

Entrepreneurship and Adolescents

Lidia E. Santana Vega^{1*} , Olga González-Morales² , Luis Feliciano García³ 

¹Departamento de Didáctica e Investigación Educativa, Universidad de La Laguna, Spain {lsantana@ull.es}

²Departamento de Economía Aplicada y Métodos Cuantitativos, Universidad de La Laguna, Spain {olgonzal@ull.edu.es}

³Departamento de Didáctica e Investigación Educativa, Universidad de La Laguna, Spain {lfelici@ull.es}

Received on 23 February 2016; revised on 16 March 2016; accepted on 22 March 2016; published on 15 July 2016.

DOI: 10.7821/naer.2016.7.165



ABSTRACT

This work studied the entrepreneurial aspirations of 3,987 adolescents regarding self-employment and the influence of gender, age, nationality, type of school, location of the school, educational level and performance. The Logit model is used to analyze the data. The results indicate that the pupils' aspirations to be self-employed increase in the case of foreigners, of studying in a state school, of having a lower educational level and of demonstrating a low academic performance. The results were not statistically significant for the gender and age variables. The curriculum and guidance programmes need to promote a spirit of entrepreneurship and creativity in young people

KEYWORDS: SECONDARY SCHOOL STUDENTS, ENTREPRENEURS, SELF-EMPLOYED, ADOLESCENTS

1 INTRODUCTION

The educational system plays a fundamental role in promoting the attitudes and skills associated with entrepreneurship. The European Union has designed different strategies and action plans for the promotion of entrepreneurship (Bourgeois, 2011). An entrepreneurial system of education that promotes creativity, innovation and self-employment needs to be enhanced at all educational levels. Furthermore, education systems should foster the skills the students need to improve their employability (Teijeiro, Rungo, & Freire, 2013).

There is a discussion in the literature about whether the educational system should encourage entrepreneurship in students (Lourenço & Jayawarna, 2011). Supporters of introducing entrepreneurial knowledge and skills into the curriculum argue that this should begin at the infant stage and continue throughout compulsory schooling. The research work of Peterman and Kennedy (2003), which used a sample of 200 students of different ages, shows how the formation of autonomy skills and personal initiative at an early age helps students define their career.

In Spain, as in other countries, educational policies are oriented more towards the uniformity of thought than fostering imagination, creativity or divergent thinking at an early age (Sobrado-Fernández & Fernández-Rey, 2010; Sternberg, 2002). The Spanish education system has generated measures of attention for diversity to preferentially support failing students, but students with a high level of initiative or creativity are usually neglected.

Education systems should develop creative abilities in students, which allow them to develop complex cognitive processes: imagining, speculating about innovative hypotheses, discovering and inventing (Schleicher, 2003; Urban, 2006). These capabilities are essential in order to make vital decisions in a calm and prudent way (Santana, Feliciano, & Jiménez, 2012).

Self-employment is becoming increasingly important because of its relevance in the global processes of job creation and economic growth (Audretsch & Thurik, 2001; Baumol, 2010; Wenckers & Thurik, 1999). In modern liquid societies, our lives and careers are becoming ever more unpredictable and uncertain (Bauman, 2000; Giddens, 1991; Savickas et al., 2009). As Savickas et al. (2009) point out, "today occupational prospects seem far less definable and predictable, with job transition more frequent and difficult [...] Insecure workers in the information era must [...] embrace flexibility rather than stability and create their own opportunities" (p. 2).

Policy makers have to find ways to maintain and generate entrepreneurship in countries (Sanyang & Huang, 2010). The development of policies to promote entrepreneurship and self-employment among young people requires knowledge of the characteristics of students who aspire to become self-employed. Describing the characteristics of the young entrepreneur will help to understand the qualities which young entrepreneurs have, as opposed to those who do not have such qualities.

This paper aims to find empirical evidence about the characteristics of a compulsory secondary school student in the Canary Islands on the following: 1) the aspirations of young people to work for themselves and 2) the influence of certain variables on the probability that a student wishes to be self-employed in the future.

This article: 1) describes the results of studies on the variables that influence the desire to be an entrepreneur 2) specifies the aim, the hypothesis and research methodology, 3) sets out the procedure and the results of the Logistic Regression analysis, 4)

*To whom correspondence should be addressed:
 Dpto. de Didáctica e Investigación Educativa.
 Facultad de Educación. Universidad de La Laguna.
 Av Trinidad s/n. Campus Central.
 38204, La Laguna. Tenerife. España

summarizes the main findings of the study and suggests future lines of research.

2 FACTORS INFLUENCING THE DECISION TO BE SELF-EMPLOYED

The literature on factors which influence predisposition to become an entrepreneur is extensive. This work focuses on personal and educational factors, specifically taking into account factors such as gender, age, nationality, type of school, area where the school is located, educational level and performance.

There are many studies on how gender influences the decision about whether to work on a self-employed basis. The studies by Kolvereid (1996), Kourilsky and Walstad (1998), Matthews and Moser (1995) and Scherer, Adam, Carley and Wiebe (1989) clearly show that men are more predisposed to starting up enterprises than women and that they show a greater preference for self-employment. The results of Minniti and Nardone (2007) show that gender differences may exist in perceptions about motivation in the context of entrepreneurship, which are related to self-esteem, fear of failure, and to a lesser degree, perception of opportunities, all of which are associated with risk appetite. Nevertheless, they conclude that the relationship between the probability of starting a business and other variables (age, household income, employment situation and education) does not depend on gender. According to Sexton and Robinson (1989), entrepreneurship is not a question of preference, but rather one of real opportunities as women have greater difficulty when they start to work on a self-employed basis. Delmar and Davidson (2000) and Delmar and Holmquist (2004) point out that: a) gender is a determining factor in the willingness of individuals to become entrepreneurs and b) women generally have less access to the resources and knowledge necessary to help them to be entrepreneurial. According to Lee and Rogoll (1997) and Romero (1990) female entrepreneurs are more qualified in terms of education than male entrepreneurs, but have less specific training in entrepreneurship. Furthermore, women are more risk averse than men.

The analysis Blanco-González, Mercado-Idoeta and Prado-Roman (2012) in Spain, using data from the 2011 Global Entrepreneurship Monitor (GEM) report, shows the low presence of women in the business world. In a study conducted on 20 old year university students, Rubio-López, Córdón-Pozo and Agote-Martín (1999) it was demonstrated that gender influences the predisposition to start up businesses, but it is the least important factor in explaining the difference in this predisposition. González-Morales (2004) did not detect gender differences in the desire to work for oneself or for others in students in non-compulsory secondary school and technical college. However, differences between men and women were found when considering their employment status (self-employed or employed) in the analysis by González-Morales, Díaz-Pérez and Jiménez-González (2011), of the micro-data from the Survey of the Work Force (EPA Spanish initials), conducted by the National Statistics Office (INE Spanish initials) on the active Spanish work force from 2005 to 2010. Recently, Noguera, Alvarez, Merigó and Urbano (2015: 342) consider that the main findings indicate that informal factors (recognition of entrepreneurial career and female networks) are more relevant for female entrepreneurship than formal factors (education, family context and difference in income level).

Certain studies suggest that entrepreneurship is greater in young people and decreases with age (Blanchflower, 2004;

Levesque & Minniti, 2006). The decision on how to proceed in generating economic activity is conditioned by the different stages in a person's life. As people get older they are less willing to become entrepreneurs (Singh & Verma, 2001). According to Katz (1994) this decrease in predisposition begins at about forty. Bonnett and Furnham (1991) conclude that young people perceive success or failure to a lesser extent and are less afraid to work for themselves. Honjo (2004) reports that learning ability and the ability to take on challenges is higher in young people. However, Bird (1993) shows that age has less weight than other variables. Young people in Spain are more prone to self-employment and entrepreneurship and this propensity decreases over time (Genesca-Garrigosa & Veciana-Verges, 1984; González-Morales, 2004; OIT, 2000; Rubio-López *et al.*, 1999; Sanz de la Tejada, 1988).

The *nationality* variable refers to the country of birth. According to Kalantaridis and Bika (2006) and Neupert and Baughn (2013) immigrants revitalize the economy because they have more initiative and start more businesses than native people. In the case of the UK, immigrants have a higher predisposition to be self-employed than British nationals (Levie, 2007). Light and Bhachu (2004) review works of interest related to entrepreneurship and immigration. Baycan-Levent and Nijkamp (2009, p. 375) conducted a comparative analysis and concluded that European migrant entrepreneurship is determined by some distinct push factors such as high unemployment rates and low participation rates or low status in the labour market, as well as by an accompanying factor, namely mixed embeddedness. GEM, in its latest reports, provides data for the first time on immigrant entrepreneurship (De la Vega, Corduras, Cruz, & Justo, 2008; GEM, 2010). As a result of migration patterns studies on the creation of businesses by foreigners in Spain have proliferated in recent years. The role of immigrants in the creation of firms has been analyzed in several works (Cebrián, Bodega, & Martín, 2007; Irastorza-Arandia & Peña-Legazkue, 2005). The aforementioned works show the relationship between economic growth and social and the employment integration of immigrants when they become self-employed. The initiatives undertaken by immigrants are rapidly spreading across Spain, a clear example of this is that the immigrants do not only hold job positions, but they are also a source of job creation (Solé & Parella, 2005). According to the study by Mancilla, Viladomiu and Gualarte (2010) foreigners in Spain are more entrepreneurial than Spanish nationals therefore being an immigrant increases the probability of generating an entrepreneurial activity.

The *type of school* (state or private) or the *area where it is located* (rural or urban) also affects the development of skills and positive attitudes towards entrepreneurship. The debate about what type of centre enhances the competence to learn to be entrepreneurial began with the work of Coleman, Hoffer and Kilgore (1982), when they conclude that private schools prepare their students better in this respect. The results of Coleman *et al.* (1982) were later confirmed by other authors (Chubb & Moe, 1992; Friedman & Friedman, 1990; Witte 1992). However, the study by Figlio and Stone (1997) reports that the type of school only affects certain groups of students. Thus, a new point is introduced into the debate on the advantages and disadvantages of state education versus private education (Ballou, 2001; Falck & Woessmann, 2013; James, 1987; James, 1993; Jimenez & Sawada, 2001; Landeras-Cicero & Pérez de Villarreal, 2000; Lassibille, 1998; Lassibille, Navarro-Gómez, Aguilar-Ramos, & de la O Sánchez, 2001; Van der Gaag, 1995).

Educational level and academic performance have a determining influence on the success of business initiatives (Block, Hoogerheide, & Thurik, 2013; Sandberg & Hofer, 1982; Stuart & Abetti, 1987). A person's training conditions his or her attitude towards starting a new business (Krueger & Brazeal, 1994). People with low levels of training may see entrepreneurship as an alternative to ascend economically and socially and to meet their employment needs (Donkels, 1991). However, according to Krueger (1993), people with low levels of formal education may end up with a limited view of business opportunities; people with more formal education tend to have more skills and competencies that open up more options and opportunities for them. A higher level of education allows the entrepreneur to deal better with the everyday problems of business activity (Cooper, Woo, & Gimeno-Gascón, 1994; Dioneo-Adetayo, 2006). According to Hisrich (1990), it is not necessary to have a high level of education to start a business, but it can be an advantage. Magaña (1998) found a limited relationship between the level of education and success in the company. The work of Veciana (2005), in Spain, says that there has been an increase in the training of new businessmen and women in recent times. However, Cuadrado-Roura (2004) and González-Morales (2011) conclude that it is the people with little formal education or those with compulsory education who are more likely to work for themselves.

González-Morales, Díaz-Pérez & Álvarez-González (2012) study the distinguishing features of salaried employment and self-employment in 2009, differentiating between Spanish workers and foreign workers. The analysis shows that, in the group of foreign workers, self-employment is associated with people with high levels of education (graduates), who mainly work in tourist or retail activities. In the case of the Spanish group, self-employment is associated with people with low levels of education (illiterate or primary school), who start up enterprises whose activity is associated with agriculture, forestry, fishing and construction.

Fossen and Buttner (2013) refer to the influence of formal education on the productivity of people who work for themselves. These authors make a distinction between opportunity entrepreneurs, who voluntarily start a business, and necessity entrepreneurs, who have no other employment opportunity. In this respect and starting from the statements of the abovementioned authors, business initiative is linked to a process of detecting opportunities (Shane & Venkataraman, 2000) where one has to be aware of the changes in the environment or it is connected to the hypothesis of refuge employment (Bögenhold & Staber, 1991) which states that self-employment is a response to counter cyclical patterns in the economy, since it becomes a refuge for the unemployed in recessionary times and its presence is less noted in times of growth.

3 AIMS, HYPOTHESIS AND METHODOLOGY

The aim of this study is to analyze the characteristics of Compulsory Secondary School adolescent pupils according to their desire to start their own company. The study aims to obtain characteristics of the student entrepreneur in order to see what measures may foster entrepreneurship at these educational levels.

The following hypotheses are proposed which state that the probability that a Compulsory Secondary School pupil wants to start their own business increases if:

- H1: They are male.
- H2: They are older than 16.
- H3: They are foreign.
- H4: They have studied in a state school.
- H5: They have studied in a multicultural school.
- H6: They have a low educational level.
- H7: Their academic performance is low.

This research studied 4,726 adolescent pupils in the Canary Islands in 2011. The secondary schools were specifically selected as they had to fulfil the following criteria: a) to be located in the larger or smaller islands, b) to be located in rural, urban or periphery areas or to be a multicultural school, c) to be a state or privately owned school. The final size of the sample was 3,987 adolescent pupils and Table 1 is the datasheet of the study.

Table 1. Data sheet

Components	Description
Methodological process	Surveys with structured and administered questionnaires
Population size	85,006 adolescent pupils in Compulsory Secondary School
Confidence level	99%
Margin of error	±2%
Sample size	3,987 pupils
Field work dates	2011-2012 academic year
Information processing	SPSS statistical programme (versión 21.0)

Table 2 shows the variables used for the multivariate analysis and the degree of significance of the Chi-Square test, χ^2 . The Chi-Square has obtained from the contingency tables, according to the desire shown by the pupils to start or not start their own business, that 55.1% of the pupils showed a desire to be self-employed.

Table 2. Characteristics of adolescent pupils who want or do not want to start their own business (percentages)

Variables	Do not want to start a business	Want to start a business
Gender		
male	49.8	52.0
female	50.2	48.0
Age		
11-16	93.7	92.8
older than 16	6.3	7.2
Nationality (***)		
Spanish	88.5	80.2
Foreign	11.5	19.8
Type of school (***)		
private	18.4	11.0
state	81.6	89.0
Location (***)		
peripheral	9.2	9.0
multicultural	17.3	21.2
rural	20.0	19.8
urban	53.5	50.0
Educational level (***)		
1st y 2nd	48.9	53.2
3rd y 4th	51.1	46.8
Performance (***)		
low performance	34.8	42.1
high performance	65.2	57.9

Number of participants 3,987. Chi-square test of Pearson: Coefficients of significance to 1% (***)

Source: Survey of Compulsory Secondary School pupils in the Canary Islands, 2011.

A logistical regression was applied to calculate the probability that a pupil wants to start their own business. This type of model was used when the dependent variable is a categorical variable with two separate and mutually exclusive alternatives.

The dependent variable in this analysis is the desire to start a company (alternatives: yes or no). The explicative variables are gender, age (11-16 or over 16), nationality (Spanish or foreign), type of school (privately or state owned), location of the school (peripheral, multicultural, rural or urban), educational level (1st-2nd Compulsory Secondary School or 3rd-4th Compulsory Secondary School) and performance (low or high according to their academic results). The gender and age variables were not statistically significant; however, they have been introduced into the model to check if they had any influence on it.

4 RESULTS OF THE LOGISTICAL REGRESSION MODEL

Four models were performed to evaluate the results and to select the most parsimonious model with the greatest predictive capacity. The gender, age and location variables were discarded. The nationality, type of school, educational level and performance variables were used to construct the model.

The following *logit* model was proposed to represent, in a logarithmic scale, the difference between the probabilities of alternative 1 (wanting to start a business) and its opposite (not wanting to start a business).

$$\text{Ln} \frac{p_i}{1-p_i} = \beta_0 + \sum \beta_z X_{zi}$$

p_i equal to 1 if the pupil wants to be self-employed and 0 in the other case

$1-p_i$ equal to 1 if the pupil wants to be employed and 0 in the other case

X_{zi} value of the explicative variable z for each pupil

β are unknown parameters which need to be calculated

The model predicts 57.3% of all the cases. This model has a high explicative capacity for the pupils who want to start their own company because it correctly classifies 89.3% of these pupils.

Table 3 shows the estimated coefficients of the model and the individual significance of the variables. The statistical tests show the suitability of the model. The Hosmer-Lemeshow test for goodness of fit of the model shows that the overall fit is good (there is no significance Sig. 0.810). The aforementioned test has a high value of predicted probability (p), which is associated with result 1 of the dependent variable.

A detailed observation of the calculations in relation to the characteristics of the pupils studied shows that:

A Spanish pupil has less probability of being self-employed.

Being a pupil at a private school reduces the probability of being self-employed.

As regards to educational level, pupils in 1st and 2nd years of Compulsory Secondary School have a greater probability of being self-employed than those at higher levels in Compulsory Secondary School.

Pupils with a low performance have a greater probability of being self-employed.

5 DISCUSSION AND CONCLUSIONS

The decision to be self-employed in adolescent pupils increases in the case of foreigners, of studying in a state school, of being at a lower educational level and of having a low academic performance. Therefore, the hypotheses of the study are true in part; the results were not statistically significant for the gender, age and location variables.

The absence of gender differences is noteworthy, because of the few differences produced by the percentages obtained from the male pupils and female pupils about their wish to start up a company in the future. This result is similar to results obtained in other studies, some of which are mentioned at the beginning of this paper, which consider that there are no differences between men women regarding their predisposition to entrepreneurial initiative, above all at early ages; nevertheless, most pupils pointed in the opposite direction when the real data on entrepreneurship was analyzed. A circumstance that may influence these results is that, in recent years, educational authorities have promoted the inclusion of entrepreneurship education, improving knowledge of the company and the employer in the curriculum, as well as the launch of new lines of public action aimed at developing equality policies that appear to have attenuated gender differences.

Significant differences with respect to age were not found either. The percentage difference in this study, between the 11-16 year old group, when it is compulsory to attend school in secondary education, and the over 16 year old group is too large, thereby making it impossible to obtain conclusive results.

Differences between those who prefer to start their own business or have a salaried job are observed in multicultural schools with students from over 53 different nationalities. This could be explained in part by the entrepreneurial character of immigrant families and, in part, by the need to create a business for self-employment. Immigrants are more predisposed to being entrepreneurs than the native population as immigrants do not usually have networks of family members and friends who can help them to access the labour market; generally speaking, immigrants have to "fend for themselves" by setting up their own businesses. This fact can be seen in our study on immigrant adolescent pupils, where it was found that 65% of these pupils thought that setting up their own business was a priority in their life design (Santana, Feliciano & Jiménez, 2016).

The schools should encourage entrepreneurial attitudes in their students by taking advantage of the synergies of foreign pupils; these students, as found in the research, are more entrepreneurial and want to start their own business in the future. The differences observed in the multicultural schools are not large enough for the location variable to be significant in the model. The explicatory capacity of the model can be improved in future analyzes. It would be desirable to include other variables such as: relatives with their own businesses or who are self-employed, educational level of the parents, island of residence or the reasons for the pupils to start a business.

Pupils enrolled at a lower educational level and who have low academic performance are more predisposed to entrepreneurship. These results are similar to those obtained in other studies conducted in recent decades. The current situation of a company requires employers with more training. Education should promote theoretical and practical knowledge, procedures and attitudes (responsibility, perseverance, creativity, flexibility, adaptability, diverse complex problem solving and decision

Table 3. Logit calculation of the probability that a pupil wants to start a business

Variables	B	E.T.	Wald	gl	Sig.	Exp (B)	C.I. 95.0% for EXP(B)	
							Inferior	Superior
Nationality (***) Spanish	-.559	.093	36.326	1	.000	.572	.477	.686
Type of school (***) private	-.451	.094	22.835	1	.000	.637	.530	.767
Educational level (***) 1st or 2nd secondary education	.177	.065	7.514	1	.006	1.194	1.052	1.355
Performance (**) low performance	.229	.068	11.428	1	.001	1.257	1.101	1.436
Constant	.566	.097	34.078	1	.000	1.761		

making) for the survival of the company in a highly competitive and globalized world. Generally speaking, the innovative, creative and imaginative entrepreneur has not found a suitable answer in the education system. The teachers and counsellors in the schools should play a role in promoting autonomy and personal initiative in students through curriculum and guidance programs.

The results of this study show the need to reflect on the characteristics of the pupils, which affects their attitude towards entrepreneurship. Teachers should take these features into account in order to promote them in the classroom. Those responsible for education policies should design appropriate strategies to enhance the entrepreneurial skills of pupils in schools.

Education affects entrepreneurial attitudes in the long term. Specific training influences attitudes in the short-term and prepares pupils by means of simulated activities or real practice for the planning, organization and implementation of innovative business projects. The lines of public action addressed at promoting entrepreneurship should combine these aforementioned factors.

Entrepreneurship in secondary education is not integrated into the curricula of different subjects. Academic and career guidance does not help pupils to reflect on the importance of entrepreneurship. Coordination between the integral parts of the education system and business is essential. Strategies need to be devised to offer young people a quality educational and vocational guidance service. Mentoring becomes a fundamental orientation tool if carried out by professionals trained in the coordinates of the information and knowledge society (Castells, 1998a; 1998b; 1998c). Mentoring has extended to the mothers and fathers of pupils since their influence is considerable at these ages. The family should consider other training options apart from university, as a means of access to the labour market (professional training and occupational training). Employers should get closer to the world of young people and try to convey entrepreneurial attitudes, through teachers or by any other means. In order to encourage entrepreneurship among adolescents it is necessary to improve the knowledge of the figure of the entrepreneur and the self-employed person in secondary education.

Job security and comfort at work are priority goals for secondary schools pupils (Santana, Feliciano, & Santana, 2012). However, in modern liquid societies such goals are utopian (Bauman, 2000). In a society subject to constant change where uncertainty prevails in different spheres of life of the people, it is necessary to review students' life goals in light of the socio-economic and cultural reality. Teachers and counsellors training

in new skills and updating curricula are prerequisites to respond to the changing realities of post-modernity. Work needs to be done on entrepreneurial competence in the classroom, defined as the individual's ability to turn ideas into action. Therefore, education should foster the following in students: 1) creativity, innovation and risk taking, and 2) the skills to plan, manage projects and achieve the objectives above, taking ethical values into account. The acquisition of such skills and abilities must be useful not only in the pupils' working life but also in their personal life. Acting with autonomy means we have the ability to make and implement our life plans and personal projects. Autonomy competence and personal initiative are relevant to succeed in the social, cultural, economic, employment, political, emotional or ethical plane. Furthermore, possessing the above skills increases the possibilities of people starting their own business.

The current problems of the education system demands a redefinition of its objectives to address the following: 1) the limitation of public resources, 2) the high rate of youth unemployment at the age of entry to the labour market, 3) the expansion of the social demand for training, 4) the desire of the school community to participate in the development of new curricula and training plans, 5) the existence of technological changes modifying labour relations and skills, and 6) the need for both initial and continuing quality teacher training.

New technologies are a powerful tool that can help to incorporate innovative teaching resources; they can also help to disseminate labour market information and entrepreneurial opportunities. However, the problems of education cannot be solved with the application of IT in the classroom alone. As Postman (1999) points out, it is necessary to create an open and authentic human dialogue between pupils and teachers, as well as finding appropriate methodological strategies to cater for the diversity of students' abilities. Attitudes, values and habits are built cooperatively in the process of planning teaching activities and also require a joint effort between the school, teachers, pupils and their families. In summary, it is necessary to devise a plan that integrates the different stages of the educational process and all members of the educational community to foster entrepreneurial competences. As the African proverb says "it takes a whole tribe to raise a child".

ACKNOWLEDGEMENTS

Funded by: Agencia Canaria de Investigación, Innovación y Sociedad de la Información, Spain.

Funder Identifier: <http://dx.doi.org/10.13039/501100007757>

Award: PI2007/027

The research work was made possible thanks to funding from the research project "The transition from school to work of young people: the design of a computerized program for educational and vocational guidance in compulsory secondary education" (PI2007/027), subsidized by Agencia Canaria de Investigación, Innovación y Sociedad de la Información - ACIISI- (Canary Agency for Research, Innovation and Information Society) and European funds FEDER.

REFERENCES

- Audretsch, D. B., & Thurik, R. (2001). Linking Entrepreneurship to Growth. *STI Working Papers*, 2.
- Ballou, D. (2001). Pay for performance in public and private schools. *Economics of Education Review*, 20(1), 51-61. doi:10.1016/S0272-7757(99)00060-6
- Bauman, Z. (2000). *Liquid modernity*. Cambridge: Polity Press.
- Baumol, W. J. (2010). *The Microtheory of Innovative Entrepreneurship*. Princeton & Oxford: Princeton University Press.
- Baycan-Levent, T., & Nijkamp, P. (2009). Characteristics of migrant entrepreneurship in Europe. *Entrepreneurship and regional development*, 21(4), 375-397. doi:10.1080/08985620903020060
- Bird, B. J. (1993). Demographic approaches to Entrepreneurship: The Role of Experience and Background. In J. A. Katz & R. H. Brockhaus (Eds.), *Advances in Entrepreneurship and Growth*, 11-43. Greenwich: Jai Press.
- Blanchflower, D. (2004). Self-employment: More May Not Be Better. *Swedish Economic Policy Review*, 11(2), 15-74.
- Blanco-González, A., Mercado-Idoeta, C., & Prado-Román, A. (2012). Perfil y motivación de la juventud emprendedora española. *Revista de Estudios de Juventud*, 99, 23-34.
- Block, J. H., Hoogerheide, L., & Thurik, R. (2013). Education and entrepreneurial choice: An instrumental variables analysis. *International Small Business Journal*, 31(1), 23-33. doi:10.1177/0266242611400470
- Bögenhold, D., & Staber, U. (1991). The Decline and Rise of Self-Employment. *Work, Employment and Society*, 5(2), 223-239. doi:10.1177/0950017091005002005
- Bonnett, C., & Furnham, A. (1991). Who Wants to Be an Entrepreneur? A Study of Adolescents Interested in a Young Enterprise Scheme. *Journal of Economic Psychology*, 12(3), 465-478. doi:10.1016/0167-4870(91)90027-Q
- Bourgeois, A. (2011). *Entrepreneurship Education at School in Europe: National Strategies, Curricula and Learning Outcomes*. Education, Audiovisual and Culture Executive Agency: European Commission. Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/135en.pdf
- Castells, M. (1998a). *La era de la información. La sociedad red* (Vol.1). Madrid: Alianza.
- Castells, M. (1998b). *La era de la información. Economía, sociedad y cultura. El poder de la identidad* (Vol.2). Madrid: Alianza.
- Castells, M. (1998c). *La era de la información. Fin de milenio* (Vol.3). Madrid: Alianza.
- Cebrián, J. A., Bodega, M. I., & Martín, M. A. (2007). Inmigración y creación de empresas. In R. Domínguez-Martín (Ed.), *Inmigración: crecimiento económico e integración social*, 147-166. Santander: Parlamento de Cantabria, Universidad de Cantabria.
- Chubb, J. E., & Moe, T. M. (1992). *A lesson in school reform from Great Britain*. Washington D.C.: Brookings Institution.
- Coleman, J., Hoffer, T., & Kilgore, S. (1982). *High school achievement. Public, catholic and private schools compared*. New York: Basic Books.
- Cooper, A., Woo, C. Y., & Gimeno-Gascón, F. J. (1994). Initial Human and Financial Capital as Predictors of New Venture Performance. *Journal of Business Venturing*, 9(5), 371-395. doi:10.1016/0883-9026(94)90013-2
- Cuadrado-Roura, J. R. (Coord.) (2004). *Empleo autónomo y empleo asalariado*. Madrid: Subdirección General de Publicaciones del Ministerio de Trabajo y Asuntos Sociales.
- Delmar, F., & Davidson, P. (2000). Where do they come from? Prevalence and Characteristics of Nascent Entrepreneurs. *Entrepreneurship and Regional Development*, 12(1), 1-23. doi:10.1080/089856200283063
- Delmar, F., & Holmquist, C. (2004). *Women's entrepreneurship: issues and policies, in 2nd Organization for Economic Cooperation and Development (OECD)*. Istanbul, Turkey: Conference of Ministers Responsible for SMEs, Promoting Entrepreneurship and Innovative SMEs in a Global Economy. doi:10.1080/02673843.2006.9747970
- De la Vega, I., Corduras, A., Cruz, C., & Justo, R. (2008). *Entrepreneurial Activity among Foreigners Resident in Spain*. Madrid: International Centre for Entrepreneurship & Venture Development, IE Business School.
- Dioneo-Adetayo, E. A. (2006). Factors influencing attitude of youth towards entrepreneurship. *International Journal of Adolescence and Youth*, 13(1-2), 127-145.
- Donkels, R. (1991). Education and entrepreneurship experiences from secondary and university education in Belgium. *Journal of Small Business and Entrepreneurship*, 9(1), 35-42. doi:10.1080/08276331.1991.10600389
- Falck, O., & Woessmann, L. (2013). School competition and students' entrepreneurial intentions: International evidence using historical Catholic roots of private schooling. *Small Business Economics*, 40(2), 459-478. doi:10.1007/s11187-011-9390-z
- Figlio, D. N., & Stone, J. A. (1997). *School choice and student performance. Are private schools really better?* (Discussion Paper No. 1141-1197). Institute for Research on Poverty. Retrieved from <https://core.ac.uk/download/files/153/6649293.pdf>
- Fossen, F. M., & Büttner, T. J. (2013). The returns to education for opportunity entrepreneurs, necessity entrepreneurs, and paid employees. *Economics of Education Review*, 37, 66-84. doi:10.1016/j.econedurev.2013.08.005
- Friedman, M., & Friedman, R. (1990). *Free to choose: A personal statement*. Houghton Mifflin Harcourt.
- GEM (2010). *Informe ejecutivo 2010 España*. Madrid: GEM España.
- Genesca-Garrigosa, E., & Veciana-Verges, J. M^a (1984). Actitudes hacia la creación de empresas. *Información Comercial Española*, 611, 147-155.
- Giddens, A. (1991). *Modernity and self-identity. Self and society in the late modern age*. Cambridge: Polity Press.
- González-Morales, M^a O., Díaz-Pérez, F. M^a & Álvarez-González, J. A. (2012). Education and Employment (2005-2009): A Comparative Analysis between the Spanish and Foreign Working Population. *Chinese Business Review*, 11(4): 411-423.
- González-Morales, M^a O. (2011). El empleo por cuenta propia en España en el período 2005-2010. *Información Comercial Española*, 863, 97-110.
- González-Morales, M^a O., Díaz-Pérez, F. M^a, & Jiménez-González, V. (2011). Employment in Spain according to gender (2005-2009): Education and other relevant variables. *Global & Local Economic Review*, 15(1): 5-30.
- González-Morales, M^a O. (2004). *Educación e iniciativa empresarial: Un análisis centrado en la población juvenil canaria*. Santa Cruz de Tenerife: Servicio de Publicaciones de la Universidad de La Laguna.
- Hirsich, R. D. (1990). Entrepreneurship/Intrapreneurship. *American Psychologist*, 45(2), 209. doi:10.1037/0003-066X.45.2.209
- Honjo, Y. (2004). Growth of new start-up firms: evidence from the Japanese manufacturing industry. *Applied Economics*, 11(1), 21-32.
- Irastorza-Arandia, N., & Peña-Legazkue, I. (2005). Inmigración y mercado laboral en la CAPV. Creación de empresas: ¿Vía de integración en la sociedad de acogida? In M. L. Setién-Santamaría, & M. González-Ferreras (Eds.), *Diversidad migratoria: distintos protagonistas, diferentes contextos*, (pp. 225-260). Bilbao: Universidad de Deusto.
- James, E. (1993). Why do different countries choose a different public-private mix of Educational Services? *Journal of Human Resources*, 28(3), 571-592. doi:10.2307/146161
- James, E. (1987). The public/private division of responsibility for education: an international comparison. *Economics of Education Review*, 6(1), 1-14. doi:10.1016/0272-7757(87)90028-8
- Jiménez, E., & Sawada, Y. (2001). Public for private: the relationship between public and private school enrollment in the Philippines. *Economics of Education Review*, 20(4), 389-399. doi:10.1016/S0272-7757(00)00061-3
- Kalantaridis, C., & Bika, Z. (2006). Immigrant entrepreneurship in rural England: beyond local embeddedness. *Entrepreneurship & Regional Development*, 18(2), 109-131. doi:10.1080/08985620500510174
- Katz, J. (1994). Modelling entrepreneurial career progressions: concepts and considerations. *Entrepreneurship Theory and Practice*, 19(2), 23-40.
- Kolvreid, L. (1996). Prediction of Employment Status Choice Intentions. *Entrepreneurship Theory and Practice*, 21(1), 47-57.
- Kourilsky, M. L., & Walstad, W. B. (1998). Entrepreneurship and Female Youth: Knowledge, Attitudes, Gender Differences and Educational Practices. *Journal of Business Venturing*, 13(1), 77-88. doi:10.1016/S0883-9026(97)00032-3
- Krueger, N., & Brazeal, D. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18, 91-104.
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, 18, 5-21.
- Landeras-Cicero, P., & Pérez de Villarreal, J. M^a (2000). El rendimiento escolar en las CCAA: El debate público-privado y los efectos de la descentralización educativa. In J. Hernández Armenteros, & A. I. Peragón Márquez (Eds.), *IX Jornadas de la Asociación de la Economía de la Educación* (pp. 405-424). Jaén: Publicaciones de la Universidad de Jaén.
- Lassibille, G. (1998). Wage gaps between public and private sectors in Spain. *Economics of Education Review*, 17(1), 83-92. doi:10.1016/S0272-7757(97)00012-5

- Lassibille, G., Navarro-Gómez, L., Aguilar-Ramos, I., & de la O Sánchez, C. (2001). Youth transition from school to work in Spain. *Economics of Education Review*, 20(2), 139-149. doi:10.1016/S0272-7757(97)00012-5
- Lee, M., & Rogoll, E. (1997). Do Women Entrepreneurs Require Special Training? An Empirical Comparison of men and women Entrepreneurs in the United States. *Journal of Small Business and Entrepreneurship*, 15(1), 4-29. doi:10.1080/08276331.1998.10593277
- Levesque, M., & Minniti, M. (2006). The Effect of Aging on Entrepreneurial Behaviour. *Journal of Business Venturing*, 21(2), 177-194. doi:10.1016/j.jbusvent.2005.04.003
- Levie, J. (2007). Immigration, immigration, ethnicity and entrepreneurship in the United Kingdom. *Small Business Economics*, 28(2), 143-169. doi:10.1007/s11187-006-9013-2
- Light, I., & Bhachu, P. (eds.) (2004). *Immigration and Entrepreneurship. Cultural, Capital and Ethnic Networks*. New Jersey: Transaction Publishers.
- Lourenço, F., & Jayawarna, D. (2011). Enterprise education: the effect of creativity on training outcomes. *International Journal of Entrepreneurial Behaviour & Research*, 17(3), 224-244. doi:10.1108/13552551111130691
- Magaña, M. (1998). *Factors Affecting Success and Failure of New Firms* (Report No. 97/98). Barcelona: European Doctoral Programme on Entrepreneurship and Small Business Management.
- Mancilla, C., Viladomiu, L., & Gualarte, C. (2010). Emprendimiento, inmigrantes y municipios rurales: el caso de España. *Economía Agraria y Recursos Naturales*, 10(2), 121-142.
- Matthews, C. H., & Moser, S. B. (1995). Family background and gender: implications for interest in small firm ownership. *Entrepreneurship & Regional Development: An International Journal*, 7(4), 365-378. doi:10.1080/08985629500000023
- Minniti, M., & Nardone, C. (2007). Being in Someone Else's Shoes: Gender and Nascent Entrepreneurship. *Small Business Economics Journal*, 28(2), 223-238. doi:10.1007/s11187-006-9017-y
- Neupert, K. E., & Baughn, C. C. (2013). Immigration, Education and Entrepreneurship in Developed Countries. *Journal of Enterprising Communities: People and Places in the Global Economy*, 7(3), 293-310. doi:10.1108/JEC-12-2011-0033
- Noguera, M., Álvarez, C., Merigó, J. M., & Urbano, D. (2015). Determinants of female entrepreneurship in Spain: an institutional approach. *Computational and Mathematical Organization Theory*, 21(4), 341-355. doi:10.1007/s10588-015-9186-9
- OIT (2000). *Emplear a los jóvenes: Promover un crecimiento intensivo en empleo*. Bruselas: OIT.
- Peterman, N., & Kennedy, J. (2003). Enterprise Education: Influencing Students' Perceptions of Entrepreneurship. *Entrepreneurship Theory and Practice*, 28(2), 129-144. doi:10.1046/j.1540-6520.2003.00035.x
- Postman, N. (1999). *El fin de la educación. Una nueva definición del valor de la escuela*. Barcelona: Octaedro.
- Romero, M. (1990). *La actividad empresarial femenina en España*. Instituto de la Mujer. Madrid: Ministerio de Asuntos Sociales.
- Rubio-López, E. A., Córdón-Pozo, E., & Agote-Martín, A. L. (1999). Actitudes hacia la creación de empresas: Un modelo explicativo. *Revista Europea de Dirección y Economía de la Empresa*, 8(3), 37-52.
- Sandberg, W. R., & Hofer, C. W. (1982). A Strategic Management Perspective on the Determinants of New Venture Success. In K. Vesper (Ed.), *Frontiers of Entrepreneurship Research* (pp. 204-237). Wellesley: Babson College.
- Santana, L. E., Feliciano, L., & Jimenez, A. B. (2016). Perceived family support and the life design of immigrant pupils in secondary education. *Revista de Educación*, 372, 35-62.
- Santana, L. E., Feliciano, L., & Jiménez, A. B. (2012). Toma de decisiones y género en Bachillerato. *Revista de Educación*, 359, 357-387.
- Santana, L. E., Feliciano, L., & Santana, A. (2012). Análisis del proyecto de vida del alumnado de educación secundaria. *Revista Española de Orientación y Psicopedagogía*, 23 (1), 26-38. Retrieved from: <http://www.uned.es/reop/pdfs/2012/23-1%20-%20Santana.pdf>
- Sanyang, S. E., & Huang, W-C (2010). Entrepreneurship and Economic Development: The EMPRETEC Showcase. *International Entrepreneurship and Management Journal*, 6(3), 317-329. doi:10.1007/s11365-008-0106-z
- Sanz de la Tejada, L. A. (1988). Rasgos y características del empresario español. *Cámara Oficial de Comercio, Industria y Navegación de Alicante. Jornadas sobre la cultura de la empresa, del 7 al 10 de abril de 1987* (pp. 59-74). Alicante: Universidad de Alicante.
- Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., Sorens, S., Van Esbroeck, R., & van Vianen, A. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behavior*, 75, 239-250. doi:10.1016/j.jvb.2009.04.004
- Scherer, P. D., Adams, J., Carley, S. & Wiebe, F. (1989). Role Model Performance Effects on Development of Entrepreneurial Career Preference. *Entrepreneurship Theory and Practice*, 13(3), 53-81.
- Schleicher, A. (2003). *La evaluación de las competencias del alumnado. PISA 2000: Datos sobre la calidad y la equidad del rendimiento académico* (Technical Report). Barcelona: Generalitat de Catalunya.
- Setién-Santamaría, M^a L., & González-Ferreras, M. (Ed.) (2005). *Diversidad migratoria: distintos protagonistas, diferentes contextos*. Bilbao: Universidad de Deusto.
- Sexton, E. A., & Robinson, P. B. (1989). The Economic and Demographic of Self-employment. In K. Vesper (Ed.), *Frontiers of Entrepreneurship Research*, (pp. 28-42). Wellesley: Babson College.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226. doi:10.5465/amr.2000.2791611
- Singh, G., & Verma, A. (2001). Is there life after career employment? Labour market experience of early retirees. In V. Marshall, W. Heinz, H. Kruegar, & A. Verma (Eds.), *Restructuring Work and the Life Course* (pp. 288-302). Toronto: University of Toronto Press.
- Sobrado-Fernández, L., & Fernández-Rey, E. (2010). Competencias emprendedoras y desarrollo del espíritu empresarial en los centros educativos. *Educación XXI*, 13(1), 15-38. doi:10.5944/educxx1.13.1.275
- Solé, C., & Parella, S. (2005). *Negocios Étnicos: Los comercios de los inmigrantes no comunitarios en Cataluña*. Barcelona: Fundación CIDOB.
- Sternberg, R. J. (2002). *Inteligencia Exitosa*. Barcelona: Paidós.
- Stuart, R. W., & Abetti, P. A. (1987). Star-up Ventures: Towards the Prediction of Initial Success. *Journal of Business Venturing*, 2(1), 215-230. doi:10.1016/0883-9026(87)90010-3
- Teijeiro, M., Rungo, P., & Freire, M. J. (2013). Graduate competencies and employability: The impact of matching firm's needs and personal attainments. *Economics of Education Review*, 34, 286-295. doi:10.1016/j.econedurev.2013.01.003
- Urban, B. (2006). Entrepreneurship education and entrepreneurial intentions: a prospect for higher education? *Education as Change*, 10(1), 85-103. doi:10.1080/16823200609487131
- Van der Gaag, J. (1995). *Private and public initiatives: Working together for health and education*. Washington DC: The World Bank. doi:10.1596/0-8213-3417-4
- Veciana, J. M. (2005). *La creación de empresas. Un enfoque gerencial*. Barcelona: Servicios de Estudios La Caixa.
- Wennekers, S., & Thurik, R. (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics*, 13(1), 27-56. doi:10.1023/A:1008063200484
- Witte, J. F. (1992). Private school versus public school achievement: are there findings that should affect the educational choice debate? *Economics of Education Review*, 11(4), 371-394. doi:10.1016/0272-7757(92)90043-3

How to cite this article:

Santana Vega, L. E., González-Morales, O., Feliciano García, L. (2016). Entrepreneurship and adolescents. *Journal of New Approaches in Educational Research*, 5(2), 123-129. doi: 10.7821/naer.2016.7.165