

Graduats i competències: analitzant la bretxa entre universitat i empresa
Graduates and competences: analyzing the gap between university and enterprise
Graduados y competencias: analizando la brecha entre universidad y empresa

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Resum

Com a resultat del procés de convergència en relació amb l'educació superior iniciat a Bolonya el 1999, el paper de la Universitat en la societat està experimentant una profunda transformació. El paradigma tradicional, segons el qual la Universitat és el punt de partida per construir coneixements al més alt nivell, s'està estudiant ara per donar cabuda a més estudis de formació professional, que inclouen l'adquisició de competències com a pilar central. No obstant això, dos dels principals actors que juguen un paper en el procés, acadèmics i emprenedors, tenen punts de vista diferents respecte a les competències que ha de tenir un graduat que entra en el mercat laboral. A partir dels resultats d'una enquesta realitzada a la Universitat de Barcelona, mostrarem com les empreses es giren a favor de competències relacionades amb la productivitat a mitjà-curt termini, mentre que la universitat aposta per deixar de banda el coneixement amb més caràcter científic. Aquest escenari reforça la necessitat d'un diàleg més profund entre la Universitat i les empreses, assenyalant els beneficis que alguns ajustos en la formació universitària poden acabar aportant a la societat.

Paraules clau: Competències, Universitat, Mercat laboral, Biaix de gènere.

Abstract

As a result of the process of convergence relative to higher education initiated in Bologna in 1999, the role of the University in the society is undergoing a profound transformation. The traditional paradigm, according to which the University is the point of departure for constructing knowledge at the highest level, is now under consideration in order to accommodate more vocational training studies, which include the acquisition of competencies as a central pillar. Nevertheless, two of the main actors that play a role in the process, academics and entrepreneurs, have different points of view with respect to the skills a graduate entering the labor market should have. Based on the results from a survey conducted at the University of Barcelona, we will show how firms turn in favor of competencies related to medium-short term productivity, whereas the university balks at setting aside knowledge with more scientific nature. This scenario reinforces the need of a deeper dialogue between University and firms, pointing out the benefits that some adjustments in college training may end up providing the society.

Keywords: Competencies, University, Labor market, Gender biases.

Resumen

Como resultado del proceso de convergencia relativa a la educación superior iniciado en Bolonia en 1999, el papel de la Universidad en la sociedad está experimentando una profunda transformación. El paradigma tradicional, según el cual la Universidad es el punto de partida para construir el conocimiento al más alto nivel, está ahora en consideración para dar cabida a más estudios de formación profesional, que incluyen la adquisición de competencias como pilar central. Sin embargo, dos de los principales actores que juegan un papel en el proceso, académicos y empresarios, tienen diferentes puntos de vista con respecto a las habilidades que debe tener un graduado que ingresa en el mercado laboral. A partir de los resultados de una encuesta realizada en la Universidad de Barcelona, mostraremos cómo las empresas están a favor de las competencias relacionadas con la productividad a medio-corto plazo, mientras que la universidad se resiste a dejar de lado el conocimiento con carácter más científico. Este escenario refuerza la necesidad de un diálogo más profundo entre la Universidad y las empresas, señalando los beneficios que algunos ajustes en la formación universitaria pueden acabar aportando a la sociedad.

Palabras clave: Competencias, Universidad, Mercado laboral, Sesgo de género.

1. Introduction

The university has traditionally been perceived as the core of knowledge. However, some time ago, this perception started changing, knowledge is generated everywhere and the university is now facing new challenges, including the renovation of the interaction mechanisms between higher education and business environment (Brennan, 2008). The University has a large amount of responsibility in the formation of highly skilled people (Noah and Abdul Aziz, 2020). This raises an uncomfortable pressure between the advocates of scientific literacy, understood as fundamental knowledge, and those who prefer giving priority to learning professional skills. As Schleutker *et al.* (2019) note, skills and competences are required in an increasingly higher degree by a growing competitive labor market. The controversy inevitably starts when people wonder up to which extent University may have impoverished the conceptual training basis, so as to focus their efforts on employability. Some authors turn of the screw a little bit more, and even question the skill-training ability of University in those aspects directly related to the employability of graduates (Cranmer, 2006).

Nowadays, where society demands vision, entrepreneurship and generation of new ideas, college students' training is crucial. Munroe and Westwind (2009) emphasize the central role of the university in fostering a global approach to knowledge and innovation, highlighting its profound importance in building a strong economy. Meanwhile, Etkowitz (2003) emphasizes the need to enrich the interaction between university, business and government, so that the latter establishes the foundations for the improvement of the skills and knowledge of graduates. In order to achieve this no effort should be spared by either the faculty or the university. On the contrary, a continuous and fluid cooperation between academia and industry should be fostered (Mascarenhas *et al.*, 2018; Nyborg, 2003; Orazbayeva *et al.*, 2020) without forgetting the main actor: students. Thanks to them we can gather a great deal of information that will help introduce the necessary adjustments and improvements in higher education (Cabrera *et al.*, 2005).

To achieve these objectives, the acquisition of a solid and high degree of competences is extremely important, since it facilitates the transition of students into the labor market (Kepir Sávoly and Tuzgol Dost, 2020; Roberson *et al.*, 2002; Salas, 2003). Heijke *et al.* (2003) reinforce this idea, noting that the speed at which the graduates learn to develop their work is based on the level and type of skills acquired. Moore and Murphy (2009) added that the students who learn to manage their own learning during their time at university, will better manage with their professional duties with initiative, creativity and the required degree of autonomy. Therefore, the skills that a graduate needs to develop constitute the cornerstone of their training at University (Martin *et al.*, 2013). In this sense, various Spanish universities are already focused on promoting specific skills training (Carreras *et al.*, 2006; Ugarte and Naval, 2008). Besides a certainly large amount of teachers work on providing their colleagues tools to plan and evaluate educational activities designed for the development of their students skills (Cano and Ion, 2012).

There are also numerous research that show the point of view of employers, both at a national level (Cajide *et al.*, 2002; García and Ibáñez, 2008; Marzo-Navarro *et al.*, 2008) and at international level (Alshare and Sewailem, 2018; Hesketh, 2000; Biesma *et al.*, 2007). These studies evaluate the satisfaction of employers with graduates, and show that these do not always meet the expectations of the former. And this is usually not due to a lack of specific knowledge of the profession students, but to a lack of competences, which sometimes turns out to be an insurmountable barrier when applying what they have learnt to a professional context. In fact often companies prefer to hire graduates rather than less qualified workers, just because the formers are supposed to have better skills. Furthermore, within the field of economics, where our analysis takes place, it can be mentioned the study undertaken at the Maastricht Faculty of Economics by Allen and Ramaekers (2006). This work shows that employers prefer graduates who demonstrate interpersonal and analytical skills, as well as their ability to improve in the long-run.

In this context, this paper aims at displaying that the rapprochement between academia and enterprises still has a long way to go, because there are strong conceptual and practical differences between what University teaches their students what companies seek after and appreciate of the new graduates who start working for them. More specifically, based on a case study, we will analyze which are the major discrepancies between the training skills the firms require to graduates and the skills and knowledge teachers believe scholars should acquire before entering the labor market.

The research focuses on the studies taught at the Faculty of Economics and Business at the University of Barcelona (UB), which counts with around 10,000 this academic year. We have chosen this area of knowledge to avoid the loss of nuances when analyzing several disciplines together, given that the characteristics with respect to the employability of their graduates each one has is likely to be quite different.

Thus, the main objective of this paper is to show where exactly is the gap between economics and business training competences firms require and the training provided to college graduates by the university, as well as which the causes for that gap are. To delve into this issue, we analyze the existence of gender differences, which may result into a different priority in terms of required and trained competences. Traditional gender roles and their impact on the type of employment, salary, satisfaction, etc. have been widely analyzed from the point of view of the worker (Hoyt, 2012), but –as far as we know– no studies comparing whether men and women give priority to different types of skills or abilities when training their students, or when hiring new workers.

Secondly, the possibility that the perception of the skills importance might vary depending on the age of university teachers and employers will be assessed. The different understanding or appreciation the two groups may have according to their age can shed light on how trends and social changes can be influencing the role of University. Finally, the analysis based on the size of the company and its ownership might allow us to identify the presence of specific assessment patterns among them.

As a further goal, with no other purpose than to provide some thoughts and arise some concern, will delve into the above mentioned issue: should university postpone the development of knowledge with no immediate implementation and strengthen strictly working skills instead? Could that be harming the performance of graduates working in uncertain environments, which require an immediate response to unforeseen situations in order to solve emerging problems? In that case, should we be willing to close the existing gap? Is that the right path to go? Are there conflicting interests between firms and workers? In short, should University forget its role as responsible for the transmission of theoretical knowledge, and prioritize applied training and training strictly adjusted to the needs of the company? How fast are those needs going to change? What will happen then?

There is a vast debate centered on the discrepancies between the long-term vision of academics and the shorter-term vision of firms. Contributing to raising this discussion is part of our work as academics. In a

fast-moving world, old institutions are to promote reasoning and calmness, to question changes, and forge solid bases for the future. When everything changes, true knowledge remains a clue aspect to discernment and consciousness.

2. Competencies classification and description of analysis

Before describing the research methodology used to meet the objectives, it is worth remembering that the Organic Law 5/2002 of 19th June on Qualifications and Vocational Training, defines competence as "the knowledge and skills that allow the exercise of a professional activity according to the demands of production and employment". There is no universally accepted classification of competencies (García-Aracil and Van der Velden, 2008; Guerrero and De los Rios, 2012), although it is common to categorize them, as done in the Tuning Educational Structures in Europe project into instrumental (Pagani, 2009), interpersonal and systemic competences. This taxonomy meets the objective of covering the spectrum of capabilities needed throughout working life, with no intention of establishing any kind of hierarchy among them:

- Instrumental skills encompass basic aspects enabling the professional performance of workers, such as the capacity to analyze and summarize, computer skills, problem solving, etc.
- Interpersonal skills are related to communication skills, including aspects such as the ability to work in teams, or language proficiency both oral and written.
- Finally, systemic competencies refer to the integration of cognitive abilities and practical skills, and allow the person to adapt their knowledge to the professional environment; learning ability, creativity, self-demanding, among them.

Following this classification, in 2018 we conducted two parallel surveys so as to assess the importance that both groups under analysis –university-professors and employers– give to each of the generic skills. The first survey was addressed to the scholars who were teaching at that moment at the Faculty of Economics and Business at the University of Barcelona and to the companies included in the corporate database of the University. All data were kindly provided by the Teaching Department and the Department of External Relations. With respect to the companies, we included only those, public or private, who had hired in the last five years at least an employee with a degree in economics or business, as either a trainee student or in their staff. The whole study also included a third population: graduate students, who had been working at least 2 years but no more than 5. Nevertheless we are not focusing on them in this analysis.

The implementation and distribution of the questionnaires was conducted through specific online surveys software (Survey Monkey). 185 teachers and 238 firms answered the questionnaire, which under the assumption of maximum indeterminacy ($p=q=0.5$), and with a 95% confidence level, allows for a 5% error and a 4.7% error in the estimates respectively. It was assumed that individuals who answered come from a representative sample of their corresponding groups. Notwithstanding, there may be a non-response bias, as usual in most survey studies.

The questionnaire assessed each competence through a quantitative Likert scale 1-6, from lowest to highest importance. Businessmen were asked to rate both the required level of each competence for graduates to work in their firms, and the level they had when they started working, that is, the level acquired by the graduates at university. Meanwhile, academics were asked to rate the presence of each competence in their teaching, and the importance they give to each competence in the training process of a graduate. Along with this, they were also asked about their age, gender and size of the company.

The statistical analysis was performed using the program SPSS Statistics 20. Scores between 1 and 6 given by individuals of each group for each type of competence (instrumental, interpersonal and systemic) were standardized in order to homogenize them and have comparable scales. Thus, performing a mean

difference test for paired data, it was possible to observe whether the claims in terms of competences companies make fit with the importance given by teachers.

3. Results

The mean scores that academics and businessmen give to each competence are shown in Table 1, which also includes the results for the mean difference tests. First, it is observed that the largest discrepancy corresponds to economic reasoning, rating almost half a point higher among academics; then self-requirement and motivation for success seem to be most desirable among employers. Ethics, computer skills, and abilities to solve problems or to work under pressure, information management, and teamwork are also better graded by firms. Scholars, meanwhile, believe that the emphasis should be on skills related to drawing conclusions, knowledge of foreign languages, the ability to analyze and summarize, critical and self-critical ability, and to a lesser extent, on the specific knowledge of the studies (Table 2). In all cases, these differences are significant at a 5% level. For the rest of competences no significant difference was obtained.

| Competences | Assessment | | |
|------------------------------------|-------------|----------------|----------------------------|
| | Firms = [1] | Teachers = [2] | Mean difference. = [1]-[2] |
| Instrumental | | | |
| Analysis and synthesis | -0,001 | 0,345 | -0,346** |
| Organization and planning | 0,170 | 0,126 | 0,044 |
| General basic knowledge | -0,284 | -0,393 | 0,110 |
| Specific degree knowledge | -0,326 | -0,147 | -0,179 |
| Foreign language knowledge | -0,561 | -0,202 | -0,359* |
| Computer skills | 0,020 | -0,352 | 0,373** |
| Apply knowledge into practice | 0,047 | 0,249 | -0,202* |
| Problem solving | 0,351 | -0,045 | 0,396** |
| Information management | 0,175 | -0,127 | 0,302** |
| Ability to work autonomously | 0,079 | -0,052 | 0,131 |
| Interpersonal | | | |
| Ability to communicate orally | 0,411 | 0,405 | 0,005 |
| Written communication ability | 0,406 | 0,422 | -0,016 |
| Critical and self-critical ability | -0,038 | 0,307 | -0,345** |
| Ability to work in a team | 0,450 | 0,215 | 0,235* |
| Leadership | -0,394 | -0,281 | -0,113 |
| Ability to work under pressure | 0,191 | -0,134 | 0,325** |
| Ability to pass on knowledge | -0,077 | 0,002 | -0,079 |
| Ability to negotiate | -0,155 | -0,156 | 0,001 |
| Appreciation of multiculturality | -0,394 | -0,537 | 0,143 |
| Ability to impose authority | -0,887 | -0,886 | -0,001 |
| Systemic | | | |
| Ability to adapt to new situations | 0,158 | 0,090 | 0,068 |
| Capacity to learn | 0,358 | 0,157 | 0,202 |
| Creativity | -0,392 | -0,239 | -0,153 |
| Initiative and entrepreneurship | -0,033 | -0,219 | 0,186 |
| Self-demand & success concern | 0,036 | -0,433 | 0,469** |
| Responsibility and decision making | -0,117 | 0,023 | -0,140 |
| Economic reasoning | -0,757 | -0,272 | -0,484** |
| Conclude and interpret results | -0,085 | 0,304 | -0,390** |
| Ability to make technical reports | -0,434 | -0,474 | 0,039 |
| Business ethics | -0,043 | -0,453 | 0,410** |

Significance level: *5%, **1%. Own elaboration.

Table 1: Mean difference tests. Standardized data

| Panel A. Differences between academics and firms. Total men and women | |
|--|---|
| Better valued by firms | Better valued by academics |
| Problem solving Information management Ability to work in a team Work under pressure Ability to learn Self-demand and success stimulus Business ethics | Analysis and synthesis Foreign languages Apply knowledge to practice Critical and self-critical ability Economic reasoning Ability to conclude and interpret results |
| Panel B. Differences between academics and firms. Men | |
| Better valued by firms | Better valued by academics |
| Problem solving Information management Autonomous work | Analysis and synthesis Foreign languages Apply knowledge to practice Critical and self-critical ability Creativity Economic reasoning Ability to conclude and interpret results |
| Panel C. Differences between academics and firms. Women | |
| Better valued by firms | Better valued by academics |
| Computer skills Problem solving Work under pressure Initiative and entrepreneurship Self-demand & success concern Business ethics | Foreign languages Critical and self-critical ability |
| Panel D. Differences according to businessman and businesswomen age | |
| Better valued by younger than 30 | Better valued by older than 30 |
| Specific degree knowledge Ability to make technical reports Business ethics | |
| Panel E. Differences according to academics age | |
| Better valued by younger than 30 | Better valued by older than 30 |
| Ability to impose authority | Information management Autonomous work Ability to communicate orally Written communication ability Ability to work in a team Ability to learn |
| Panel F. Differences according to size of firm | |
| Better valued by firms <50 workers | Better valued by firms >50 workers |
| Critical and self-critical ability Creativity Self-demand & success concern Responsibility and decision making Ability to apply knowledge into practice | |
| Panel G. Differences according to firm ownership | |
| Better valued by public or semi-public firms | Better valued by private firms |
| Written communication ability General knowledge Specific degree knowledge | Self-demand & success concern Responsibility and decision making Ability to negotiate Business ethics |

Significance level: 5%. Own elaboration.

Table 2: Competences discrepancies assessment

In Table 2 we analyze in detail those competences whose assessment differs significantly between business world and academic world (at a 5% level). Besides, we identify the competences according to gender and age (younger or older than 30 years) as assessed by businessmen and professors, as well as by firms' size (less or more than 50 workers) and ownership (public or mixed and private). According to this, it is found that there are two skills men and women scholars agree to value more than employers, namely: the ability to be critical and self-critical and the knowledge of foreign languages. Instead, both businessmen and businesswomen value more than their academic counterparts those skills with an immediate translation to work. Furthermore, while among male employers instrumental competences are better graded as among academic males (information management, self-employment), women employers, compared to academic women, opt for systemic competences (initiative and entrepreneurship or self-demanding and motivation for success). The ability to solve problems is the only competence businessmen and businesswomen value more than their university counterparts.

We have also revised the existing discrepancies in relation to age, to see if new generations are more favorable to the acquisition of more applied skills, with a higher technological content, and to give larger autonomy to the students' initiative. Among businessmen and businesswomen under 30, the competences with a higher positive assessment compared to older are: specific degree knowledge, elaboration of technical reports and business ethics. The rest of the skills are valued in the same way regardless of the age of the businessmen or businesswomen. On the other hand, young teachers value more than those over 30 years only the ability to impose authority. However, the latter give more importance to the management of information, both oral and written communication, the ability to work autonomously and in a team, and the capacity to learn.

Finally, the analysis by firm size shows significant differences with respect to four competencies, which are more valued by smaller firms: critical and self-critical ability, creativity, self-demanding and motivation for success, and responsibility and decision making. Moreover, according to the ownership of the company, it comes out that the competences public and semi-public companies value more than private companies are written communication skills, general and specific knowledge of the degree and its implementation. Meanwhile, among private enterprises the competences ranking better are self-demanding and motivation for success, responsibility and decision-making, negotiation skills, and business ethics.

4. Discussion

A non-negligible gap between what is taught, or teachers would like to teach students at university and what the firms expect from them is found. Moreover, it is observed that the faculty tends to capture the claim society addresses to graduates in terms of critical reasoning, including knowledge of foreign languages, which acts as a vehicle facilitating access to science and further knowledge spreading. From the results it follows that the teaching priorities focus on a theoretical level, which should be able to shape the foundations of the empirical application. The opposite is observed in the case of businessmen. Their assessment is focused on more pragmatic aspects as part of the workers' tasks, since they directly relate to the targets of the company, rather than the knowledge itself, either general or specific.

More specifically, the lower assessment of foreign languages made by companies sounds very striking. We are not saying that employers do not value it, but they do it in a lower level than teachers. One possible reason to explain this discrepancy would be the still relatively low level of internationalization of the economy and, by extension, of the corporate structure: few firms export and many small companies survive mainly thanks to domestic demand. Therefore, the present adverse economic conditions our country is facing may be exerting a strong negatively influence.

If we focus on smaller companies, competences such as critical and self-critical ability, creativity, self-demanding and motivation towards success, and responsibility and decision making are more appreciated than in larger companies. This suggests that small businesses may be giving a larger weight to the value-

added contribution of employees. Hence it can be important to redesign the scholar curriculum in such a way that it includes some sort of differentiation facing the possibility of students to work in a large organization or in a smaller company. In the same vein, the distinction between public and private companies is also interesting, since it does only provide information about the type of skills each requires, but also an insight on how each of them performs. The fact that public companies rank better than private written abilities, while private preferences focus on motivation and self-demanding or negotiation tells us something interesting about the still backward looking public sector. This may imply a lower dynamism than the private enterprise, which may end up translating into a different –lower– level of productivity.

According to the results, it is clear that different types of businesses require different types and levels of competences. But how do these assessments change according to the socio-demographic characteristics of individuals? To answer this we have focused on two specific aspects, namely gender and age. In line with several studies, i.e. Mandell and S. Pherwani (2003), our analysis shows that women seem to require more related to emotional intelligence skills. However, we have found a single competence, problem solving, both businessmen and businesswomen value more than the teachers of the same gender. It is clear that problems are part of the dynamics of organizations, and further from gender discrepancies diligent workers, who are able to manage with critical situations, taking the appropriate decisions to bring the situation back to the right path are required. Besides, the employee who also works with some autonomy, self-demand, initiative and pressure endurance will end up achieving a better position in the company.

On the other side here are two skills teachers, both men and women, rank higher than employers of the same gender: foreign languages and the ability to criticism and self-criticism. The first would be in line with the degree of internationalization of firms, previously discussed. In contrast, the second should be considered in the context of the type of workers companies need. Boden and Nedeva (2010) indicate that two types of universities are being set up: those training docile employees, and those training leaders. This may just be the result coming from the urgent need to increase the employability of graduates and we all should certainly be concerned about.

On the other hand, the high value businesswomen give to systemic skills captured strongly our attention, especially since it is not so among female teachers. Perhaps the reason is to be found in the androcentrism that still dominates much of the business sector, which leads to businesswomen to prove harder their managerial and leadership skills (Huarng *et al.*, 2013).

Age also appears as an influential factor. Young teachers value more than young businessmen and businesswomen only the ability to impose authority. This result allows us to talk about discipline at university: the lack of teachers' authority problem is spreading from primary and secondary schools to university. This was expected since the same students with severe discipline problems are moving to higher levels of education. Therefore, specific and well-focused actions would be needed to tackle it from the beginning, such as the regulation of the rights and duties of university students. This initiative is already being developed in some universities. Otherwise, there is a risk that the problem will magnify.

Finally, it is gratifying to see the highest assessment of ethics firms do, since it is a key aspect in the development of an economy –hence a strong, steady and sustainable society–. The different groups analyzed reveal three important aspects in relation to this competence. First, businessmen and businesswomen under 30 years stressed its importance more than academics under 30. From this result it can be inferred that the new generations of businessmen and businesswomen may put more emphasis on this aspect, which is a positive indicator of future performance. On the other hand, there should be actions targeted at strengthening the ethical values in the public sector, coming from the fact that ethics is better valued by private companies rather than by public ones. Third, and in line with the work of Ward and King (2018), if we disaggregate by gender, businesswomen also provide a larger appreciation of the ethical issues than academic women, which does not happen with male employers. Here should be noted the presence of a strong social component concerning businesswomen. In any case, the fact that among businessmen in general, ethics is better valued as among academics can be seen as a good indicator of the

health of the business sector regarding its commitment to good practices, an aspect towards which we should tend if we are to be treated as a developed society (Sanchez-Runde *et al.*, 2013).

5. Conclusion

This paper analyzes the relationship between the skills developed at university and the skills labor market demands. Significant differences in the perception of which are the most important skills for a good development of the professional carrier of a graduate student are found, depending on which group, academics or businessmen make the assessment. These differences between firms and academia seem to lead graduates to learn in college a certain amount of knowledge that apparently might not be that useful in the immediate future so as to successfully join the labor market.

Thus, employers assert the demand for a greater effort to strengthen both individual and collective skills, as well as a more practically oriented learning, where competences such as the application of knowledge and problem-solving gain more prominence. The academic group meanwhile, seems to have a more traditional view of training, not seeking immediate practical efficiency at the cost of renouncing to strict knowledge and cognitive progress. Even moving to the edge, it seems that university seeks the intellectual development of the student, being confident about the fact that it will allow him to find out practical solutions to specific problems; whereas the company seems to be happy with the employee who knows how to vigorously deal with the setbacks arising, often without notice, in the daily agenda of the firm.

However, we should wonder what kind of labor market we want to have, what kind of economy will lead us back again to a stable growth path and decide which kind of college education should our students be taught accordingly. Close collaboration between business and academia would be desirable in order for our students to receive the best possible training, which could certainly help improving the productivity of our economy. Nevertheless, this requires, first, an effort undertaken by academics to change some of their teaching methods and also an effort undertaken by the university so as to create an environment where the use of methodologies closer to what the labor market requires may be possible. Notwithstanding, businessmen should also be required to think about which may be the best profile of worker as well as to make their complaints are demands more explicit and doing it with a long-term vision.

On the other hand the question that arises is whether this alleged intellectual training that university provides to students and should help them to successfully cope with specific situations actually gives the expected results. It could also be the case that what fails is the translation from "how to think well" to "how to do well". In any case, are the foundations too weak to support a solid building? And contrarily, will a building with shallow foundations be able to bear the burden of the whole block for a long time? What will happen when the conditions turn to be unfavorable?

There are certainly many arguments in favor of the fact that the training students receive is largely compatible with the immediate professional requirements. However, if there is something that should be clearly understood, that is the following: in the debate on how to improve the orientation of education towards demand, we should keep nothing but a long-term vision. It cannot be any type of demand, but one based on maximum intellectual demand criteria, built upon an efficient and competitive production model.

Therefore, the main recommendation we should do would be to seek after a rapprochement between academia and businessmen, where employers can express the deficiencies they find in new graduates and on the other hand, academics expose the long-term training needs they believe a graduate will be required to end up being a highly qualified professional. It is undoubtedly important to enter the labor market with some specific skills that will improve with experience and especially with high reasoning ability and effort. And this requires having previously acquired a general long-term vision upon which to build more specific knowledge.

In short, we believe that what is revealed and where university in particular and society in general should turn their steps towards is the boosting of all those skills and abilities that will help future workers think out of the box, question methods and goals, improve their ability of learning, take on responsibilities and be able to take decisions. This will require that university continues to advance in the proposal and implementation of teaching methods aimed at questioning the basics by increasing the weight given to practical lectures centered on the implementation of discussion, communication and open-mind activities, to foster an active role of students. This work also requires some institutional support, meaning that it should provide a favorable context for the achievement of these objectives, modifying, when necessary, curricula and methodologies encouraging more active, profound and demanding learning methods.

At this point, it may be interesting to remember the distinction between teaching and training. According to the dictionary, to teach is to give instructions for people to know about something or how to do it, but also to make people think, feel or act in a new or different way. Training is to teach the skills to do something or help you to develop an ability. According to this, should we train workers on-demand, or should we teach wise persons? It is an important distinction because it has to do with what society needs from people –as workers– (following a system that started fitting the industrial revolution requirements in the XIX century) or as individuals with full consciousness. It is indeed an intricate equilibrium, and we all should devote our efforts to conscientiously analyzing the present situation to reach the best possible solution.

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