carr & Sequeira, 2007; Kautonen et al., 2015). As Ajzen (1991, p. 181) refers to intention as “individual’s intention to perform a given behavior”, entrepreneurial intention can be defined as individual’s intention to perform entrepreneurial behavior (i.e. become an entrepreneur). When applying TPB in entrepreneurial intention research, attitudes refers to attitudes towards entrepreneurship, PBC refers to individual’s perception of the ease or difficulty of succeeding as an entrepreneur and subjective norm refers to the social pressure from the most significant others if individual would become an entrepreneur.

The relative importance of antecedents of intention may vary across different contexts. In entrepreneurial intention research, all the three antecedents have been found to explain entrepreneurial intention. In some studies, the most important factor has been perceived behavioral control (Krueger et al., 2000; Kristiansen & Indarti, 2004; Segal et al., 2005; Sequeira et al., 2007; Prodan & Drnovsek, 2010; Drost & McGuire, 2011). In other studies, the most significant predictor of intentions has been attitudes (Zampetakis et al., 2009; Moi et al., 2011). Some studies have found subjective norm to be the most important antecedent of intention (Azzat et al., 2009; Engle et al., 2010; Siu & Lo, 2013). Kautonen et al. (2015) showed that antecedents of entrepreneurial intentions (attitudes towards entrepreneurship, perceived behavioral control related to entrepreneurship and subjective norm) jointly explained 59 percent of the variation in entrepreneurial intention.

Based on prior research on entrepreneurship education and the assumptions of the theory of planned behaviour, we propose following questions for the study:

Q1: Who are the part-time entrepreneur students, what are the characteristics of their background and entrepreneurship?

Q2: What explains the intentions of part-time student entrepreneurs for full-time entrepreneurship, compared to non-entrepreneur students?

Q2: Is the relative importance of antecedents of entrepreneurial intentions the same for part-time student entrepreneurs as they are to non-entrepreneur students?

### 3. Approach

#### 3.1 Data collection

We have two data set in our study. The first data was collected from part-time entrepreneurs in year 2021 though an online panel. All the respondents are Finnish. The data consists of 400 responses. In this data there were 79 respondents that were currently studying as their primary occupation. In this research, we use these 79 responses. 61 percent of the respondents were women, 37 percent men, and rest of the respondents classified themselves as “other”. 62 percent were under thirty years old, 22 percent 30-39 years old, 15 percent 40-49 years old, and 1 percent 50-59 years old. Mean age was 29 years. 48 percent had a higher education degree. Table 1 presents some background information about their part-time entrepreneurship.

Table 1. Student part-time entrepreneurs and description of their entrepreneurship.

Mode of entrepreneurship	With VAT number 42 % Light entrepreneur 35 % Freelance 23 %
Field	Commerce 7 % Service (expert) 33 % Service (other) 52 % Other 9 %
Firm age	Under 2 years 47 % 2-4 years 34 % 5-10 years 9,5 % Over 10 years 9,5 %

Income (before taxes) from part-time entrepreneurship	Under 1000 euros 33 % 1000-4999 euros 24 % 5000-19 999 euros 27 % at least 20 000 euros 16 % Min 0 euros, Max 50 000 euros
Percentage from total income	under 5 percent 21 % 5-10 percent 20 % 11-20 percent 8 % at least 20 percent 52 %
Importance of income from part-time entrepreneurship	Very important 32 % Important 27 % Not very important 28 % No importance at all 13 %
Time spent in a week for part-time entrepreneurship	0-2 hours 21 % 3-8 hours 29 % 9-21 hours 33 % 22-40 hours 16 % over 40 hours 1 %
Intention to grow business	No intention 41 % Grow to a size that employs oneself full-time 44 % Grow to a size to employ also others 15 %

Second data consists of third year higher education students studying in Seinäjoki University of Applied Sciences, who were not working as an entrepreneur or currently starting a business. There are 122 respondents in the data that was collected in year 2020. Students represent different study fields (culture 7 %, natural resources and environment 8 %, tourism and catering 5 %, social and health care 28 %, technology 25 %, business administration 27 %). 62 % were women and 39 % were men. Mean age was 25 years (minimum 21 years, maximum 44 years). 85 % of the respondents were under 30 years.

We compared these two groups in relation to full-time entrepreneurial intentions, and antecedents of intentions based on Theory of Planned Behavior (TPB). The antecedents included attitudes towards entrepreneurial career, perceived behavioural control (PBC) and subjective norm. In addition, we tested how well the antecedents explain the variance in entrepreneurial intentions in these two groups with linear regression analysis. Gender and age were used as control variables.

### 3.2 Variables

#### *Student data (non-entrepreneurs)*

We measured entrepreneurial intentions, subjective norm, attitudes and perceived behavioural control with scales adjusted from Joensuu-Salo et al. (2015). Seven-point Likert scales were used.

Entrepreneurial intentions (EI) were measured with the following items:

- How likely are you to continue your career employed by another (i.e. in salaried work) after graduation (1 very unlikely – 7 very likely) (reversed)
- If you had to choose between entrepreneurship and salaried work after graduation, which one would you choose? (1=salaried work, 7=entrepreneurship)

- How likely is it that you will be employed for most of your career by a company of public organization (without any connection to entrepreneurship)? (1= very unlikely, 7=very likely) (reversed)
- How strong is your intention to embark on entrepreneurship at some point of your professional career? (1=no intention, 7= very strong intention)
- If you had to choose between entrepreneurship and unemployment after graduation, which one would you choose? (1=unemployment, 7=entrepreneurship)
- How likely are you to embark on entrepreneurship after you have gathered a sufficient amount of work experience? (1=very unlikely, 7=very likely)

Subjective norm (SN) was measured with the following three items:

- I believe that my closest family members think I should not 1--- 7 should strive to start my own business and to work as an entrepreneur after graduation.
- I believe that my best friends think I should not 1 --- 7 should strive to start my own business and to work as an entrepreneur after graduation.
- I believe that my significant others think I should not 1 --- 7 should strive to start my own business and to work as an entrepreneur after graduation.

Attitudes (ATT) towards entrepreneurship were measured with a question “To what extent do the following attributes correspond to your perceptions of entrepreneurship (i.e. establishing a business and working as an entrepreneur)?” Scale was 1=not at all, 7=completely, and following attributes were used:

- Fascinating
- Esteemed
- Worth pursuing

Perceived behavioural control (PBC) was measured with the following five items.

- If I established a business and started to work as an entrepreneur after graduation, my chance of success would be 1=very slim, 7= very good
- If I really wanted to, I could easily start a business and work as an entrepreneur after graduation (1=disagree completely, 7 agree completely)
- There are very few 1 --- 7 numerous things that are beyond my own control but could prevent me from starting my own business and working as an entrepreneur after graduation. (reversed)
- For me, starting my own business and working as an entrepreneur after graduation would be very easy 1 --- 7 very difficult. (reversed)
- If I established my own business and started to work as an entrepreneur after graduation, my risk of failure would be very small 1 --- 7 very big. (reversed)

The reliabilities of the scales were acceptable based on the recommendations of Nunnally and Bernstein (1994). Cronbach’s alpa for entrepreneurial intentions was .86, for subjective norm .86, attitudes .78, and perceived behavioural control .81.

*Student data (part-time entrepreneurs)*

The data collected from part-time entrepreneurs used slightly shorter scales. However, the scales based on the same measuring instrument that was used in student data. Entrepreneurial intentions



were measured with three items related to full-time entrepreneurship using seven-point Likert scale anchored with 1=completely disagree, 7=completely agree. The items were:

- My professional goal is to become a full-time entrepreneur someday.
- I have seriously considered becoming a full-time entrepreneur.
- I have a firm intention to be a full-time entrepreneur someday.

Subjective norm was measured with two items

- I believe that my closest people (spouse, children) think I should not 1--- 7 should strive to become a full-time entrepreneur.
- I believe that my significant others (friends, colleagues) think I should not 1 --- 7 should strive to become a full-time entrepreneur.

Attitudes were measured with the same items as in the student (no entrepreneurs) data. Perceived behavioural control was measured with two items:

- If I would become a full-time entrepreneur, my chance of success would be 1=very slim, 7= very good
- For me, working as an full-time entrepreneur would be very difficult 1 --- 7 very easy.

The reliabilities of the scales were acceptable based on the recommendations of Nunnally and Bernstein (1994). Cronbach's alpha for full-time entrepreneurial intentions was .93, for subjective norm .76, attitudes .79, and perceived behavioural control .80.

Table 2 presents the minimum and maximum values, mean values and standard deviations of the scales.

Variable	Minimum/Maximum	Mean	Sd.
EI (students/no entrepreneurs)	1.0/6.2	3.1	1.3
EI (students/entrepreneurs)	1.0/7.0	4.3	1.9
SN (students/no entrepreneurs)	1.0/7.0	3.4	1.3
SN (students/entrepreneurs)	1.0/7.0	4.2	1.5
ATT (students/no entrepreneurs)	1.0/7.0	4.6	1.1
ATT (students/entrepreneurs)	1.3/7.0	4.5	1.3
PBC (students/no entrepreneurs)	1.0/6.0	3.7	1.1
PBC (students/entrepreneurs)	1.0/7.0	4.3	1.3

We used age and gender as control variables in our study. Gender was operationalized as zero for female and one for male.

#### 4. Results

First, we compared the mean values of entrepreneurial intentions, attitudes, subjective norm and perceived behavioural control between part-time entrepreneur students and non-entrepreneur students. The part-time entrepreneur students have higher means of entrepreneurial intentions themselves (4.3 vs. 3.1,  $p < .001$ ) as well as on PBC (4.3 vs. 3.7,  $p < .001$ ) and subjective norm (4.2 vs. 3.4,  $p < .001$ ). In attitudes, no statistical difference was found (average 4.6 for non-entrepreneur students, and average 4.5 for part-time entrepreneurs). It seems that working part-time as an entrepreneur has a positive effect on individual's perceived behavioural control and the intentions to become a full-time entrepreneur. In addition, compared to non-entrepreneur students, students working as part-time entrepreneurs feel that their family and friends would support them more, if they would become a full-time entrepreneur.

Next, we used regression analysis to examine how well the antecedents of intentions (SN, ATT, PBC) explain entrepreneurial intentions of these two different groups. The results of the regression analysis are presented in Table 3. Results show that with the part-time entrepreneur students, attitudes ( $\beta .351$ ,  $p < .001$ ) and age ( $\beta .325$ ,  $p < .001$ ) are the most important factors explaining entrepreneurial intentions (intention for full-time entrepreneurship). Also subjective norm ( $\beta .238$ ,  $p < .05$ ) and PBC ( $\beta .211$ ,  $p < .05$ ) are statistically significant factors explaining entrepreneurial intentions. Gender has no impact. The whole model explains 49 percent of the variance in entrepreneurial intentions of part-time entrepreneur students. With non-entrepreneur students, the model explains 65 percent of the variance in entrepreneurial intentions. The most important factor explaining the entrepreneurial intentions of non-entrepreneur students is subjective norm ( $\beta .467$ ,  $p < .001$ ) followed by attitudes ( $\beta .324$ ,  $p < .001$ ) and PBC ( $\beta .197$ ,  $p < .01$ ). Also, gender has an impact on entrepreneurial intentions of non-entrepreneur students ( $\beta .127$ ,  $p < .05$ ). Male students have higher entrepreneurial intentions than female students do. However, age has no effect.

Table 3. Results of the regression analysis.

Variables	Model 1 (non-entrepreneur students)	Model 2 (part-time entrepreneur students)
	B (Std.Error) $\beta$	B (Std.Error) $\beta$
Constant	-1.204 (.347)***	-2.952 (.873)***
Subjective norm	.466 (.075)*** $\beta .467$	.307 (.126)* $\beta .238$
Attitudes towards entrepreneurship	.376 (.071)*** $\beta .324$	.493 (.130)*** $\beta .351$
Perceived behavioral control	.232 (.082)** $\beta .197$	.304 (.143)* $\beta .211$
Gender	.332 (.145)* $\beta .127$	.332 (.336) $\beta .086$
Age	.000 (.016) $\beta .002$	.078 (.020)*** $\beta .325$
F statistics	45.124***	15.534***
Adjusted R <sup>2</sup>	.652	.492

## 5. Discussion and implications

Over a third of the part-time entrepreneur students practice entrepreneurship as light entrepreneurs. More than half of the businesses have operated at minimum two years. For the majority, part-time entrepreneurship brings in less than 5 000 euros a year in gross income. Yet income from part-time entrepreneurship is important or very important for 57 % of the respondents. 41 % have no intention to grow their business, meaning that they do not intend to become full-time entrepreneurs. This can indicate that the business is primarily about additional income but can also relate to motives of self-fulfilment or working with something one is passionate about. Folta et al. (2010) refer to three motives for hybrid entrepreneurship, namely path to full-time entrepreneurship, added income and psychological benefits. 44 % of the student part-time entrepreneurs claim intention to grow the business so as to become a full-time entrepreneur, and an additional 15 % seek growth that will enable them to employ others as well, suggesting that part-time entrepreneurship is indeed a path to full-time entrepreneurship. Farmer et al.'s (2011) results suggest that for individuals with strong aspirations for entrepreneur identity, learning from prior start-up efforts is particularly important. Thus, even for those who do not at this time have intentions for full-time entrepreneurship, the learning remains and can support later entrepreneurial aspirations.

Student part-time entrepreneurs are a varied group, including both those who use entrepreneurship to increase their income and those who see it as a career path. Part-time entrepreneur students do however have higher entrepreneurial intentions than non-entrepreneur students, indicating that experience in part-time entrepreneurship supports entrepreneurial intentions. This is in line with earlier studies (e.g. Krueger, 1993) and validates the expectation that experience in entrepreneurship can and does operate as entrepreneurship education; starting a business is a powerful means of learning about entrepreneurship. Having experience of part-time entrepreneurship, student entrepreneurs' intentions are not only stronger but also better grounded and based on in-depth understanding of the pros and cons of entrepreneurship.

The result leads to a further question: could the entrepreneurship experience of part-time student entrepreneurs be leveraged in entrepreneurship education? Peer-to-peer learning has untapped potential in EE. Programmes specifically aiming at entrepreneurship can utilise start-up as a learning environment (Tosey et al., 2015), but general EE in higher education needs to address also the general student population. Peer-to-peer communication and part-time entrepreneurs' learning communities within universities is one possibility to consider. In-house cooperatives can lower the threshold to try out entrepreneurship. It is particularly interesting that the effect of gender, present in the non-entrepreneur population, disappears in the student entrepreneur group. Female students in higher education in particular need experiences to overcome mental barriers to entrepreneurship (see e.g. Joensuu-Salo, 2020). It seems that trying out entrepreneurship works as the best possible experiential learning environment in this sense as well.

The results also show that part-time entrepreneur students have higher means in perceived behavioral control, that is, they perceived their ability to succeed as a full-time entrepreneur to be greater. It is natural that individuals that start a business, albeit part-time, differ from non-entrepreneurs in this respect. However, it is interesting that they also expect more support from their family and friends in the event they should become a full-time entrepreneur. This raises an interesting question: does part-time entrepreneurship also work as EE for the family and friends of part-time entrepreneurs? Or does the experience of receiving support in part-time entrepreneurship remove or lower fears of negative feedback/lack of support in case of full-time entrepreneurship?

We provide an empirical comparison between students that are actually entrepreneurs and those that are not, suggestive of the force of experience and immersion. We are not aware of any earlier work on full-time entrepreneurship intentions of part-time entrepreneurs who are also students, although graduates have been studied (Ruiz-Rosa et al., 2021). Our results also support Thorgren et al. (2016) in confirming in student context the difference between starting a business and becoming a full-time entrepreneur.

Hägg and Kurczewska (2020) suggest that EE in higher education of young adults should include guidance tailored by taking into consideration each students proficiency and knowledge in entrepreneurship. Recognition of experience in entrepreneurship should naturally for a part of such consideration. We also highlight the possibility of peer-to-peer learning, leveraging the experience of student entrepreneurs as vicarious learning. This potential EE resource should be taken in consideration in shaping policies of HEIs. Further, preferably qualitative, studies are needed to further deepen our understanding of the learning and other psychological of starting up a part-time business during studies and uncover the potential for leveraging the experiences of the students who already are entrepreneurs.

## References

Aizzat, M., Noor Hazlina, A., & Chew, E. (2009). Examining a model of entrepreneurial intention among Malaysians using SEM procedure. *European journal of scientific research*, 33(2), 365–373.

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational behavior and human decision processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

Ajzen, A., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.) *The handbook of attitudes*, pp. 173–221. Lawrence Erlbaum Associates Publishers.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A Meta-analytic review. *British journal of social psychology*, 40, 471–499. <https://doi.org/10.1348/014466601164939>

Bacigalupo, M., Kampylis, P., Punie, Y., & Van Den Brande, L. (2016), *EntreComp: The Entrepreneurship Competence Framework*. Publication Office of the European Union, Luxembourg. <http://dx.doi.org/10.2791/160811>

Block, J. H., & Landgraf, A. (2016). Transition from part-time entrepreneurship to full-time entrepreneurship: the role of financial and non-financial motives. *International entrepreneurship and management journal*, 12(1), 259–282. <http://dx.doi.org/10.1007/s11365-014-0331-6>

Block, J., Landgraf, A., & Semrau, T. (2019). The differential impact of societal cultural practices on part-time and full-time self-employment: A multi-level, multi-country study. *International small business journal*, 37(1), 43–68. <https://doi.org/10.1177%2F0266242618801441>

Bögenhold, D. (2019). From hybrid entrepreneurs to entrepreneurial billionaires: Observations on the socioeconomic heterogeneity of self-employment. *American behavioral scientist*, 63(2), 129–146. <https://doi.org/10.1177%2F0002764218794231>

- Bögenhold, D., & Klinglmair, A. (2017). One-person enterprises and the phenomenon of hybrid self-employment: evidence from an empirical study. *Empirica*, 44(2), 383–404. <https://doi.org/10.1007/s10663-016-9332-8>
- Carr, J., & Sequeira, J. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach. *Journal of business research*, 60, 1090–1098. <https://doi.org/10.1016/j.jbusres.2006.12.016>
- Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship theory and practice*, 29(4), 373–397. <https://doi.org/10.1111%2Fj.1540-6520.2005.00090.x>
- Demir, C., Werner, A., Kraus, S., & Jones, P. (2020). Hybrid entrepreneurship: a systematic literature review. *Journal of small business & Entrepreneurship*, 34(1), 29–52. <https://doi.org/10.1080/08276331.2020.1764738>
- Drost, E., & McGuire, J. (2011). Fostering entrepreneurship among Finnish business students: Antecedents of entrepreneurial intent and implications for entrepreneurship education. *International review of entrepreneurship*, 9(2), 83–112.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Ebbers, I., & Piper, A. (2017). Satisfaction comparisons: women with families, full-time and part-time self-employed. *International journal of gender and entrepreneurship*, 9(2), 171–187. <http://dx.doi.org/10.1108/IJGE-11-2016-0046>
- Engle, R., Dimitriadi, N., Gavidia, J., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame S., & Wolff, B. (2010). Entrepreneurial Intent: A Twelve-country evaluation of Ajzen's Model of Planned Behaviour. *International journal of entrepreneurial research*, 16(1), 35–57. <http://dx.doi.org/10.1108/13552551011020063>
- Farmer, S. M., Yao, X., & Kung–Mcintyre, K. (2011). The behavioral impact of entrepreneur identity aspiration and prior entrepreneurial experience. *Entrepreneurship theory and practice*, 35(2), 245–273. <https://doi.org/10.1111%2Fj.1540-6520.2009.00358.x>
- Ferreira, C. C. (2020). Experiential learning theory and hybrid entrepreneurship: factors influencing the transition to full-time entrepreneurship. *International journal of entrepreneurial behavior & research*, 26(8), 1845–1863. <http://dx.doi.org/10.1108/IJEBR-12-2019-0668>
- Fishbein, M., & Ajzen, A. (2010). *Predicting and changing behavior: The reasoned action approach*. Psychology Press.
- Folta, T., Delmar, F., & Wennberg, K. (2010). Hybrid entrepreneurship. *Management science*, 56(2), 253–269. <http://dx.doi.org/10.1287/mnsc.1090.1094>
- Gruenert, J. (1999). Second job entrepreneurs. *Occupational outlook quarterly*, 43(3), 18–26.
- Hannon, P. (2006). Teaching pigeons to dance: sense and meaning in entrepreneurship education. *Education + Training*, 48(5), 296–308. <http://dx.doi.org/10.1108/00400910610677018>

- Hägg, G., & Kurczewska, A. (2020). Guiding the student entrepreneur: Considering the emergent adult within the pedagogy–andragogy continuum in entrepreneurship education. *Education+ Training*, 62(7/8), 759–777. <http://dx.doi.org/10.1108/ET-03-2020-0069>
- Ilonen, S., & Heinonen, J. (2018). Understanding affective learning outcomes in entrepreneurship education. *Industry and higher education*, 32(6), 391–404. <http://dx.doi.org/10.1177/0950422218805177>
- Joensuu-Salo, S., Varamäki, E., & Viljamaa, A. (2015). Beyond intentions – what makes a student start a firm? *Education + Training*, 57(8/9), 853–873. <https://doi.org/10.1108/ET-11-2014-0142>
- Joensuu-Salo, S. (2020). *Entrepreneurial intention, behavior and entrepreneurship education: A longitudinal approach* (Acta Wasaensia 450) [Doctoral dissertation, University of Vaasa]. Oulu. <http://urn.fi/URN:ISBN:978-952-476-927-3>
- Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the Theory of Planned Behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 39(3), 655–674. <https://doi.org/10.1111%2Fetap.12056>
- Kozlinska, I., Rebmann, A., & Mets, T. (2020). Entrepreneurial competencies and employment status of business graduates: the role of experiential entrepreneurship pedagogy. *Journal of small business & Entrepreneurship*. <https://doi.org/10.1080/08276331.2020.1821159>
- Kristiansen, S., & Indarti, N. (2004) Entrepreneurial intention among Indonesian and Norwegian students. *Journal of enterprising culture*, 12(1), 55–78. <https://doi.org/10.1142/S021849580400004X>
- Krosnick, J. A., Judd, C. M., & Wittenbrink, B. (2005). The Measurement of attitudes. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 21–76). Lawrence Erlbaum Associates Publishers.
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship theory and practice*, 18(1), 5–21. <http://dx.doi.org/10.1177/104225879301800101>
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying The Theory of Planned Behaviour. *Entrepreneurship & Regional development*, 5(4), 315–330. <http://dx.doi.org/10.1080/08985629300000020>
- Krueger, N., Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(2), 411–432. [https://doi.org/10.1016/S0883-9026\(98\)00033-0](https://doi.org/10.1016/S0883-9026(98)00033-0)
- Landgraf, A. (2015). *Part-time entrepreneurship: Micro-level and macro-level determinants*. [Doctoral dissertation, Universität Trier]. <https://doi.org/10.25353/ubtr-xxxx-7f4c-bfbd>
- Lilleväli, U., & Täks, M. (2017), Competence models as a tool for conceptualizing the systematic process of entrepreneurship, *Education research international*, Article ID 5160863. <https://doi.org/10.1155/2017/5160863>
- Maalaoui, A., Perez, C., Bertnand, G., Razgallah, M., & Germon, R. (2018). “Cruel intention” or “entrepreneurial intention”: what did you expect? An overview of research on entrepreneurial

intention – an interactive perspective. In M. Brännback, & A. Carsrud (Eds.). *A Research agenda for entrepreneurial cognition and intention*, pp. 7–46. Edward Elgar.

MacDonald, R., & Giazitzoglu, A. (2019). Youth, enterprise and precarity: or, what is, and what is wrong with, the ‘gig economy’? *Journal of sociology*, 55(4): 724–740. <https://doi.org/10.1177%2F1440783319837604>

Markantoni, M., Strijker, D., & Koster, S. (2014). Motives for starting up a side activity in rural areas in the Netherlands. *Local economy*, 29(6-7), 723–739. <https://doi.org/10.1177%2F0269094214552947>

Markantoni, M., & Van Hoven, B. (2012). Bringing ‘invisible’ side activities to light: A case study of rural female entrepreneurs in the Veenkoloniën, the Netherlands. *Journal of rural studies*, 28(4), 507–516. <https://doi.org/10.1016/j.jrurstud.2012.05.006>

Moi, T., Adeline, Y., & Dyana, M. (2011). Young adult responses to entrepreneurial intent. *Researchers world: Journal of arts, science and commerce*, 2(3), 39–52.

Mungaray, A., & Ramirez-Urquidy, M. (2011). Full and part-time entrepreneurship and the supply of entrepreneurial effort: Evidence from Mexican microenterprises. *Journal of developmental entrepreneurship*, 16(04), 441–458. <http://dx.doi.org/10.1142/S1084946711001938>

Mwasalwiba, E. S. (2010). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training*, 52(1), 20–47. <http://dx.doi.org/10.1108/00400911011017663>

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, 16(2), 277–299. <https://doi.org/10.5465/amle.2015.0026>

Neck, H., & Greene, P. (2011). Entrepreneurship education: known worlds and new frontiers. *Journal of small business management* 49(1), 55–70. <https://doi.org/10.1111/j.1540-627X.2010.00314.x>

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3<sup>rd</sup> ed.). McGraw-Hill.

Official Statistics of Finland (OSF). (2019). Employment of students. Statistics Finland. [http://www.stat.fi/til/opty/2019/opty\\_2019\\_2021-03-12\\_tie\\_001\\_en.html](http://www.stat.fi/til/opty/2019/opty_2019_2021-03-12_tie_001_en.html)

Petrova, K. (2012). Part-time entrepreneurship and financial constraints: evidence from the Panel Study of Entrepreneurial Dynamics. *Small business economics*, 39(2), 473–493. <http://dx.doi.org/10.1007/s11187-010-9310-7>

Prodan, I., & Drnovsek, M. (2010). Conceptualizing academic-entrepreneurial intentions: An empirical test. *Technovation*, 30(5/6), 332–347. <https://doi.org/10.1016/j.technovation.2010.02.002>

Raffiee, J., & Feng, J. (2014). Should I quit my day job?: A hybrid path to entrepreneurship. *Academy of Management Journal*, 57(4), 936–963. <https://doi.org/10.5465/amj.2012.0522>

Raijas, M. (5.10.2021). Kevytyrittäjien määrä kasvoi koronavuonna. *Tieto&Trendit*. <https://www.stat.fi/tietotrendit/artikkelit/2021/kevytyrittajien-maara-kasvoi-koronavuonna/>



Ruiz-Rosa, I., Gutiérrez-Taño, D., García-Rodríguez, F., & Gil-Soto, E. (2021). Triggering events in the decision to be an entrepreneur: an analysis of their influence on higher education graduates. *Education+ Training*. <https://doi.org/10.1108/ET-04-2021-0128>

Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International journal of entrepreneurial behavior and research*, 11(1), 42–57. <http://dx.doi.org/10.1108/13552550510580834>

Seikkula-Leino, J., Salomaa, M., Jónsdóttir, S. R., McCallum, E., & Israel, H. (2021). EU policies driving entrepreneurial competences: Reflections from the case of EntreComp. *Sustainability*, 13(15), 8178. <https://doi.org/10.3390/su13158178>

Sequeira, J., Mueller, S., & McGee, J. (2007). The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship*, 12(3), 275–293. <http://dx.doi.org/10.1142/S108494670700068X>

Siu, W., & Lo, E. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. *Entrepreneurship theory and practice*, 37(2), 147–173. <https://doi.org/10.1111%2Fj.1540-6520.2011.00462.x>

Solesvik, M. Z. (2017). Hybrid entrepreneurship: how and why entrepreneurs combine employment with self-employment. *Technology innovation management review*, 7(3), 33–41. <http://dx.doi.org/10.22215/timreview/1063>

Thorgren, S., Sirén, C., Nordström, C., & Wincent, J. (2016). Hybrid entrepreneurs' second-step choice: The nonlinear relationship between age and intention to enter full-time entrepreneurship. *Journal of business venturing insights*, 5, 14–18. <https://doi.org/10.1016/j.jbvi.2015.12.001>

Tosey, P., Dhaliwal, S., & Hassinen, J. (2015). The Finnish Team Academy model: implications for management education. *Management learning*, 46(2), 175–194. <http://dx.doi.org/10.1177/1350507613498334>

Yi, S., & Duval-Couetil, N. (2021). Standards for evaluating impact in entrepreneurship education research: Using a descriptive validity framework to enhance methodological rigor and transparency. *Entrepreneurship theory and practice*. <https://doi.org/10.1177/10422587211018184>

Zampetakis, L., Kafetsios, K., Bouranta, N., Dewett, T., & Moustakis, V. (2009). On the relationship between emotional intelligence and entrepreneurial attitudes and intentions. *International journal of entrepreneurial behaviour & research*, 15(6), 595–618. <http://dx.doi.org/10.1108/13552550910995452>