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### IKASTORRATZA. e-Revista de Didáctica

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#### Why do adults go to adult secondary school?

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#### Abstract:

This paper analyzes the motivation of adult students to attend Adult Secondary Education (ASE) in Argentina. The investigation consisted of an exploration stage using the Focus Groups technique (FG) in which 29 ASE students participated, then a stage of analysis and construction of a survey based on the results of the FG, and finally, a stage of implementation and analysis of the survey, which was administered to 820 adult students nationwide. The results show that students' motivation is related to three aspects: improving job position, improving self-esteem and preparing to study a career. Furthermore, these aspects are not isolated, but are significantly associated with each other. Considering the students' motivation to attend the ASE both in the curricular conformation and at classrooms, could be a way to improve not only the teaching but also the quality of life of adults.

**Keywords:** Adult Secondary Education; Motivation; Survey; Adult learners.

#### Resumen

Este paper analiza la motivación de los adultos por asistir a la Educación Secundaria de Adultos (ESA) de Argentina. La investigación consistió en exploración mediante la técnica de Focus Groups (FG), dónde participaron 29 estudiantes de la ESA, luego el análisis y construcción de un instrumento en base a los resultados de los FG y finalmente, la implementación y análisis de la encuesta, administrada a 820 estudiantes adultos a nivel nacional. Los resultados muestran que la motivación de los estudiantes se relaciona a tres aspectos: mejorar la posición laboral, mejorar la autoestima y prepararse para estudiar una carrera. Tales motivos no están aislados, sino que se encuentran asociados significativamente. Considerar la motivación para asistir a la ESA tanto en el la conformación curricular como en las clases, podría ser un camino para mejorar no solo la enseñanza sino también la calidad de vida de los adultos.

Palabras clave: Educación Secundaria de Adultos, Motivación, Encuesta, Estudiantes adultos.

#### 1. Introduction

This work is part of a more general investigation around the question What Mathematics to Teach in Adult Secondary Education (ASE) in Argentina? As well mathematics as other ASE's disciplines have among its purposes to meet the needs and the interests of students who attend there. In relation to this issue, Lukianova (2016, p.7) states that, in order to achieve the efficiency of learning activities in adult students, "it is necessary to thoroughly analyze the motives that drive them to learn, to determine the needs, interests, attitudes, and inclinations". Although all of these generally have a significant impact on learning outcomes, there are no known surveys that inquire about the motivations of these adults. Therefore, an investigation that delves into these aspects is of vital importance for teaching at ASE. Knowing why adults attend to this institution is one important factor for considering in order to decide what to teach there, since they are citizens in full exercise of their rights and obligations.

In the Argentine context, as in other South American countries, ASE students make up a heterogeneous population group (different life stories, occupations, ages, prior knowledge, etc.) of native people, who have been left out of the traditional education system. Particularly, Argentina is a country with a high school dropout rate, in which only 45% of adolescents who enter secondary school complete it (UNICEF, 2017, p.33). The remaining 55% are potential students of the ESA, since the secondary studies are compulsory (2006), by article 16 of the National Education Law N  $^{\circ}$  26.206 (LEN). This law establishes that the "Educación Permanente de Jóvenes y Adultos" (Permanent Education of Young People and Adults), of which the ASE is a part, is the educational modality "destined to guarantee" the enforcement of the compulsory schooling (article 46). This only complicates more the ASE's task, because it gives to ASE an even greater responsibility. Because of the compulsory secondary education establishment, younger students began attending the ASE, with the purpose of not to be left out of the school system. At present, it has been registered students of 15 and even 14 years old in some classrooms of the ASE.

Nowadays, there is no unified curricular design in Argentina. The Ministry of Education propose ASE recover the sense of learning "for life" (Federal Council of Education, 2009, De la Fare, 2010), but there is no clear idea about how to do it, nor research supporting it. This is evidenced by the amount (32 in total) and diversity of current national and jurisdictional regulations (Ministry of Education of the Nation, 2012). Although it is socially accepted that ASE aims for a different population sector from that of the common secondary school, no significant differences are found in the official curriculum, but only a reduction in time and content. In this way, some authors

maintain that ASE is considered socially as a lower education and of a merely compensatory nature (Maselli, Molina & Epiménides, 2015).

This paper presents the results of an inquiry about the motivation of the adult students to return to secondary school in Argentina. First an exploratory stage was developed through the Focus Group Technique. Then a survey was designed, applied and analyzed, which allowed the results of the previous stage can be driven on a large scale. The combined analysis of these results allows us to elaborate some recommendations so that the teaching offered in ASE corresponds to the needs of the students who attend there.

#### 2. Material and Methods

We use qualitative and quantitative techniques to analyze what are the adults' motivation to return to high school. The research followed a four-stage scheme. In Stage 1, Focus Group (FG) was developed to explore in depth the interests of adults and to explore in depth the interests of adults and their opinions about ASE. Five FG were performed with N = 29 participants, making an inductive categorization of the answers until assuming the theoretical saturation (Gürtler & Huber, 2007). In stage 2, a survey was designed based on the results of the FG (Donvito, Otero & Fanaro, 2017, Donvito, Fanaro & Otero, 2017). In stage 3, the instrument was validated, a pilot test was carried out, the type of sample was decided (stratified by provinces) and was administered to 820 ASE students in Argentina. In the fourth stage, the results of the survey were analyzed with univariate, bivariate and multivariate statistics techniques.

In this paper, a univariate and bivariate analysis of the results of three items of the survey referring to students' motivations to attend the ASE is performed. These items are affirmations with a Likert scale, associated to each one of the subcategories created from the FG (table 1). In the second column of table 1 the analysis subcategories of the FG of the student's motivation to attend the ASE category are presented. These subcategories correspond to the answers of the students, their motives to attend the ASE are analyzed and classified in: improving job position; improving social recognition; and searching of knowledge (Donvito, Fanaro, Otero, 2017). In the third column of the table are the statements of the survey, which the students answered with five degrees of agreement: strongly disagree, disagree, undecided, agree and strongly agree.

Table 1. Subcategories and associated survey items.

Category	Subcategories	Survey items
Motivation to	Improving job position	ASE helps to improve job position
attend ASE	Improving social recognition	ASE helps to improve self-esteem
	Searching of knowledge	ASE offers a preparation to study a career

#### 3. Results and Discussion

Following, the results of each one of the survey items are presented.

#### **ASE** helps to improve job position

Initially, it was identified that some adult students returned to ASE for motives related to improving their job position (Donvito, Fanaro, Otero, 2017). In some cases, they expressed dissatisfaction with their current job and wish to change it for motives such as: not having a stable employment contract; not having access to basic benefits (e.g. medical insurance or retirement savings plan); earning a low income, lower than it should be, or simply because their salaries are insufficient to their needs. In other cases, the students intend to get a promotion in their current job position, or to regularize their employment contract, and consider that by finishing their secondary education they will be able to acquire what they aspire to. We present below, in a prototypical way, some expressions obtained in the FG, which allowed us to create the category: Improving job position.

Example 1: Students A8 (43 years old, housewife) and A3 (21 years old, maid) argue in FG5 that they attend ASE for work motives, since employers take advantage of adults without a secondary school diploma, paying them a low salary according to the level of education attained:

\_A8: Nowadays it is convenient for people, to give employment to people who do not have education. Because those who do not have education, do not knowledges (referring to your rights and obligations) ...

\_A3: Yes, so you are paid scarcely.

*Example 2:* Student A1 of the FG4, who is 19 years old, works in a car wash of his proprietorship. This student wants to obtain the Secondary Education degree to access a job that allows him to have medical insurance and retirement savings plan.

\_Interviewer: And... why do you come to adult school?

\_A1: Because ... to have the diploma and then later find a job with Laboral benefits such as social work and some things like that.

Example 3: Student A4 (employee, 26 years of age) holds in FG5 that she attends ASE to get another job that, from her opinion, "to be better". Here, the student states, unless she obtains the formal certification of the secondary, she will be destined to work all her life in the cleaning work field.

\_A4: I started high school to have a better job.

(...) I do not want to continue cleaning, I do not want to get my retirement in the cleaning work field.

The results of this categorization were driven a large scale in the survey from the associated variable *ASE helps to improve job position*. Table 2 shows the distribution of the frequencies of this variable. As was mentioned above, the item was presented as an affirmation with five degrees of agreement on a Likert scale. The mode is *strongly agree* with 41.8%, and jointly with *agree* (25.7%), these accumulate 67.5% of the answers. A high degree of agreement with this statement is evident. This means that, for a large proportion of ASE students, their motivation to attend there is related to ASE being able to help them achieve a better job. The high degree of agreement confirms the importance of the exploration carried out in the focus group stage, since the students manifested difficulties to reach a non-precarious employment. These results also suggest that one way to improve motivation in the teaching of mathematics in the ASE could be by relating the curricular contents to the world of work. This is related to the works of Kelly (2016, 2018), who states that adults arouse greater motivation to learn and use mathematics when they are taught in work contexts, such as in unions. Beyond its application in non-formal educational spaces, Kelly's research also shows that teaching focused on specific aspects of the workplace increases adult motivation.

**Table 2.** ASE helps to improve job position.

			Accumulated
	Frequency	Percentage	percentage
Strongly Disagree	59	7,2	7,2
Disagree	64	7,8	15,0
Undecided	143	17,4	32,4
Agree	211	25,7	58,2
Strongly Agree	343	41,8	100,0
Overall	820	100,0	

#### **ASE** helps to improve self-esteem

The first stage of the research also revealed that some students attend ASE for motives related to self-concept and self-esteem such as feeling better about themselves and obtaining greater social recognition in general or from close relatives such as their parents or children. Some prototypical examples of each of these cases, which allowed us to create the category: Improving social recognition, are presented:

Example 1: A 20-year-old student (A5 in FG5) states that he attends school "in order to be someone". He is a blacksmith and he considers his job does not have the social recognition that he

aspires to achieve, and this does not allow him to "be someone". Thus, their motivation to attend adult school is to study and develop a profession that, in their opinion, has greater social recognition.

\_Interviewer: why do you attend adult school?

\_A5: And ... to be someone ... Because if you have to work under sun and break your back working to earn a few pesos ... you're nobody ...

Example 2: A student, aged 39 who is dedicated to the care for the elderly, considers that finishing secondary school is a requirement to be able to demand her children study: (...) I started to be able to tell them "study" because you can not tell anybody "study" if you did not study.

This categorization, which is resulted of the focus group analysis, showed the need to include in the survey an item related to the fact that attending the ASE increases the student's assessment towards himself. It was thus that ASE helps to improve self-esteem item was included in the survey with a Likert scale. Table 3 shows the distribution of the frequencies of the variable. The mode is strongly agree with 52.9% and, jointed with agree (25.6%), these accumulate 78.5% of the answers. Therefore, it is a clear evidence of a high degree of agreement with the students' opinion that the mere fact of attending ASE will improve self-esteem. On the other hand, these results found in Argentina are related to other contributions of the international scientific community, such as that of *The Danish Evaluation Institute*. According to a survey conducted in 2004 by DMA-Research (Wedege, 2010) two of the main motivations of adults to study mathematics in the Preparatory Adult Education are: 'to become more self-confident' and 'to help my children with their homework'.

Table 3. ASE helps to improve self-esteem.

			Accumulated
	Frequency	Percentage	percentage
Strongly Disagree	52	6,3	6,3
Disagree	54	6,6	12,9
Undecided	70	8,5	21,5
Agree	210	25,6	47,1
Strongly Agree	434	52,9	100,0
Overall	820	100,0	

#### ASE offers a preparation to study a career

The first stage of the research also revealed that some students attend ASE for motives related to learn things that could be useful for their lives, according to their aspirations. In most cases, students refer to they attend at an ASE's school because they are looking for a preparation in order

to study at university career or college. Some of them say they have chosen the career to study, among others: architecture, law, police, accountant, sports journalism, etc. In other cases, such as a student who works in domestic cleaning and elderly care, not yet: "because I want to study something and I know that the ASE will help me". Thus, the category Searching of knowledge was created from the analysis of the FG.

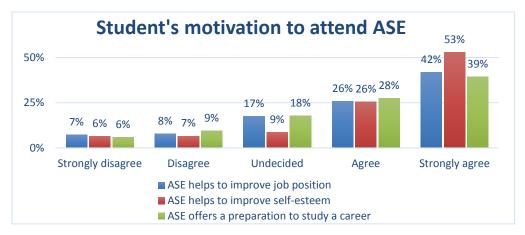
The results of this categorization were driven a large scale in the survey from the associated variable *ASE offers a preparation to study a career*. Table 4 shows the distribution of the frequencies of this variable. As in the last two variables, the modalities are expressed in a Likert scale with five degrees of agreement. Mode is *strongly agree* with 39.3%, which jointly with *agree* (27.6%) accumulate 67% of the answers. Therefore, it is a clear evidence of a high degree of agreement with the learners' opinion about ASE makes them able to study a career.

**Table 4.** ASE offers a preparation to study a career.

			Accumulated
	Frequency	Percentage	percentage
Strongly disagree	49	6,0	6,0
Disagree	77	9,4	15,4
Undecided	146	17,8	33,2
Agree	226	27,6	60,7
Strongly Agree	322	39,3	100,0
Overall	820	100,0	

In summary, the categorization of the responses of the 29 local students of the ASE, through the focus groups (Donvito, Fanaro & Otero, 2017), allowed to create three motives to attend the ASE. Such motives were part of a scale nationwide survey. In the survey, we analyze these motives with the ordinal variables: *ASE helps to improve job position*, *ASE helps to improve self-esteem* and *ASE offers a preparation to study a career*. All of these obtained high degree of agreement with similar proportions, as it is shown in the figure 1. Only that one of improving self-esteem is subtly highlighted with a lower degree of indecision and with a higher percentage of total agreement. The degrees of agreement (agreement and total agreement) exceed 67% of the answers in all three cases.

Figure 1: students' motivation to attend ASE.



Adult students may have more than one motive to attend ASE, or even none at all. Table 5 shows the relative frequencies and percentages of the 125 combinations of answers of the respondents. In the rows the modalities of the variable ASE helps to improve job position are presented. In columns grouped by five, the modalities of the variable ASE helps to improve self-esteem are presented, and in each of these, the five modalities of the variable ASE offers a preparation to study a career are presented. In the latter, the degrees of agreement are abbreviated: SD (Strongly disagree), D (Disagree), U (Undecided), A (Agree), SA (Strongly agree). The most relevant combinations are described.

**Table 5:** Relative frequencies and percentages of the answer combinations.

ASE h	elps to improve self-esteem		Stron	gly dis	agree				Disagre	e			U	ndecid	ed				Agree				Str	rongly a	agree	
ASE o	offers a preparation to study																									
	a career	SD	D	U	Α	SA	SD	D	U	Α	SA	SD	D	U	Α	SA	SD	D	U	Α	SA	SD	D	U	A	SA
q	Strogly disagree	9	3	4	2	1	2	0	2	2	0	4	2	0	0	0	2	0	3	2	2	. 3	2	2	3	9
io	%	1,1%	0,4%	0,5%	0,2%	0,1%	0,2%	0,0%	0,2%	0,2%	0,0%	0,5%	0,2%	0,0%	0,0%	0,0%	0,2%	0,0%	0,4%	0,2%	0,2%	0,4%	0,2%	0,2%	0,4%	1,1%
8	Disagree	2	5	0	2	1	1	4	2	3	0	3	0	2	3	1	1	4	1	3	5	0	4	5	3	9
impr	%	0,2%	0,6%	0,0%	0,2%	0,1%	0,1%	0,5%	0,2%	0,4%	0,0%	0,4%	0,0%	0,2%	0,4%	0,1%	0,1%	0,5%	0,1%	0,4%	0,6%	0,0%	0,5%	0,6%	0,4%	1,1%
ritior	Undecided	0	1	2	2	0	3	7	2	2	3	3	1	8	4	1	2	12	12	20	8	2	7	11	17	13
s to	%	0,0%	0,1%	0,2%	0,2%	0,0%	0,4%	0,9%	0,2%	0,2%	0,4%	0,4%	0,1%	1,0%	0,5%	0,1%	0,2%	1,5%	1,5%	2,4%	1,0%	0,2%	0,9%	1,3%	2,1%	1,6%
0 7	Agree	2	0	1	2	0	0	1	1	0	3	1	1	2	11	7	1	5	24	30	18	0	6	25	32	38
ا ا ح	%	0,2%	0,0%	0,1%	0,2%	0,0%	0,0%	0,1%	0,1%	0,0%	0,4%	0,1%	0,1%	0,2%	1,3%	0,9%	0,1%	0,6%	2,9%	3,7%	2,2%	0,0%	0,7%	3,0%	3,9%	4,6%
\SE	Strongly agree	1	0	3	5	4	0	1	2	3	10	1	0	1	5	9	0	5	6	14	30	6	6	25	56	150
`	%	0,1%	0,0%	0,4%	0,6%	0,5%	0,0%	0,1%	0,2%	0,4%	1,2%	0,1%	0,0%	0,1%	0,6%	1,1%	0,0%	0,6%	0,7%	1,7%	3,7%	0,7%	0,7%	3,0%	6,8%	18,3%

The answer combination *strongly agree* in each variable was the mode with 18.3% (blue cell ). Moreover, 45% of the respondents answered *agree* or *strongly agree* in the three cases (sum of the light blue cells and the blue cell ). This indicates almost half of the students are interested in attending ASE because they believe that doing so can help to improve their job position and their self-esteem, and even, it can prepare them to study a career. Beyond whether ASE effectively helps to achieve these aims or not, it is worth mentioning the high proportion of students who are optimistic about what they expect to receive from this institution. The results also suggest a positive social assessment regarding study.

Students who answered *disagree* or *strongly disagree* in the three statements barely reach 3.1% (sum of the orange cells and the red cell). That means the proportion of disinterested students in what ASE could offer them is scarce. This lack of interest was reported in the focus group analysis when some students claimed that they just attended ASE "to obtain the secondary education diploma". They do not aspire to change their job or study a career, nor do they consider that they could learn something interesting or useful there.

Only 1.1% of the respondents (4 men and 5 women) answered they *strongly disagree* with the three statements (red cell ). Their lack of motivation to attend ASE can be understood from their sociodemographic characteristics: age, gender and employment status. Four of the five women work as housewives and one is unemployed, meanwhile, the four males are between the ages 14 and 19 and their employment status is *student only*. In the case of the youngest, in previous investigations it was reported that some of them attend because they are forced by their parents (guardians). In the case of housewives, having more free time could be the cause of attending ASE even if they are not interested in anything. Something similar happens with those who answered *undecided* in the three statements (1%), represented in the black cell . Six of eight are under the age of 19, mostly women with the employment status *students only*.

The percentage of students who have only one motivation is low: 1.9% are interested only in improving their job position (pink cells ), 3.1% are interested only in preparing to study a career (yellow cells ), and 8.8% are only interested in improving their self-esteem (green cells ). The other respondents have at least two motivations to attend ASE. To analyze how these interests are related to each other, a bivariate analysis is carried out.

#### Bivariate analyze

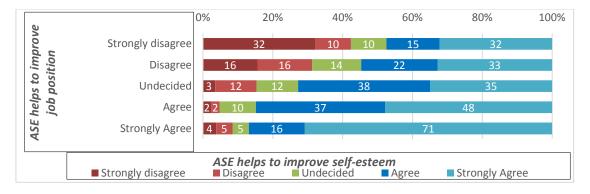
The frequency distribution of the modalities of each of the three variables in relation to the other two is examined. We evaluate which pair combinations of these variables report a significant association and we determine the measure of the associations reported. Firstly, Chi-square independence test is used. In all three cases, p-value <0.001, therefore, these are significantly associated. Secondly, the degree of these association is measured by Gamma statistic for qualitative variables with ordinal scale. Gamma takes values in the interval [-1,1]. Values close to 1 indicate a strong positive association, those close -1 a strong negative association and those close to 0 an insignificant association (Rea & Parker, 1992). Table 6 shows the p-value and the Gamma value resulted by crossing each pair of variables, then the results are analyzed and the associations are described using stacked bar graphs.

Table 6: p-value and the Gamma value of each pair combinations.

	ASE helps to improve job position	ASE helps to improve self-esteem	ASE offers a preparation to study a career
ASE helps to improve job	p-valor: <0,001	p-valor: <0,001	p-valor: <0,001
position	Gamma: 1	Gamma: 0,421	Gamma: 0,473
ASE helps to improve self-	p-valor: <0,001	p-valor: <0,001	p-valor: <0,001
esteem	Gamma: 0,421	Gamma: 1	Gamma: 0,367
ASE offers a preparation	p-valor: <0,001	p-valor: <0,001	p-valor: <0,001
to study a career	Gamma: 0,473	Gamma: 0,367	Gamma: 1

The variable ASE helps to improve job position is significantly associated (p-value: <0.001) with the variable ASE helps to improve self-esteem. This means, there is a relation between the students' motivation to attend ASE to improve their job position and to do so to improve their self-esteem. The Gamma value = 0.421 indicates a moderate and positive degree of association. For higher agreement degree to the first one of the motives, higher agreement degree with the second one. Figure 2 shows how each modality of ASE improve the job position (horizontal bars) depending on the modalities of the ASE helps to improve self-esteem (colored sections). The sections in blue tones represent degrees of agreement; the sections in red tones represent degrees of disagreement and the section in green, indecision. It is observed, except for undecided, for each modality of the ASE helps to improve the job position, the mode in the ASE helps to Improve the Self-esteem is strongly agree. It is also noteworthy that 71% of those who answered strongly agree with the first variable also did so with the second.

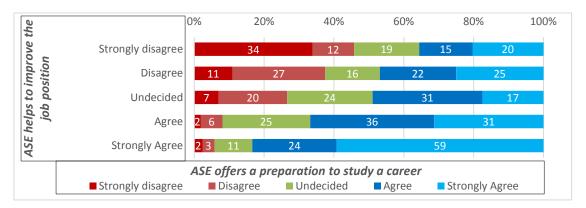
**Figure 2:** Modalities of ASE helps to improve job position disaggregated by modalities of ASE helps to improve self-esteem.



The variable ASE helps to improve the job position is significantly associated (p-value <0.001) to the variable ASE offers a Preparation to Study a Career. Both motives to attend are related. Here, the Gamma value = 0.473 is a little higher than the previous one and it also indicates that the association is positive and moderate. For a higher agreement degree to the first one of the motives, higher agreement degree with the second one. Figure 3 allows to synthesize how each variable modality of ASE helps to improve the job position (horizontal bars) is disaggregated depending on the variable modalities of ASE offers a Preparation to Study a Career (colored sections). With the

exception of Indecision, for each modality of the first one, the mode in the second one is the same degree of agreement. That is, to strongly disagree in the ASE helps to improve the job position (upper bar), the mode is strongly disagree in ASE offers a Preparation to Study a Career (red sector), and likewise, for disagree in the first (second horizontal bar), the mode is disagree in the second variable (pink sector). The same happens for the agreement degrees and strongly agree. Here, it is remarkable that students tend to share the same level of agreement for both statements.

**Figure 3:** Modalities of ASE helps to improve the job position disaggregated by modalities of ASE offers a preparation to study a career.



The variable ASE help to improve self-esteem is significantly associated with the variable ASE offers a Preparation for Studying a Career. Both motives to attend ASE are related. The gamma value, 0.367 indicates a moderate and positive association. Figure 4 allows to synthesize how each modality of the first variable is disaggregated according to those of the second one. With the exception of strongly disagree, each modality of the first one, have for mode a degree of agreement (agree or strongly agree) in the second one.

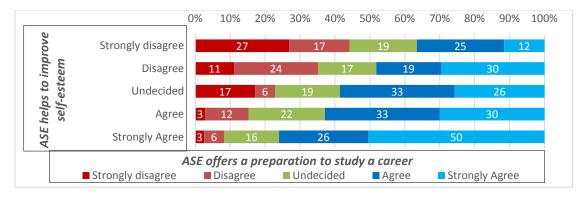


Figure 4: Modalities of ASE helps to improve self-esteem disaggregated by modalities of ASE offers a preparation to study a career

#### 5. Conclusion

Knowing the motivation of adult students to attend ASE is essential to decide what to teach in this institution. The presented work aimed to find out such motivations. The results showed that only

3.2% of students who attend ASE do so without any interest, so this aspect can not be disregarded. In addition, few students attend for a single interest, most of them attend for two or three motives that are significantly associated: improving their job position, improving their self-esteem or preparing to study a career. These motivations to attend ASE are closely related to trying to get a social ascent and with a positive assessment towards studying. These results contrast with the absence of specific policies to meet these demands. On the other hand, even if they are just basing on intuition, students point in the right direction: from an economic point of view, knowledge is the most important factor of production and social development in this century, much more than traditional economic factors such as land or natural resources (Drucker, 1993). From the viewpoint of the neurosciences, studying and acquisition of new knowledge are decisive in the health indicators of the population. Regardless of the point of view adopted, investment in education as part of a human development, improves indicators of: education, health, social behavior and employment (Hackerman, 2008). In conclusion, it would be appropriate that students' motivations are considered both in future curricular modifications and in the daily work of ASE teachers. Doing it could be a way to improve not only the teaching, but also the quality of life of adults.

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