

From an English course to a
professional journey: creating a new
path in the education market

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Abstract (English)

Title: From an English course to a professional journey: creating a new path in the education training market

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Keywords: skills gap, educational programs, technical skills, soft skills and language skills.

This research investigates the possibility of offering a new course that combines linguistic content with a more specialized component (such as soft skills or technical competencies) by the company EF Education First, a linguistic provider. This study focuses to the specific target of individuals aged 18-25 years old and the goal is to understand which combination of soft skills and language or computer science and language courses would be the most attractive to the target population.

This study opens with a case study analysis, followed by benchmark analysis, and then proceeds with a qualitative analysis based on semi-structured interviews. These interviews involve not only EF's managers but also HR managers from two non-competitive companies. The objective is to understand the skills required for junior profiles. Finally, the investigation moves on to a quantitative analysis of a questionnaire, using SPSS application.

First and foremost, the concept of a skill gap was analyzed. It has emerged that over the majority of the sample do not believe they have acquired the necessary skills to enter the job market, which represents a good starting point for the purpose of the analysis. Secondly, using a cluster analysis, the sample was divided into clusters, identifying the Socratic learners as the cluster to target. It was found that the Socratic learners prefer the combination of language and soft skills (also giving a positive rating to technical skills + language), in-person and with a maximum course duration of 2 months, with the option to choose course modules.

Sumário (Portuguese)

Título: De um curso de inglês a uma jornada profissional: criando um novo caminho no mercado educacional

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Palavras-chave: lacuna de aptidões, programas educacionais, aptidões técnicas, aptidões interpessoais e linguísticas.

Este estudo investiga a possibilidade de oferecer um novo curso que combine conteúdo linguístico com uma componente mais especializada (como aptidões interpessoais ou competências técnicas) pela empresa EF Education First, um fornecedor de programas linguísticos. Este estudo centra-se num público específico composto por indivíduos com idades entre 18 e 25 anos e o objetivo é compreender qual combinação de aptidões interpessoais e linguísticas ou de ciência da computação e de linguagem seria a mais atraente para a população-alvo.

Este estudo inicia-se com uma análise de estudo de caso, seguida por uma análise de referencial e, em seguida, prossegue com uma análise qualitativa baseada em entrevistas semiestruturadas. Estas entrevistas envolvem não apenas os gerentes da EF, mas também gerentes de recursos humanos de duas empresas não concorrentes. O objetivo é compreender as aptidões necessárias para perfis juniores. Finalmente, a investigação avança para uma análise quantitativa de um questionário, utilizando a aplicação SPSS. Em primeiro lugar, foi analisado o conceito de lacuna de aptidões. Conclui-se que a maioria da amostra não acredita ter adquirido as aptidões necessárias para entrar no mercado de trabalho.

Em segundo lugar, utilizando uma análise de cluster, a amostra foi dividida em grupos, identificando um grupo, os aprendizes socráticos, como o grupo a ser analisado. Descobriu-se que os aprendizes socráticos preferem a combinação de linguagem e aptidões interpessoais (dando também uma avaliação positiva para aptidões técnicas + linguagem), presencialmente e ao máximo.

Abstract (Italian)

Titolo: Da un corso di inglese a un percorso professionale: creare una nuova via nel mercato dell'istruzione e formazione

Autore: Sofia Somma

Parole chiave: skill gap, programmi educativi, competenze tecniche, soft skills e competenze linguistiche.

La presente ricerca indaga la possibilità di estendere l'offerta formativa del provider linguistico Education First con nuovo corso che combini contenuti linguistici con una componente più specializzata (come soft skills o competenze tecniche).

Lo studio si focalizza sul target specifico di individui dai 18 ai 25 anni e l'obiettivo è comprendere quale combinazione tra soft skills e competenze linguistiche o tra competenze informatiche e linguistiche risulti più attraente per la popolazione target.

Il presente studio si apre con un'analisi del caso di studio, seguita da un'analisi di benchmark, e prosegue con un'analisi qualitativa basata su interviste semi-strutturate. Tali interviste coinvolgono non solo managers di EF, ma anche i responsabili delle risorse umane di due aziende non concorrenti di EF. L'obiettivo è comprendere le competenze richieste per i profili junior. Infine, l'indagine procede con un'analisi quantitativa di un questionario, utilizzando l'applicazione SPSS.

In primo luogo, è stato analizzato il concetto di skill gap. È emerso che la maggior parte del campione non ritiene di aver acquisito le competenze necessarie per entrare nel mondo del lavoro, rappresentando un buon punto di partenza per lo scopo dell'analisi.

In secondo luogo, utilizzando un'analisi di cluster, il campione è stato suddiviso in gruppi, identificando i Socratic learners come il cluster da targettizzare per il nuovo corso proposto. Si preferisce il corso preferito dal target di riferimento prevede la combinazione tra lingua e soft skills (esprimendo anche una valutazione positiva per le competenze tecniche + linguistiche), in presenza e con una durata massima del corso di 2 mesi ma soprattutto con la possibilità di scegliere i moduli dei corsi.

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1.INTRODUCTION

In the State of the Union address in 2022, President of the European Commission, Ursula Von der Leyen, put forward a proposal to designate 2023 as the "Year of Skills". As she stated, *"We need much more focus in our investment on professional education and upskilling. We need better cooperation with the companies because they know best what they need. And we need to match these needs with people's aspirations [...] As a first important step, we need to speed up and facilitate the recognition of qualifications also of third country nationals. This will make Europe more attractive for skilled workers"*.

Europe is striving to achieve a broad convergence between the training needs of businesses, the labour market, and the aspirations of individuals, both low and highly skilled, in order to promote the social and economic development of all member states. Indeed, among the EU's social objectives for 2030, there are two targets which are relevant for this analysis: at least 60% of adults should participate in training activities each year (Department for European Policies, 2022) and at least 80% of adults should possess basic digital skills (European Commission, 2021).

Currently, over 75% of EU enterprises face difficulties in recruiting qualified workers (European Commission, 2022). Furthermore, recent Eurostat data reveals that only 37% of adults update their skills by attending training courses (Eurostat, 2016).

It is also worth noting the significance of the Digital Economy and Society Index 2022 (DESI), which indicates that 4 out of 10 adults and 1 in 3 workers do not reach basic levels of digital skills. In Italy, for instance, only 46% of people have at least basic skills (an EU average of 54%), dropping to 23% for higher digital skills (an EU average of 26%) (European Commission, 2022).

Therefore, it is evident that there is a clear mismatch between the labour market needs and the educational proposals of universities and higher education institutions, which are unable to train potential workers effectively.

Previous extensive literature has been devoted to this topic, although some relevant questions remain open, particularly regarding interdisciplinary courses that integrate a linguistic content with a more specialized content.

For this reason, the research aims:

1. To gain a comprehensive understanding of the skills gap between education and labour market.

2. To investigate the skills, including both hard and soft skills, that are most lacking among young individuals aged 18 to 25.
3. To explore the potential of introducing a new educational course that combines a linguistic content with a specific subject, from the perspective of Education First (EF), a renowned provider in the language learning market, selected as the case study of this research.
4. To develop the design of the new course offering based on the preferences of potential buyer segments.

The first part will encompass an extensive literature review, emphasizing the existing gap that needs to be addressed, along with a thorough description of the business context. Following that, qualitative and quantitative analysis will be conducted to assess the feasibility of introducing the new course proposal, by analyzing the data.

Lastly, the implications of these findings for managerial practices will be discussed.

2.LITERATURE REVIEW

Extensive literature has been dedicated to examining the phenomenon of the skill gap in the job market over the past years, with a primary focus on understanding contrasting needs of the labour market and educational providers, while also investigating the underlying factors contributing to this misalignment.

2.1 SKILLS GAP: PROBLEM OF TIMING

The term "skills gap" refers to a discrepancy between the competences and abilities that job seekers have and those that employers require in the labour market (Chaintanya, 2018; Decker, 2019). Rampell (2013) defined it as a “mismatch between the requirements of the four million jobs available and the skills held by many of 12 million unemployed”. Peters and Wessels (2012) in *The Wall Street Journal* refers to the skills gap as “big conundrum” faced by today's labour market.

Regarding the causes, the gap is considered almost physiological as educational providers pursue the demands arising from the labour market and respond to it with traditional pathways lasting three, four, or five years. In recent years, this has been a recurring phenomenon to which companies are trying to respond with significant investments in employee learning and development programs (BRT Education and Workforce Survey, 2017).

Most of this can be attributed to the increasing difficulty for companies to predict and define the need for future skills, particularly as transformations and revolutions in the job market occur at an increasingly rapid pace. Companies must adapt swiftly to ensure that their employees have the necessary skills to collaborate effectively also with AI systems, driving innovation while simultaneously avoiding potential disruptions.

Therefore, the current dynamism of the labour market is exceptional. The chronology of the various industrial revolutions clearly demonstrates how rapidly new educational needs arose in response to significant process transformations. The first industrial revolution (Industry 1.0) dates back to the second half of the 18th century with the invention of the steam engine. The second revolution is conventionally traced back to 1870 (over a century after the first), with the advent of the internal combustion engine and the subsequent increase in the use of petroleum as a new energy source. Another hundred years later, from 1970, the third industrial revolution emerged with the advent of computing. The fourth revolution has begun in 2011-2016, characterized by advancements in artificial intelligence, cloud computing, virtual reality,

and the Internet of Things (IoT), which continue to reshape production methods. For instance, the introduction of revolutionary AI-based technologies like ChatGPT, has further accelerated this process of transformation. While this has led to improvements in process efficiency, it has also determined a parallel acceleration in workforce training and upskilling efforts. Lastly, even before the fourth revolution has fully unfolded, the European Commission published the report "Industry 5.0" just a few months later. From intervals of at least 100 years to rapid and transformative changes, each requiring innovative skills, has become the new norm.

In this perspective, it is clear that educational providers (schools, universities, and other public or private training providers) are unable to promptly modify their educational offerings to meet new needs. Misalignment becomes inevitable when coupled with the inherent time required for the delivered training activities to generate applicable skills in the workplace, as well as the rapid obsolescence of acquired competencies. These transformations and the rapid pace of evolution make no academic degree, even the most advanced, withstand. In today's dynamic job market, even the recent graduates must actively update their knowledge if they wish to avoid falling behind. Constant professional updating constitutes the only possible competitive advantage in this context.

2.2 SKILLS GAP: PROBLEM OF CONTENT

But the problem of skills gap is not only a matter of timing but also of content. Already in the early 2000s, numerous studies (King, 2003); (Yunus & Li, 2005); (Mourshed, 2012) highlighted the need for taking action to bridge the gap between the skills and abilities of graduates and the demands of the labour market. Also, the relevance of transferable skills began to be considered on par with a strong fundamental education. In the work environment, soft skills were deemed equally valuable alongside specialized expertise in a particular field. Critical thinking, communication, and problem-solving skills became more important than a degree in the evaluation of participants in a study conducted by Hart Research Associates in 2013 on behalf of the Association of American Colleges and Universities, where this perception was widely shared (93%). In the same study, 75% of employers emphasized the importance of universities helping students develop critical thinking, complex problem-solving abilities, written and oral communication skills, and the ability to apply their knowledge in real-world scenarios (Hart Research Associates, 2013).

Businesses, more than ever, rely on the support of educational systems to build pools of talent with relevant skills that meet the demands of the labour market (Burner et al., 2019). However,

it is essential to define their needs and, above all, experiment with new ways of transferring knowledge to create new competencies, not limited to traditional training pathways. It was with this approach that universities initiated a significant experimentation in the late 1990s with the CampusOne project led by the Conference of Italian universities Rectors (CRUI), where the design phase of educational programs started directly from stakeholders' needs. It was an extremely innovative project that laid the foundation for the design rules of university courses, where consultation with social partners remains a driving force even today (CRUI, 2004).

The skills gap poses a hindrance to the development of organizations at an impact level. In a survey conducted by the European Centre for the Development of Vocational Training (CEDEFOP) in 2014, it was confirmed the thesis by which the skills gap between supply and demand was not so much a quantitative problem but a qualitative one: young graduates were in sufficient numbers to meet the demands of the labour market but lacked the necessary skills. Crucial employability skills were not limited to hard skills, which encompass cognitive and technical abilities specific to the job and discipline, but also included soft skills such as communication, problem-solving, flexibility, determination, and creativity. The skills gap certainly did not imply a surrender in aligning education and training with the labour market but, on the contrary, served as a strong incentive to create and strengthen links between training institutions and companies. This aligns with policies aimed at increasing high-quality apprenticeships and internships (Tracy, 2019). "Evidence shows young people on such schemes are more likely to acquire useful skills and attitudes to find suitable work." These solutions are more agile, possibly integrating a multidisciplinary approach, as well as alternative delivery methods. Post-pandemic, hybrid solutions that combine physical and digital elements are preserved, facilitating access and increasing the availability of flexible training options.

Nowadays employers, more than ever, need to acquire knowledge not only at the beginning but also throughout their professional careers. Both employed and unemployed adults require continuous skills development throughout their working lives. Companies must invest in and provide learning opportunities for their workforce. Lifelong learning becomes lifelong employability.

The labour market requires an ongoing process of reskilling within the workplace, following a lifelong learning approach, as well as restructuring traditional training pathways to move beyond vertical and specialized training towards cross-disciplinary and multidisciplinary

education. The labour market demands professionals who, in addition to specific knowledge and skills in their field, also possess indispensable digital competencies to navigate ongoing transformations. The Excelsior information system is considered one of the broadest surveys included in the National Statistical Program which is as the most comprehensive informational tool available in Italy for understanding the professional and training needs of businesses. According to data provided by Excelsior, the difficulty of recruiting individuals with adequate skills is related to the required level of education, reaching up to 47% for workers with a university degree (ANPAL, 2022). Recent graduates bring new ideas and energy but often admit to lacking proper skills in data analysis or Excel (Pelzer & DeLaurell, 2018) or they may not possess suitable soft skills when entering in the job market (Tulgan, 2016). These competency gaps include a wide variety of skills necessary for success in today's dynamic and interconnected world. By overcoming these shortcomings, the younger generation will be better equipped to succeed in the current workforce, especially because employers value highly positively the presence of these skills over a degree program. Among the most demanded skills by companies, the ability to adapt and be flexible stands out, followed by problem-solving skills, as well as the ability to work independently and in teams. These skills are sought after in all sectors, both for high school graduates and university graduates. Additionally, cross-functional skills are increasingly being paired with technical and scientific competencies.

Both high school and university graduates are expected to have strong communication skills in Italian and, in 7 out of 10 cases, proficiency in a foreign language as well. Proficiency in foreign languages becomes an added advantage when combined with other core competencies demanded by the labour market (ANPAL, 2022).

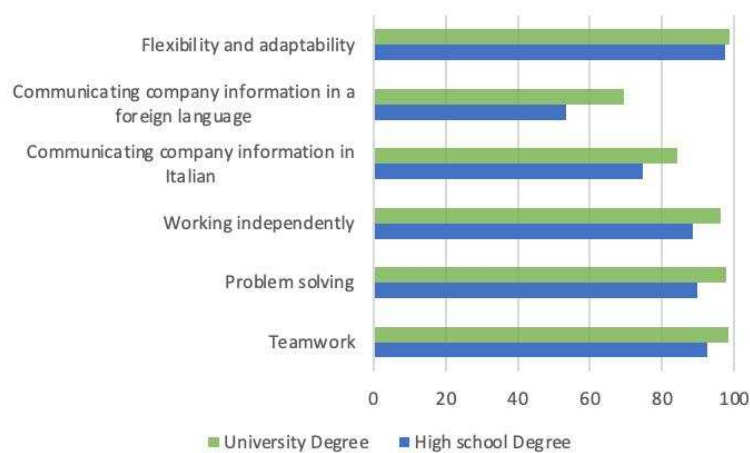


Figure 2.1: Transversal skills required for High school and university graduates

In this context, recruiters are seeking skills related to the practical application of knowledge and the ability to perform tasks, rather than just relying on theoretical knowledge acquired through standard educational paths. However, the school and university systems are not yet fully prepared to meet these demands, considering the magnitude of the demand for these types of competencies. Despite this, in recent years, policies have been implemented to enhance and integrate experiential learning in order to bridge the gap between graduates and the world of work. This is evident in initiatives such as work-based learning and Paths for Transversal Competencies and Guidance (PCTO) in schools, which provide opportunities for non-formal training experiences outside of the school setting.

With the accreditation procedures introduced in 2012, universities have had to change their approach to course design by incorporating formal phases of external consultation, where educational projects are initially evaluated based on feedback received from external stakeholders. The creation of competencies, rather than just knowledge, plays an increasingly important role, even in terms of the attractiveness of educational offerings to potential students and their families. Teaching methodologies are also shifting to promote active student participation, with Problem-Based Learning (PBL) allowing students to engage in solving real-world case studies.

2.3. LITERATURE GAP

Universities, more recently, have been experimenting new experiential learning initiatives, such as summer schools and bootcamps. In these programs, students acquire knowledge that is immediately applied to solve case studies proposed by companies, sometimes in international contexts where interactions between professors and students occur in a foreign language and within simulated work environments. Universities have also found ways to certify these competencies outside of the standard, legally recognized educational path by issuing specific open badges. These open badges, certified by the university's authority, acknowledge competencies acquired through non-standard programs that complement formal education with added flexibility and innovative content.

It is definitely a new way of experiencing a type of education that complements formal learning. Until a few years ago, traditional education consisted of frontal lectures focused on vertical, specialized content, leaving inevitable gaps between different disciplines. Industry 5.0 projects have developed in the opposite direction, promoting cross-disciplinary contamination and

requiring greater flexibility in educational paths. In this perspective, there is also an initial experimentation within the framework of "formal" education, with recent changes in the accreditation rules for university courses of study. Through Ministerial Decrees n. 289/2021 and n.1154/2021, the Italian Ministry of University and Research has allowed, for the 2021-2023 period, even though for a limited number of degree programs, the possibility of accrediting, on an experimental basis, new courses with interdisciplinary content, aimed at facilitating the acquisition of cross-functional skills and fostering the creation of interdisciplinary competencies.

Training new hires for companies becomes a significant cost item in their budgets as they compete to recruit pre-skilled resources who can be immediately productive within their internal processes. According to Unioncamere's projections for 2023-2027, the estimated loss of value added caused by the mismatch between labour supply and demand amounts to approximately 38 billion euros (ANPAL, 2023). This estimate considers a time frame of 2 to 12 months for acquiring the necessary skills, based on monthly data collected through the Excelsior Information System's sample survey.

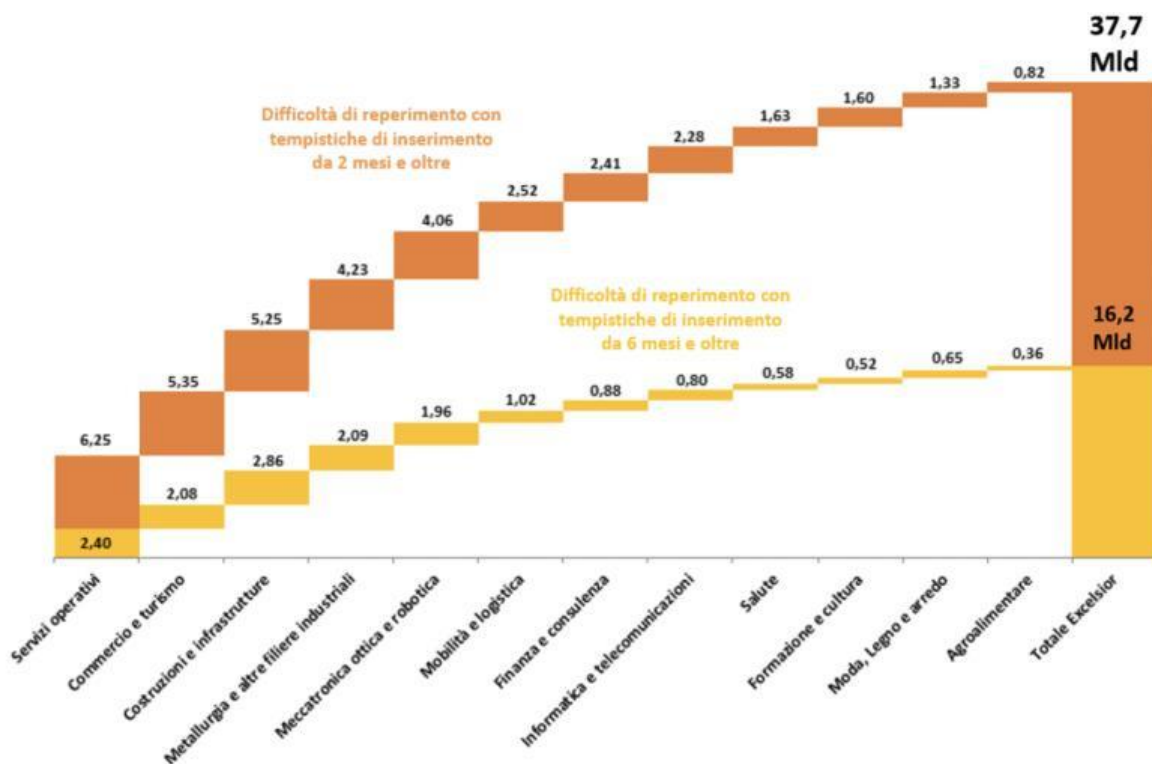


Figure 2.2: Annual mismatch cost by sector (in billions of euros)

Being able to attract resources with adequate skills has a dual advantage for companies: reducing training costs and making newly recruited resources immediately productive. This translates into a competitive advantage over competitors. Partnerships are established through internships, thesis projects, or post-degree internships, but in most cases, reliance is placed on educational systems to identify and develop the necessary competencies for the future workforce.

On the other hand, for young people who are approaching the job market, it becomes fundamental to have these types of competencies when applying for positions in the selection process. Having the opportunity to participate in internships, international mobility programs, summer schools, bootcamps, and other activities that develop cross-functional skills ensures a competitive advantage even in the search for first employment.

There are no impact studies yet on this type of training, which requires insights, experimentation, and thematic and interdisciplinary educational interventions. Postgraduate or post-diploma training must provide a real competitive advantage in job searching and maintaining a high level of professional quality. To put it in terms widely used during the pandemic, training must be designed as a "knowledge and skills booster" that can be acquired and put into practice within months rather than years.

Also, none of the research has been carried out by considering the point of view of a linguistic provider which could decide to extend its offer. When proposing a new educational offering, providers will increasingly need to consider what can represent a genuine competitive advantage for potential learners. In this perspective, the following analysis aims to serve as a tool for re-evaluating whether non-formal, interdisciplinary, experiential, and immersive training, following the model of summer schools and bootcamps, can be perceived as a competitive advantage by potential users of professionalizing educational products. This approach aims to realign the demand and supply of competencies, particularly soft skills and language skills.

2.4 MAIN INSIGHTS

The main insights derived from the literature reviews are as follows:

- Skills gap in the job market: Extensive literature has focused on understanding the skills gap phenomenon in the job market, highlighting the existence of a gap between the skills held by job seekers and those demanded by employers. This gap is influenced by

both the timing of skill acquisition because of the increasing difficulty for companies to predict and define the need for future skills and the content of the skills themselves.

- **Rapid changes:** Industrial revolutions and technological transformations have accelerated shifts in the job market and created new educational needs. New skills emerge swiftly in response to such changes, necessitating timely adaptation from educational providers.
- **Importance of soft skills:** Alongside technical skills, soft skills such as problem-solving, communication, and adaptability have become essential. Companies increasingly assess practical and applicable skills in candidates, beyond theoretical knowledge.
- **Shift in teaching methods:** Teaching is shifting toward participatory models like Problem-Based Learning (PBL), where students engage in solving real cases. This aims to develop practical and adaptable skills.
- **Relevance of language skills:** Language skills, including proficiency in foreign languages, are in growing demand in the job market. Language proficiency, alongside technical skills, is considered a competitive advantage for candidates.

3. RESEARCH SET-UP

This chapter outlines the framework of the market research, which aims to identify the underlying gap for the analysis, formulating research questions, and providing the contextual background. This research set-up will provide a well-grounded base for gaining a deeper understanding of the ‘skills gap problem’ and the growth opportunities for a linguistic provider within the evolving educational market.

3.1 PROBLEM DEFINITION

The evolving dynamics of the education market and the demands of the labor market for skills pose a significant challenge. There exists a gap between the skills and knowledge offered by educational providers and the rapidly changing requirements of the job market. This discrepancy arises due to the excessive structuring of academic courses, which often result in fixed frameworks that do not align with the interdisciplinary and soft skills sought by employers.

The education market, especially in the university sector, is currently undergoing a review to address this mismatch. These initiatives aim to bridge the gap between academia and the job market by encouraging a broader range of competencies and interdisciplinary learning.

Furthermore, as technology keeps on advancing, the rapid obsolescence of skills is even accelerated. Technological advancements call for ongoing upgrading of knowledge and competencies, making the knowledge and skills learned during the secondary or tertiary education obsolete by the time they reach the labor market.

As a result, there is a compelling need for educational institutions to provide training that can be swiftly modified to match the demands of a labor market that is always changing.

Another critical factor influencing the problem definition is the impact of the COVID-19 pandemic. Due to the pandemic, training is now delivered and experienced extremely differently, which has resulted in a move toward online or blended learning methods.

Understanding the implications of this new learning landscape is crucial for addressing the skills gap effectively.

Considering these challenges, it is essential to investigate the skills gap that education providers must address promptly to enable individuals to remain competitive in the labor market.

This research aims to explore the potential market expansion of a linguistic provider, Education First (EF), selected as a case study of this research, to offer professional courses that go beyond linguistic competencies and focus on developing transversal skills. By addressing the broader

demand for interdisciplinary and soft skills, EF can contribute to bridging the skills gap and providing individuals with the necessary competencies to thrive in the evolving job market.

3.2 RESEARCH QUESTIONS

The questions presented in this paragraph will direct the investigation in this research, moving from a general comprehension of the education market and student needs to a specific focus on the language service provider EF and its potential expansion into a new course with a cutting-edge format.

1. What are the areas of competency (both hard and soft skills) in which individuals in the 18-25 age group perceive themselves to be most lacking and how do they plan to enhance their weakest skills?

This question is intended:

- To understand whether young people perceive themselves as having the right skills to enter the workforce.
- To investigate which skills they consider to be the most lacking in order to determine which area to focus on for the offering of the new course.
- To understand the preferred channels among young people for updating their skills.
- To determine the average and maximum willingness to spend on a course abroad.

2. How have the needs and expectations of prospective students shifted as a result of the COVID-19 epidemic in terms of habits and expectations?

The aim of this question is:

- To assess the extent and nature of changes in frequency before and after the pandemic;
- To investigate if the blended format will be utilized differently compared to the current usage patterns.

3. What are the consumer habits regarding participation in extracurricular courses?

This question aims:

- To examine the involvement of young individuals in extracurricular courses

- To explore the factors influencing their decision not to participate in any extracurricular courses.
- To determine the number of courses young individuals participate in within a year and the specific types of courses they engage in.
- To find which are the factors that influence individuals in their decision-making process when selecting an educational course

4. What is the awareness level of the main educational providers in the perception of potential consumers?

The principal objective of this question is to explore which are the most known educational providers. This will lead to a focus on EF, with the aim:

- To investigate EF's awareness as both a linguistic and educational provider.
- To identify the key factors to consider when purchasing an EF course.

5. How feasible would it be to introduce a new course that combines language and transversal and/or computer science skills? How to promote it?

This aim of this question is:

- Understanding the willingness to purchase a potential proposal for the course.
- Identifying best channels for promoting the new course.
- Analyzing factors that impact the willingness to purchase a new course.
- Determining the preferred course type among the target audience.

6. What would be an ideal target for the new course proposed?

With this question, the objective is to gain insights into the following aspects:

- Analyzing the data to identify patterns or groupings among the survey participants.
- Investigating the possible presence of distinct clusters that may be relevant to EF.
- Gaining insights into the unique characteristics and behaviors of each cluster from EF's perspective.

In conclusion, these research questions serve as the framework for a thorough examination that seeks to deepen our knowledge in several crucial areas.

3.3 BUSINESS CONTEXT

This paragraph presents a thorough analysis of the business context, examining the education market on a global scale and delving into the specific dynamics within Italy.

GLOBAL EDUCATION MARKET

The worldwide education sector showed resiliency and earned enormous income, reaching USD 4.6 trillion in 2021 (Euromonitor, 2022) although experiencing setbacks during the Covid-19 epidemic. Pre-primary, primary, secondary, higher, adult, and other education are just a few of the many subsectors that make up this business. Notably, the market is highly fragmented, with only 2.1% of the entire turnover coming from the biggest players (Euromonitor, 2022). According to projections, the market would expand moderately between 2021 and 2026, with China and India likely to experience a Compound Annual Growth Rate (CAGR) of 10% and Japan expected to stabilize at a 3% CAGR. Public financing efforts and the rising demand for educational services from educational providers will fuel this development. It is necessary to emphasize that educational providers include businesses and non-profit organizations that involve education delivery as one of their major or secondary goals (Education Connector, 2021). Therefore, they are not only confined to state educational institutions.

ITALIAN EDUCATION MARKET: A COMPARISON WITH OECD COUNTRIES

This paragraph presents an overview of the education system in Italy (European Commission, 2023) focusing on the high education including both the tertiary education and adult education provided by other educational entities.

The programmes that define the Italian education system are developed by the Ministry of Education and Merit (MiM) and the Ministry of University and Research (MUR) and are organized in different stages: one which is a not compulsory path and other three main education cycles. The first step in education is called integrated zero-to-six-year system that refers to early childhood education care (ECEC) (European Commission, 2023). According to the European Commission, the ECEC services are different for children aged 0-3 years old and those aged 3-6 years old. The first one is managed by the Regions directly with the definition of a central framework at statal level and the second one (pre-schools) that is organized directly by the state.

After this stage, there is the phase of compulsory education which goes from 6 to 16 years old. The first cycle of education is divided into primary schools, which has a duration of 5 years, and secondary schools for people between 11 and 14 years old.

The second cycle of education entails two different paths which are secondary schools and regional vocational training system (IeFP). Both of them are aimed to students who have successfully completed the first cycle of education.

Lastly, the third stage of education is called tertiary education and is provided by different entities: universities, institutions of higher education in art, music and dance (AFAM) and technical institutes of higher education (ITS).

The panorama presented so far is enriched by other educational providers that offer short-term professionalized courses (up to a maximum of 1 year) aimed at young high school graduates who want to fill the professions most sought in the labour market through the acquisition of specific skills and competencies.

Looking deeper into higher education in Italy the university system is structured into state and non-state universities. In Italy, there are 68 state universities and 31 private institutions, 11 of which are online universities (Università Telematiche) that are still recognised by the state.

In addition to universities, there are also other educational entities including AFAM and an increasingly number of new educational entities of tertiary education, planned in co-operation with enterprises and local administrations.

Government expenditure, which accounted for 74.6% of all demand in 2021, drives the market. Similar to the worldwide trend, Italy's education sector is fragmented, with the top five corporations that accounted for just 4.2% of total production in 2021. In the same year, the number of businesses in the industry fell to 61,578 units. In 2020, industry expenses increased by 5.8%, mostly as a result of growing labour costs. The industry's profitability did, however, see a drop, falling to 7.2% of turnover in 2021, placing it as the 17th highest in the area. Italy made up 8.1% of all business in Western Europe in 2021 with a revenue of USD 97.6 billion (Euromonitor, 2022)

The outcomes of educational institutions in Italy have varying effects on the population compared to OECD countries. While the level of education has increased between 2000 and 2021, the rate of growth has been slower than the average for OECD nations. However, the impact of educational attainment on salary levels in Italy is less pronounced compared to the OECD average. On average across the OECD area, workers aged 25-64 years with a tertiary qualification earn approximately twice as much as those without (OECD, 2022).

3.4 CONSUMERS AND COMPANIES TRENDS

In this paragraph the major trends influencing the education market will be discussed. Understanding market dynamics, student demands, changes in course delivery techniques, and the challenges that the industry is facing depend on trend analysis. The aim is to give a thorough picture of the ongoing changes in the education market through an in-depth examination of new trends, providing a better understanding of student demands and the possibilities that present themselves for market players.

- **Learn as you go approach:** The "learn-as-you-go" method is currently one of the most widespread trends in education. Actually, technology makes it possible for anyone to pursue education at their own pace and convenience by eliminating time and geographic constraints. Different courses and resources are made available through online platforms and alternative education providers in order to satisfy the demands of each individual. Continuous learning and skill development are stressed in order to adapt to shifting job requirements. This approach allows students greater discretion over how they pursue their education by fusing formal and informal learning. There are certain difficulties, though, including managing one's own motivation, time management skills, and information overload. This trend offers adaptability, accessibility, and opportunities for both personal and professional progress in today's knowledge-driven environments (Liang & Chen, 2012).
- **Students and personalization:** By tailoring the educational experience, personalized education responds to the various demands of learners. Hybrid learning methods must be flexible in order to accommodate students' diverse commitments and lives. Addressing individual requirements and enhancing the educational experience are made possible via efficient feedback and communication mechanisms. The need for individualized education is a move toward learner-centric strategies that gives students more control over their educational paths. Institutions can better assist students in their pursuit of learning and skill development by adjusting the educational experience to fit individual needs and preferences. Personalization generates relevant learning outcomes and increases motivation and engagement. It aims to address students'

varied demands in today's fast-paced world while acknowledging that each kid is a person with specific needs and circumstances (Reber, Canning, & Harackiewicz, 2018).

- **Employee upskilling and reskilling:** The need of investing in employee upskilling and reskilling to meet the changing demands of the labor market is being recognized by major organizations globally. Attracting and keeping competent workforce has become a major problem for enterprises due to a competitive labor market and a talent scarcity. In order to close skill gaps and lower employee turnover, businesses are investing a lot of money in workforce education and development programs. Amazon, Walmart, Target, and Google are just a few of the well-known firms that have made significant investments in upskilling and reskilling projects. They understand how crucial it is to develop and improve the skills of their workers in order for them to be competitive and adaptive in a business environment that is changing quickly. Walmart is one business incorporating these initiatives within its larger diversity, equality, and inclusion initiatives (McKinsey & Company, 2020).

3.5 THE CASE STUDY: EF EDUCATION FIRST

EF has been selected as the case study for this research due to the role it has acquired over the years as a linguistic provider and the role it has progressively acquired as an educational provider.

The international company EF offers language programs, study abroad opportunities, and cross-cultural interactions. It was founded in the university town of Lund (Sweden) in 1965 by Bertil Hult, and it has grown to become a major international provider of educational services over the years.

MISSION AND VISION

The EF's core *mission* is to give students an opportunity to pursue their education abroad by learning a language that is customized to their specific needs. EF is genuinely devoted to providing high quality language courses that enable students to achieve language competency

rapidly and fluently. By contrast, the organization's *vision* can be described as reducing language barriers and fostering intercultural dialogue.

This goal is achieved by using an innovative teaching strategy that takes into account the unique needs of each student. Indeed, the courses are created to be interactive, entertaining, and practical, allowing students to immediately apply what they learn. Moreover, the experienced teachers at EF are highly qualified and committed to guide students throughout their learning journey, providing personalized support and encouraging regular practice.

EF's strategy also includes cultural immersion as a crucial component. Students get the opportunity to learn a foreign language in an environment that encourages interaction with people from different cultural and linguistic backgrounds. Students can better comprehend the subject matter and hone their communication skills thanks to this first-hand exposure to the language and culture.

EF offers a wide selection of overseas experiences in addition to language classes to improve language acquisition. Students may thoroughly immerse themselves in the culture of the host nation through study abroad programs by living with local families or booking carefully selected residences. These encounters offer the chance to use language abilities in practical settings and get a greater understanding of the customs and culture of the area.

THE PRODUCTS

EF offers a wide range of products tailored to the age and needs of students. The common thread across these offerings is the flexibility of the language courses that vary in duration and intensity. The lessons are available in seven different languages. Below, some of the main programs will be examined in order to give a comprehensive overview of their unique features and benefits.

- International Language Schools (ILS) for students and adults aged 18 and above:
To meet the unique demands of adult learners, EF offers immersive language learning opportunities. Students may select the learning speed that works best for them with these courses since they have a customizable duration and intensity. The purpose is to provide learners practical language abilities for communicating in a variety of settings.
- International Language School Youth (ILSY) for young students aged 8-17:
Young learners can enroll in these EF's language programs either individually or as a group. These programs develop both language competency and intercultural awareness

by combining language learning with cultural experiences. The chance for students to connect with peers from other nations enhances their language learning process.

- High School Year (HSY) programs: EF offers fourth-year high school students specialized language and cultural immersion programs. Through these programs, students have the amazing chance to spend an academic year abroad while residing with a host family and attending a nearby high school. Students develop their intercultural competency, language proficiency, and personal growth via this experience.
- Adult Pathway Programs (APP): EF provides long-term language courses with a minimum length of six months that are tailored exclusively for adults. The ability for students to autonomously participate in activities and, in some circumstances, even work is included into these programs that focus on rigorous language study. Participants can select from a variety of locations and concentrate on particular language objectives like academic preparation or corporate communication.
- EF Academy: EF now offers international high school programs as part of its educational offerings, giving students the opportunity to do their high school education overseas. Through EF Academy, students may pursue a globally recognized curriculum while gaining exposure to a different culture and language while studying abroad.

In conclusion, EF provides a wide choice of language programs that are tailored to the various needs of students and target to all age groups. EF aims to offer engaging language learning options for people worldwide, whether they are university students, young learners, high school seniors, adults seeking long-term language study, or those searching for a transformational high school experience overseas.

The courses that EF provides to its students are designed to provide a seamless and thorough learning experience. Also, they are defined by the company's unrelenting dedication to providing the best possible educational services. In order to suit each student's specific needs, the process includes a number of essential components:

- Course selection: gives students the freedom to choose the location, duration, and intensity of their studies. Students may customize their language learning to fit their unique goals and learning preferences thanks to this individualized method. EF offers the essential materials and direction, regardless of whether students want a comprehensive and rigorous curriculum or a more flexible study plan.
- Comprehensive Support: EF goes above and beyond with every step of their students' journey. From travel arrangements, which can be coordinated

independently or through EF, to visa support for international travel outside the EU, EF makes sure that all essential logistics are properly managed, from travel arrangements, which can be organized individually or through EF to visa help for foreign travel beyond the EU. Accommodation choices (in a family or in a college) are carefully chosen to accommodate a range of tastes and budgets, and supplementary services are offered to improve the entire experience (e.g. extra activities).

- **Language Certification:** Language certificates are valuable in verifying students' competency and improving their prospects for the future. Students have the chance to get globally recognized language certificates after completing their program. These credentials attest to their language proficiency and can significantly advance their academic, professional, and personal growth.

EF has a strong commitment to providing outstanding customer service throughout the whole procedure. Knowledgeable and committed staff members are on hand to respond to any questions or concerns, making sure that students feel supported and directed at every turn. From the moment a student enrolls in the program until they have successfully completed it, EF works to provide them everyone a positive and memorable experience.

3.5.1 AN INNOVATIVE BUSINESS AND TEACHING APPROACH

The innovative concept of EF goes beyond the limitations of traditional language training. The visionary goal of Eva Kockum, who founded worldwide language campuses, was to enable people to discover the world through the transformational power of education. EF, which has its roots in Sweden, is dedicated to giving students educational experiences that go beyond language learning by emphasizing their overall development as they embark on a journey of cultural integration and meaningful encounters with people from other backgrounds.

Education, in the opinion of EF, is a powerful force that may lead to new perspectives and opportunities. EF strives to cultivate global citizens who can communicate effectively by exposing pupils to other cultures and providing them with excellent communication skills.

Being aware that education goes beyond the boundaries of the classroom is essential to the idea of EF. This is the reason why the company offers their students to interact with local communities and embrace their traditions. Students obtain a deep awareness of cultural variety and a sophisticated comprehension of how the world is interrelated via this experiential method.

Mutual understanding and intercultural interaction are key components of the EF idea. Furthermore, EF's concept of education goes beyond providing language instruction. It encompasses comprehensive support and guidance throughout the learning journey. EF's dedicated educators and staff create a nurturing and inclusive environment, ensuring that students receive personalized language instruction, engaging cultural activities, and enriching excursions. By combining academic excellence with immersive experiences, EF offers students a well-rounded educational experience that extends beyond linguistic proficiency. In summary, EF embodies a visionary concept that integrates language learning with cultural integration and global education. By promoting meaningful interactions, fostering cultural appreciation, and providing comprehensive support, EF empowers students to become global citizens equipped with the skills and mindset necessary to thrive in our diverse and interconnected world.

3.5.2 MARKET POSITION IN THE COMPETITIVE ENVIRONMENT

Following the description of EF's product portfolio and its core values, it is essential to position the firm within its competitive environment by identifying both direct and indirect competitors and finally creating a brand positioning map.

DIRECT COMPETITORS

By definition, direct competitors are organizations that offer comparable goods or services to the same customer base as a specific company. In the case of EF, it encounters direct competition from several players in the industry such as Wallstreet, British Council, Studyabroad or Kaplan International. This comprehensive analysis of the competition has been done considering not just the educational offerings available, but also elements like keyword traffic and audience targeting (Similarweb, 2023).

The following four companies are the main direct EF's competitors:

- Wall Street English¹: It is one of top international providers of English language training courses. Their hands-on, immersive method focuses on assisting adult learners into enhancing their communication skills. Furthermore, it offers the option to purchase packages for in-person or online

¹ Website: <https://info.wallstreet.it/>

learning, giving customers the flexibility to choose and customize their learning process.

- British council²: It is a well-known firm that provides training and certification in English language all around the world. They provide a broad variety of courses appropriate for students of all ages due to their extensive competence in the field of language instruction.
- Astudy International Education³: Astudy is an organization that serves as a reference resource for students interested in studying abroad for a trimester, semester, or year. It offers a wide selection of study programs, language courses, and cultural immersion opportunities worldwide. Additionally, it provides students with valuable information and guidance to navigate the complexities of studying in a foreign country.
- Kaplan International⁴: It is a widely recognized education firm that supplies a wide range of educational services, such as language instruction, test prep, and university entry programs. With a strong global presence and a wide network of campuses, Kaplan offers foreign students a variety of chances to improve their language abilities and meet their academic objectives.

These direct competitors contribute to a competitive landscape in the language learning and study abroad industry. Each company brings its unique strengths and approaches to cater to the needs of language learners and students seeking international educational experiences.

INDIRECT COMPETITORS

Indirect competitors, within the context of EF, refer to companies that offer different products or services but target the same customer base or fulfill similar needs. They operate in related fields or provide alternative solutions within the international education market, especially when learning needs will become interdisciplinary and foreign language will become one of the content areas to be delivered. In this case, it encompasses all university academies, Sole 24 Ore Business School, Corriere della Sera Business School, as well as the Cisco Academy.

- Sole24Ore Business School: It specializes in providing business education and executive programs, in contrast to EF, which focuses on language learning and study abroad opportunities. It serves people looking for managerial training, specialist

² Website: <https://www.britishcouncil.it/>

³ Website: <https://www.astudy.it/>

⁴ Website: <https://www.kaplaninternational.com/>

business knowledge, and professional growth. Both EF and Sole24Ore Business School compete for those looking for educational opportunities to advance their professions, despite the differences in their offers.

- Cisco Academy: In networking and IT-related disciplines, it offers training and certification programs. The Cisco Academy draws those interested in honing their technical abilities and seeking employment in the technology industry, even though it is not directly connected to language learning or studying abroad. For students that prioritize their IT education over their language study, this provides an alternate option.
- Additionally, universities and other formal educational institutions can be considered indirect competitors for EF. They often offer language courses and study abroad programs alongside their traditional academic programs. For example, universities may have academies that provide language education to their students. These institutions compete for the attention and enrollment of students interested in language learning and study abroad experiences but prefer the structure and accreditation associated with formal educational establishments.

Recognizing and understanding also these indirect competitors, such as Sole24Ore Business School, Cisco Academy, and universities, is crucial for EF. In the competitive environment of international education, EF can hone its positioning, highlight its distinct value propositions, and successfully respond to the particular requirements and preferences of its target audience by recognising the wide range of alternatives accessible to students.

BRAND POSITIONING MAP

The brand positioning map for EF can be constructed by considering the following two dimensions: the level of customization (low and high level) and the breadth of program offerings (specific topic programs or combined topic programs).

Among EF's direct competitors, Wall Street English stands out for its extensive range of specialized English language training courses, focusing on communication skills. However, the level of customization offered by Wall Street English is relatively low.

On the other hand, British Council offers a wide selection of courses suitable for students of all ages, with a particular emphasis on English language certification. Astudy International Education caters to students interested in studying abroad, providing a variety of study programs, language classes, and opportunities for cultural immersion. Kaplan International, a

renowned education company, offers a range of services including language training, exam preparation, and university admission programs.

By contrast, among the indirect competitors, Sole24Ore Business School specializes in business education and executive programs, while Cisco Academy provides training and certification programs in networking and IT-related disciplines.

Last but not least, universities and formal educational institutions also indirectly compete by offering specialized master's programs.

Considering these competitors, it is crucial for to position itself in the quadrant of high level of customization, where students have the opportunity to tailor their study packages according to their individual learning needs. Additionally, offering combined topic programs is essential as it allows students to combine language proficiency with marketable skills for their future career.

By assuming a position in the high level of customization and combined topic programs quadrant, is able to meet the various needs of students, empowering them to create their own unique study plans and acquire both linguistic proficiency and valuable expertise applicable in the job market.



Figure 3.1: Representation of EF's Brand Positioning

4. RESEARCH METHODOLOGY

This research has been conducted using different analytical tools. The integrated strategy, which combines qualitative and quantitative techniques, enables a comprehensive examination of the case study.

The methodology used to carry out the quantitative analysis will be presented in this chapter. After establishing the target population, the fieldwork phase, which includes the insights gathered from a focus group and five in-depth interviews will be introduced. Finally, formal data audit is conducted at the end of the process to guarantee authenticity and correctness.

4.1 TARGET POPULATION

In order to investigate the feasibility of EF delivering a new training course that integrates both language and professional content, the target population selected for this study comprises young individuals, both male and female, aged between 18 and 25. The choice to focus on the 18-25 age group in relation to the skills gap has been done for several reasons. Firstly, this age range represents a critical phase in individuals' lives when they are often transitioning from education to the job market or higher education. It is a time when individuals are acquiring and developing the skills necessary for their future careers.

To prove the existence of the skill gap problem, at the beginning of the questionnaire, the participants were asked whether they believed their academic background had provided them with the necessary skills to enter the job market.

Specifically, the focus is on male and female participants residing within the Lombardy region. By narrowing down the geographic scope to a single region, the aim is to create a representative and balanced sample that can provide valuable insights. The choice to focus only on the Lombardy region has been done in order to ensure a quite accurate and representative sample in terms of gender and age and other variables (specifically education and occupation). Considering the population of each individual region in Italy would have introduced significant complexity in creating a stratified sample. Therefore, by narrowing down the scope to Lombardy, the aim of the research was to streamline the sampling process and maintain the necessary level of precision for the study. Specifically, in order to filter out participants who do not fit the target group, it has been added questions about participants' ages and residences in the questionnaire.

As a point of reference to establish the stratification scheme, it has been considered the number of registered residents in Lombardy as of January 1, 2023, obtained from the ISTAT (2023).

Specifically, it has been selected the age range within the target group and divided it by gender to determine the percentage distribution of males and females in this category. This approach allowed to analyze the demographic composition and ensure proportional representation within the sample.

The table below shows the total population (in absolute numbers and percentages) of 18-25-year-olds residing in Lombardy, divided by gender.

	18-21	22-25	Total
Female	189,204	192,817	382,021
Male	195,341	203,538	398,879
Total	384,545	396,355	780,900

Table 4.1: Lombardy Population- Absolute numbers

	18-21	22-25	Total
Female	24.2%	24.7%	48.9%
Male	25.0%	26.1%	51.1%
Total	49.2%	50.8%	100.0%

Table 4.2: Lombardy Population- Percentages

In conclusion, the target population of people consists of 49.2% in the age range 18-21 e 50.8% in the age range 22-25. After administering the questionnaire and collecting the data, it will be necessary to stratify the sample in order to reproduce this percentage distribution among the obtained respondent sample.

4.2 QUALITATIVE RESEARCH

In this chapter, the steps undertaken prior to administering the questionnaire will be outlined. The key insights from the focus group and interviews, whose transcripts can be consulted in **Annex 1a**, will be presented before proceeding with the formal data audit phase.

PRELIMINARY FOCUS GROUP

To gather valuable insights for constructing the questionnaire, a preliminary focus group with 6 people (3 males and 3 females) within my target audience, aged between 18 and 25 has been conducted. From this discussion, several key insights emerged.

The focus group yielded several key insights. Participants expressed a preference for blended or in-person courses, citing the value of direct interaction with their peers. They emphasized

that competencies requiring physical presence, such as soft skills and certain technical subjects, are best learned in a face-to-face setting. The discussion also shed light on the drawbacks of online learning during the Covid-19 pandemic, including decreased attention span and a lack of personal interaction. Participants highlighted that online courses are more suitable for specific skill sets, while other competencies benefit from an in-person approach. The reputation of educational providers, self-awareness of skill gaps, and the relevance of course topics were identified as factors influencing course attractiveness. Additionally, participants viewed favorably the idea of a course combining language skills with transversal or technological competencies. The motivation to participate in such a course stemmed from the opportunity to integrate language and technical skills while experiencing studying abroad. Lastly, participants emphasized the importance of frequent lessons, direct professor contact, and robust career guidance services to enhance the comprehensiveness of such a course.

TABLE OF PARTICIPANTS

N	Name	Age	Gender	Profession
1	Marianna	22	F	Employee
2	Miguel	23	M	Working Student
3	Vittoria	24	F	Employee
4	Filippo	24	M	Student
5	Leonardo	19	M	Student
6	Maria Elena	22	F	Working Student

Table 4.3: Table of Focus Group participants

IN-DEPTH INTERVIEWS

In order to gain a thorough understanding of the skills required in the current job market, the qualitative analysis has been expanded by interviewing recruiters from non-competing companies of EF. Their input and perspectives will offer valuable insights to be incorporated into the questionnaire, enhancing its overall understanding.

HR SIDE INTERVIEWS INSIGHTS

In the interviews conducted with two HR managers, Federica Bolognesi from Sky Italia and Silvia Bosani from Alkemy Italia, valuable insights were gathered concerning the skills sought

after in the hiring process for junior positions, as well as the emerging trends in the education sector.

Both interviewees emphasized the importance of soft skills and a willingness to continuously learn when evaluating candidates. According to Federica Bolognesi, technical skills can be acquired after joining the organization, while Silvia Bosani highlighted the importance of a strong desire to learn, adapt, and embrace change.

Regarding the labor market, both interviewees stressed the increasing demand for specific skills in the digital sector, such as strategic consulting and data analysis. Furthermore, certifications were considered an added value, especially for specific roles.

The interviewees also discussed the role of companies as training providers. While a company's reputation can influence its training proposal, both emphasized the importance of the quality of content and certifications offered.

On the future trends of the education market, the concept of lifelong learning emerged, highlighting that continuous learning will become increasingly crucial. Additionally, the importance of offering diversified and engaging learning formats with a hybrid approach combining online and in-person elements was emphasized.

Lastly, the interviews discussed the new frontiers of distance learning, such as the possibility for streaming television platforms to offer university-level courses. Both interviewees acknowledged that these opportunities are already being developed, opening new possibilities in the field of education.

Overall, these interviews shed light on two key insights. Firstly, there is a noticeable "skill gap" between education and the job market, emphasizing the need for bridging this gap. Secondly, the integration of diverse disciplines is regarded as a valuable asset in today's education market. However, the crucial factors that differentiate candidates lie in the quality of their soft skills and an unwavering commitment to continuous learning.

EF EDUCATION FIRST INTERVIEWS INSIGHTS

Moving from the main insights emerged from HR recruiters' interviewees, the analysis was addressed to understand how EF manages the delivery of a new course and if expanding its educational offerings is part of their future business plans.

In this context, the contribution of EF's managers has been precious. Both Linda Borromeo, Country Strategic and Tactical Director EF Italy, and Cosimo Protopapa, Country Product Manager EF Italy, shared valuable insights on EF's course development procedures and the potential to expand the educational offerings beyond language-focused programs. Indeed,

Linda Borromeo mentioned EF's initiative to broaden educational options with diverse courses, such as a basketball camp in Milan in collaboration with Urania. However, these projects were postponed due to the COVID-19 pandemic and were activated only starting from 2022-2023 season. Moreover, Linda Borromeo emphasized EF's commitment to expanding educational offerings to encompass practical topics of value to students. Yet, the realization of this vision has been limited, primarily due to traditional teaching methods. On the other hand, Cosimo Protopapa highlighted the importance of adapting to the evolving landscape and mentioned that EF already offers adult courses taught by professors from Hult International Business School, focusing on specific subjects like economics and digital marketing. Both executives emphasized the significance of providing broader and career-oriented content to meet the needs of older students who require interdisciplinary skills alongside language proficiency. Additionally, they discussed the preference for in-person courses over online ones, despite EF currently offering online content to address current demands. They both recognized the value of contamination between different disciplines in the education market, highlighting that employers seek experts with interdisciplinary knowledge to tackle complex issues and provide comprehensive solutions. Finally, they expressed the willingness to further expand EF's educational offerings beyond language instruction by collaborating with universities or companies or by delivering new courses with a focus on specific content demanded by the job market.

Finally, an insightful interview with Elena Lamberti, Country Product Manager Italy at APP, a program renowned for offering study courses lasting 6 months or more, has been conducted. During the interview, the main focus was to delve into the significant disparities between a relatively short course (ILS) and a longer one (APP).

In the interview was also discussed the idea of developing a new course that would effectively combine language competence improvement with the learning of specialized and cross-functional skills, such public speaking, collaboration, project management, Excel, and coding. She was aware of the difficulty of guaranteeing a certain minimum enrolment for such a specialized program, though. She therefore suggested to emphasize cross-functional abilities like as collaboration and public speaking as a more effective method to ensure course sustainability and successfully meet student needs.

Moreover, the interview touched upon the possibility of collaborating with universities or companies to deliver courses specifically designed to meet the demands of the job market, all within the context of foreign language learning. Elena Lamberti expressed a positive view regarding this concept, highlighting its potential to equip students with practical and industry-

relevant skills. However, it was emphasized that a minimum B2 level of English proficiency would be a prerequisite for students to fully engage in and benefit from such a program.

Overall, Elena Lamberti's insights shed light on the significance of striking a balance between language proficiency and practical competencies in course development. This approach, complemented by potential partnerships with universities or companies, holds great promise in preparing students for long-term success in their academic pursuits and professional endeavours.

MAIN INSIGHTS

The qualitative research has revealed the following valuable insights, which has been used to build the structure of the questionnaire.

- Focus group participants emphasized that skills requiring physical presence, such as soft skills and certain technical subjects, are best acquired in a face to face learning environment.
- The idea of a course combining language skills with cross-disciplinary or technological competencies was well-received by all participants of the focus group.
- HR interviewees from non-competitive companies to EF highlighted the significance of soft skills and a continuous learning attitude when evaluating candidates. They also considered certifications as an added value.
- Moreover, they pointed out the existence of a "skill gap" between education and the job market, underscoring the need to bridge this distance by integrating different disciplines.
- Within the context of EF, there is a strong commitment to offer educational programs that include practical topics of value to students. Additionally, all the EF managers recognized the value of cross-disciplinary contamination within the education market.
- Lastly, it was stressed that a minimum B2 level of English proficiency would be a prerequisite for students to fully engage in and benefit from that innovative program.

4.3 QUANTITATIVE RESEARCH

A comprehensive overview of the questionnaire development process and the methodology used for data collection will be provided in this chapter. Lastly, the sample rebalancing procedure will be outlined, with the aim of ensuring the highest possible level of representativeness.

QUESTIONNAIRE SET- UP

After completing the qualitative research phase, a questionnaire has been developed on the basis of the valuable insights gathered both by the focus group and the in-depth interviews. Therefore, the final target audience (people aged between 18-25 years old) was asked to complete a 31-question questionnaire, which can be consulted in **Annex 1b**, that encompassed qualitative and quantitative variables, including nominal, ordinal, and scale measurement.

DATA COLLECTION

Before launching the final questionnaire, a pre-test with 5 people aged between 18-25 has been conducted. The purpose was to test the comprehensibility of the questions and make any necessary improvements to the questionnaire in terms of wording. Subsequently, some questions from the questionnaire were removed.

The questionnaire was launched online after the pre-test phase. The most challenging objective was to find a representative sample, particularly for the 18-19 age group, which consists of high school students, and it was difficult to reach them only through my network. To address this issue, EF allowed to share the questionnaire in EF ambassadors' WhatsApp group, consisting mainly of young people. The questionnaire received over 200 responses, with participants motivated by the incentive of earning extra points for their activities.

After this phase, the questionnaire has been launched to my network residing (or planning to reside) in Lombardy. It was quite challenging because the target audience was very specific (18-25 years old) and limited to the Lombardy region. In the end, the questionnaire collected 495 responses, out of which 91 were eliminated due to incompleteness. Among the remaining 404 responses, the responses of those who answered "NO" to the first question which was "Are you between 18-25 years old?" (58 respondents) were also eliminated.

Moreover, from the remaining 346 respondents who completed the questionnaire and answered "YES" to the first question, those who do not live in Lombardy, as my region of interest was specifically Lombardy were further filtered. The total number of filtered responses was 252. For simplicity of the analysis, the 2 respondents who have answered Other or Prefer not to say to the question "What is your gender?" were also removed. Therefore, the total number of filtered responses was 250.

INITIAL SAMPLE DESCRIPTION

	18-21	22-25	Total
Female	189,204	192,817	382,021
Male	195,341	203,538	398,879
Total	384,545	396,355	780,900

	18-21	22-25	Total
Female	47	86	133
Male	52	65	117
Total	99	151	250

Table 4.4: Population vs Sample Comparison - Absolute Values

	18-21	22-25	Total
Female	24.2%	24.7%	48.9%
Male	25.0%	26.1%	51.1%
Total	49.2%	50.8%	100.0%

	18-21	22-25	Total
Female	18.8%	34.4%	53.2%
Male	20.8%	26.0%	46.8%
Total	39.6%	60.4%	100.0%

Table 4.5: Population vs Sample Comparison - Percentages

Based on the information provided in the two tables above, it is clear that there is no clear proportionality in relation to the population of Lombardy. Upon evaluating the representativeness of our sample based on the stratification criteria, female respondents were oversampled (53.2% vs 48.9%) over males and also respondents in the age range of 22-25 (60.4%) to the detriment of people in the age range 18-21 (39.6%) compared to the real population. In order to enhance the representativeness of the sample, a thorough analysis was conducted to assess the distribution of respondents within each specific age group and compare it with the demographic distribution of the Lombardy region.

However, the proportion that exists for each year relative to the population of Lombardy has been examined. Notably, Table 4.6 reveals a well-balanced distribution across all four age ranges, encompassing both the 18-21 and 22-25 age ranges. This meticulous examination allowed to ensure the robustness and accuracy of the findings in the empirical research.

	18	19	20	21	18-21
Female	47,711	45,722	45,419	50,352	189,204
Male	50,223	49,284	49,479	46,355	195,341
Total	97,934	95,006	94,898	96,707	384,545
	25.5%	24.7%	24.7%	25.2%	

	22	23	24	25	22-25
Female	47,092	46,738	46,807	52,180	192,817
Male	51,801	51,702	52,735	47,300	203,538
Total	98,893	98,44	99,542	99,480	396,355
	25.0%	24.8%	25.1%	25.1%	

Table 4.6: Population Distribution Across Ages

The population distribution is well distributed in all the years. By looking at the sample, it is clear that the age range 18-21 is well balanced with no variation larger than 3%.

	18	19	20	21	18-21
Female	16	11	8	12	47
Male	12	14	14	12	52
Total	28	25	22	24	99
	28.3%	25.3%	22.2%	24.2%	

	22	23	24	25	22-25
Female	30	31	18	7	86
Male	20	22	14	9	65
Total	50	53	32	16	151
	33.1%	35.1%	21.2%	10.6%	

Table 4.7: Sample Distribution Across Ages

Considering the age range 22-25 years old, the sample is not representative of the population. Indeed, there is a clear oversampling of the 22-age group (with an 8% variation), the 23-age group (with a 10% variation), and finally, the 25-year-old category is significantly underrepresented compared to the population (with a staggering 14% variation).

REBALANCING PROCESS

Consequently, the sample was rebalanced by randomly removing certain responses from participants aged 22 and 23 years old. To align the sample with the population as closely as possible, a total number of 36 respondents were removed. Specifically, there have been removed 20 females aged 22 years old 16 females aged 23 years old.

	22	23	24	25	22-25
Female	10	15	18	7	50
Male	20	22	14	9	65
Total	30	37	32	16	115
	19.9%	24.5%	21.2%	10.6%	

Table 4.8: Rebalancing process- First Step

However, even after this adjustment process, a slight oversampling remains evident in the final age range. As we can see from the table below, the random elimination of respondents from those age groups has had a positive impact on the marginal distributions, although there is still an underestimation of 25-year-old respondents. A possible explanation for this underestimation

is that the group of EF Ambassadors consists primarily of young people, and thus, it is expected to find an overbalancing in the 22 and 23-year-old categories. Considering this, the survey was distributed to 12 females aged 25 years old in order to compensate the initial underrepresentation.

	22	23	24	25	22-25
Female	10	15	18	19	62
Male	20	22	14	9	65
Total	30	37	32	28	127
	23.6%	29.1%	25.2%	22.0%	

Table 4.9: Rebalancing process- Second Step

In summary, the final sample consisted of 226 respondents, distributed as follows:

	18-21	22-25	Total
Female	20.8%	27.4%	48.2%
Male	23.0%	28.8%	51.8%
Total	43.8%	56.2%	100.0%

Table 4.10: Sample Distribution- After the rebalancing process

The process of rebalancing yielded a nearly perfect representation, with no variations exceeding 2%.

FORMAL DATA AUDIT

A formal audit of the data has been conducted to ensure its quality before proceeding with the analysis.

- For the open questions, there have been no issues since specific requirements in Qualtrics have been implemented, such as limiting decimal places to 2 in some questions and restricting responses to integer numbers in others.
- There were no necessary corrections needed for the evaluation and scaling questions.
- Furthermore, the presence of missing values has been minimized by setting all questions as mandatory in the survey software.

5. RESULTS

5.1 SAMPLE DESCRIPTION

GENDER

Following the rebalancing procedure, the sample achieved a satisfactory level of representativeness with respect to gender. Specifically, the respondent group comprises 51.8% males and 48.2% females. This closely aligns with the gender distribution in the overall Lombardy population, which consists of 51.1% males and 48.9% females. Therefore, the sample accurately reflects the gender composition of the target population.



Figure 5.1: Population vs Sample- Gender Distribution

AGE

A comparison of the population and sample's statistics reveals differences between the two sets of data. Particularly, there is a substantial oversampling in the 18-year-old age range since EF primarily distributed the survey within a network of very active social media users aged between 18 and 20 years old. Furthermore, there is a minor overrepresentation of people aged 23 years old which warranting careful consideration during the analysis phase. This overestimation is mostly due to the fact that the survey was forwarded to people in my personal network, which led to a higher representation of people of this age. In this case as well, the variation remains below 5%, indicating that the sample can be considered representative of the real population.



Figure 5.2: Population vs Sample- Age Distribution

EDUCATION

By looking at the pie chart below, the sample distribution appears to be quite realistic and representative of the population. However, there is a slight underrepresentation of High school students even though we should consider that Lombardy's population data consider individuals between the ages of 15 and 24 and an oversampling of individuals with a Master's degree⁵. This discrepancy can primarily be attributed to the composition of my personal network, which consists of individuals who are generally older and have progressed beyond the high school level.

The oversampling in the master's degree category will be considered as it will be influence individual's willingness to pay for the proposed course.

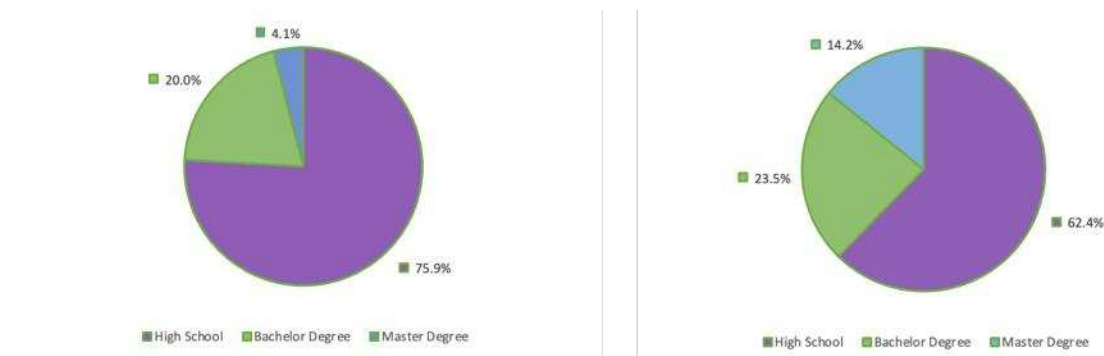


Figure 5.3: Population vs Sample – Education Distribution

⁵ Istat http://dati-censimentopopolazione.istat.it/Index.aspx?DataSetCode=DICA_GRADOISTR1#

OCCUPATION

Regarding occupation, the sample distribution seems to be representative. More than 50% of the sample consists of students, which aligns with the data from the National Institute of Statistics (ISTAT).⁶ The remaining portion is composed of young individuals who either work or have temporary jobs while continuing their studies. It is important to note a clear discrepancy in relation to the "unemployed" category within the considered age group in relation to the Lombardy region.

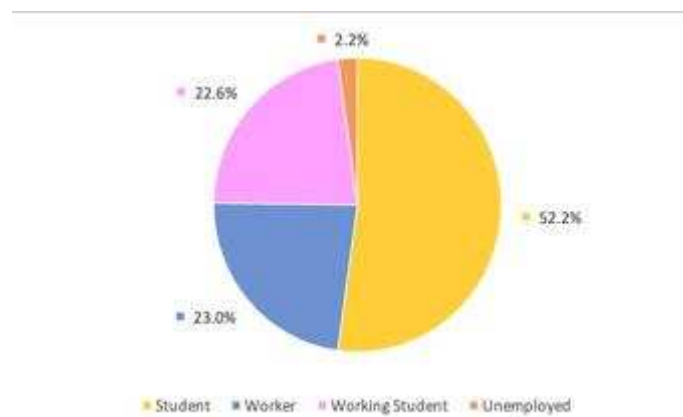


Figure 5.4: Sample Distribution- Occupation

⁶ <https://www.istat.it/storage/ASI/2022/capitoli/C08.pdf> (Table 8.1)

5.2 ACADEMIC BACKGROUND AND SKILLS GAP

This section investigates the first research question which is related to the areas of competency (both hard and soft skills) in which individuals in the 18-25 age group perceive themselves to be most lacking and how do they plan to enhance their weakest skills.

In order to answer to this question, some questions of the questionnaire are examined below.

Do you think your academic background has provided you with the necessary skills to enter the job market?

The aim of this question was to assess, through the respondents' perceptions, the presence of the skills mismatch between respondents' academic backgrounds and the needs of the job market. Based on the frequency analysis, the findings indicate that the majority of the sample (66.8%) acknowledged that their academic education did not adequately provide them with the necessary skills to enter the workforce. By contrast, 33.2% expressed satisfaction with the competencies acquired through their academic paths.

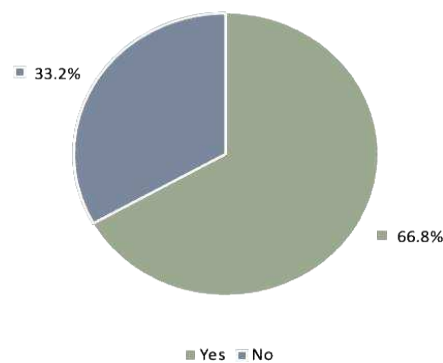


Figure 5.5: Perception of having the necessary skills- Pie chart

The insights gained from this analysis are crucial to the research as they shed light on the existence of a skill gap within the sample considered, supporting the need to bridge this gap between academic preparation and job market requirements.

For the purpose of obtaining detailed information about the behaviors, preferences, and characteristics of the sample, subsequent analyses were conducted for both psychographic and demographic variables.

By crossing the selected variable with the psychographic ones, an ANOVA table was constructed with the aim of examining how the quantitative variable varies in terms of means based on the modalities of the qualitative variable (control variable).

Among all the conducted analyses, it emerged that only the variable "I enjoy trying new and unplanned experiences" was significant, as the F-test yielded a significance level <0.05 (0.002). Therefore, the null hypothesis (H_0), which assumes the independence of the means between the two variables, can be rejected. This result was also confirmed by the Eta Index, which is > 0.2 , indicating a strong relation between the two variables (**Annex 2**).

Looking at the significant variable, we can observe that those respondents who believe that their academic path has provided them with the necessary skills to enter the workforce, with a mean of 8.01 (and a standard deviation of 1.419), seem to be more inclined to engage in new and unplanned experiences.

Report			
I enjoy trying new and unplanned experiences			
Necessary skills for job market entry	Mean	N	Std. Deviation
Yes	8.01	75	1.419
No	7.32	151	1.615
Total	7.55	226	1.583

Table 5.1: Psychographic Characteristics* Necessary skills for the job market– Mean Table

This insight suggests that individuals, due to their proactive approach towards new experiences, may have acquired the necessary skills to enter the workforce and may be more likely to acquire new competencies.

This outcome provides a compelling argument to design a course with innovative content that enhances their skills.

Furthermore, another interesting insight emerged from analyzing the responses of those who answered "No" to the previous question specifically related to the approaches being taken to improve their weakest skills.

Therefore, a dichotomous variable named "\$SkillsEnhancement" was created, encompassing all the multiple-choice options as distinct variables. Subsequently, a frequency analysis was displayed to examine the distribution and occurrence of each choice.

Skills Enhancement Frequencies

Do you think your academic background has provided you with the necessary skills to enter the job market?			Responses		Percent of Cases
			N	Percent	
Yes	Skills Enhancement ^a	Intensive courses on specific topics	49	43.8%	65.3%
		University Master's programs (1st or 2nd level)	22	19.6%	29.3%
		On-the-job training	33	29.5%	44.0%
		Bootcamps or summer schools with companies	8	7.1%	10.7%
		Total	112	100.0%	149.3%
No	Skills Enhancement ^a	Intensive courses on specific topics	122	57.0%	80.8%
		University Master's programs (1st or 2nd level)	18	8.4%	11.9%
		On-the-job training	47	22.0%	31.1%
		Bootcamps or summer schools with companies	27	12.6%	17.9%
		Total	214	100.0%	141.7%

a. Dichotomy group tabulated at value 1.

Table 5.2: Skills Enhancement vs Necessary skills for the job market – Frequencies

A notable observation is that individuals who express dissatisfaction with the acquisition of necessary skills for entering the job market (151) tend to exhibit a stronger preference (Percent of cases = 80.8%) for intensive courses focusing on specific topics. On the other hand, individuals who believe that their academic education adequately equipped them with the required competencies (75) display a relatively lower preference (Percent of cases = 65.3%) for such intensive courses.

Lastly, in order to investigate the presence of dependence between the variable “Perception of having the necessary skills” and the age, gender and education level, further analyses have been conducted.

A new variable called "Age Group" has been recoded to avoid any potential negative impact on the analysis by creating two intervals, namely 18-21 and 22-25.

In this case, a Pearson Chi-Square Test, which is higher than the threshold of 0.05 has been conducted, concluding that the two variables under analysis are independent. This is a highly encouraging result for the research as it suggests no significant difference between age groups and the perception of having the necessary skills for the job market (**Annex 3a**).

The analysis has been replicated for gender and education level, and consistently obtained the same result. The Pearson Chi-Square Test indicated independence between these variables as well. This consistent finding across different variables, including age, gender, and education level, is not discouraging for our research. It suggests that there is no significant association

between these demographic factors and the perception of having the necessary skills for the world of work (**Annex 3b**).

Also, when considering \$Skills Enhancement, Age does not appear to be a significant factor, as there are only slight differences in preferences across age groups. The percentage of individuals who plan to engage in on-the-job training is slightly higher for the 22-25 age range (37.0%) compared to the 18-21 age range (33.3%). However, both age groups show a preference for intensive courses. Moreover, no discernible differences were found based on gender.

\$SkillsEnhancement*AgeGroups Crosstabulation

		Age Groups		Total	
		18-21	22-25		
\$SkillsEnhancement ^a	Intensive courses on specific topics	Count	76	95	171
		% within \$SkillsEnhancement	44.4%	55.6%	
		% within AgeGroups	76.8%	74.8%	
		% of Total	33.6%	42.0%	75.7%
	University Master's programs (1st or 2nd level)	Count	20	20	40
		% within \$SkillsEnhancement	50.0%	50.0%	
		% within AgeGroups	20.2%	15.7%	
		% of Total	8.8%	8.8%	17.7%
	On-the-job training	Count	33	47	80
		% within \$SkillsEnhancement	41.3%	58.8%	
		% within AgeGroups	33.3%	37.0%	
		% of Total	14.6%	20.8%	35.4%
Bootcamps or summer schools with companies	Count	13	22	35	
	% within \$SkillsEnhancement	37.1%	62.9%		
	% within AgeGroups	13.1%	17.3%		
	% of Total	5.8%	9.7%	15.5%	
Total	Count	99	127	226	
	% of Total	43.8%	56.2%	100.0%	

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 5.3: Skills Enhancement* Age Groups – Cross Tab

Please rate your level of skills on a scale of 1 to 10

This variable has the objective to investigate the assessment of competencies among the respondents in the sample. It emerged that the highest evaluation was given to Linguistic Skills in English (with a mean of 7.48), which also had the lowest standard deviation. This indicates that respondents generally had a consistent and positive assessment of their English language proficiency.

On the other hand, the lowest evaluations were associated with more technical competencies, such as Advanced Excel skills, with a mean of 4.54, and Advanced Programming (Python, R Studio, etc.) with a mean of 4.17. Interestingly, when looking at the standard deviation, it is evident that these are the highest for these technical competencies, suggesting a greater variability in the assessment of these skills among the respondents.

From a business perspective, this is an encouraging result for the purpose of the research. The identification of lower evaluations in specific technical competencies, for people on average fluent in English, presents significant opportunities for linguistic providers to expand their training offerings beyond language courses.

Another significant finding of this analysis relates to the group of soft skills. In this case, respondents gave the lowest evaluation to the Negotiation skills(5.65). Therefore, from a business point of view, this finding emphasizes the importance of incorporating a dedicated course on soft skills, with a particular focus on enhancing Negotiation skills, which were identified as receiving the lowest evaluation.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Advanced Programming skills (Python, R Studio...)	226	1	10	4.17	2.348
Advanced Excel skills (macros, pivot tables...)	226	1	10	4.54	2.500
Linguistic skills in a foreign language	226	1	10	5.46	2.292
Negotiation	226	1	10	5.65	2.108
Conflict management	226	1	10	5.85	2.309
Public speaking	226	1	10	6.05	2.004
Basic digital skills (Teams, Office Package)	226	1	10	6.25	2.169
Team working	226	1	10	6.89	1.848
Linguistic skills in English	226	2	10	7.48	1.561
Valid N (listwise)	226				

Table 5.4: Skills Level- Descriptive Statistics

To gain a better understanding of how competency evaluations varied, a cross-analysis has been conducted between this variable and the demographic and psychographic variables.

From the results, it emerged that individuals who “enjoy improving their skills to keep up to the latest trends” tend to rate their linguistic skills higher in English, as well as their abilities in team working and public speaking, with a significance value <0.05.

Additionally, it has emerged that individuals who “prefer learning trough interaction with others rather than from frontal lessons” tend to exhibit higher evaluation in soft and language skills rather than technical competences.

		Correlations			
		Linguistic skills in English	Team working	Public speaking	Negotiation
I enjoy improving my skills to keep up with the latest trends	Pearson Correlation	.195**	.135*	.143*	.075
	Sig. (2-tailed)	.003	.042	.031	.265
	N	226	226	226	226
I prefer learning through interaction with others rather than from frontal lessons	Pearson Correlation	.236**	.184**	.174**	.254**
	Sig. (2-tailed)	<.001	.005	.009	<.001
	N	226	226	226	226

Table 5.5: Psychographic Characteristics * Skills Level- Correlation

This insights could be used to tailor training and development programs to participants' characteristics and preferences, by the implementation of group activities for enhancing soft skills in the English.

Also in this case, the statistical analysis conducted was an ANOVA table since the reference variable, which is a quantitative scale, was crossed with the qualitative control variable Age Groups. Among all the observations, it emerged that only two variables, Advanced Programming skills and Advanced Excel skills, were found to be significant, with a p-value of 0.001, which is below the 0.05 threshold. Additionally, the Eta index has been examined, which, in both cases, was greater than 0.2, indicating a strong relation between the variables (**Annex 4**).

Looking at the significant correlations, it is evident that within the age group of 18-21, respondents provided lower evaluations (with a mean of 3.51 and a standard deviation of 2.247) in Advanced Programming Skills compared to the age group of 22-25, which had a higher mean of 4.69. The same trend is observed for Excel skills as well. Specifically, within the 18-21 age group, the mean evaluation is 3.87 (with a variation of 2.389), while for the 22-25 age group, the mean is 5.06.

This finding provides valuable business insights for the linguistic providers. It suggests that there may be the opportunity tailored training programs with almost two different levels of Advanced Programming and Excel skills.

Report			
Age Groups		Advanced Programming skills (Python, R Studio...)	Advanced Excel skills (macros, pivot tables...)
18-21	Mean	3.51	3.87
	N	99	99
	Std. Deviation	2.247	2.389
22-25	Mean	4.69	5.06
	N	127	127
	Std. Deviation	2.301	2.468
Total	Mean	4.17	4.54
	N	226	226
	Std. Deviation	2.348	2.500

Table 5.6: Skills Level* Age Groups- Mean Table

Furthermore, the same analysis has been conducted for the qualitative variables of gender, education and occupation. The aim of this variable to uncover any significant patterns or differences that could provide valuable insights for understanding how these factors may influence competency assessments. While no significant findings emerged for occupation (**Annex 5a**), crossing the reference variable with education and gender provided the following results.

On one hand, Advanced Excel skills demonstrate significance, with a p-value of 0.004 and an Eta index exceeding 0.2 (0.218). Advanced programming skills, on the other hand, has a p-value that is very close to the threshold of 0.05, with a value of 0.057 (**Annex 5b**).

Report			
What is your education level?		Advanced Programming skills (Python, R Studio...)	Advanced Excel skills (macros, pivot tables...)
High school degree	Mean	3.89	4.13
	N	141	141
	Std. Deviation	2.384	2.452
Bachelor degree	Mean	4.51	5.08
	N	53	53
	Std. Deviation	2.431	2.623
Master degree	Mean	4.84	5.47
	N	32	32
	Std. Deviation	1.851	2.125
Total	Mean	4.17	4.54
	N	226	226
	Std. Deviation	2.348	2.500

Table 5.7: Skills Level* Education Level- Mean Table

The findings indicate that respondents with a High School degree have lower skills evaluations in Advanced Excel skills, with a mean score of 4.13, compared to those with a Bachelor's degree, which has a mean of 5.08 and a Master's degree, mean of 5.47. This is important because it highlights the potential influence of education level on advanced Excel skills. It suggests that individuals with higher educational attainment may have stronger proficiency in

advanced Excel techniques and applications, although these skills were rated the lowest (on a scale from 1 to 10) compared to all the other competencies.

Regarding the gender variable, Advanced Programming Skills and Advanced Excel Skills are correlated with a significance level of 0.008 and 0.044. The value of the Eta index confirms a weak correlation between the variables since the value is below 0.2 (**Annex 5c**).

The results show that female respondents' evaluations of Advanced Programming Skills and Advanced Excel Skills are lower compared to male respondents. Specifically, for the competence "Advanced Programming Skills," the mean for male respondents is 4.57, while for female respondents, it is 3.74. On the other hand, for the competence "Advanced Excel Skills," the mean for male respondents is 4.86, compared to 4.19 for female respondents.

Gender		Advanced Programming skills (Python, R Studio...)	Advanced Excel skills (macros, pivot tables...)
Male	Mean	4.57	4.86
	N	117	117
	Std. Deviation	2.454	2.671
Female	Mean	3.74	4.19
	N	109	109
	Std. Deviation	2.158	2.263
Total	Mean	4.17	4.54
	N	226	226
	Std. Deviation	2.348	2.500

Table 5.8: Skills Level* Gender- Mean Table

How much budget do you plan to allocate for a course in Italy and abroad?

The aim of this analysis was to compare expenditure patterns for a course in Italy and abroad. The data reveals distinct variations in spending preferences. Notably, a percentage of respondents in Italy (31.4%) would be willing to spend less than €1,000, while a considerable portion (48.7%) reported a range between €1,000 and €3,000. By contrast, respondents considering courses abroad displayed a different distribution of expenditure. In this case, the highest percentage of respondents (38.6%) expressed a willingness to spend between €1,000 and €3,000, with a noteworthy portion (36.8%) indicating a higher budget range from €3,001 to €10,000. These findings highlight divergent spending tendencies between the two contexts, which can be consulted in the pie chart below, providing valuable insights for the research.

A valuable business insight from these findings is the potential market demand for educational courses in Italy and abroad. The data indicates that there is a market segment in Italy looking for more affordable course options, while there is another segment willing to invest in higher-priced courses abroad. This insight suggests that linguistic providers can tailor their marketing efforts to attract customers by emphasizing the value and quality of educational experiences abroad, since they are more willing to spend.

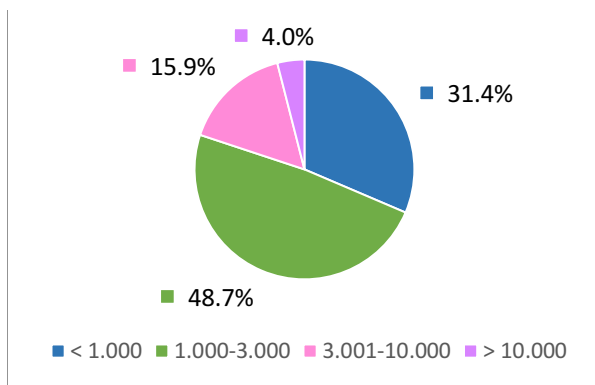


Figure 5.6: Average spending in Italy

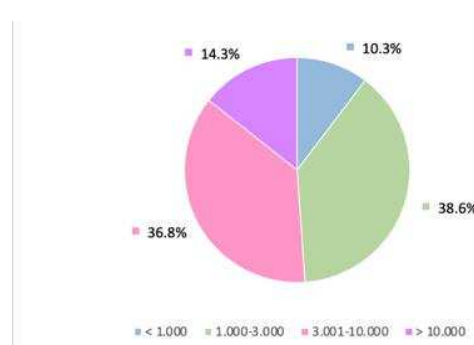


Figure 5.7: Average spending abroad

Afterward, a bivariate analysis was conducted by creating a cross-tabulation between these two categorical variables. The relation between the variables is significant as shown by the Chi-square Test (p value = $< .001$) and the Cramer's V.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	121.397 ^a	9	<.001
Likelihood Ratio	107.290	9	<.001
Linear-by-Linear Association	66.116	1	<.001
N of Valid Cases	223		

a. 5 cells (31.3%) have expected count less than 5. The minimum expected count is .93.

	Value	Approximate Significance
Nominal by Nominal Phi	.738	<.001
Cramer's V	.426	<.001
N of Valid Cases	223	

Table 5.9: Average Spending in Italy and abroad- Chi Square Test and Cramer's V

The result that emerged is interesting: for each spending level for a course in Italy, respondents are willing to spend a significantly higher amount on courses abroad.

As observed from the table below, among respondents willing to spend $< 1,000$ euros for a course in Italy, 63.2% of them would be willing to spend between 1,000 and 3,000 euros. The same trend is observed among those willing to spend between 1,000 and 3,000 euros for a course in Italy. For a course abroad, respondents would be inclined to increase their budget up to 10,000 euros (**Annex 6**).

For which of the following reason would you be willing to spend more than your average spending range?

With this variable, a new variable set (\$moreexpense) was created by converting the multiple choices into dichotomies, considering them as single choices (either "Yes" or "No"). The frequency analysis revealed that a significant majority of the sample (64.6%) expressed a

willingness to spend above the average if the course can satisfy two needs within the same educational offering, followed by a 48.2% of respondents who reported that they will be willing to spend more than the average if the course is intensive and offered abroad.

		Smorexpanse Frequencies		
		Responses		Percent of Cases
Smorexpanse ^a		N	Percent	
	For which of the following reason would you be willing to spend more than your average spending range? You can choose more than one option. - An intensive course with a period abroad	109	31.7%	48.2%
	For which of the following reason would you be willing to spend more than your average spending range? You can choose more than one option. - The course provides certifications recognized in the job market	89	25.9%	39.4%
	For which of the following reason would you be willing to spend more than your average spending range? You can choose more than one option. - The course combines two different needs into a single offering (e.g language + specific subject)	146	42.4%	64.6%
Total		344	100.0%	152.2%

a. Dichotomy group tabulated at value 1.

Table 5.10: Expense more than the average- Cross Tab

What will be your maximum average spending range Abroad for this course?

Lastly, this investigation wants to examine the maximum level of expense that participants were willing to spend for a study abroad course. After carefully analyzing the collected data, it emerged that 50% of our sample expressed a maximum spending limit of 5.500 euros, which is higher than a standard 3-week course at EF Education First⁷. This indicates a willingness among the respondents to invest more in their study abroad experience, which is promising for the purpose of the research.

It is noteworthy that the mean of the declared maximum expense levels was higher than this value, indicating a distribution with a positive right skewness. This suggests a tendency towards higher values than the mean, with an extension of the distribution towards the right.

To further confirm the presence of possible outliers, I created a box plot of the data. However, as anticipated, no outliers were identified in the distribution. This result may be attributed to the fact that during the data collection, maximum limits were imposed on the survey platform (Qualtrics), setting the upper limit at 20,000 euros. Consequently, values beyond this limit were not included in our analysis.

In conclusion, the study revealed a maximum declared spending limit of 5,500 euros for a study abroad course, with a tendency towards higher values indicated by the mean and the

⁷ Brochure EF Soggiorni Linguistici 2022.

distribution's positive right skewness. Additionally, as expected, no outliers have been found in the box plot since the data limitations during data collection have been imposed.

Statistics		
What will be your MAXIMUM average spendi		
N	Valid	226
	Missing	0
Mean		7666.37
Median		5500.00
Mode		10000
Std. Deviation		5536.558
Variance		30653474.5
Skewness		.579
Std. Error of Skewness		.162
Kurtosis		-.692
Std. Error of Kurtosis		.322
Minimum		0
Maximum		20000
Sum		1732599
Percentiles	25	3000.00
	50	5500.00
	75	11000.00

Table 5.11: Expense more than the average- Statistics

PRELIMINARY CONCLUSIONS

The analysis conducted provided the following insights:

- A significant majority of respondents (66.8%) felt that their academic education had not adequately equipped them with the necessary skills to enter the job market. This finding highlights the presence of a skills gap and emphasizes the importance of addressing this disparity between academic preparation and job market demands.
- Among the psychographic variables examined, respondents who believed their academic path had prepared them for the job market showed a higher inclination towards embracing new and unplanned experiences. On the other hand, those who expressed dissatisfaction with their academic preparation displayed a stronger preference for intensive courses focusing on specific topics. This observation underscores the need to tailor training programs to cater to the motivations and concerns of individuals who perceive themselves as lacking in certain competencies.
- The analysis indicated that the education level and the gender plays a role in how individuals assess their competencies. Respondents with higher educational attainment tended to rate their Advanced Excel and Programming skills higher. Moreover, male respondents tend to exhibit higher evaluations in these two skills compared to female respondents.

- The study uncovered distinct variations in spending preferences for courses between Italy and abroad. For each spending level for a course in Italy, respondents are willing to spend a significantly higher amount on courses abroad.
This valuable information can help linguistic providers tailor their marketing efforts to target customers based on their spending preferences.
- A substantial proportion of the sample (64.6%) expressed a willingness to spend above their average spending range if the course can meet two needs within the same educational offering. This indicates a noteworthy interest among respondents in investing more for a course that fulfills multiple requirements such as, for example, language course and a specific content.
- 50% of the respondents declare that they are willing to spend a maximum of 5,500. This finding suggests that participants are willing to invest significantly in their study abroad experience, indicating a positive outlook for educational providers offering study abroad programs.

Therefore, from a business perspective, it emerged a skills gap which should be addressed through intensive courses on specific topics. Also, a preference for interdisciplinary courses and/or courses abroad is observed, given the highest willingness to pay in these types of programs.

5.3 LEARNING FORMATS AFTER COVID

This section proposes the answer to the second research question: How have the needs and expectations of prospective students shifted as a result of the COVID-19 epidemic in terms of habits?

The questionnaire questions used for the analysis are presented below.

Compared to the Covid period, has the frequency with which you update your skill?

In order to address the second research question, it was essential to investigate whether the frequency of skill updates, among the target audience, had increased, remained stable, or decreased. As evident from the pie chart below, it emerged that 1 out of 2 respondents stated that they have increased the frequency of updating their skills after the Covid period.

This is a favorable result for the research for several reasons. First and foremost, this increase indicates that individuals within the target audience have recognized the importance of continuous learning and development, even after the Covid period, which was a time when people were forcibly at home and had the opportunity to develop their skills more than before. Moreover, from a business perspective, this finding provides valuable insights for linguistic providers and educational institutions. It indicates a potential market demand for skill enhancement programs and courses.

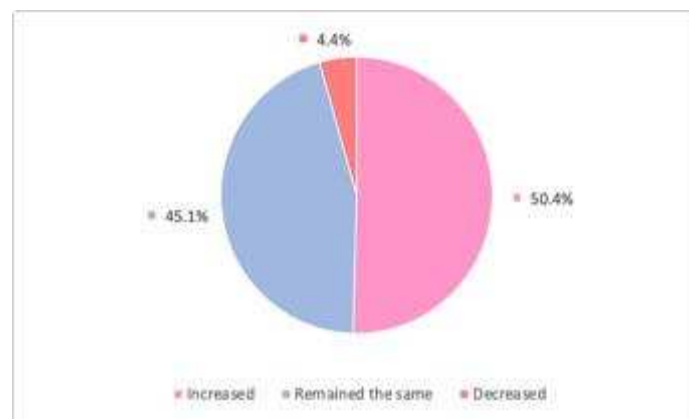


Figure 5.8: Frequency of skill improvement post-COVID

Then, this variable has been crossed with others to investigate potential psychographic and demographic differences. By conducting this analysis, the aim was to gain a comprehensive understanding of the target audience, allowing to tailor better the potential new product the related marketing strategies more effectively. This combination of psychographic and demographic analysis enables to create more personalized and targeted experiences for different segments of the audience, ensuring higher engagement and customer satisfaction.

In this case, an analysis using an ANOVA table has been conducted. As evident from the results, it emerged that the independent (qualitative) variable is only significantly correlated with the psychographic variable "I enjoy doing new experiences," although the variable "I prefer learning through the interaction with others rather than from frontal lesson" deviates slightly from the 0.05 threshold. Additionally, these variables exhibit a slightly Eta Index (respectively 0.177 and 0.158), below the 0.2 threshold, indicating a moderate relationship between them (**Annex 7**).

Report

Compared to the Covid period, has the frequency with which you update your skill		I enjoy trying new and unplanned experiences	I prefer learning through interaction with others rather than from frontal lessons
Increased	Mean	7.81	7.51
	N	114	114
	Std. Deviation	1.556	1.663
Remained the same	Mean	7.25	7.18
	N	102	102
	Std. Deviation	1.518	1.732
Decreased	Mean	7.80	8.40
	N	10	10
	Std. Deviation	2.098	1.713
Total	Mean	7.55	7.40
	N	226	226
	Std. Deviation	1.583	1.710

Table 5.12: Frequency of skill improvement post-COVID

The results suggest that individuals who have increased the frequency with which they have updated their skills post Covid tend to have a higher propensity to try new experiences and to prefer learning by interacting with other people.

There are some potential business implications from these insights. First of all, there should be made an effort to highlight the new course's experiential and PBL (Problem Based Learning) learning approach. Secondly, it could be important to incorporate interactive elements and group activities, to match with the preferences of learners who enjoy collaborative learning environments and find value in sharing knowledge with peers.

To explore whether this variable was dependent on some demographic variables, an a Crosstab analysis has been conducted. None of the variables showed significance (with a p-value > 0.05), but this outcome is not discouraging for the research at all. Indeed, from a business perspective, it indicates that the frequency of updating the competences does not depend on the gender, age, and level of education.

How much do you think you will use blended in the future?

With this variable, the goal was to understand whether the new blended learning approach (which involves a combination of in-person and online format) that has been experimented with by many educational providers would be used in the future and to what extent compared to the present will be used by individuals in the target audience.

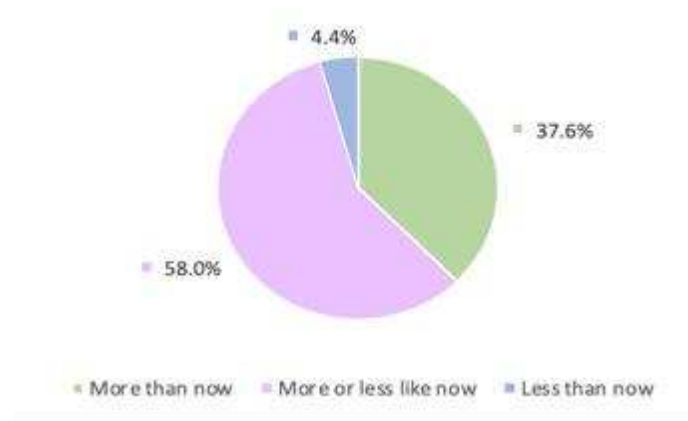


Figure 5.9: Blended learning format usage in the future

The results are clear. Indeed, more than half of the sample (58.0%) does not plan to use the blended format more than they do now, considering that after the COVID-19 emergency, standard training is mostly offered in-person, with only some activities associated with online learning mode. This is a positive outcome for the research because if it was the opposite (the respondents wanted to use it more), the proposal to develop a course entirely online or entirely in-person would not align with their preferences.

As before, in order to investigate whether this variable was influenced by demographic and psychographic variables bivariate analyses have been conducted.

In this case, Among all the correlations, it emerged that "Adverse to risk" (p-value = <0.01) and "Friendly" (p-value = 0.05) are significantly correlated with the variable regarding the blended format. Observing the Eta Index, the value confirms that "Adverse to risk" has a strong correlation with the blended format variable (Eta Index = 0.303), while "Friendly" shows only a weak correlation (Eta Index = 0.160). This result reinforces the findings from the univariate analysis (**Annex 8**).

		Report	
How much do you think you will use blended, which is online and in-person, format in the future?		Adverse to risk	Friendly
More than now	Mean	6.76	7.36
	N	85	85
	Std. Deviation	2.016	1.765
More or less like now	Mean	6.78	7.70
	N	131	131
	Std. Deviation	1.943	1.606
Less than now	Mean	3.70	6.50
	N	10	10
	Std. Deviation	2.627	2.224
Total	Mean	6.64	7.52
	N	226	226
	Std. Deviation	2.092	1.711

Table 5.13: Psychographic characteristics* Blended format usage in the future – Mean Tables

Specifically, looking at the "Adverse to risk" variable, those who reported using the blended format "More or less like now" tend to be more risk-averse (mean of 6.78) compared to those who indicated they would use it "more than now" and "less than now. This finding suggests that the implementation of the new course should contain some elements of traditional learning alongside digital components appears to align better with their risk-averse nature.

Also, for the variable "Friendly" we can observe that, those who have answered "More or less like now" seem to appear more friendly than those who have answered "More than now" and "Less than now". Therefore, the insight from this observation is that there is a correlation between a preference for the "blended format more or less like now" and a friendlier disposition. This suggests that individuals who feel more comfortable with the current mix of learning modalities, may also be more inclined to engage in a friendly or sociable manner. Therefore, it would be beneficial to implement strategies that leverage the preference for the "blended format more or like now." Learners who feel comfortable with the current mix of learning modalities may be more inclined to participate in collaborative activities, discussions, and interactions with their peers and instructors. Creating a conducive environment that supports and encourages social engagement can enhance the overall learning experience and foster a sense of community among learners.

An analysis to examine possible associations between this variable and various demographic factors has been performed, using a crosstabulation due to their qualitative nature. Nevertheless, no statistically significant relationships were observed ($p\text{-value} > 0.05$). These results, far from being discouraging for the research, are, in fact, quite promising from a business standpoint. They suggest that the use of blended format in the future does not rely on gender, age, or educational level, implying a broad applicability of the conclusion above.

PRELIMINARY CONCLUSIONS

From the analyses conducted above the following main insights have emerged:

- A majority of the sample (50.4%) reported an increase in the frequency of updating their skills after the Covid period. This indicates a recognition of the importance of continuous learning and development, even after the pandemic, among the target audience.
- The frequency of updating competences does not depend on demographic variables such as gender, age, and level of education. This suggests that the proposed learning approach can be applicable to a diverse range of learners without the need for specific targeting based on demographic characteristics.
- Learners who have increased their frequency to update their skills tend to have a propensity for trying new experiences and prefer interactive learning. Incorporating interactive elements such as PBL and group activities could enhance engagement and cater to the preferences of this segment.
- The majority of the sample (58.0%) does not plan to use the blended format more than they do now. This finding indicates that the current preference for blended learning may remain relatively stable in the future, making it a valuable and viable approach for in-person course development.
- There appears to be a correlation between the use of blended format “more or like now” and “Friendly” as a disposition among learners. Emphasizing a an interactive learning approach could foster a sociable learning environment, encouraging more meaningful engagement and collaboration.

Therefore, the analyses have revealed that in the post-COVID period, the majority of the sample has increased their participation in training activities to enhance their skills, and they do not intend to further increase the usage of blended learning modalities..

From a business perspective, the demand for skill enhancement programs and courses is confirmed, primarily delivered in person, encompassing interactive and teamwork activities.

5.4 PARTICIPATION AND SELECTION OF EXTRACURRICULAR ACTIVITIES

This paragraph analyses the third research question which is related to the consumer habits regarding participation in extracurricular courses, through the examination of the following questionnaire questions.

Have you taken any extracurricular training courses in the last year?

With this variable, the objective was to understand the distribution of respondents who dedicated time to extracurricular training. In order to achieve this, a frequency analysis was conducted, revealing that out of the total respondents, 136 had participated in extracurricular courses, while 90 had not. The results are clearly shown in the pie chart below:

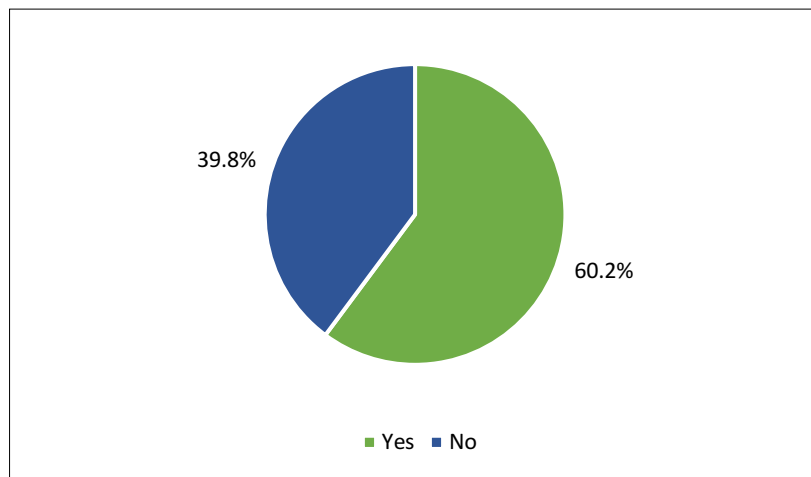


Figure 5.10: Participation in extracurricular training courses

This result indicates that most of the people within the sample participated in at least one extracurricular course last year. In order to investigate possible correlations between this variable and socio-demographic variables, a connection analysis was conducted. The connection between "Participation in extracurricular training courses" and "What is your occupation?" resulted in a significant correlation. The Chi-square test showed a significance level below the threshold of 0.05 (specifically, 0.014), and based on Cramer's V index, we can conclude that the strength of this relationship is moderate, as the value slightly exceeds 0.2 (**Annex 9**).

From the table below, we can observe that among those who have attended at least one extracurricular course last year, 69.9% are students (of which 20.6% are worker students) in comparison to 29.4% of workers. This analysis reveals that, in percentage terms, there are more students who have improved their skills through extracurricular courses than workers.

Occupation * Have you taken any extracurricular training courses in the last year?
Crosstabulation

Occupation	Student		Have you taken any extracurricular training courses in the last year?		Total
			Yes	No	
		Count	67	51	118
		% within Occupation	56.8%	43.2%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	49.3%	56.7%	52.2%
		% of Total	29.6%	22.6%	52.2%
Worker		Count	40	12	52
		% within Occupation	76.9%	23.1%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	29.4%	13.3%	23.0%
		% of Total	17.7%	5.3%	23.0%
Worker Student		Count	28	23	51
		% within Occupation	54.9%	45.1%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	20.6%	25.6%	22.6%
		% of Total	12.4%	10.2%	22.6%
Unemployed		Count	1	4	5
		% within Occupation	20.0%	80.0%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	0.7%	4.4%	2.2%
		% of Total	0.4%	1.8%	2.2%
Total		Count	136	90	226
		% within Occupation	60.2%	39.8%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	100.0%	100.0%	100.0%
		% of Total	60.2%	39.8%	100.0%

Table 5.14: Participation in extracurricular training courses*Occupation- Cross Tab

Performing the same analysis using the previously created variable called "Age Groups, emerged a high level of significance was evident (p-value 0.004), with a Cramer's V index value of 0.193 (**Annex 10**), indicating a moderate relationship between the variables.

Age Groups * Have you taken any extracurricular training courses in the last year?
Crosstabulation

Age Groups	18-21		Have you taken any extracurricular training courses in the last year?		Total
			Yes	No	
18-21		Count	49	50	99
		% within Age Groups	49.5%	50.5%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	36.0%	55.6%	43.8%
		% of Total	21.7%	22.1%	43.8%
22-25		Count	87	40	127
		% within Age Groups	68.5%	31.5%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	64.0%	44.4%	56.2%
		% of Total	38.5%	17.7%	56.2%
Total		Count	136	90	226
		% within Age Groups	60.2%	39.8%	100.0%
		% within Have you taken any extracurricular training courses in the last year?	100.0%	100.0%	100.0%
		% of Total	60.2%	39.8%	100.0%

Table 5.15: Age Group* Participation in extracurricular training courses – Cross Tab

In this case, we observe that among the 18-21 years old individuals belonging to our target

group, only 36.0% have participated in an extracurricular course during the last year, while in the 22-25 age group, we observe a more substantial percentage of 64.0%.

At this stage, the analysis was divided into two separate segments. Initially, the investigation centered on individuals who had disclosed non-participation in any extracurricular courses, aiming to discern the principal reasons driving this choice. Subsequently, the focus shifted exclusively to those respondents who had engaged in extracurricular training, with the objective of examining their specific reasons for participation.

Why did you not take any extracurricular activities?

As part of a comprehensive study, an analysis was conducted to investigate the main reasons that influenced respondents' choice not to enroll in an extracurricular course.

\$Reasons Frequencies

\$Reasons ^a	Responses		Percent of Cases
	N	Percent	
Why not? You can choose more than one option. - Lack of time	42	32.6%	47.2%
Why not? You can choose more than one option. - Economic reasons	18	14.0%	20.2%
Why not? You can choose more than one option. - Lack of attractive proposals	57	44.2%	64.0%
Why not? You can choose more than one option. - Not necessary	12	9.3%	13.5%
Total	129	100.0%	144.9%

a. Dichotomy group tabulated at value 1.

Table 5.16: Reasons for not participating in extracurricular activities- Frequencies

Therefore, a dichotomous variable "\$Reasons" has been created to consolidate the multiple choices of the reference variable into single choices. Selecting only the respondents who answered "NO" to the question "Have you taken any extracurricular training courses in the last year?", a frequency analysis revealed that the majority of the sample (64.0%) stated that they did not participate in a course last year due to a lack of appealing options, followed by 47.2% of respondents citing lack of time as their reason for non-participation.

From a business perspective, this is an excellent result for the research because it indicates that the majority of respondents who did not participate in a course last year did so because of a lack of attractive proposals. This finding highlights clearly a market gap that the research aims to address. By understanding that the main reason for non-participation is the lack of attractive offerings, EF can use this insight to design and provide more appealing and relevant extracurricular training courses.

How many courses have you taken last year?

By looking at the respondents who have attended at least an extracurricular course last year, the analysis revealed an average of approximately 2.58 courses completed per respondent.

Statistics		
How many courses have you taken last year?		
N	Valid	136
	Missing	90
Mean		2.5824
Std. Error of Mean		.25159
Median		2.0000
Mode		2.00
Std. Deviation		2.93399
Variance		8.608
Skewness		4.981
Std. Error of Skewness		.208
Kurtosis		28.941
Std. Error of Kurtosis		.413

Table 5.17: Number of courses taken- Frequencies

Moreover, it can be observed a high Kurtosis value (28.941). That indicates that the distribution has heavier tails and potential extreme outliers than a normal distribution. This means that there is an increased probability of extreme values occurring in the data, which could lead to the presence of outliers or significant deviations from the average.

To assess the presence of potential outliers and understand the distribution of the sample, a box plot graph has been generated revealing the presence of extreme outliers (indicated by *). Therefore, I calculated the maximum threshold using the formula $Q3 + 1.5(IQR) = 3 + 1.5(3-1) = 6$.

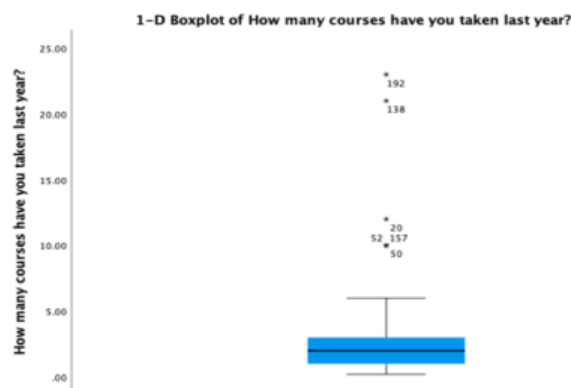


Figure 5.11: Box plot

The extreme outliers have been removed by introducing a filter within the dataset. In this case, only the responses below 6 were considered (129 Valid cases) and the box plot was reproduced (**Annex 11**). As we can observe from the table below, there was a substantial variation in the mean which has dropped from 2.58 to 2.00 and in the standard deviation which decreased from

2.933 to 0.876. Therefore, those extreme values should not have been included in the analysis phase.

	With outliers	Without outliers	Change
Mean	2.5824	2.000	-22.5%
Std. Deviation	2.9333	0.876	-70%

Table 5.18: Variations

Finally, the histogram graph below reveals that the distribution is right-skewed, as the mean is greater than the median. Lastly, the existence of a relationship between this variable and Age Groups has been examined, but the correlation was not significant.

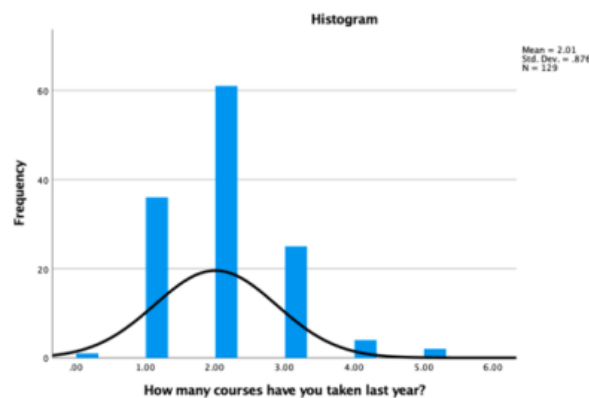


Figure 5.12: Histogram

What type of course were they and what were the courses about?

With the aim of investigating the nature of the courses taken by the sample, I asked the respondents two questions: the first one focused on understanding whether there was a preference for free courses, and the second one aimed to explore the main subject of the course. Therefore, two dichotomous variables have been created: \$Type_courses and \$Subject_courses, and two very encouraging results have emerged for the research. Specifically, 75.2% of our sample reported having taken at least one paid course last year.

\$Type_courses ^a		Responses		Percent of Cases
		N	Percent	
What type of courses were they? You can choose more than one option. – Free		37	26.4%	28.7%
What type of courses were they? You can choose more than one option. – Paid		97	69.3%	75.2%
What type of courses were they? You can choose more than one option. – With a scholarship		6	4.3%	4.7%
Total		140	100.0%	108.5%

a. Dichotomy group tabulated at value 1.

Table 5.19: Type of courses attended

From a managerial perspective, this is a good insight, considering that the most of EF courses are paid.

\$Subject_courses ^a		Responses		Percent of Cases
		N	Percent	
What were the course about? You can choose more than one option. – Language		83	39.3%	64.3%
What were the course about? You can choose more than one option. – Computer Science /Coding		57	27.0%	44.2%
What were the course about? You can choose more than one option. – Professional		49	23.2%	38.0%
What were the course about? You can choose more than one option. – Other (e.g., music, photography)		22	10.4%	17.1%
Total		211	100.0%	163.6%

a. Dichotomy group tabulated at value 1.

Table 5.20: Subjects of courses

Regarding the nature of the courses, it emerged that 64.3% of the sample took a language course, followed by 44.2% of the sample who took at least one course in Computer Science/Coding. The percentages are considerably lower when considering participation in two courses within the same year.

Elements	%
Language and Professional courses	17.8
Language and Computer Science courses	30.2
Language and Other (Music, Photography, etc...)	10.1

Table 5.21: Participation in more than one course

What are the most important drivers when choosing a course?

This question was asked with the purpose of investigating the main factors influencing the choice of an extracurricular course. A frequency analysis has been conducted considering the whole sample (226 cases), and the results can be seen in the table below.

		Statistics										
		Rate from 1 to 10 the most important factors when choosing a course - Development of disciplinary skills (e.g. language+ soft skills)	Rate from 1 to 10 the most important factors when choosing a course, - Attractiveness of the topic	Rate from 1 to 10 the most important factors when choosing a course, - Reputation of the provider	Rate from 1 to 10 the most important factors when choosing a course, - Qualified teaching staff	Rate from 1 to 10 the most important factors when choosing a course, - Modality (in-person, online, blended)	Rate from 1 to 10 the most important factors when choosing a course, - Location (Italy or Abroad)	Rate from 1 to 10 the most important factors when choosing a course, - Type (Individual lessons/Group lessons)	Rate from 1 to 10 the most important factors when choosing a course, - Presence of entry requirements	Rate from 1 to 10 the most important factors when choosing a course, - Certifications	Rate from 1 to 10 the most important factors when choosing a course, - Innovative teaching methodology with case study resolution	
N	Valid	226	226	226	226	226	226	226	226	226	226	226
	Missing	0	0	0	0	0	0	0	0	0	0	0
Mean		8.20	7.75	7.41	8.06	7.32	7.45	7.21	6.29	8.06	7.48	
Median		8.00	8.00	8.00	8.00	8.00	8.00	7.00	6.00	8.00	8.00	
Mode		8	8	8	8	8	8 ^a	8	6 ^a	10	8	
Std. Deviation		1.562	1.455	1.615	1.449	1.648	1.881	1.823	2.016	1.725	1.769	
Variance		2.438	2.118	2.607	2.099	2.717	3.537	3.324	4.065	2.974	3.131	
Skewness		-1.212	-.731	-.713	-.667	-.365	-.924	-.767	-.366	-.831	-1.071	
Std. Error of Skewness		.162	.162	.162	.162	.162	.162	.162	.162	.162	.162	
Kurtosis		2.026	1.457	.673	.656	-.332	.751	1.118	-.118	.243	1.589	
Std. Error of Kurtosis		.322	.322	.322	.322	.322	.322	.322	.322	.322	.322	

a. Multiple modes exist. The smallest value is shown

Table 5.22: Elements when choosing an extracurricular course- Statistics

As can be observed, the results are high, with average values consistently exceeding 5. The factor with the highest average score (8.20) is "Development of disciplinary skills," followed by "Qualified teaching staff" and "Certifications," both with an average score of 8.06.

To verify the reliability of the results, the coefficient of variation, which is a statistical measure that allows to understand the relative variability or dispersion of data points in a dataset, was checked. "Development of disciplinary skills" scores 19.04%, while "Qualified teaching staff" and "Certifications" 17.97% and 21.40%. Therefore, the results can be considered credible.

Moreover, in order to understand better this variable, a bivariate analysis has been conducted with the psychographic variables (**Annex 12**).

The results show that respondents who considered the development of interdisciplinary skills as a crucial factor in choosing a course tend to be more curious, more active, and more sociable since the value of sig (2-tailed) < 0.05, meaning we can reject the null hypothesis. This finding suggests a significant business insight for the research because the ideal new course proposal, which would emphasize the development of interdisciplinary skills, could attract a specific segment of individuals characterized by curiosity, proactivity, and sociability.

On the other hand, for respondents who highly valued the presence of qualified professors, they tend to be curious and reflective.

Finally, those respondents for whom certifications are an important element in course selection tend to be curious, risk-averse, and reflective.

The significant association between valuing certifications and being risk-averse highlights an interesting opportunity for educational institutions and training providers. Indeed, it suggests that these respondents seek assurance and credibility when choosing educational opportunities. Offering courses with clear learning outcomes and transparent information about the certification process can instill confidence in these individuals, further encouraging them to enroll in the courses.

After performing an ANOVA table with the variable "Age Groups," it emerged that the relationship is not significant as the p-value is > 0.05 . This result was unexpected, although, it is interesting since it means that age does not influence the selection of main elements in the course choice.

PRELIMINARY CONCLUSIONS

The preliminary insights gathered from the analyses above are the following:

- Most of the respondents (60.2%) reported having participated in at least one extracurricular course last year. This suggests an opportunity for the implementation of a new extracurricular course, given the significant participation from the respondents.
- In percentage terms, there are more students (69.9%) who have improved their skills through extracurricular courses than workers (29.4%). Therefore, from a business perspective, there is a higher interest and engagement in extracurricular courses among students compared to workers.
- For the age, there is a more substantial percentage of individuals in the 22-25 age group (64.0%) compared to 36.0% in the 18-21 age group who attended an extracurricular course. It suggests that young adults who are slightly older may be more receptive to and interested in pursuing additional educational opportunities, possibly due to a higher level of maturity, clearer career goals, or a greater understanding of the value of skill development.
- The main reason for not participating in any extracurricular courses is found in the lack of appealing options (64%). This finding highlights a clear market gap that the research aims to address. It indicates that there is a significant demand for more attractive and compelling extracurricular course offerings.

- On average, respondents who attended at least one extracurricular course last year completed approximately 2.58 courses per respondent. However, the presence of extreme outliers in the data influenced the distribution, and after removing them, the mean reduced to 2.00, representing a 22.5% decrease.
- 75.2% of the sample reported taking at least one paid course last year.
- Language courses were the most popular, with 64.3% of the respondents taking them, followed by Computer Science/Coding courses, taken by 44.2% of the sample.
- The drivers with the highest average importance scores in choosing a course were "Development of interdisciplinary skills" (8.20), "Qualified teaching staff" (8.06), and "Certifications" (8.06).

Summarizing the analyses conducted, on one hand the majority of respondents have participated in at least one paid extracurricular activity in the past year. Therefore, it can be supposed that education is viewed as an investment. Nevertheless, those who have not taken part in any courses attributed their decision to a lack of attractive options or insufficient time. From a business perspective, the demand for engaging courses is evident. Therefore, educational providers should prioritize the development of courses that emphasize skill enhancement, feature accomplished instructors, and offer recognized certifications.

5.5 EF BRAND AWARENESS AS EDUCATIONAL AND LINGUISTIC PROVIDER

The fourth research question analysed in this paragraph is related to investigate the awareness level of the main educational providers in the perception of potential consumers. In order to answer to that question, the following variables were considered.

Which of these educational providers do you know?

This question was asked with the aim of investigating how many respondents associate the brand EF within the category of educational providers. A simple frequency analysis revealed the following:

\$Educational_providers ^a	Responses		Percent of Cases
	N	Percent	
Universities Academy	93	19.2%	41.2%
Sole24 Ore Business School	130	26.8%	57.5%
Google Academy	76	15.7%	33.6%
EF Education First	89	18.4%	39.4%
Corriere della Sera Academy	58	12.0%	25.7%
Cisco Academy	39	8.0%	17.3%
Total	485	100.0%	214.6%

a. Dichotomy group tabulated at value 1.

Table 5.23: Awareness Educational Providers- Frequency Analysis

As observed, the most recognized educational providers are: Sole 24 Ore Business School (57.5% of the sample), followed by University Academies (41.7%), and EF Education First which ranks third with a percentage of 39.4% of the sample.

This insight can be considered an encouraging result for the research because EF has been recognized among educational providers by approximately 40% of the respondents in the sample. From a business perspective, this data indicates that the brand has a good level of visibility and awareness within the educational provider market, which can be a positive factor for the company in terms of promotion of a new educational course.

Do you know EF Education as a linguistic provider?

This question was posed to the respondents with the objective of investigating EF brand awareness as a linguistic provider. By performing a frequency table, it emerged that EF brand recognition as a linguistic provider is well-established (82.7%).

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
Yes		187	82.7	82.7	82.7
No		39	17.3	17.3	100.0
Total		226	100.0	100.0	

Table 5.24: Frequency Table- EF Awareness as a linguistic provider

This is further confirmed by the analysis on the question related to EF's services ("Which EF services do you know?"), which clearly shows a difference in the awareness between language courses (78.3% of the sample) and courses on specific content such as Photography, Art and Culture (11.5%), that can be seen in table below.

		Responses		Percent of Cases
		N	Percent	
EF services ^a	Language Course (Standard or Intensive)	177	44.6%	78.3%
	Certification Preparation	125	31.5%	55.3%
	Preparation for foreign University Admission Tests	69	17.4%	30.5%
	Courses on specific content such as Photography, Art, Culture	26	6.5%	11.5%
Total		397	100.0%	175.7%

a. Dichotomy group tabulated at value 1.

Table 5.25: Frequency Table- Knowledge of EF services

But another element which is really interesting for the research, supported by a bivariate analysis between the variables "awareness of EF as an educational provider" and "awareness of EF as a linguistic provider" is that only 44.4% of the sample recognized the awareness of EF as both a linguistic and educational provider.

			\$Education_providers ^a						Total
			Which of these educational providers do you know? You can choose more than one option - Universities Academy	Which of these educational providers do you know? You can choose more than one option - Sole24 Ore Business School	Which of these educational providers do you know? You can choose more than one option - Google Academy	Which of these educational providers do you know? You can choose more than one option - EF Education	Which of these educational providers do you know? You can choose more than one option - Corriere della Sera Academy	Which of these educational providers do you know? You can choose more than one option - Cisco Academy	
Do you know EF Education First as language provider?	Yes	Count	80	110	59	83	49	37	187
		% within Q19	42.8%	58.8%	31.6%	44.4%	26.2%	19.8%	
		% within \$Education_providers	86.0%	84.6%	77.6%	93.3%	84.5%	94.9%	
	% of Total	35.4%	48.7%	26.1%	36.7%	21.7%	16.4%	82.7%	
	No	Count	13	20	17	6	9	2	39
% within Q19		33.3%	51.3%	43.6%	15.4%	23.1%	5.1%		
% within \$Education_providers		14.0%	15.4%	22.4%	6.7%	15.5%	5.1%		
		% of Total	5.8%	8.8%	7.5%	2.7%	4.0%	0.9%	17.3%
Total		Count	93	130	76	89	58	39	226
		% of Total	41.2%	57.5%	33.6%	39.4%	25.7%	17.3%	100.0%

Percentages and totals are based on respondents.
a. Dichotomy group tabulated at value 1.

Table 5.26: EF Awareness as a linguistic provider- Crosstab

The insight that emerges is that EF's attractiveness is still largely focused on offering language courses, even though it is starting to acquire its own recognition in the education market. Considering only the respondents who did not recognize EF among the educational providers, it becomes evident that among this group, the recognition of EF brand as a linguistic provider

is remarkably high. For instance, among those who selected Sole 24 Ore Business School as an educational provider, 84.6% are aware of the EF brand as a linguistic provider.

This finding confirms a significant opportunity for growth and expansion into the broader education industry. Since a substantial portion of respondents is still unaware of EF's offerings beyond language courses, there exists an untapped potential to increase EF's visibility and establish itself as a player in the overall educational sector.

Using a connection analysis, the correlation between this variable and demographic variables (gender, age) has been examined. While no significant results were found concerning age, an interesting correlation emerged with gender (**Annex 13**). The analysis revealed a statistically significant relationship between gender and awareness of EF as a linguistic provider.

It is clear that EF has a higher awareness among female respondents compared to male respondents. Among those who are aware of EF as a linguistic provider, a huge percentage (54.5%) are female, while only 45.5% are male. On the other hand, among those who are not aware of EF, a significantly higher proportion (82.1%) are male.

		Gender		Total	
		Male	Female		
Do you know EF Education First as language provider?	Yes	Count	85	102	187
		% within Do you know EF Education First as language provider?	45.5%	54.5%	100.0%
		% within Gender	72.6%	93.6%	82.7%
		% of Total	37.6%	45.1%	82.7%
	No	Count	32	7	39
		% within Do you know EF Education First as language provider?	82.1%	17.9%	100.0%
		% within Gender	27.4%	6.4%	17.3%
		% of Total	14.2%	3.1%	17.3%
	Total	Count	117	109	226
		% within Do you know EF Education First as language provider?	51.8%	48.2%	100.0%
% within Gender		100.0%	100.0%	100.0%	
% of Total		51.8%	48.2%	100.0%	

Table 5.27: Cross Tab- EF as a linguistic provider and Gender

This suggests that EF Education First may have a stronger presence and visibility among female respondents, but there should be an opportunity for the company to improve its awareness among male respondents. Understanding these gender-specific differences in awareness can help EF tailoring its marketing and promotional strategies to reach a broader audience and increase its visibility among both male and female potential customers.

Which are the most important aspects when purchasing an EF course?

The question was raised to gain valuable insights regarding the most relevant factors that influence customers' decisions when choosing an EF course. The analysis revealed that

“Improving soft skills in a foreign language” is the most important factor, with a mean equal to 8.34, followed by “Improving speaking skills” with a mean of 8.11 and “Improving technical skills in a foreign language with a mean of 7.96. The least important driver is “Improving grammar”, scoring a mean of 6.93.

		Statistics				
		Improving grammar	Improving speaking skills	Improving technical knowledge in a foreign language	Improving soft skills in a foreign language	Learn by the interaction with others
N	Valid	226	226	226	226	226
	Missing	0	0	0	0	0
Mean		6.93	8.11	7.96	8.34	7.77
Median		7.00	8.00	8.00	9.00	8.00
Mode		7	8	10	10	8
Std. Deviation		1.979	1.691	1.725	1.587	1.749
Variance		3.915	2.860	2.977	2.519	3.058
Skewness		-.662	-1.114	-1.077	-1.004	-.891
Std. Error of Skewness		.162	.162	.162	.162	.162
Kurtosis		.295	1.613	1.973	1.241	.981
Std. Error of Kurtosis		.322	.322	.322	.322	.322
Minimum		1	1	1	2	1
Maximum		10	10	10	10	10

Table 5.28: Aspects when purchasing an EF course- Frequency Analysis

This analysis included also a check on the coefficient of variation (CV), which is a measure of the variability and dispersion in the respondents' preferences and priorities. By calculating the coefficient of variation, that can be seen in the table below, we can assess the responses can be considered credible, since the values of CV are all below 30%.

Elements	Mean	Standard Deviation	CV
Improving grammar	6.93	1.979	28,56%
Improving speaking skills	8.11	1.691	20,85%
Improving technical knowledge in a foreign language	7.96	1.725	21,67%
Improving soft skills in a foreign language	8.34	1.587	19,03%
Learn by the interaction with others	7.77	1.749	22,51%

Table 5.29: Coefficient of Variation

In conclusion, the business insight derived from this analysis is that customers seem to prioritize the improvement of soft, speaking or technical skills in a foreign language compared to the improvement of grammar when choosing an EF course. Therefore, this insight would be taken into consideration for the proposal of a new course.

A bivariate analysis revealed a gender difference in the evaluation of these elements. The ANOVA table showed a significance level below 0.05 (0.002 and 0.037), meaning a statistically significant relationship between the variables. The Eta index in the first case

exceeded 0.2, indicating a strong correlation between the variables. By contrast, in the second case, the Eta index was slightly below 0.2, suggesting a more moderate relationship between the two variables considered (**Annex 14**).

By focusing only on significant correlations, it becomes evident that female respondents show a higher preference for the elements "Improving soft skills in a foreign language" (8.57) and "Improving speaking skills" (8.46) in choosing an EF course compared to male respondents.

Gender		Report				
		Improving grammar	Improving speaking skills	Improving technical knowledge in a foreign language	Improving soft skills in a foreign language	Learn by the interaction with others
Male	Mean	6.94	7.78	7.79	8.13	7.55
	N	117	117	117	117	117
	Std. Deviation	2.006	1.843	1.841	1.648	1.822
Female	Mean	6.92	8.46	8.15	8.57	8.01
	N	109	109	109	109	109
	Std. Deviation	1.958	1.437	1.580	1.493	1.641
Total	Mean	6.93	8.11	7.96	8.34	7.77
	N	226	226	226	226	226
	Std. Deviation	1.979	1.691	1.725	1.587	1.749

Table 5.30: Important Aspects and Gender- Mean Table

Furthermore, the bivariate analysis was also conducted with the variable "Education" and the significant correlations are the same as those mentioned above (**Annex 15**).

It is evident that respondents who have attained a high school level of education tend to indicate the elements "Improving soft skills in a foreign language" (8.56) and "Improving speaking skills" (8.33) as more important when choosing an EF course compared to those who have achieved Bachelor's and Master's Degrees.

Education level		Report				
		Improving grammar	Improving speaking skills	Improving technical knowledge in a foreign language	Improving soft skills in a foreign language	Learn by the interaction with others
High school degree	Mean	7.18	8.33	8.28	8.56	7.87
	N	141	141	141	141	141
	Std. Deviation	1.837	1.490	1.649	1.537	1.723
Bachelor degree	Mean	6.43	7.74	7.58	7.94	7.58
	N	53	53	53	53	53
	Std. Deviation	2.144	1.972	1.658	1.823	1.791
Master degree	Mean	6.66	7.75	7.19	8.03	7.63
	N	32	32	32	32	32
	Std. Deviation	2.164	1.901	1.839	1.204	1.809
Total	Mean	6.93	8.11	7.96	8.34	7.77
	N	226	226	226	226	226
	Std. Deviation	1.979	1.691	1.725	1.587	1.749

Table 5.31: Important Aspects and Education

This finding suggests that individuals with a high school education place a higher emphasis on the practical and communicative aspects of language learning, which could be essential for internships and entry-level job roles.

Given the quantitative nature of both variables, a correlation analysis was conducted with psychographic variables. From the table below, it is evident that individuals who prefer learning through interaction with others rather than frontal lessons tend to consider the evaluation of soft skills and speaking proficiency the most relevant in their decision-making process when purchasing an EF course.

Correlations

		Improving speaking skills	Improving soft skills in a foreign language	I prefer learning through interaction with others rather than from frontal lessons
Improving speaking skills	Pearson Correlation	1	.498**	.259**
	Sig. (2-tailed)		<.001	<.001
	N	226	226	226
Improving soft skills in a foreign language	Pearson Correlation	.498**	1	.158*
	Sig. (2-tailed)	<.001		.018
	N	226	226	226
I prefer learning through interaction with others rather than from frontal lessons	Pearson Correlation	.259**	.158*	1
	Sig. (2-tailed)	<.001	.018	
	N	226	226	226

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

Table 5.32: Important Aspects and Psychographic -Correlation Analysis

Since the Sig (2-tailed) is below the threshold of 0.05 in both cases, we can reject the null hypothesis and conclude that there is a correlation between the psychographic variable and the variables “Improving speaking skills” and “Improving soft skills in a foreign language”. In addition, the correlation is strong, as evident from the Pearson correlation index, which is 0.259 in the first case and 0.158 in the second case.

From a business perspective, the insight gathered from the analysis is that learners who value collaborative learning and interpersonal engagement see the practical application of language skills and effective communication in a foreign language as crucial components of their language learning journey.

PRELIMINARY CONCLUSIONS

Several main insights emerged to address the fourth research question:

- On one hand, the brand EF has a good level of visibility and recognition within the educational provider market, which can be considered a positive factor for the company in terms of promotion of a new educational course.

- On the other hand, EF brand recognition as a linguistic provider is well-established (82.7%).
- There is a strong difference in the awareness of language courses (78.3% of the sample) and courses on specific content such as Photography, Art and Culture (11.5%).
- The most crucial element in the purchase of an EF course is to enhance soft skills taught in English.

In conclusion, EF is more recognizable as a linguistic provider rather than an educational one. So, it has the potential to expand its market presence by offering courses delivered in English aimed at enhancing soft, speaking and technical skills.

5.6 A NEW PERSPECTIVE FOR LANGUAGE COURSES

The fifth research question investigates how feasible would be to introduce a new course that combines language and transversal and/or computer science skills and how to promote it. The objective of this paragraph aims to understand the feasibility of introducing a new course in EF's educational offering that combines language content with a more specific focus on soft skills or computer science skills.

Propensity to buy the course

The analysis on the propensity to purchase a new interdisciplinary course offered by EF was conducted with the intention of gauging the potential market interest and receptiveness towards this innovative course concept. The question asked to the respondents was: "If EF offered a new interdisciplinary course where language is used to facilitate connection with the professional world and enhance soft skills or competencies, how likely would you be to purchase it?".

The frequency analysis reveals an excellent attractiveness for the proposed course, which aims to facilitate connections with the professional market. Respondents, on average, rate their propensity to purchase the new course at 7.59 on a scale from 1 to 10 (**Annex 16**). This high level of interest and positive response, which can be seen also in the histogram below, indicates a strong potential demand for the course proposal among the target audience.

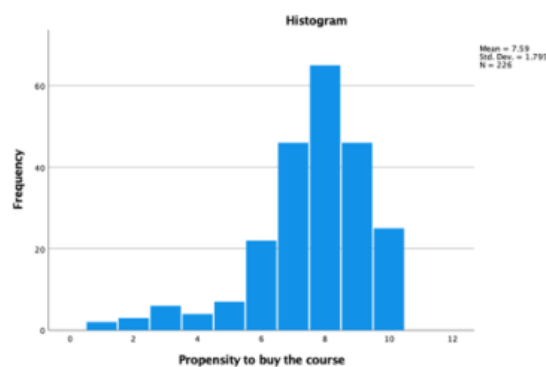


Figure 5.13: Propensity to buy the course- Histogram Graph

As an insight, the positive feedback from respondents suggests that the integration of language learning with professional skill development resonates well with their needs and aspirations. Therefore, the new course proposal would receive a favorable response from a substantial portion of the market, especially among those who are familiar with EF.

Performing an ANOVA, it emerged the significance between the two variables (Sig. 0.003), and an Eta index value (0.196) that confirms the presence of a moderate correlation between the variables considered (**Annex 17**).

Propensity to buy the course			
Do you know EF Education First as language provider?			
	Mean	N	Std. Deviation
Yes	7.75	187	1.592
No	6.82	39	2.437
Total	7.59	226	1.795

Table 5.33: Correlation Analysis

This is a positive outcome as it means that individuals who are familiar with EF exhibit a higher level of propensity towards making a purchase, with an average score of 7.75 out of 10, compared to 6.82 among those who are not familiar with EF.

Which channels are the most suitable in order to increase the level of awareness of EF Education First related to this new proposed course?

Lastly, respondents were asked about the preferred channels for the promotion of the new course. The purpose of this question was gather valuable insights in order to design an appropriate marketing strategy for the promotion of a new product. As expected, a significant portion of the sample, 73.5%, indicated social media as the primary channel to use, followed by 52.7% who selected Partnership with EF ambassadors. This outcome was expected, considering the brand's strong social media presence and huge community of ambassadors on which the brand could count on.

\$Channels ^a	Responses		Percent of Cases
	N	Percent	
Social media adv	166	30.1%	73.5%
Internet (keywords)	92	16.7%	40.7%
Events	75	13.6%	33.2%
Offline adv	27	4.9%	11.9%
Partnership with influencers	72	13.1%	31.9%
Partnership with EF ambassadors	119	21.6%	52.7%
Total	551	100.0%	243.8%

a. Dichotomy group tabulated at value 1.

Table 5.34: Channels for the new course- Frequency Analysis

All these elements will be taken into consideration in the managerial implications concerning the promotion of the new course.

In order to gain a comprehensive understanding of how the drivers in selecting a course can influence the willingness to purchase the new course proposed by EF, a multiple linear regression analysis has been conducted.

The aim is to find the best linear equation that predicts the value of the dependent variable based on the values of multiple independent variables.

For this analysis, 16 variables that may have an impact on the willingness to pay of EF's new course proposal have been selected. Specifically, these are:

- How important are the following elements when purchasing a new course? from **Q17_1** to **17_10**
- Which are the most important aspects when considering the purchase of EF Education First course? from **Q20_1** to **Q20_5**
- How many extracurricular courses have you taken last? **Q14**

The regression analysis considered the aforementioned 16 variables, among which Q14 has been included without extreme outliers (See Chapter 5.4). The F-test was performed to assess the statistical significance of the analysis, and the resulting p-value was lower than 0.001, indicating a significant linear relationship among the considered variables.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	231.835	16	14.490	9.796	<.001 ^b
	Residual	165.668	112	1.479		
	Total	397.504	128			

a. Dependent Variable: Propensity to buy the course

Table 5.35: F-test Multiple Linear Regression

The model can explain 52.4% of the total variation in the dependent variable, as indicated by the Adjusted R square. This value represents a satisfactory result to proceed with the analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change
1	.764 ^a	.583	.524	1.216	.583

Table 5.36: Adjusted R Square Multiple Linear Regression

In the further analysis, it has been observed that only a few variables exhibited statistical significance (p-value below 0.05). Additionally, a multicollinearity issue was identified, as the majority of the considered variables displayed a VIF greater than 1.2 (**Annex 18a**).

Consequently, a Factor Analysis (FA) was conducted to derive new orthogonal variables in order to replace the original input ones in the regression model.

The creation of factors in FA involves using the Principal Components (PC) method. When using this approach, it is assumed that the individual information contribution of the input

variables is relatively low, while the shared information contribution, which is captured by the common factors, is the most significant aspect.

The process of building Principal Components (PC) involves two main phases: determining the number of components to consider and the interpretation of these components.

Starting from the first one:

- According to the "rule of thumb," the recommended ratio between the number of components and the variables is one out of three. Thus, for a dataset containing 16 variables, the ideal number of components would be approximately 5.
- The percentage of the overall explained variance should be between 60% and 75%. According to the Variance Analysis conducted (**Annex 18b**), the solutions that could be eligible for the selection of the right number of components would be up to Factor 6, which has a percentage of overall explained variability equal to 72.76%. Using the Eigen value, which is the only criteria that could identify a unique solution, only 5 factors could be considered since those are the only one related to an Eigen Value > 1 .
- The Scree-plot takes as a potential solution the breakdown of the graph. From the graph, the point seems to be at 2.

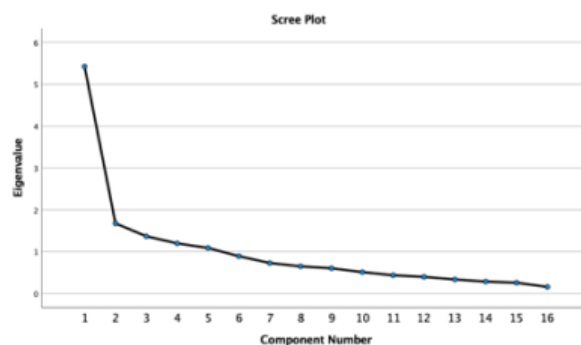


Figure 5.14: Scree Plot

- Lastly, with five factors the value of communalities is always higher than the threshold of 0.4, confirming the goodness of the model (**Annex 18c**).

After this initial phase of identifying the optimal number of components, I proceeded to the interpretation phase of the new components created.

Firstly, an attempt was made to assess the solution without rotation (**Annex 18d**), but it has been soon clear that there was an issue with interpretation because the first factor exhibited high correlations with all the input variables, making it challenging to interpret. Furthermore, several variables appeared in multiple factors, adding complexity to the analysis. Therefore, the

second trial was conducted with Varimax rotation. Indeed, it emerged that Factor 1 and Factor 2 include 4 variables, and all the other three factors comprise 2 variables each.

Rotated Component Matrix^a

	Component				
	1	2	3	4	5
Improving speaking skills	.869				
Improving technical knowledge in a foreign language	.843				
Learn by the interaction with others	.652				
Improving grammar	.615				.438
Reputation of the provider		.865			
Qualified teaching staff		.742			
Attractiveness of the topic		.563	.446		
Certifications		.534			
Development of disciplinary skills (e.g. language+ soft skills)			.775		
Location (Italy or Abroad)			.750		
Type (Individual lessons/Group lessons)			.656	.429	
Improving soft skills in a foreign language	.537		.565		
Innovative teaching methodology with case study resolution				.819	
Modality (In-person, online, blended)				.580	
How many courses have you taken last year? Insert an integer number here					.848
Presence of entry requirements				.449	.463

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 7 iterations.

Table 5.37: Component Matrix 5 Factors- Varimax Rotation

Factors	Variables	Interpretation
1	Improving speaking skills, Improving technical knowledge in a foreign language, Learn by the interaction with others, Improving grammar	Skill Enhancement
2	Reputation of the provider, Qualified teaching staff, Attractiveness of the topic, Certifications	Proposal Quality
3	Development of interdisciplinary skills, Location, Type, Improving soft skills in a foreign language	Learning Experience
4	Innovative teaching methodology with case study resolution, Modality	Learning Format
5	Number of courses in a year, Presence of entry requirements	Participation Barriers

Table 5.38: Factors' Interpretation

After conducting the second trial (**Annex 18e**), in which it was found that the Proposal Quality factor was not significant (0.632), the third trial was carried out using the Stepwise model. This statistical technique is employed to automatically select pertinent variables for inclusion in the regression model.

Model		Unstandardized Coefficients		Standardized	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7.729	.138		55.916	<.001		
	Skills Enhancement	.813	.139	.461	5.856	<.001	1.000	1.000
2	(Constant)	7.729	.125		61.750	<.001		
	Skills Enhancement	.813	.126	.461	6.467	<.001	1.000	1.000
	Learning Experience	.675	.126	.383	5.374	<.001	1.000	1.000
3	(Constant)	7.729	.116		66.843	<.001		
	Skills Enhancement	.813	.116	.461	7.000	<.001	1.000	1.000
	Learning Experience	.675	.116	.383	5.817	<.001	1.000	1.000
	Learning Format	.552	.116	.313	4.758	<.001	1.000	1.000
4	(Constant)	7.729	.107		72.551	<.001		
	Skills Enhancement	.813	.107	.461	7.598	<.001	1.000	1.000
	Learning Experience	.675	.107	.383	6.314	<.001	1.000	1.000
	Learning Format	.552	.107	.313	5.165	<.001	1.000	1.000
	Participation Barriers	.516	.107	.293	4.823	<.001	1.000	1.000

a. Dependent Variable: Propensity to buy the course

Table 5.39: Coefficients Multiple Linear Regression- Third Trial (Stepwise model)

As we can see from the table above, all the factors in the iterations have a level of significance below 0.05 and VIF value equal to 1.

Therefore, thanks to this analysis the best model is the last one, with factors 1,3,4,5.

The Adjusted R square of the model is above the threshold of 0.3, specifically is 0.529.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.461 ^a	.213	.206	1.570
2	.600 ^b	.359	.349	1.422
3	.677 ^c	.458	.445	1.313
4	.737 ^d	.543	.529	1.210

a. Predictors: (Constant), Skills Enhancement
b. Predictors: (Constant), Skills Enhancement, Learning Experience
c. Predictors: (Constant), Skills Enhancement, Learning Experience, Learning Format
d. Predictors: (Constant), Skills Enhancement, Learning Experience, Learning Format, Participation Barriers

Table 5.40: Adjusted R Square

Therefore, the perceived willingness to purchase the new course can be explained based on the interpretation of the parameters of the final model.

The analysis shows that all the identified factors exhibit a positive impact on the propensity to purchase the new course. Therefore,

- The inclination to purchase the course increases with a focus on skill enhancement in the training proposal (0.813);
- A higher recognition of the quality of the educational offer positively impacts the willingness to buy the course (0.675);
- The propensity to purchase the course is influenced by a more immersive and comprehensive learning experience(0.552);
- An innovative course format and a stricter entrance selection process also contribute to an increased willingness to buy the course (0.516).

Finally, in order to compare the model's estimated coefficients and, consequently, the relative impact of the associated independent variable, it is necessary to examine the standardized coefficients (Beta) rather than the original ones. In our case, we can assess that the largest impact on willingness to purchase the course is attributed to the Skill Enhancement factor, with a beta value of 0.461. This is followed by Learning Experience (0.383) , Learning Format (0.313), and finally, Participation Barriers (0.293).

Lastly, in order to understand the preferred course type among the target audience, a conjoint analysis was conducted.

A conjoint analysis is a multivariate technique that allows to evaluate the relative importance of attributes and levels using an indirect approach⁸, since respondents are asked to give an overall evaluation of the new course product.

The method uses as inputs the overall evaluations provided by respondents for a set of product combinations and as output it analyzes the global evaluations and decomposes them into utility scales, measuring the relative importance for each attribute and its levels.

By utilizing the Orthogonal design syntax, 9 different combinations were obtained and presented to the respondents, who were asked to rate them on a scale of 1 to 10 based on their preferences. The combinations presented could be found in the table below.

Card ID	Duration	Modality	Type	Topic
1	More than 6 months	Online	Elective Modules	Computer Science & Language
2	More than 6 months	In-person	Elective Modules	Soft skills & Language
3	Up to 2 months	In-person	Elective Modules	Soft skills & Language
4	Up to 2 months	In-person	Defined Modules	Computer Science & Language
5	Up to 2 months	Online	Elective Modules	Only Language
6	Up to 3 weeks	In-person	Elective Modules	Only Language
7	Up to 3 weeks	In-person	Elective Modules	Computer Science & Language
8	More than 6 months	In-person	Defined Modules	Only Language
9	Up to 3 weeks	Online	Defined Modules	Soft skills & Language

Table 5.41: Orthogonal Design- 9 Combinations

Looking at the Importance Values table, it is evident that the most important value is the Topic (47.035), followed by the Duration (29.888), Modality (20.942) and Type (2.135).

⁸ Saccardi A., 2022. Course n. 20173: Market Research, Bocconi University.

Importance Values	
Duration	29.888
Modality	20.942
Type	2.135
Topic	47.035
Averaged Importance Score	

Table 5.42: Conjoint Analysis- Important Values

Utilities			
		Utility Estimate	Std. Error
Duration	Up to 3 weeks	.260	.072
	Up to 2 months	.151	.072
	More than 6 months	-.411	.072
Modality	In-person	.235	.054
	Online	-.235	.054
Type	Elective Modules	.024	.054
	Defined Modules	-.024	.054
Topic	Computer Science & Language	.091	.072
	Soft skills & Language	.482	.072
	Only Language	-.574	.072
(Constant)		6.398	.057

Table 5.43: Conjoint Analysis- Utilities

Moving from the most important element to the least one, it can be seen from “Topic” that a course combining linguistic content with soft skills has a higher utility (0.482) compared to the combination of language and computer science (0.091) and only language course (-0.574). By looking at “Duration” in table, it is clear that a course lasting up to a maximum of 3 weeks shows greater utility (0.260) than a course lasting up to a maximum of two months (0.151), or more than 6 months (-0.411). As for the Modality, in-person modality is preferred (0.235), while concerning the type of courses, there is a preference for elective courses (0.024) rather than defined ones.

In conclusion, by examining the highest utility for each attribute, the best possible configuration is identified in a course that combines language and soft skills, lasting up to 3 weeks, in-person and with the possibility to choose the lessons to attend.

In order to understand if the utility evaluations vary according to demographic and behavioral variables, the analysis has subsequently conducted by splitting the sample according to these demographic and behavioral variables.

The analysis conducted by gender has produced the same most important elements mentioned above, although with a slight deviation from the main analysis.

Indeed, as we can see from the table below, both male and female respondents attribute the highest value to the Topic (45.722 for Male and 48.520 for Female), followed by the Duration (33.589 for Male and 25.704 for Female), Modality (19.732 for Male and 22.310 for Female).

Lastly, for both male and female respondents, the least important element is attributed to the Type of the course (0.958 for Male and 3.466 for Female).

Importance Values		
Male	Duration	33.589
	Modality	19.732
	Type	.958
	Topic	45.722
Female	Duration	25.704
	Modality	22.310
	Type	3.466
	Topic	48.520
Averaged Importance Score		

Table 5.44: Conjoint Analysis split by Gender - Important Values

Utilities				
Gender			Utility Estimate	Std. Error
Male	Duration	Up to 3 weeks	.315	.069
		Up to 2 months	.152	.069
		More than 6 months	-.467	.069
	Modality	In-person	.230	.052
		Online	-.230	.052
	Type	Elective Modules	.011	.052
		Defined Modules	-.011	.052
	Topic	Computer Science & Language	.137	.069
		Soft skills & Language	.464	.069
		Only Language	-.601	.069
(Constant)		6.372	.055	
Female	Duration	Up to 3 weeks	.202	.082
		Up to 2 months	.150	.082
		More than 6 months	-.352	.082
	Modality	In-person	.241	.062
		Online	-.241	.062
	Type	Elective Modules	.037	.062
		Defined Modules	-.037	.062
	Topic	Computer Science & Language	.044	.082
		Soft skills & Language	.502	.082
		Only Language	-.545	.082
(Constant)		6.424	.065	

Table 5.45: Conjoint Analysis split by Gender – Utilities

By looking at the table above, it is clear that there are notable distinctions in the preferences between males and females. Both genders show the highest utility for the Topic of the course, Soft Skills & Language (males: 0.464, females: 0.502) followed by a Duration up to three weeks (males: 0.315, females: 0.202). However, the level of utility for a Duration more than 6 months is lower for males compared to females.

By looking at the Modality, both genders show a preference for in-person lessons rather than online course (males: 0.230, females: 0.241).

Lastly, considering the type of the course, which is the least relevant element, it emerged clearly that there is a strong preference for both genders for Electives modules (males: 0.011, females: 0.037).

In conclusion, it is evident for both genders that the most favorable scenario is a course that integrates language and soft skills, with a duration of up to 3 weeks, delivered in-person and with electives courses.

By splitting the file by Age group, some differences from the main analysis have been observed. The results of the important values and utilities are displayed below.

Importance Values		
18-21	Duration	19.591
	Modality	26.576
	Type	2.555
	Topic	51.278
22-25	Duration	37.045
	Modality	17.124
	Type	1.847
	Topic	43.984
Averaged Importance Score		

Table 5.46: Conjoint Analysis split by Age Group - Important Values

Age Groups			Utility Estimate	Std. Error
18-21	Duration	Up to 3 weeks	.122	.116
		Up to 2 months	.139	.116
		More than 6 months	-.260	.116
	Modality	In-person	.271	.087
		Online	-.271	.087
	Type	Elective Modules	.026	.087
		Defined Modules	-.026	.087
	Topic	Computer Science & Language	-.038	.116
		Soft skills & Language	.542	.116
		Only Language	-.503	.116
	(Constant)			6.405
22-25	Duration	Up to 3 weeks	.369	.044
		Up to 2 months	.160	.044
		More than 6 months	-.528	.044
	Modality	In-person	.207	.033
		Online	-.207	.033
	Type	Elective Modules	.022	.033
		Defined Modules	-.022	.033
	Topic	Computer Science & Language	.192	.044
		Soft skills & Language	.436	.044
		Only Language	-.629	.044
	(Constant)			6.392

Table 5.47: Conjoint Analysis split by Age Group - Important Values

Both the age groups have a positive utility in “in-person” courses (0.271 for 18-21 and 0.207 for 22-25) and for electives modules (0.026 for 18-21 and 0.022 for 22-25).

Therefore, the best possible combination for 18-21 age groups would be a course that integrates language and soft skills, with a duration of up to 2 months, delivered in-person and with

electives courses. By contrast, the best configuration for the age group 22-25 would be an educational program that integrates language learning and soft skills. The duration would be a maximum of 3 weeks, with in-person lessons, and the opportunity to choose elective courses. Another variable that could have potentially influenced the evaluation of the attributes is the level of education attained by the participants. Below is the table of Important Values.

High school degree	Duration	24.436
	Modality	22.339
	Type	4.877
	Topic	48.348
Bachelor degree	Duration	38.417
	Modality	22.235
	Type	1.863
	Topic	37.485
Master degree	Duration	35.102
	Modality	.408
	Type	5.714
	Topic	58.776
Averaged Importance Score		

Table 5.48: Conjoint Analysis split by Education - Important Values

From this, it is evident that the most relevant factor for individuals who have completed High school and a Master's degree is the topic (48.348 for the first one and 58.776 for the second one), whereas for those who have obtained a Bachelor's degree, the Duration (38.417) holds greater significance compared to the Topic (37.485).

Furthermore, while for High School Degree and Bachelor's Degree, the Modality represents the third most important factor, for those who have attained a Master's Degree, the Modality of the course is the least important element among all (0.408).

			Utilities	
Education level			Utility Estimate	Std. Error
High school degree	Duration	Up to 3 weeks	.195	.071
		Up to 2 months	.185	.071
		More than 6 months	-.380	.071
	Modality	In-person	.263	.053
		Online	-.263	.053
	Type	Elective Modules	.057	.053
		Defined Modules	-.057	.053
	Topic	Computer Science & Language	.077	.071
		Soft skills & Language	.531	.071
		Only Language	-.607	.071
		(Constant)	6.528	.056
Bachelor degree	Duration	Up to 3 weeks	.457	.123
		Up to 2 months	.143	.123
		More than 6 months	-.600	.123
	Modality	In-person	.306	.093
		Online	-.306	.093
	Type	Elective Modules	-.026	.093
		Defined Modules	.026	.093
	Topic	Computer Science & Language	.079	.123
		Soft skills & Language	.476	.123
		Only Language	-.556	.123
		(Constant)	6.077	.098
Master degree	Duration	Up to 3 weeks	.215	.068
		Up to 2 months	.017	.068
		More than 6 months	-.233	.068
	Modality	In-person	.003	.051
		Online	-.003	.051
	Type	Elective Modules	-.036	.051
		Defined Modules	.036	.051
	Topic	Computer Science & Language	.174	.068
		Soft skills & Language	.288	.068
		Only Language	-.462	.068
		(Constant)	6.369	.054

Table 5.49: Conjoint Analysis split by Education – Utilities

Hence, the optimal combination for each level of education is as follows:

- High School degree: A course that combines soft skills and Language, that last up to 3 weeks, which is in-person and give the possibility to choose the lessons to take.
- Bachelor’s degree: A course that combines soft skills and Language, that last up to 3 weeks, which is in-person and with defined modules to take.
- Master’s degree: A course that combines soft skills and Language, that last up to 3 weeks, which is in-person and give the possibility to choose the lessons to take.

Lastly, the analysis was extended to non-demographic variables to examine whether any significant differences existed that should be taken into consideration during the design phase of the new course launch.

Perceived necessary skills for the job market

In this case, the file was split by variable “Do you think your academic background has provided you with the necessary skills to enter the job market?”. Below the results of the analysis can be consulted.

Response	Attribute	Score
Yes	Duration	37.947
	Modality	22.551
	Type	6.843
	Topic	32.659
No	Duration	29.454
	Modality	18.981
	Type	4.294
	Topic	47.271
Averaged Importance Score		

Table 5.50: Conjoint Analysis split by Necessary skills for the job market – Important Values

The analysis reveals that, for respondents who believe they have not received the necessary skills to enter the job market, the course Topic is the most important factor, with a score of 47.271. On the other hand, for those who consider themselves to have acquired the necessary skills, the Duration becomes the most relevant element (37.947). Moreover, the Modality and Type are evaluated, in both cases, as the third and fourth most important factors, respectively 22.551 and 6.843 for Yes⁹ and 18.981 and 4.294 for No¹⁰.

Do you think your academic background has provided you with the necessary skills to enter the job market?			Utility Estimate	Std. Error
Yes	Duration	Up to 3 weeks	.041	.020
		Up to 2 months	.266	.020
		More than 6 months	-.307	.020
	Modality	In-person	.170	.015
		Online	-.170	.015
	Type	Elective Modules	-.052	.015
		Defined Modules	.052	.015
	Topic	Computer Science & Language	.055	.020
		Soft skills & Language	.219	.020
		Only Language	-.274	.020
	(Constant)		6.535	.016
No	Duration	Up to 3 weeks	.366	.115
		Up to 2 months	.095	.115
		More than 6 months	-.461	.115
	Modality	In-person	.266	.086
		Online	-.266	.086
	Type	Elective Modules	.060	.086
		Defined Modules	-.060	.086
	Topic	Computer Science & Language	.109	.115
		Soft skills & Language	.609	.115
		Only Language	-.718	.115
	(Constant)		6.332	.091

Table 5.51: Conjoint Analysis split by Necessary skills for the job market – Utilities.

Therefore, the best scenario for those who believe that their academic background provided them with the necessary skills to enter the job market is represented by a course that combine soft skills and language, which last up to 2 months, in-person and with defined modules.

⁹ Yes indicates people who believe that the academic background provided them the necessary skills to enter the job market.

¹⁰ No indicates people who believe that the academic background did not provided them the necessary skills to enter the job market.

On the other hand, for the others the best configuration is a course that integrates language content with soft skills, lasting up to 3 weeks, in-person and with the possibility to choose the lesson to attend.

PRELIMINARY CONCLUSIONS

The preliminary managerial implications from these analyses are the following:

- Respondents, on average, rate their propensity to purchase a new course at 7.59 on a scale from 1 to 10. Therefore, the analysis reveals an optimal market potential for the proposed course, which aims to facilitate connections with the professional market, especially for those who are familiar with the brand EF.
- Regarding the promotion of the course, there is a clear preference for some channels over others. Indeed, a significant portion of the sample, 73.5%, indicated social media as the primary channel to use, followed by 52.7% who selected Partnership with EF ambassadors.
- From the Multiple Linear Regression, it emerged that the drives when choosing a course have a huge positive impact in the willingness to purchase the new proposed course. In particular, the focus on skill enhancement in the training proposal has the strongest impact on the dependent variable (0.813), meaning that respondents are more inclined to purchase a course if it will offer the possibility to enhance their skills. But also, all the other elements have a positive impact on the propensity of purchasing the course. Indeed, a higher recognition of the quality of the educational offer positively impacts the willingness to buy the course as a more immersive and comprehensive learning experience.

Lastly, an innovative course format and a stricter entrance selection process also contribute to an increased willingness to buy the course.

- What emerged from the Conjoint Analysis is that course preferred by the target audience is a course that integrates the linguistic content and the enhancement of soft skills. The most significant divergences refer to the course Duration and the Type of the modules. Indeed, for 18-21 age groups and those who believe to have the necessary skills to enter the job market the optimal duration would be up to 2 months while for the others there is a stronger preference to limit the duration up to 3 weeks. Lastly, concerning the Type course, there is a preference for defined modules over elective

ones among those who have completed their Bachelor's and those who believe they have acquired the necessary skills.

In conclusion, the propensity to purchase is high but it is clear that it is not sufficient to merely propose a new course; it's essential to present engaging content and effectively communicate it. This necessitates an initial effort to target potential learners, enabling the creation of increasingly tailored content that meets specific educational needs.

5.7 POTENTIAL TARGET FOR THE NEW COURSE

The sixth research question investigates the ideal target for the new course proposed. With the aim of addressing the research question, it has been performed a behavioural segmentation through a Cluster Analysis.

The behavioral segmentation is undertaken in order to split the sample into homogeneous groups (internal homogeneity) based on a set of variables related to the level of skills acquired and the main criteria for a course selection. These variables have been selected as they outline group characteristics in terms of the initial level of skills and learning expectations in the choice of a new course. With a business-driven objective, these elements are both crucial for designing the EF's new course to be launched, as well as identifying the target group and tailoring proper marketing strategies for it.

Since it was necessary to summarize and reduce the different variables into a lower number of factors, a Factor Analysis has been conducted. The analysis considered the following 24 input variables, which are all quantitative variables evaluated on a scale from 1 to 10.

N	Rating	Variable
1	Level of skills	Linguistic skills in English
2		Linguistic skills in a foreign language
3		Basic digital skills (Teams, Office Package)
4		Advanced Excel skills (Python, R Studio...)
5		Advanced Programming skills (Python, R Studio...)
6		Team working
7		Public speaking
8		Negotiation
9		Conflict management
10	Drivers in the choice of a new course	Development of interdisciplinary skills
11		Attractiveness of the topic.
12		Reputation of the provider
13		Qualified teaching staff.
14		Modality
15		Location
16		Type
17		Presence of entry requirements
18		Certifications
19	Innovative teaching methodology with case study resolution.	
20	Needs in the purchase of EF course	Improving grammar
21		Improving speaking skills
22		Improving technical knowledge in a foreign language
23		Improving soft skills in a foreign language
24		Learn by the interaction with others

Table 5.52: Variables selected- Factor Analysis

Based on Principal Components criteria used to determine the appropriate number of components for the factor analysis, it is suggested to take six factors. The "rule of thumb"

suggests a ratio of one out of three variables, making eight factors suitable for a dataset with 24 variables. But the percentage of overall explained variance, which falls within the desired range of 60% to 75%, and Eigen value higher than 1, suggests that the optimal number of factors would be six (**Annex 19a**). The Scree plot also suggests selecting five factors, where there is a break down point (**Annex 19b**).

Based on a careful analysis of these criteria, six factors have been chosen.

Lastly, the communalities' values for the six factors are above the threshold of 0.4, indicating a good model fit.

Communalities		
	Initial	Extraction
Linguistic skills in English	1.000	.677
Linguistic skills in a foreign language	1.000	.622
Basic digital skills (Teams, Office Package)	1.000	.643
Advanced Programming skills (Python, R Studio...)	1.000	.695
Advanced Excel skills (macros, pivot tables...)	1.000	.672
Team working	1.000	.651
Public speaking	1.000	.694
Negotiation	1.000	.737
Conflict management	1.000	.617
Development of interdisciplinary skills (e. g. language+ soft skills)	1.000	.473
Attractiveness of the topic	1.000	.694
Reputation of the provider	1.000	.493
Qualified teaching staff	1.000	.687
Modality (in-person, online, blended)	1.000	.524
Location (Italy or Abroad)	1.000	.579
Type (Individual lessons/Group lessons)	1.000	.637
Presence of entry requirements	1.000	.484
Certifications	1.000	.579
Innovative teaching methodology with case study resolution	1.000	.408
Improving grammar	1.000	.495
Improving speaking skills	1.000	.743
Improving technical knowledge in a foreign language	1.000	.712
Improving soft skills in a foreign language	1.000	.594
Learn by the interaction with others	1.000	.599

Extraction Method: Principal Component Analysis.

Table 5.53: Second Factor Analysis – Communalities with 6 factors

After setting the number of factors equal to 6 and applying the Varimax rotation method (**Annex 19c**) the following interpretation was obtained:

Factors	Variables	Interpretation
1	Improving speaking skills, Improving technical knowledge in a foreign language, Learn by the interaction with others, Improving grammar	Learning Needs
2	Negotiation, Public speaking, Team working, Conflict Management	Soft Skills
3	Attractiveness of the topic, Qualified teaching staff, Reputation of the provider, Development of interdisciplinary skills, Certifications	Offer Characteristics
4	Advanced Programming skills, Advanced Excel skills, Basic digital skills	Technical Skills
5	Type, Modality, Location, Innovative teaching methodology with case study resolution	Learning Format
6	Linguistic skills in English, Linguistic skills in a foreign language	Language Skills

Table 5.54: Second Factor Analysis – Factors’ Interpretation

Following the Factor Analysis, a Hierarchical cluster analysis was conducted on a 32% of the sample, randomly selected, to determine the appropriate number of clusters and reduce the randomness in the k-means analysis. The Hierarchical Cluster Analysis uses iterative procedures that lead to a hierarchical partitioning of the data. The iterative process involves joining two units or groups of units that display the highest homogeneity according to the chosen distance measure. Once a unit is assigned to a specific cluster, it remains in that cluster throughout the process, preventing re-allocation to another cluster. The aggregation process continues until all units are gathered into a single cluster. Additionally, the Ward Method is the method selected for this analysis.

The dendrogram serves as the primary tool for interpreting the results of hierarchical cluster analysis, providing an effective way to visualize the step-by-step aggregation process.

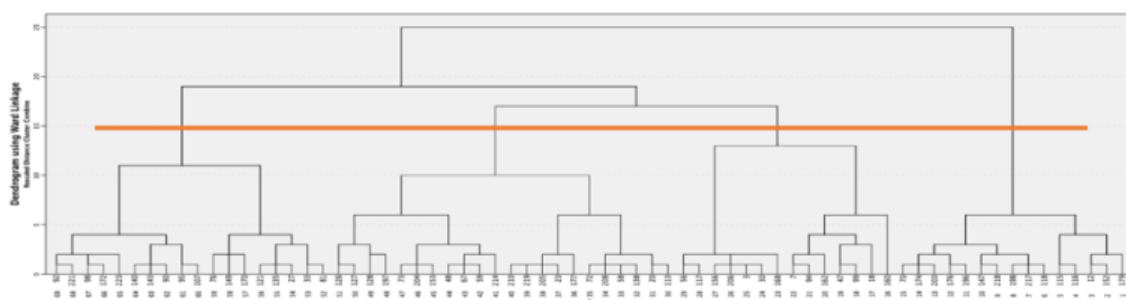


Figure 5.15: Cluster Analysis- Dendrogram

To determine the appropriate number of clusters, it should be necessary to make cuts on the dendrogram based on the length of the branches.

The dendrogram above revealed the presence of four potential clusters characterized by high internal homogeneity and high external heterogeneity. This aggregation occurs at a relatively greater distance between clusters compared to the other potential aggregation which would result in 5 clusters.

Moving to the Non-Hierarchical Cluster Analysis, (K-means algorithm) the primary objective of the clustering algorithm is to minimize a specified distance function to create the clusters. First of all, a K-mean Cluster Analysis have been made with pure initial random centers. Secondly, the random centers have been forced by using the centroids (means) of the six factors divided by clusters as the new centers of the population and a K-mean Cluster Analysis have been reperformed.

After having performed a K-means Analysis, for the selection and interpretation of a non-hierarchical cluster analysis solution, the following elements are essential: 1) Number of observations in each cluster; 2) Variance Analysis Chart; 3) Characteristics of the final centers. In Non-Hierarchical Cluster Analysis, it is important to aim for roughly equal-sized clusters or, at the very least, ensure that each cluster has a sufficient number of observations. To ensure the robustness and reliability of the clustering solution, the number of observations in each cluster should be reasonably balanced and the minimum threshold for the cluster size should not be lower than 5% of the total observations while the maximum should not exceed 50%-60% of the total observations.

Cluster	1	50.000
	2	41.000
	3	60.000
	4	75.000
Valid		226.000
Missing		.000

Table 5.55: Number of observations in each cluster- K-means with hierarchical centroids

As observed from the table above, it can be seen that Cluster 2 includes 41 observations, accounting for 18.1% of the total elements. Despite this cluster being smaller than the others, it is acceptable to consider the solution with 4 clusters according to the aforementioned rule, since it is higher than 5% and lower than 50-60%. Similarly, Cluster 4 consists of 75 observations, accounting for 33.2% of the total observations which can be acceptable.

As we can see below, it is clear that the distribution of the sample obtained by the second K-means Cluster Analysis is more balanced than the solution obtained by random centers, which can be consulted in the table below.

Cluster	1	21.000
	2	87.000
	3	48.000
	4	70.000
Valid		226.000
Missing		.000

Table 5.56: Number of observations in each cluster- K-means with random centers

The variables with p-values of the F-test lower than a pre-defined threshold, which would be set at 0.05, indicate that the means of these variables are statistically significantly different across the final clusters. An ideal and suitable cluster analysis solution is achieved when all the p-values of the F-test related to the input variables fall below the pre-defined threshold, ensuring that the identified clusters demonstrate meaningful and statistically significant differences in the variable means.

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Learning Needs	11.768	3	.854	222	13.772	<.001
Soft Skills	34.367	3	.549	222	62.587	<.001
Offer Characteristics	19.977	3	.744	222	26.867	<.001
Technical Skills	24.163	3	.687	222	35.173	<.001
Learning Format	9.905	3	.880	222	11.260	<.001
Language Skills	20.682	3	.734	222	28.176	<.001

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Table 5.57: Cluster Analysis- Variance Analysis Output

As we can see from the table above, the factors are all significant (Sig. <0.001). Therefore, all the variables will be equally relevant in the segmentation phase.

The table below presents the Final Cluster Centers given by the k-means analysis which would be necessary for the description of the clusters. The mean values of the Factors are presented by rows divided for each cluster, with an overall mean of zero. The values that are the most distant from the overall mean, in terms of absolute value, are highlighted. By examining the columns, it becomes possible to profile each individual cluster based on the highest and lowest values associated with specific Factors. This profiling helps in understanding the distinctive characteristics and preferences of each cluster, contributing to more targeted marketing strategies and segmentation efforts.

	Cluster			
	1	2	3	4
Learning Needs	Green	Red	Red	Green
Soft Skills	Green	Green	Red	Red
Offer Characteristics	Green	Red	Green	Green
Technical Skills	Green	Green	Green	Red
Learning Format	Green	Red	Red	Green
Language Skills	Green	Red	Green	Red

Table 5.58: Cluster Analysis- Final Centers Features

The interpretation of the clusters is the following:

- Cluster 1 (22.1%):** People within this cluster express the highest level of assessment, when compared to other groups, regarding their current soft skills. They also rate their linguistic competencies favorably, while evaluating their technical skills positively even though with a slightly smaller degree. When selecting a course, they consider the learning format (location, in-person or online delivery, type of lessons offered, and teaching methodology) to be more important than other course characteristics, such as the attractiveness of the subject matter, the prestige of the delivering institution, or the presence of qualified instructors. In the course purchase decision, they are more inclined than other groups to enhance their skills across various domains and prioritize courses that foster learning through interaction with peers.
- Cluster 2 (18.1%):** People within this cluster demonstrate a positive assessment of their both soft and technical competencies, while also highlighting a gap in their linguistic skills. When it comes to selecting a course, they do not attribute significant importance to either the course format (course location, in-person or online delivery, type of lessons offered, and teaching methodology) or other course characteristics such as the attractiveness of the subject, the prestige of the delivering institution, or the presence of qualified instructors. Therefore, the possibility to enroll in a course seems remote. Nonetheless, in the event of purchasing a course, they do not seem to have a generic skills improvement objective, at least across the various proposed domains.
- Cluster 3 (26.6%):** Individuals within this cluster exhibit the highest assessment, when compared to other groups, of their current technical and linguistic competencies, while underscoring a deficiency in soft skills. When choosing a course, they do not attribute

particular importance to the course format (course location, in-person or online delivery, type of lessons offered, and teaching methodology) compared to other course characteristics. In the potential purchase of a course, they do not appear to have a generic skills improvement objective, at least across the various proposed domains.

- **Cluster 4 (33.2%):** People in this cluster present the highest gap in their current technical, soft, and linguistic skills. When selecting a course, they do not assign particular importance to the course format (course location, in-person or online delivery, type of lessons offered, and teaching methodology) compared to other offer characteristics such as the attractiveness of the topic, the prestige of the delivering institution, or the presence of qualified instructors. In the course purchasing decision, they are focused on enhancing their skills across the various proposed domains and prioritize courses where learning occurs through interaction with others.

In order to identify an appropriate name for each cluster an additional analysis was conducted, crossing demographic, behavioral, and psychographic variables with the new saved variable “Cluster Membership”.

A cross-tabulation was performed using the "Age Groups" variable. From the table below, it is clear that the variables “Cluster Membership” and the "Age Group" are significant (p-value <0.001). Also, by looking the Cramer's V coefficient it is evident that the strength of the relationship between the two variables is quite strong, since the value (0.307) is greater than 0.2 (**Annex 20**).

		Cluster Number of Case					
		1	2	3	4	Total	
Age Groups	18-21	Count	22	18	13	46	99
		% within Age Groups	22.2%	18.2%	13.1%	46.5%	100.0%
		% within Cluster Number of Case	44.0%	43.9%	21.7%	61.3%	43.8%
		% of Total	9.7%	8.0%	5.8%	20.4%	43.8%
22-25	Count	28	23	47	29	127	
		% within Age Groups	22.0%	18.1%	37.0%	22.8%	100.0%
		% within Cluster Number of Case	56.0%	56.1%	78.3%	38.7%	56.2%
		% of Total	12.4%	10.2%	20.8%	12.8%	56.2%
Total	Count	50	41	60	75	226	
		% within Age Groups	22.1%	18.1%	26.5%	33.2%	100.0%
		% within Cluster Number of Case	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	22.1%	18.1%	26.5%	33.2%	100.0%

Table 5.59: Cluster Analysis- Cross Tab

From the table above, the following conclusions, concerning the different clusters with respect to the age groups of the respondents, can be made.

- As we already know, Cluster 1 represents 22.1% of the total distribution. Within this cluster, 44.0% of individuals fall between the ages of 18 and 21, while the majority of them (56.0%) are between 22 and 25 years old.
- Cluster 2 accounts for 18.1% of the total. Within this cluster, 43.9% of individuals are aged between 18 and 21, while 56.1% are between 22 and 25 years old.
- Cluster 3 represents 26.5% of the total. Within this cluster, 21.7% of individuals are between 18 and 21 years old, while 78.3% fall between 22 and 25 years old.
- Cluster 4 represents 33.2% of the total. This cluster is characterized by a higher presence of younger individuals, with 61.3% in the 18-21 age range and 38.7% between 22-25 age range. This cluster has the majority of individuals within the specified age range.

The correlation between the Cluster Membership variable and Education is significant (p-value < 0.001) as we can see from the table below. The Cramer's V confirms the strong relation between the two variables since the value (0.247) is higher than the threshold of 0.2 (**Annex 21a**).

From the Crosstab below, it can be observed that in the first cluster, 68.0% have attained an education level equivalent to a High School degree, followed by 20.0% with a Bachelor's degree and 12.0% with a Master's degree. The other three clusters present the same distribution, although the third one stands out with a substantial percentage (30.0%) of individuals holding a Master's degree.

		Cluster Number of Case					
		1	2	3	4	Total	
Education level	High school degree	Count	34	22	26	59	141
		% within Education level	24.1%	15.6%	18.4%	41.8%	100.0%
		% within Cluster Number of Case	68.0%	53.7%	43.3%	78.7%	62.4%
		% of Total	15.0%	9.7%	11.5%	26.1%	62.4%
	Bachelor degree	Count	10	14	16	13	53
		% within Education level	18.9%	26.4%	30.2%	24.5%	100.0%
		% within Cluster Number of Case	20.0%	34.1%	26.7%	17.3%	23.5%
		% of Total	4.4%	6.2%	7.1%	5.8%	23.5%
	Master degree	Count	6	5	18	3	32
		% within Education level	18.8%	15.6%	56.3%	9.4%	100.0%
		% within Cluster Number of Case	12.0%	12.2%	30.0%	4.0%	14.2%
		% of Total	2.7%	2.2%	8.0%	1.3%	14.2%
Total	Count	50	41	60	75	226	
	% within Education level	22.1%	18.1%	26.5%	33.2%	100.0%	
	% within Cluster Number of Case	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	22.1%	18.1%	26.5%	33.2%	100.0%	

Table 5.60: Education*Cluster Analysis – Results

Last, the analysis was also conducted crossing the Cluster Membership and the gender variable, but the result was not significant with a p-value of 0.446 (**Annex 21b**).

Some behavioral variables have been considered to obtain a more comprehensive description of the clusters.

Do you think your academic background has provided you with the necessary skills to enter the job market?

The Cluster Membership exhibits a good level of significance with the considered variable. Indeed, the Chi- Square Tests shows a level of significance <0.001 and the Cramer's V equal to 0.288 confirms that the correlation between the two variables is quite strong since this value is higher than the threshold of 0.02 (**Annex 22**).

By looking at the results, it becomes evident that:

- Only 75 individuals believe they have acquired the necessary skills to enter the job market through their academic background. Among these, Cluster 1 represents the cluster with the highest total number of respondents, accounting for 34.7%. Additionally, it can be observed that Cluster 1 comprises 15.9% of the total 151 respondents who do not believe they possess the required skills to enter the job market. Furthermore, the cluster displays a notable balance, with 52% of participants reporting they have acquired the necessary skills to enter in the job, while 48% claim not to have acquired them.
- Within Cluster 2, only 17.9% of participants believe that they have not received an academic background adequate to ensure the necessary skills for entering the job market.
- Cluster 3 emerges as the cluster with the second-highest percentage of respondents who state that their academic background has equipped them with the essential skills, constituting 30.7% of the total. This cluster's composition is characterized by 38.3% expressing they have acquired the necessary skills and 61.7% expressing the opposite.
- Cluster 4 has the highest percentage of respondents who believe they have not acquired the necessary skills to enter the job market (41.7%).

Cluster Number of Case * Do you think your academic background has provided you with the necessary skills to enter the job market? Crosstabulation

		Do you think your academic background has provided you with the necessary skills to enter the job market?		Total	
		Yes	No		
Cluster Number of Case	1	Count	26	24	50
		% within Cluster Number of Case	52.0%	48.0%	100.0%
		% within Do you think your academic background has provided you with the necessary skills to enter the job market?	34.7%	15.9%	22.1%
		% of Total	11.5%	10.6%	22.1%
	2	Count	14	27	41
		% within Cluster Number of Case	34.1%	65.9%	100.0%
		% within Do you think your academic background has provided you with the necessary skills to enter the job market?	18.7%	17.9%	18.1%
		% of Total	6.2%	11.9%	18.1%
	3	Count	23	37	60
		% within Cluster Number of Case	38.3%	61.7%	100.0%
		% within Do you think your academic background has provided you with the necessary skills to enter the job market?	30.7%	24.5%	26.5%
		% of Total	10.2%	16.4%	26.5%
4	Count	12	63	75	
	% within Cluster Number of Case	16.0%	84.0%	100.0%	
	% within Do you think your academic background has provided you with the necessary skills to enter the job market?	16.0%	41.7%	33.2%	
	% of Total	5.3%	27.9%	33.2%	
Total	Count	75	151	226	
	% within Cluster Number of Case	33.2%	66.8%	100.0%	
	% within Do you think your academic background has provided you with the necessary skills to enter the job market?	100.0%	100.0%	100.0%	
	% of Total	33.2%	66.8%	100.0%	

Table 5.61: Cluster Analysis * Necessary Skills– Cross Tab

How much would you be willing to spend on the new proposed course?

Another dimension that was considered for a more comprehensive cluster description is the inclination towards purchasing a new course aimed at integrating linguistic content with a more specific focus, soft or technical skills. As the variables encompass a quantitative and qualitative aspect, an ANOVA test was conducted to assess the potential correlation between Cluster Membership and the chosen variable. The results show a p-value below 0.05 and an Eta value exceeding 0.2, indicating a statistically significant relationship between these two variables (**Annex 23**).

Report			
Propensity to buy the course			
Cluster Number of Case	Mean	N	Std. Deviation
1	7.72	50	2.129
2	6.66	41	1.944
3	7.38	60	1.718
4	8.17	75	1.234
Total	7.59	226	1.795

Table 5.62: Propensity to buy the course* Cluster Membership– Mean Table

Analyzing the data, Cluster 4 exhibits the highest purchasing inclination, scoring a mean of 8.17 on a scale from 1 to 10. It is followed by Cluster 1, with an average inclination of 7.72, and by Clusters 3 and 2, both having an average inclination of 7.38 and 6.66, respectively.

To enhance the overall cluster description by including individual characteristics, a Linear Discriminant Analysis¹¹ was performed, with a specific focus on the psychographic variables. In the analysis conducted below, the dependent variable is represented by the four clusters, which is a nominal variable called Cluster Membership.

The independent variables are quantitative and included the following:

- How would you describe yourself on a scale from 1 to 10? From Q26_1 to Q26_8.
- How much do you recognize yourself in the following statements? From Q27_1 to Q27_4.

First of all, the Test of Equality of Group Means was conducted in order to observe the discriminant capability of each of the independent variables considered.

The table below shows that most of the variables are significant since the p-value is lower than the threshold of 0.05 especially, the variables “Friendly”, “I enjoy improving my skills to keep up with the latest trends” and “I enjoy trying new and unplanned experiences”. From this overview, we can see that the variables “Extrovert” (0.224), “Emotional” (0.152) and “I don’t think I have the adequate skills for entering in the job market” (0.334) are not significant at 10% level. Therefore, they were excluded from the analysis.

¹¹ Saccardi A., 2022. Course n. 20173: Market Research, Bocconi University.

	Wilks' Lambda	F	df1	df2	Sig.
Curious	.968	2.409	3	222	.068
Active	.966	2.627	3	222	.051
Extrovert	.981	1.467	3	222	.224
Adverse to risk	.960	3.110	3	222	.027
Reflective	.955	3.457	3	222	.017
Conscious	.953	3.622	3	222	.014
Friendly	.935	5.114	3	222	.002
Emotional	.977	1.781	3	222	.152
I enjoy improving my skills to keep up with the latest trends	.929	5.668	3	222	<.001
I enjoy trying new and unplanned experiences	.907	7.581	3	222	<.001
I prefer learning through interaction with others rather than from frontal lessons	.955	3.517	3	222	.016
I don't think I have adequate skills for entering the job market	.985	1.140	3	222	.334

	Wilks' Lambda	F	df1	df2	Sig.
Curious	.968	2.409	3	222	.068
Active	.966	2.627	3	222	.051
Adverse to risk	.960	3.110	3	222	.027
Reflective	.955	3.457	3	222	.017
Conscious	.953	3.622	3	222	.014
Friendly	.935	5.114	3	222	.002
I enjoy improving my skills to keep up with the latest trends	.929	5.668	3	222	<.001
I enjoy trying new and unplanned experiences	.907	7.581	3	222	<.001
I prefer learning through interaction with others rather than from frontal lessons	.955	3.517	3	222	.016

Table 5.63: Test of Equality of Group Means

Box M's test verifies the equality of matrixes of variances and covariances associated with different groups.

Box's M	242.003
F	Approx. 1.656
df1	135
df2	79015.246
Sig.	<.001

Tests null hypothesis of equal population covariance matrices.

Table 5.64: Box's M Test

Looking at the table above, the test shows a p-value < 0.001. In this scenario, there should be a p-value higher than 0.05 as it would have indicated equivalence in covariances and variances across the groups. Since, this analysis has a descriptive goal rather than a predictive one, this cannot be considered a major issue.

Moving to the Eigenvalues' table, which shows the percentage of variance between the groups explained by the discriminant functions, it can be observed that the first two discriminant functions explain more than 90% (93.8%) of the variance between groups. This can be considered an optimal result to continue the analysis.

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.207 ^b	62.2	62.2	.414
2	.105 ^b	31.6	93.8	.308
3	.021	6.2	100.0	.143

a. Maximum number of functions is 2.

b. First 2 canonical discriminant functions were used in the analysis.

Table 5.65: Eigenvalues

Moreover, the two functions have a quite strong discriminant power. Indeed, from the Wilk's Lambda, which indicates the proportion of the total sum of squares not explained by differences in the groups, it is clear that the first function is significant while the second is at the threshold of 0.05. Despite this, the interpretation given to the results can be considered reliable.

Wilks' Lambda				
Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 3	.735	67.404	27	<.001
2 through 3	.887	26.320	16	.050
3	.980	4.489	7	.722

Table 5.66: Wilk's Lamba

Therefore, having confirmed the analysis's validity, the following step involves the creation of the positioning map and the final interpretation of the results.

The correlation coefficient between the values of the discriminant function and the values of the variable itself, as observed in the Rotated Structure Matrix, represents the most suitable tool for assessing the variable's contribution to discrimination. Greater absolute values of these coefficients correspond to a stronger influence on the discriminant functions¹². The matrix serves two distinct purposes: one is to facilitate the interpretation of the functions' meanings, and the other is to integrate the original explanatory variables into the mapping process.

	Function	
	1	2
I enjoy trying new and unplanned experiences	.729*	.005
I enjoy improving my skills to keep up with the latest trends	.627*	.314
I prefer learning through interaction with others rather than from frontal lessons	.508*	.165
Active	.370*	.367
Friendly	.240	.762*
Conscious	.335	.579*
Reflective	.305	.569*
Adverse to risk	-.086	.556*
Curious	.264	.461*

Rotated pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by size of correlation within function.

*. Largest absolute correlation between each variable and any discriminant function

Table 5.67: Rotated Structure Matrix

Among the variables included in the Linear Discriminant analysis, there have been taken into consideration those that exhibit a high discriminant power. Therefore, the two dimensions that

¹² Saccardi A., 2022. Course n. 20173: Market Research, Bocconi University.

best interpret the discriminant functions are: open-mindedness for the first one (horizontal axis) and social approach for the second one (vertical axis).

In the map both the original attributes, using the linear correlation between them and the discriminant dimensions, and the clusters by using the mean score on the discriminant dimension are shown.

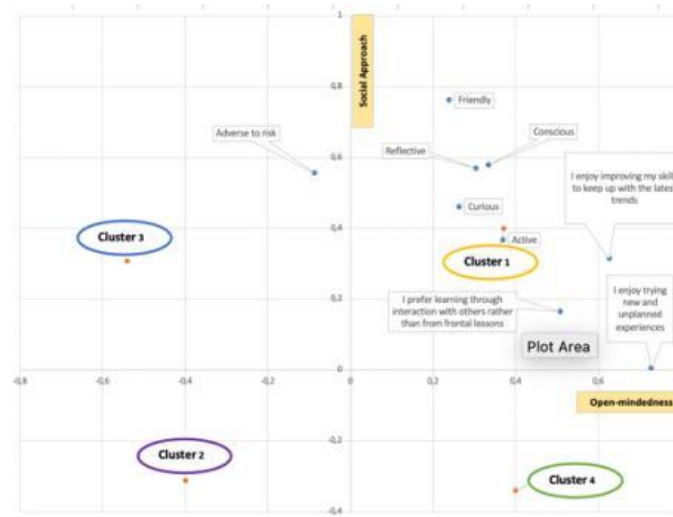


Figure 5.16: Positioning Map

From the map above, an initial assessment of the positioning can be conducted by analyzing the position of each cluster in relation to each discriminant dimension. In terms of open-mindedness, it is clear that Cluster 4 and Cluster 1 are more inclined to stay up to date by enhancing their skills also through new and unplanned experiences and through the interaction with others. On the other hand, Cluster 2 and Cluster 3 are located far away from the other two, meaning that they do not exhibit a strong inclination to open-mindedness regarding their skills enhancement.

In terms of approach, it is evident that Cluster 1 exhibits the most social approach followed by Cluster 3. By contrast, Cluster 2 and 4 shows exactly the opposite orientation. Among the variables selected to compose the Linear Discriminant functions, the variables “I enjoy improving my skills to keep up with the latest trends” and “I prefer learning trough the interaction with other from frontal lessons” are particularly interesting for describing better the clusters and gathering a deeper understanding of their attitudes.

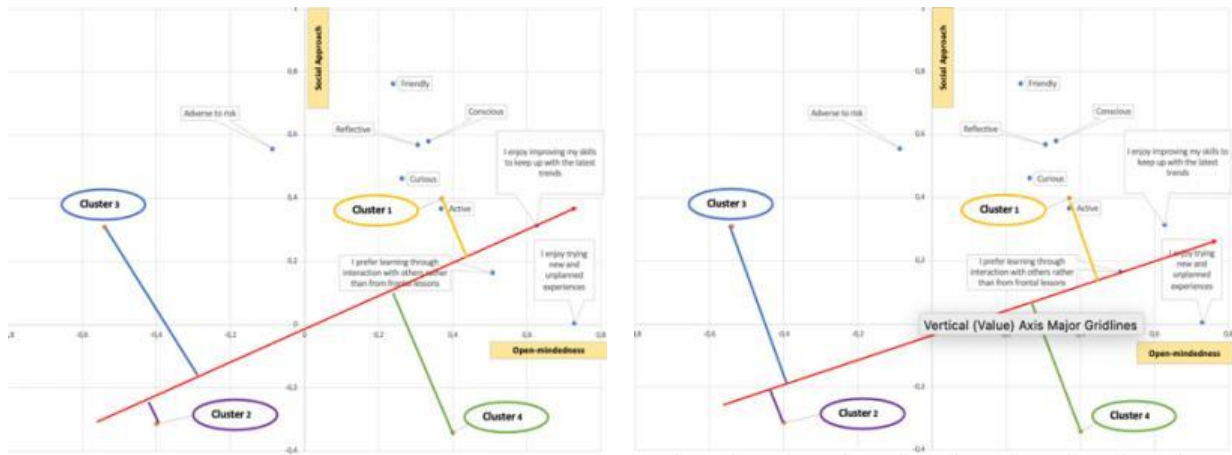


Figure 5.17: Positioning Map

In terms of how they prefer improve their skills, the clusters can be described in the following order: Cluster 1, Cluster 4, Cluster 3, and finally Cluster 2. Regarding the propensity to learn through interaction with others, it's possible to observe that the order of clusters remains unchanged. In order to examine combination preferences within each cluster, a cross-analysis was conducted between Cluster Membership and Conjoint Analysis.

Importance Values		
1	Duration	28.881
	Modality	13.718
	Type	10.469
	Topic	46.931
2	Duration	40.329
	Modality	13.580
	Type	6.173
	Topic	39.918
3	Duration	32.377
	Modality	17.796
	Type	2.526
	Topic	47.302
4	Duration	24.605
	Modality	24.674
	Type	5.911
	Topic	44.811
Averaged Importance Score		

Table 5.68: Cluster Membership * Conjoint Analysis- Importance Values

From the analysis of Importance Values, we can observe that for clusters 1, 3, and 4, the element perceived as most relevant is the course Topic (46.931 for Cluster 1, 47.302 for Cluster

3 and 44.811 for Cluster 4), followed by course Duration as the second most significant factor. On other hand, for cluster 2, Duration emerges as the primary factor (40.329), followed by course Topic, Modality, and Type of chosen lessons.

Utilities			Utility Estimate	Std. Error
Cluster Number of Case				
1	Duration	Up to 3 weeks	.039	.115
		Up to 2 months	.126	.115
		More than 6 months	-.164	.115
	Modality	In-person	.069	.086
		Online	-.069	.086
	Type	Elective Modules	.053	.086
		Defined Modules	-.053	.086
	Topic	Computer Science & Language	.002	.115
		Soft skills & Language	.234	.115
		Only Language	-.237	.115
	(Constant)	6.522	.091	
2	Duration	Up to 3 weeks	.385	.116
		Up to 2 months	.068	.116
		More than 6 months	-.453	.116
	Modality	In-person	-.141	.087
		Online	-.141	.087
	Type	Elective Modules	-.064	.087
		Defined Modules	.064	.087
	Topic	Computer Science & Language	-.043	.116
		Soft skills & Language	.436	.116
		Only Language	-.393	.116
	(Constant)	6.128	.091	
3	Duration	Up to 3 weeks	.363	.109
		Up to 2 months	.070	.109
		More than 6 months	-.433	.109
	Modality	In-person	.219	.081
		Online	-.219	.081
	Type	Elective Modules	-.031	.081
		Defined Modules	.031	.081
	Topic	Computer Science & Language	.256	.109
		Soft skills & Language	.454	.109
		Only Language	-.710	.109
	(Constant)	6.438	.086	
4	Duration	Up to 3 weeks	.250	.137
		Up to 2 months	.273	.137
		More than 6 months	-.523	.137
	Modality	In-person	.399	.103
		Online	-.399	.103
	Type	Elective Modules	.096	.103
		Defined Modules	-.096	.103
	Topic	Computer Science & Language	.086	.137
		Soft skills & Language	.681	.137
		Only Language	-.767	.137
	(Constant)	6.429	.109	

Table 5.69: Cluster Membership * Conjoint Analysis- Utilities

The clusters attribute distinct levels of importance to various attributes.

- Starting from Cluster 1, the preferred combinations refer to a course which integrate soft skills and language, with a duration of up to 2 months, in-person, and with the flexibility to choose the lessons (Elective Modules).

- Cluster 2, on the other hand, exhibits a preference for shorter courses (maximum of 3 weeks), encompassing language and soft skills content, in-person, and with defined modules.
- In the case of Cluster 3, the utility is maximized with a course involving soft skills and language (with a level of utility also in Computer Science and language), lasting up to three weeks, in-person, and with defined modules.
- Lastly, Cluster 4 places utmost importance on courses that combine soft skills and language, with a duration of up to 2 months, in-person, and with the option for participants to independently structure their learning path.

Following the Linear Discriminant Analysis, it is now possible to proceed with a detailed description of the clusters, assigning each of them a distinct name.

PRELIMINARY CONCLUSIONS

Following the Linear Discriminant Analysis, it is now possible to proceed with a detailed description of the clusters, assigning each of them a distinct name.

- **Lifelong learners (22.1%):** While a slight majority (56.0%) falls within the 22-25 age range, a balanced distribution is observed across age groups, with 18-21-year-olds accounting for 44.0%. Looking at the education level, a significant proportion have completed secondary education up to High School level (68.0%). Moreover, in this cluster 52.0% confirms to have acquired the necessary skills to enter the job market, and 48.0% lacking them. Lifelong learners evaluate expresses the highest level of assessment, when compared to other groups, regarding their current soft skills. They also rate their linguistic competencies favorably, while evaluating their technical skills positively albeit to a slightly lesser extent. Indeed, they would prefer purchasing a course which integrate soft skills and language, with a duration of up to 2 months, in-person, and with the flexibility to choose the lessons (Elective Modules).
From a psychographic perspective, Lifelong learners are individuals who enjoy enhancing their skills to stay up-to date and enjoy learning trough the interaction with others.
- **Stand-by learners (18.1%):** This cluster accounts for 18.1% of the sample and primarily consists of young individuals aged 22 to 25 (56.1%) and people with High

School Education (53.7%). Stand-by learners exhibit positive self-assessment of both technical and soft skills although they highlight linguistic deficiencies. When selecting a new course, format, course characteristics and learning needs hold less importance compared to the other clusters. Therefore, the name of this cluster was given because enrolling in a new course seems unlikely at the present time. Indeed, they show the lowest average in the propensity to buy the new course. Potentially, they would prefer shorter courses (up to 3 weeks) rather than longer ones, combining soft skills with language, in person and with defined modules. In addition, from a personality perspective, they are the exact opposite of Lifelong Learners. They do not make any effort to update their skills to stay up to current trends and do not enjoy learning through interaction with others.

- **Specialist learners (26.5%):** They represent the 26.5% of the sample and most of them are between 22-25 years old (78.3%). Specialist Learners have predominantly attained a high school education level (43.3%) but there is significant portion who has completed a Master's degree (30.0%). They display the highest assessment of their current technical and linguistic competencies compared to other groups, while acknowledging a lack of soft skills. When selecting a course, they do not give particular importance to the course format (course location, in-person or online delivery, type of lessons offered, and teaching methodology) in comparison to other course attributes like the attractiveness of the topic, the prestige of the delivering institution, or the presence of qualified instructors. In potential course purchases, a broad skills improvement objective doesn't seem evident, at least across the various proposed domains. They would prefer buying a course involving soft skills and language, lasting up to three weeks, in-person, and with defined modules. This name was given because the group has been characterized by the highest assessment of their own technical and linguistic competencies, showing a propensity towards thematic courses with well-defined modules.

From a psychographic perspective, they do not enjoy follow the latest trends and they do not prefer learning through others' interaction.

- **Socratic learners (33.2%):** They represent the largest portion (33.2%) of the sample. Within this group, most of them are 18-21 years old (61.3%). Indeed, by looking at the

education level, the majority of them completed the High school degree (78.7%). The concept of labeling this group as "Socratic learners" stems from the fact that the group has demonstrated an awareness of their educational deficiencies ("*I know that I know nothing*" principle), coupled with a willingness to enhance their competencies through interactions with others (a foundational element of the Socratic method of maieutics, where knowledge was attained through listening, dialogue, and questioning).

Socratic learners highlight their skills gaps in technical, soft, and linguistic competencies. Course format holds less weight during selection compared to factors like subject attractiveness, institution prestige, or qualified instructors. When making purchasing decisions, they prioritize improving skills and favor courses promoting interactive learning. Moreover, they would choose a course that combines soft skills and language, with a duration of up to 2 months, in-person, and with the option for participants to independently structure their learning path (elective modules).

Lastly, from a psychographic point of view, they care about following the latest trends, but they are not very friendly with others.

5.8 TARGETING

Based on the results obtained from the Cluster Analysis, a target group has been identified in order to design targeted marketing strategies for the launch of the new product in the market. The best target for the new product launch would be identified in the "Socratic learners". The reasons behind this choice are the following:

- This cluster represents the largest segment of the sample, accounting for 33.2%.
- This cluster has the highest percentage of respondents who believe they have not acquired the necessary skills to enter the job market.
- This cluster is primarily composed of young individuals aged 18 to 21 who are experiencing the job market for the first time.
- Also, this cluster demonstrates the highest level of awareness regarding the lack of technical, soft, and language skills. Moreover, it exhibits the highest willingness to enhance their skills also through interactions with others, which a foundational element of the Socratic approach of maieutics, where knowledge was attained through listening, dialogue, and questioning.
- This cluster exhibits the highest willingness to purchase the new course compared to the other clusters, scoring a mean of 8.17 on a scale from 1 to 10.
- From a psychographic point of view, this cluster is very openminded even though not very sociable.
- Also, in order to validate the choice of this target, an additional bivariate analysis was conducted for each cluster. Performing an ANOVA, it is clear that the development of interdisciplinary skills is the primary focus of this cluster when choosing a new course.

Cluster Number of Case		Report										
		Development of interdisciplinary skills	Attractiveness of the topic	Reputation of the provider	Qualified teaching staff	Modality (in-person, online, blended)	Location (Italy or Abroad)	Type (Individual lessons/Group lessons)	Presence of entry requirements	Certifications	Innovative teaching methodology with case study resolution	
Socratic learners	Mean	8.80	8.20	7.59	8.40	7.55	7.73	7.67	5.88	8.61	7.56	
	N	75	75	75	75	75	75	75	75	75	75	75
	Std. Deviation	1.103	1.027	1.316	1.208	1.630	1.840	1.750	2.143	1.593	1.919	
Total	Mean	8.20	7.75	7.41	8.06	7.32	7.45	7.21	6.29	8.06	7.48	
	N	226	226	226	226	226	226	226	226	226	226	226
	Std. Deviation	1.562	1.455	1.615	1.449	1.648	1.881	1.823	2.016	1.725	1.769	

Table 5.70: Socratic learners *Elements when choosing a course

- Also, it is clear from the table below that this cluster has the highest average (8.80) among all clusters regarding the development of interdisciplinary skills in the choice of a new course.

Report			
Development of interdisciplinary skills (e.g. language+ soft skills)			
Cluster	Number of Case	Mean	Std. Deviation
Lifelong learners		8.52	1.374
Stand-by learners		6.61	1.883
Specialist learners		8.28	1.223
Socratic learners		8.80	1.103
Total		8.20	1.562

Table 5.71: Development of interdisciplinary skills * Cluster Membership- Mean Table

The ANOVA table shows that the Cluster membership variable and the development of interdisciplinary skills are significant (p value <0.001). The Eta index (**Annex 24**) confirms the strong relationship between the two variables, since the value is 0.498.

PRELIMINARY CONCLUSIONS

The launch of the new proposed course should thus be targeted towards Socratic learners, as they are more aware of their educational gaps and also more open, in terms of both time and willingness to buy, to engage in educational activities that require interactions of the participants. These factors will be crucial in designing targeted marketing strategies.

6.CONCLUSIONS

6.1 MANAGERIAL IMPLICATIONS

In this paragraph, the managerial implications regarding the Marketing Mix elements (Product, Promotion, Price, and Place) will be examined. However, Place will not be analysed because the new proposed course could be distributed through the company's traditional channels.

PRODUCT

According to the analyses conducted, it is evident that there is a significant potential demand emerging in Lombardy, which would be favourably inclined towards the introduction of a new educational course capable of integrating linguistic content with more specific topics. Indeed, the opportunity to enhance EF's presence in the education market has been validated by the entire sample, showcasing a predisposition to purchase the new course offered by this provider, with average ratings ranging from 6.66 (Stand-by learners) to 8.17 (Socratic learners).

Furthermore, within the target population, the Socratic learners have been detected as the most interesting subsegment because they are the most aware of their skills gap and the cluster who is the most openminded.

From the utility measurement analysis, the preferred combination for Socratic learners would be a course that combines soft skills and language, with a duration of up to 2 months, in-person, and with the option for participants to independently structure their learning path by selecting elective courses rather than defined ones. Additionally, a positive evaluation (even though lower than the previous one) is also observed for the combination of computer science and language with elective courses. Therefore, it would be advisable for the company to offer both types of courses.

These results underscore the importance for this category of learners to have flexibility and autonomy in shaping their learning experience, combining interdisciplinary skills with the enhancement of linguistic proficiency. Currently, EF already offers courses on specific subjects such as Art and Culture; however, as observed from the sample, these are also the least recognized among the entire group (only 11.5%).

These programs are currently offered as language courses with modules for enhancing soft skills or specific subjects. However, given the professional nature of the new course proposed, the current offerings should be restructured in order to place more emphasis on the non-linguistic contents. By doing so, English language would hold a complementary value to the

non-linguistic contents and would be offered as an opportunity to enhance the linguistic skills already required as an entry prerequisite.

EF should emphasize the professional value of the course through simulations of work environment. Therefore, the course could become an opportunity for career orientation and an initial evaluation of one's competencies. For the 18-21 age group, the course could mark the initial step of a year-long journey that accompanies their entry into the professional world.

Given the program's professionalizing role, it will be essential to involve instructors from the professional sphere, alongside experts capable of virtually recreating work environments within case studies. These case studies would offer participants concrete engagement with workplace problem-solving dynamics.

For this reason, it is essential to design an appropriate course promotion that can generate awareness about the new course type being offered.

Also, the choice of a maximum duration of 2 months instead of 3 weeks might indicate that Socratic Learners are interested in courses that offer a more comprehensive and in-depth learning experience, rather than just focusing on acquiring specific knowledge within a shorter timeframe. This longer duration could potentially allow for a more thorough exploration of interdisciplinary topics and a deeper engagement with the course material. It could also reflect a preference for a more immersive and extensive educational journey that aligns with the Socratic approach of questioning, critical thinking, and collaborative exploration.

Moreover, the propensity to select an in-person course over an online option may indicate a desire for direct engagement, face-to-face interaction, and a more immersive learning environment that aligns with the principles of Socratic learning.

Furthermore, the drive to enhance competencies steers the new offering towards teaching methodologies that prioritize the assessment of learning outcomes over the mere transmission of knowledge. Therefore, the proposed course should include a final assessment to verify the achievement of a well-defined objectives in terms of acquired competencies. These skills should be certified through the issuance of open badges, enabling the sharing of achieved results as well as certifications from the providing entity.

PROMOTION

According to previous analyses conducted, it has emerged that the primary channels for promoting the new course are social media adv (indicated by 73.5% of the sample as the main channel) followed by EF ambassadors (52.7%). This outcome was predictable, considering the

brand's huge social media presence and the extensive community of ambassadors upon which the brand can rely on.

SOCIAL MEDIA

EF Education First has established a strong and impactful presence across different social media platforms, effectively tapping into a global audience. Through channels like Facebook, Instagram, and LinkedIn, the brand has fostered engagement, nurturing a sense of community and interaction with potential students and learners.

For instance, the EF Italy's Instagram profile reaches 83.4 million followers with over 3500 posts.



Figure 6.1: EF Education First- Instagram Account

Furthermore, considering the total number of followers and average views per individual post (by taking an overall average across all posts), an engagement rate of 6.5% has been estimated¹³.

This engagement rate represents a significant advantage for promoting the new course, as it highlights active and interested interaction from the EF Italy community. The existing Instagram community already represents a potentially interested and engaged audience, providing one of the best ways to convey detailed course information and attract prospective participants.

Through the creation of engaging contents, sharing stories of student achievements, and providing updates on educational initiatives, EF Education First maintains a dynamic digital presence. This strategic use of social media enables EF to convey information, spark interest, and cultivate an engaging conversation with individuals seeking innovative and high-quality educational opportunities.

¹³ <https://influencermarketinghub.com/instagram-money-calculator/>

A strategy to increase the new course's awareness would be to adopt an editorial plan encompassing a collection of engaging stories on Instagram, to be subsequently shared across other social platforms (Facebook and LinkedIn). These stories could feature interesting sentences designed to prompt users to follow the narrative and continue reading. This narrative approach could conclude with a final conclusive story, where the key details about the new course are presented in a clear and comprehensive way. Below, an example of the proposed Instagram stories:



Figure 6.2: EF Education First- Proposal Instagram Stories

EF BRAND AMBASSADORS

Furthermore, another channel that has been identified as preferred for promoting the new course involves EF ambassadors. Leveraging EF brand Ambassadors for promotional activities can significantly enhance the visibility and credibility of the new course. These Ambassadors, who often have firsthand experience EF's educational offerings, serve as authentic advocates, also because they are mostly of the same age as those who would participate in the proposed new course, who can share personal success stories and insights. By collaborating with these individuals, EF can tap into their established networks and influence, effectively reaching a wider audience that values their recommendations. Through social media posts, blog articles, and direct interactions, Ambassadors can highlight the unique features and benefits of the new course, resonating with their followers and potential learners. This collaborative approach not only strengthens the course's promotion but also establishes a stronger bond with the audience, fostering trust and a genuine connection that can ultimately drive enrollment.

PRICE

According to the research results, price is certainly not the most discriminant factor when choosing a course. Nevertheless, EF should differentiate the prices based on the offered products. Prospects of the new EF course demand elective courses that can be customized by the participants themselves within their budget. In this perspective, EF could adopt the following pricing strategies:

- Creating a "modular" price for the entire educational package. Given the demand for optional modules, it would be advisable to differentiate the cost of each module and allow participants to choose how to structure their course, also considering the budget they have available.
- Exploring the "all-inclusive" formula. Given that these courses would realize their potential through an immersive format (short courses with a location that facilitates interaction between instructors and participants, including social engagement), the all-inclusive formula would enhance also the educational value of campus life. Within the program cost, the price would encompass accommodation expenses in a college that fosters language interaction and teamwork even beyond the standard course offerings. This formula could be presented to participants as an option, possibly incentivized with competitive pricing strategy compared to other proposed housing solutions, while emphasizing the educational contribution of campus life.
- Enhancing the current pricing strategy with specific incentives for certain modules/products. In addition to the existing price policies that already differentiate EF products based on early enrollment, regular enrollment, and last-minute enrollment, further specific measures could be experimented to promote the new educational modules. Specifically, price reductions for the purchase of other courses should be introduced for participants who achieve the highest scores in the final assessment.
- Defining extra prices for supplementary teaching. For participants opting for the phygital mode (a blend of physical and digital), additional costs may be considered for accessing online teaching. Similarly, participants with an English proficiency level below B2 could incur an additional cost for a language course aimed at obtaining a language certification to be used before purchasing the new EF course.
- Defining special prices for standard educational packages: To facilitate EF's teaching organization, the company could propose a standard package with two or three interdisciplinary modules, encouraging participation through a specific discount.

6.2 RESEARCH LIMITATIONS

The aim of this thesis was to investigate the opportunity of designing a new educational program in which the English language becomes the vehicular language for instructional content aimed at enhancing professional skills (both soft and technical). Indeed, for the age group considered in this research (18-25 years), it has emerged that the traditional language courses are less appealing compared to the alternatives proposed, probably because the average level of English language proficiency is relatively high.

The combination of qualitative and quantitative research has revealed a promising market opportunity. From the results, It is evident that a substantial potential demand is emerging in Lombardy, which would be receptive to the introduction of an innovative educational program capable of seamlessly integrating language-focused content with more specialized subjects.

On one hand, from qualitative research, both from the perspective of the interviewed HR and from EF's managers, the importance of interdisciplinary skills alongside language proficiency has been emphasized.

On the other hand, a conjoint analysis revealed that there is a preference for courses that combine soft skills with linguistic content conducted in person, even though Socratic learners cluster demonstrates a propensity to purchase the Computer Science in English language course as well.

Another element of interest that emerged from the analysis is the preference of the respondents, particularly within the target group, for selecting modules to tailor their course according to their specific learning needs.

But despite adopting a rigorous methodological approach, it is essential to recognize and consider certain constraints that could impact the interpretation and applicability of the findings. The main limitations are the following:

- **Regional Focus:** This analysis was conducted considering only the Lombardy region to achieve more in-depth and representative results; however, it would necessarily extend the analysis to cover national context.
- **Sample and Method:** For the creation of the sample, random sampling was utilized. The questionnaire was distributed with the aid of family, friends, the EF ambassador community, and social media. As a result, the snowball effect may introduce certain biases.
- **Questionnaire Issues:** It is crucial to consider potential influences on participants' attention, as the questionnaire completion process was about 7-8 minutes, necessary

leading to a diminished focus on questions at the end. In order to re-engage participants' attention, a progress bar was included, providing respondents with a visual estimate of their progress through the questionnaire.

- Competitive landscape: In terms of the competitive landscape, several indirect competitors of EF are already offering similar courses, which could potentially lead to an increased threat stemming from these specific features in the future.

Therefore, it is deemed appropriate to conduct an additional nationwide investigation using also further data on the behaviors of its users, typically monitored by EF and collected through its conventional channels.

Despite the aforementioned limitations, it is evident that reformulating the educational proposition by defining learning objectives in terms of skills rather than knowledge would potentially reduce the mismatch between skills demanded by the job market and those available at the end of standard educational paths. Given the favor that this proposition would find among potential recipients, the "tailor-made" format of the new English-language training paths could be proposed in a win-win logic, offering benefits for both linguistic providers and potential consumers.

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8.APPENDIX

Annex 1a: click to access the document.

Annex 1b: click to access the document.

Annex 2

		Sum of Squares	df	Mean Square	F	Sig.
I enjoy trying new and unplanned experiences * Necessary skills for job market entry	Between Groups (Combined)	23.777	1	23.777	9.861	.002
	Within Groups	540.086	224	2.411		
	Total	563.863	225			

Table 1: Psychographic Characteristics* Necessary skills for the job market – ANOVA

	Eta	Eta Squared
I enjoy trying new and unplanned experiences * Necessary skills for job market entry	.205	.042

Table 2: Psychographic Characteristics* Necessary skills for the job market– Eta Index

Annex 3a

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.778 ^a	1	.096		
Continuity Correction ^b	2.324	1	.127		
Likelihood Ratio	2.806	1	.094		
Fisher's Exact Test				.117	.063
Linear-by-Linear Association	2.766	1	.096		
N of Valid Cases	226				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 32.85.
b. Computed only for a 2x2 table

	Value	Approximate Significance
Nominal by Nominal Phi	-.111	.096
Cramer's V	.111	.096
N of Valid Cases	226	

Table 3: Perception of having the necessary skills * Age Group – Chi Square and Cramer's V

Annex 3b

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.931 ^a	2	.628
Likelihood Ratio	.906	2	.636
Linear-by-Linear Association	.649	1	.420
N of Valid Cases	226		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.62.

	Value	Approximate Significance
Nominal by Nominal Phi	.064	.628
Cramer's V	.064	.628
N of Valid Cases	226	

Table 4: Perception of having necessary skills* Education Level - Chi Square and Cramer's V

Chi-Square Tests				
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.002 ^a	1	.961	
Continuity Correction ^b	.000	1	1.000	
Likelihood Ratio	.002	1	.961	
Fisher's Exact Test				1.000
Linear-by-Linear Association	.002	1	.961	.537
N of Valid Cases	226			

a. 0 cells (.000) have expected count less than 5. The minimum expected count is 36.17.
b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	.003	.961
	Cramer's V	.003	.961
N of Valid Cases		226	

Table 5: Perception of having necessary skills*Gender– ANOVA and Eta Index

Annex 4

ANOVA Table						
		Sum of Squares	df	Mean Square	F	Sig.
Advanced Programming skills (Python, R Studio...) * Age Groups	Between Groups (Combined)	78.499	1	78.499	15.135	<.001
	Within Groups	1161.771	224	5.186		
	Total	1240.270	225			
Advanced Excel skills (macros, pivot tables...) * Age Groups	Between Groups (Combined)	79.353	1	79.353	13.397	<.001
	Within Groups	1326.789	224	5.923		
	Total	1406.142	225			

Table 6: Skills Level* Age Groups – ANOVA

Measures of Association		
	Eta	Eta Squared
Advanced Programming skills (Python, R Studio...) * Age Groups	.252	.063
Advanced Excel skills (macros, pivot tables...) * Age Groups	.238	.056

Table 7: Skills Level* Age Groups- Eta Index

Annex 5a

ANOVA Table						
		Sum of Squares	df	Mean Square	F	Sig.
Advanced Programming skills (Python, R Studio...) * Occupation	Between Groups (Combined)	25.159	3	8.386	1.532	.207
	Within Groups	1215.111	222	5.473		
	Total	1240.270	225			
Advanced Excel skills (macros, pivot tables...) * Occupation	Between Groups (Combined)	37.528	3	12.509	2.029	.111
	Within Groups	1368.614	222	6.165		
	Total	1406.142	225			

Table 8: Skills Level* Occupation - ANOVA

Measures of Association		
	Eta	Eta Squared
Advanced Programming skills (Python, R Studio...) * Occupation	.142	.020
Advanced Excel skills (macros, pivot tables...) * Occupation	.163	.027

Table 9: Skills Level* Occupation- Eta Index

Annex 5b

		Sum of Squares	df	Mean Square	F	Sig.
Advanced Programming skills (Python, R Studio...) * What is your education level?	Between Groups (Combined)	31.402	2	15.701	2.896	.057
	Within Groups	1208.868	223	5.421		
	Total	1240.270	225			
Advanced Excel skills (macros, pivot tables...) * What is your education level?	Between Groups (Combined)	66.773	2	33.386	5.559	.004
	Within Groups	1339.369	223	6.006		
	Total	1406.142	225			

Table 10: Skills Level* Education Level- ANOVA

	Eta	Eta Squared
Advanced Programming skills (Python, R Studio...) * What is your education level?	.159	.025
Advanced Excel skills (macros, pivot tables...) * What is your education level?	.218	.047

Table 11: Skills Level* Education Level- Eta index

Annex 5c

		Sum of Squares	df	Mean Square	F	Sig.
Advanced Programming skills (Python, R Studio...) * Gender	Between Groups (Combined)	38.830	1	38.830	7.240	.008
	Within Groups	1201.440	224	5.364		
	Total	1240.270	225			
Advanced Excel skills (macros, pivot tables...) * Gender	Between Groups (Combined)	25.375	1	25.375	4.117	.044
	Within Groups	1380.766	224	6.164		
	Total	1406.142	225			

Table 12: Skills Level* Gender- ANOVA

	Eta	Eta Squared
Advanced Programming skills (Python, R Studio...) * Gender	.177	.031
Advanced Excel skills (macros, pivot tables...) * Gender	.134	.018

Table 13: Skills Level* Education Level- Eta index

Annex 6

How much budget do you plan to allocate for a course in ITALY? * How much budget do you plan to allocate for a course taken ABROAD? Crosstabulation

How much budget do you plan to allocate for a course taken ABROAD?

		<1.000 €	1.000-3.000 €	3.001-10.000 €	> 10.000 €	Total	
How much budget do you plan to allocate for a course in ITALY?	<1.000 €	Count	14	43	10	1	68
		% within How much budget do you plan to allocate for a course in ITALY?	20.6%	63.2%	14.7%	1.5%	100.0%
		% within How much budget do you plan to allocate for a course taken ABROAD?	60.9%	50.0%	12.2%	3.1%	30.5%
		% of Total	6.3%	19.3%	4.3%	0.4%	30.5%
		Count	7	36	60	7	110
1.000-3.000 €		% within How much budget do you plan to allocate for a course in ITALY?	6.4%	32.7%	54.5%	6.4%	100.0%
		% within How much budget do you plan to allocate for a course taken ABROAD?	30.4%	41.9%	73.2%	21.9%	49.3%
		% of Total	3.1%	16.1%	26.9%	3.1%	49.3%
		Count	1	7	12	16	36
		% within How much budget do you plan to allocate for a course in ITALY?	2.8%	19.4%	33.3%	44.4%	100.0%
3.001-10.000 €		% within How much budget do you plan to allocate for a course taken ABROAD?	4.3%	8.1%	14.6%	50.0%	16.1%
		% of Total	0.4%	3.1%	5.4%	7.2%	16.1%
		Count	1	0	0	8	9
		% within How much budget do you plan to allocate for a course in ITALY?	11.1%	0.0%	0.0%	88.9%	100.0%
		% within How much budget do you plan to allocate for a course taken ABROAD?	4.3%	0.0%	0.0%	25.0%	4.0%
> 10.000 €		% of Total	0.4%	0.0%	0.0%	3.6%	4.0%
		Count	23	86	82	32	223
		% within How much budget do you plan to allocate for a course in ITALY?	10.3%	38.6%	36.8%	14.3%	100.0%
		% within How much budget do you plan to allocate for a course taken ABROAD?	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	10.3%	38.6%	36.8%	14.3%	100.0%
Total	Count	23	86	82	32	223	
	% within How much budget do you plan to allocate for a course in ITALY?	10.3%	38.6%	36.8%	14.3%	100.0%	
	% within How much budget do you plan to allocate for a course taken ABROAD?	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	10.3%	38.6%	36.8%	14.3%	100.0%	

Table 14: Average Spending in Italy and abroad- Cross Tab

Annex 7

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
I enjoy trying new and unplanned experiences * Compared to the Covid period, has the frequency with which you update your skill	Between Groups (Combined)	17.636	2	8.818	3.600	.029
	Within Groups	546.227	223	2.449		
	Total	563.863	225			
I prefer learning through interaction with others rather than from frontal lessons * Compared to the Covid period, has the frequency with which you update your skill	Between Groups (Combined)	16.445	2	8.222	2.857	.060
	Within Groups	641.715	223	2.878		
	Total	658.159	225			

Table 15: Psychographic Characteristics* Frequency of skill improvement post-COVID – ANOVA

Measures of Association

	Eta	Eta Squared
I enjoy trying new and unplanned experiences * Compared to the Covid period, has the frequency with which you update your skill	.177	.031
I prefer learning through interaction with others rather than from frontal lessons * Compared to the Covid period, has the frequency with which you update your skill	.158	.025

Table 16: Psychographic Characteristics* Frequency of skill improvement post-COVID – Eta Index

Annex 8

		Sum of Squares	df	Mean Square	F	Sig.
Adverse to risk * How much do you think you will use blended, which is online and in-person, format in the future?	Between Groups (Combined)	90.274	2	45.137	11.259	<.001
	Within Groups	893.974	223	4.009		
	Total	984.248	225			
Friendly * How much do you think you will use blended, which is online and in-person, format in the future?	Between Groups (Combined)	16.806	2	8.403	2.921	.056
	Within Groups	641.583	223	2.877		
	Total	658.389	225			

Table 17: Psychographic characteristics* Blended format usage in the future - ANOVA

	Eta	Eta Squared
Adverse to risk * How much do you think you will use blended, which is online and in-person, format in the future?	.303	.092
Friendly * How much do you think you will use blended, which is online and in-person, format in the future?	.160	.026

Table 18: Psychographic characteristics* Blended format usage in the future- Eta Index

Annex 9

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.613 ^a	3	.014
Likelihood Ratio	11.072	3	.011
Linear-by-Linear Association	.173	1	.677
N of Valid Cases	226		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.99.

	Value	Approximate Significance
Nominal by Nominal Phi	.217	.014
Cramer's V	.217	.014
N of Valid Cases	226	

Table 19: Participation in extracurricular training courses* Occupation- Chi Square and Cramer's V

Annex 10

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.388 ^a	1	.004		
Continuity Correction ^b	7.614	1	.006		
Likelihood Ratio	8.396	1	.004		
Fisher's Exact Test				.004	.003
Linear-by-Linear Association	8.351	1	.004		
N of Valid Cases	226				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 39.42.
b. Computed only for a 2x2 table

	Value	Approximate Significance
Nominal by Nominal Phi	-.193	.004
Cramer's V	.193	.004
N of Valid Cases	226	

Table 20: Participation in extracurricular training courses* Age Groups- Chi Square and Cramer's V

Annex 11

How many courses have you taken last year?		
N	Valid	129
	Missing	0

Table 21: Valid cases after removing extreme outliers

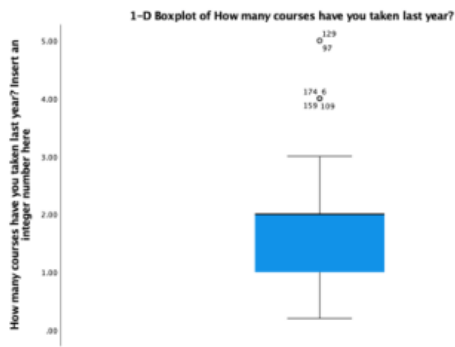


Figure 1: Second Box Plot

Annex 12

		Correlations									
		Development of disciplinary skills (e.g. language+ soft skills)	Attractiveness of the topic	Certifications	Reputation of the provider	Qualified teaching staff	Modality (in-person, online, blended)	Location (Italy or Abroad)	Type (Individual lessons/Group lessons)	Presence of entry requirements	Innovative teaching methodology with case study resolution
Curious	Pearson Correlation	.199**	.180**	.156*	.219**	.129	-.046	.179**	.252**	.239**	.150*
	Sig. (2-tailed)	.003	.007	.019	<.001	.053	.495	.007	<.001	<.001	.025
	N	226	226	226	226	226	226	226	226	226	226
Active	Pearson Correlation	.171**	.265**	.087	.203**	.204**	.148*	.076	.075	.211**	.091
	Sig. (2-tailed)	.010	<.001	.191	.002	.002	.026	.253	.264	.001	.173
	N	226	226	226	226	226	226	226	226	226	226
Extrovert	Pearson Correlation	.109	.132*	.050	.122	.110	.117	.058	-.041	.091	.104
	Sig. (2-tailed)	.101	.048	.456	.068	.098	.079	.385	.542	.174	.118
	N	226	226	226	226	226	226	226	226	226	226
Adverse to risk	Pearson Correlation	-.055	-.014	.049	.136*	-.032	.016	.188**	.114	.215**	-.060
	Sig. (2-tailed)	.412	.833	.460	.041	.634	.810	.005	.089	.001	.371
	N	226	226	226	226	226	226	226	226	226	226
Reflective	Pearson Correlation	.180**	.162*	.199**	.179**	.254**	.042	.156*	.257**	.247**	.178**
	Sig. (2-tailed)	.007	.015	.003	.007	<.001	.527	.019	<.001	<.001	.007
	N	226	226	226	226	226	226	226	226	226	226
Conscious	Pearson Correlation	-.134*	.098	.100	.187**	-.106	.013	.188**	.279**	.273**	-.123
	Sig. (2-tailed)	.044	.142	.136	.005	.111	.844	.004	<.001	<.001	.065
	N	226	226	226	226	226	226	226	226	226	226
Friendly	Pearson Correlation	.156*	.173**	.123	.214**	-.106	.016	.123	.080	.324**	.067
	Sig. (2-tailed)	.019	.009	.065	.001	.111	.816	.064	.233	<.001	.316
	N	226	226	226	226	226	226	226	226	226	226
Emotional	Pearson Correlation	.096	.100	.049	.096	.117	.164*	-.049	-.060	.186**	.034
	Sig. (2-tailed)	.151	.133	.466	.151	.080	.013	.464	.372	.005	.612
	N	226	226	226	226	226	226	226	226	226	226

Table 22: Psychographic characteristics* Elements when choosing an extracurricular course

Annex 13

Chi-Square Tests					Symmetric Measures			
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Value	Approximate Significance	
Pearson Chi-Square	17.310 ^a	1	<.001			Phi	-.277	<.001
Continuity Correction ^b	15.875	1	<.001			Cramer's V	.277	<.001
Likelihood Ratio	18.622	1	<.001					
Fisher's Exact Test				<.001	<.001			
Linear-by-Linear Association	17.233	1	<.001					
N of Valid Cases	226							

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 18.81.
b. Computed only for a 2x2 table

Table 23: Chi Square and Cramer's V- Cross Tab

Annex 14

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Improving speaking skills * Gender	Between Groups (Combined)	26.165	1	26.165	9.495	.002
	Within Groups	617.286	224	2.756		
	Total	643.451	225			
Improving soft skills in a foreign language * Gender	Between Groups (Combined)	10.955	1	10.955	4.415	.037
	Within Groups	555.811	224	2.481		
	Total	566.765	225			

Table 24: Important Aspects and Gender- ANOVA

Measures of Association

	Eta	Eta Squared
Improving speaking skills * Gender	.202	.041
Improving soft skills in a foreign language * Gender	.139	.019

Table 25: Important Aspects and Gender- Eta Index

Annex 15

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Improving speaking skills * Education level	Between Groups (Combined)	18.157	2	9.078	3.238	.041
	Within Groups	625.295	223	2.804		
	Total	643.451	225			
Improving soft skills in a foreign language * Education level	Between Groups (Combined)	18.229	2	9.114	3.705	.026
	Within Groups	548.537	223	2.460		
	Total	566.765	225			

Table 26: Important Aspects and Education- ANOVA Table

Measures of Association

	Eta	Eta Squared
Improving speaking skills * Education level	.168	.028
Improving soft skills in a foreign language * Education level	.179	.032

Table 27: Important Aspects and Education- Eta Index

Annex 16

Statistics

Propensity to buy the course

N	Valid	226
	Missing	0
Mean		7.59
Median		8.00
Mode		8
Std. Deviation		1.795
Variance		3.221
Skewness		-1.237
Std. Error of Skewness		.162
Kurtosis		2.022
Std. Error of Kurtosis		.322
Minimum		1
Maximum		10

Table 28: Propensity to buy the course- Statistics

Annex 17

ANOVA Table							Measures of Association		
			Sum of Squares	df	Mean Square	F	Sig.	Eta	Eta Squared
Propensity to buy the course * Do you know EF Education First as language provider?	Between Groups	(Combined)	27.799	1	27.799	8.935	.003	.196	.038
	Within Groups		696.931	224	3.111				
	Total		724.730	225					

Table 29: Propensity to buy the course and EF awareness - ANOVA and Eta Index

Annex 18 Regression

Annex 18a

Model	Coefficients ^a					Collinearity Statistics		
	Unstandardized B	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF		
1	(Constant)	-.381	.980	-389	.698			
	Development of disciplinary skills (e.g. language+ soft skills)	.155	.109	.128	1.427	.156	.494	2.022
	Attractiveness of the topic	.120	.107	.094	1.126	.262	.570	1.754
	Reputation of the provider	-.263	.094	-.237	-2.811	.006	.558	1.793
	Qualified teaching staff	-.116	.123	-.092	-.939	.349	.410	2.440
	Modality (in-person, online, blended)	.068	.091	.062	.743	.459	.573	1.746
	Location (Italy or Abroad)	-.040	.093	-.038	-.431	.667	.510	1.960
	Type (Individual lessons/Group lessons)	.294	.101	.290	2.929	.004	.403	2.479
	Presence of entry requirements	.112	.062	.133	1.813	.072	.733	1.364
	Certifications	.086	.089	.079	.970	.334	.600	1.668
	Innovative teaching methodology with case study resolution	.100	.079	.102	1.271	.206	.614	1.629
	Which are the most important aspects when considering the purchase of EF Education First course? - Improving speaking skills	.136	.128	.122	1.064	.289	.300	3.328
	Which are the most important aspects when considering the purchase of EF Education First course? - Improving technical knowledge in a foreign language	.231	.122	.212	1.885	.062	.312	3.204
	Which are the most important aspects when considering the purchase of EF Education First course? - Improving soft skills in a foreign language	.053	.100	.046	.528	.598	.516	1.937
	Which are the most important aspects when considering the purchase of EF Education First course? - Learn by the interaction with others	.014	.091	.013	.150	.881	.557	1.794
	How many courses have you taken last year? insert an integer number here	.411	.137	.204	3.004	.003	.855	1.170

a. Dependent Variable: If EF offered an interdisciplinary course where language is used to facilitate connection with the professional world and enhance soft skills or competencies, how likely would you be to purchase it? - Propensity to buy the course

Table 30: Coefficients Multiple Linear Regression

Annex 18b

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.423	33.894	33.894	5.423	33.894	33.894
2	1.676	10.474	44.368	1.676	10.474	44.368
3	1.367	8.543	52.911	1.367	8.543	52.911
4	1.198	7.486	60.397	1.198	7.486	60.397
5	1.088	6.799	67.196	1.088	6.799	67.196
6	.891	5.570	72.766			
7	.728	4.550	77.316			
8	.648	4.052	81.368			
9	.603	3.767	85.134			
10	.511	3.193	88.328			
11	.436	2.722	91.050			
12	.397	2.480	93.530			
13	.336	2.099	95.629			
14	.285	1.779	97.408			
15	.257	1.606	99.014			
16	.158	.986	100.000			

Extraction Method: Principal Component Analysis.

Table 31: Total Variance Explained

Annex 18c

Communalities

	Initial	Extraction
Development of interdisciplinary skills (e. g. language+ soft skills)	1.000	.755
Attractiveness of the topic	1.000	.593
Reputation of the provider	1.000	.766
Qualified teaching staff	1.000	.712
Modality (in-person, online, blended)	1.000	.563
Location (Italy or Abroad)	1.000	.677
Type (Individual lessons/Group lessons)	1.000	.745
Presence of entry requirements	1.000	.559
Certifications	1.000	.480
Innovative teaching methodology with case study resolution	1.000	.760
Improving grammar	1.000	.622
Improving speaking skills	1.000	.852
Improving technical knowledge in a foreign language	1.000	.779
Improving soft skills in a foreign language	1.000	.619
Learn by the interaction with others	1.000	.530
How many courses have you taken last year? Insert an integer number here	1.000	.741

Extraction Method: Principal Component Analysis.

Table 32: Communalities Factor Analysis

Annex 18d

Component Matrix^a

	Component				
	1	2	3	4	5
Type (Individual lessons/Group lessons)	.704				
Improving technical knowledge in a foreign language	.687	-.462			
Improving speaking skills	.675				
Qualified teaching staff	.668	.404			
Improving soft skills in a foreign language	.645				
Location (Italy or Abroad)	.633				
Certifications	.627				
Development of interdisciplinary skills (e. g. language+ soft skills)	.611			.508	
Learn by the interaction with others	.596	-.401			
Attractiveness of the topic	.582				
Modality (in-person, online, blended)	.550				
Improving grammar	.548		.470		
Reputation of the provider	.480	.513		-.455	
How many courses have you taken last year? Insert an integer number here			.718	.401	
Innovative teaching methodology with case study resolution	.528				.642
Presence of entry requirements					.454

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

Table 33: Component Matrix- Principal Component Analysis

Annex 18e

Second trial

After grouping the variables into the factors previously computed, the analysis has been repeated. The Adjusted R Square is higher than the first trial (0.526), the value has increased with respect to the previous scenario, confirming how the selected factors are even more explanatory of the model.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.738 ^a	.544	.526	1.214

a. Predictors: (Constant), Participation Barriers, Learning Format, Learning Experience, Proposal Quality, Skills Enhancement

Table 34: Adjusted R Square Multiple Linear Regression- Second trial

This result is confirmed also by the F-Test which displays a p-value <0.001.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	216.316	5	43.263	29.369	<.001 ^b
	Residual	181.188	123	1.473		
	Total	397.504	128			

a. Dependent Variable: If EF offered an interdisciplinary course where language is used to facilitate connection with the professional world and enhance soft skills or competencies, how likely would you be to purchase it? - Propensity to buy the course

b. Predictors: (Constant), Participation Barriers, Learning Format, Learning Experience, Proposal Quality, Skills Enhancement

Table 35: F-test Multiple Linear Regression- Second Trial

However, it is evident from the table below that the factor “Proposal Quality” shows a level of Sig > 0.005 (p value = 0.632). Therefore, the multiple linear regression was performed again by following another method.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7.729	.107		72.325	<.001		
	Skills Enhancement	.813	.107	.461	7.575	<.001	1.000	1.000
	Proposal Quality	-.051	.107	-.029	-.480	.632	1.000	1.000
	Learning Experience	.675	.107	.383	6.294	<.001	1.000	1.000
	Learning Format	.552	.107	.313	5.149	<.001	1.000	1.000
	Participation Barriers	.516	.107	.293	4.808	<.001	1.000	1.000

a. Dependent Variable: If EF offered an interdisciplinary course where language is used to facilitate connection with the professional world and enhance soft skills or competencies, how likely would you be to purchase it? - Propensity to buy the course

Table 36: Coefficients Multiple Linear Regression- Second Trial

Third trial

The third trial has been conducted using the Stepwise model, which is a statistical technique used to automatically select relevant variables to include in the regression model.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7.729	.138		55.916	<.001		
	Skills Enhancement	.813	.139	.461	5.856	<.001	1.000	1.000
2	(Constant)	7.729	.125		61.750	<.001		
	Skills Enhancement	.813	.126	.461	6.467	<.001	1.000	1.000
	Learning Experience	.675	.126	.383	5.374	<.001	1.000	1.000
3	(Constant)	7.729	.116		66.843	<.001		
	Skills Enhancement	.813	.116	.461	7.000	<.001	1.000	1.000
	Learning Experience	.675	.116	.383	5.817	<.001	1.000	1.000
	Learning Format	.552	.116	.313	4.758	<.001	1.000	1.000
4	(Constant)	7.729	.107		72.551	<.001		
	Skills Enhancement	.813	.107	.461	7.598	<.001	1.000	1.000
	Learning Experience	.675	.107	.383	6.314	<.001	1.000	1.000
	Learning Format	.552	.107	.313	5.165	<.001	1.000	1.000
	Participation Barriers	.516	.107	.293	4.823	<.001	1.000	1.000

a. Dependent Variable: Propensity to buy the course

Table 37: Coefficients Multiple Linear Regression- Third Trial (Stepwise model)

As we can see from the table above, all the factors in the iterations have a level of significance below 0.05 and VIF value equal to 1.

Therefore, thanks to this analysis the best model is the last one, with factors 1,3,4,5.

The Adjusted R square of the model is above the threshold of 0.3, specifically is 0.529.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.461 ^a	.213	.206	1.570
2	.600 ^b	.359	.349	1.422
3	.677 ^c	.458	.445	1.313
4	.737 ^d	.543	.529	1.210

a. Predictors: (Constant), Skills Enhancement
 b. Predictors: (Constant), Skills Enhancement, Learning Experience
 c. Predictors: (Constant), Skills Enhancement, Learning Experience, Learning Format
 d. Predictors: (Constant), Skills Enhancement, Learning Experience, Learning Format, Participation Barriers

Table 38: Adjusted R Square

Annex 19a

Component	Total Variance Explained								
	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.383	22.429	22.429	5.383	22.429	22.429	3.287	13.697	13.697
2	3.211	13.379	35.809	3.211	13.379	35.809	2.839	11.829	25.526
3	1.972	8.215	44.023	1.972	8.215	44.023	2.506	10.443	35.969
4	1.537	6.402	50.426	1.537	6.402	50.426	2.285	9.521	45.490
5	1.479	6.164	56.590	1.479	6.164	56.590	2.282	9.509	54.999
6	1.127	4.695	61.285	1.127	4.695	61.285	1.509	6.286	61.285
7	.987	4.113	65.399						
8	.912	3.800	69.199						
9	.824	3.434	72.632						
10	.738	3.076	75.708						
11	.694	2.890	78.598						
12	.604	2.518	81.116						
13	.561	2.336	83.452						
14	.546	2.273	85.726						
15	.499	2.080	87.806						
16	.439	1.831	89.637						
17	.410	1.710	91.347						
18	.389	1.622	92.969						
19	.373	1.554	94.522						
20	.347	1.448	95.970						
21	.294	1.225	97.195						
22	.251	1.044	98.240						
23	.238	.991	99.230						
24	.185	.770	100.000						

Extraction Method: Principal Component Analysis.

Table 39: Second Factor Analysis - Cumulative Variance Explained

Annex 19b

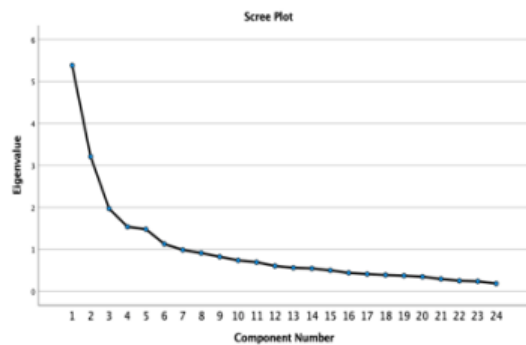


Figure 2: Second Factor Analysis – Scree Plot

Annex 19c

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
Improving speaking skills	.834					
Improving technical knowledge in a foreign language	.810					
Learn by the interaction with others	.714					
Improving soft skills in a foreign language	.678					
Improving grammar	.637					
Negotiation		.826				
Public speaking		.802				
Team working		.739				
Conflict management		.721				
Attractiveness of the topic			.787			
Qualified teaching staff			.654			
Reputation of the provider			.646			
Development of interdisciplinary skills (e. g. language+ soft skills)			.552			
Certifications			.438			-.404
Advanced Programming skills (Python, R Studio...)				.786		
Advanced Excel skills (macros, pivot tables...)				.756		
Basic digital skills (Teams, Office Package)				.610		
Presence of entry requirements				.600		
Type (Individual lessons/Group lessons)					.742	
Location (Italy or Abroad)					.730	
Modality (in-person, online, blended)					.636	
Innovative teaching methodology with case study resolution					.484	
Linguistic skills in English						.752
Linguistic skills in a foreign language						.648

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 40: Varimax Rotated Component Matrix

Annex 20

Chi-Square Tests				Symmetric Measures			
	Value	df	Asymptotic Significance (2-sided)		Value	Approximate Significance	
Pearson Chi-Square	21.308 ^a	3	<.001	Nominal by Nominal	Phi	.307	<.001
Likelihood Ratio	22.201	3	<.001		Cramer's V	.307	<.001
Linear-by-Linear Association	2.272	1	.132				
N of Valid Cases	226			N of Valid Cases		226	

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.96.

Table 41: Cluster Analysis * Age Groups - Chi Square Test and Cramer's

Annex 21a

Chi-Square Tests				Symmetric Measures			
	Value	df	Asymptotic Significance (2-sided)		Value	Approximate Significance	
Pearson Chi-Square	27.522 ^a	6	<.001	Nominal by Nominal	Phi	.349	<.001
Likelihood Ratio	27.180	6	<.001		Cramer's V	.247	<.001
Linear-by-Linear Association	1.385	1	.239				
N of Valid Cases	226			N of Valid Cases		226	

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.81.

Table 42: Education * Cluster Analysis - Chi Square Test and Cramer's V

Annex 21b

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.665 ^a	3	.446
Likelihood Ratio	2.676	3	.444
Linear-by-Linear Association	2.213	1	.137
N of Valid Cases	226		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.77.

Table 43: Gender* Cluster Analysis - Chi Square Test

Annex 22

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	18.707 ^a	3	<.001
Likelihood Ratio	19.530	3	<.001
Linear-by-Linear Association	15.590	1	<.001
N of Valid Cases	226		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.61.

	Value	Approximate Significance
Nominal by Nominal Phi	.288	<.001
Cramer's V	.288	<.001
N of Valid Cases	226	

Table 44: Cluster Analysis * Necessary Skills- Chi Square Test and Cramer's V

Annex 23

		Sum of Squares	df	Mean Square	F	Sig.
Propensity to buy the course * Cluster Number of Case	Between Groups (Combined)	64.501	3	21.500	7.229	<.001
	Within Groups	660.230	222	2.974		
	Total	724.730	225			

Table 45: Propensity to buy the course* Cluster Membership– ANOVA

	Eta	Eta Squared
Propensity to buy the course * Cluster Number of Case	.298	.089

Table 46: Propensity to buy the course* Cluster Membership– Eta Index

Annex 24

		Sum of Squares	df	Mean Square	F	Sig.
Development of interdisciplinary skills (e. g. language+ soft skills) * Cluster Number of Case	Between Groups (Combined)	136.218	3	45.406	24.441	<.001
	Within Groups	412.419	222	1.858		
	Total	548.637	225			

Table 47: Development of interdisciplinary skills * Cluster Membership- ANOVA

	Eta	Eta Squared
Development of interdisciplinary skills (e. g. language+ soft skills) * Cluster Number of Case	.498	.248

Table 48: Development of interdisciplinary skills * Cluster Membership- ANOVA