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MASTER THESIS

The Effectiveness of Internationalizing Higher Education on Students' Global Competence Development in Greece

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Η Βασιλική Καράμπαμπα, βεβαιώνω ότι το έργο που εκπονήθηκε και παρουσιάζεται στην υποβαλλόμενη διπλωματική εργασία είναι αποκλειστικά ατομικό δικό μου. Όποιες πληροφορίες και υλικό που περιέχονται έχουν αντληθεί από άλλες πηγές, έχουν καταλλήλως αναφερθεί στην παρούσα διπλωματική εργασία. Επιπλέον τελώ εν γνώσει ότι σε περίπτωση διαπίστωσης ότι δεν συντρέχουν όσα βεβαιώνονται από μέρους μου, μου αφαιρείται ανά πάσα στιγμή αμέσως ο τίτλος.

I certify that the work presented in the submitted MA thesis is entirely done by me. Any information and material derived from other sources, have been appropriately mentioned in this MA thesis. In addition to that, I acknowledge that if what I hereby certify is not true, the title is immediately removed from me at any time.

Vasiliki Karampampa

To her, who had never lost her faith

The Effectiveness of Internationalizing Higher Education on Students' Global Competence Development in Greece

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Abstract: Internationalization is one of the features and dimensions that mostly characterize the modern higher education (HE) policy agenda at a national, European and global level. There are numerous internationalization practices and approaches applied by Higher Education Institutions (HEIs) in Greece. Those practices can bring a positive outcome in the development of "global competence" of their students and graduates in terms of equipping them with the most needed skills and competences for 21st century knowledge-based economy, global labor market and multicultural societies. OECD-PISA has created the "Global Competence Framework" in order to assesses the global competence. In this Master thesis, the aim was to examine the effects of internationalization programmes on the development of specific features (skills, knowledge, and attitudes included in PISA Framework) of students and graduates global competence (GC) in Greek HEIs. A total of four hundred and thirty-five questionnaires were analyzed after being completed by active students or recent graduates in Greece. The findings of the field-research led us to significant results and conclusions regarding the impact of such programmes in shaping globally competent citizens. In particular, we found out that Internationalization practices in HE (both abroad and at home) have produced an increase on students' global skills, such as adaptability, awareness of intercultural communication, engagement regarding global issues, global mindedness, awareness about environmental protection, and awareness about gender equality. All those skills assessed by the new OECD metric tool are also in line with SDGs and the UN 2030 Agenda. Finally, the findings demonstrated the correlation between global competence and internationalization of HE emphasizing on the importance of incorporation international and global dimensions into the HEIs curricula.

Keywords: Global competence, higher education, internationalization of the curriculum, internationalization of higher education, PISA OECD framework.

Περίληψη: Η διεθνοποίηση αποτελεί ένα από τα χαρακτηριστικά των σύγχρονων εκπαιδευτικών πολιτικών για την Ανώτατη Εκπαίδευση (ΑΕ) σε εθνικό, ευρωπαϊκό και παγκόσμιο επίπεδο. Στην Ελλάδα, εντοπίζονται αρκετές πρακτικές και προσεγγίσεις με χαρακτήρα διεθνοποίησης που εφαρμόζονται στα Ανώτατα Εκπαιδευτικά Ιδρύματα (ΑΕΙ). Οι πρακτικές δύνανται να επηρεάσουν με θετικό τρόπο την ανάπτυξη της «παγκόσμιας ικανότητας» των φοιτητών και αποφοίτων εξοπλίζοντάς τους με τις δεξιότητες εκείνες που απαιτούνται σε μεγάλο βαθμό από την κοινωνία της γνώσης του 21^{ου} αι., την παγκοσμιοποιημένη αγορά εργασίας, καθώς και τις πολυπολιτισμικές κοινωνίες. Ο ΟΟΣΑ στα πλαίσια του PISA δημιούργησε το «Πλαίσιο για την Παγκόσμια Ικανότητα» προκειμένου να αξιολογήσει την παγκόσμια δεξιότητα. Ο στόχος της παρούσης διπλωματικής εργασίας ήταν να εξεταστούν τα αποτελέσματα των προγραμμάτων διεθνοποίησης στην ανάπτυξης συγκεκριμένων χαρακτηριστικών (δεξιότητες, γνώσεις, στάσεις, που περιλαμβάνονται στο Πλαίσιο PISA) της παγκόσμιας ικανότητας φοιτητών και αποφοίτων Ανώτατων Εκπαιδευτικών Ιδρυμάτων στην Ελλάδα. Συνολικά αναλύθηκαν τετρακόσια τριάντα πέντε ερωτηματολόγια, αφού συμπληρώθηκαν από ενεργούς φοιτητές ή πρόσφατους αποφοίτους στην Ελλάδα. Τα ευρήματα της έρευνας πεδίου μας οδήγησαν σε σημαντικά αποτελέσματα και συμπεράσματα σχετικά με τον αντίκτυπο των προγραμμάτων αυτών στην διαμόρφωση πολιτών με «παγκόσμιες δεξιότητες». Συγκεκριμένα, ανακαλύψαμε ότι οι πρακτικές διεθνοποίησης των ΑΕΙ (τόσο στο εξωτερικό όσο και στο εσωτερικό) έχουν οδηγήσει σε αύξηση των παγκόσμιων δεξιοτήτων των μαθητών, όπως η προσαρμοστικότητα, η ευαισθητοποίηση για διαπολιτισμική επικοινωνία, το ενδιαφέρον για διεθνή θέματα, η νοοτροπία του πολίτη του κόσμου, η ευαισθητοποίηση σχετικά με την προστασία του περιβάλλοντος, και η ευαισθητοποίηση σχετικά με την ισότητα των φύλων. Όλες αυτές οι δεξιότητες που αξιολογούνται από το νέο εργαλείο μέτρησης του ΟΟΣΑ είναι επίσης σύμφωνες με τους Στόχους Βιώσιμης Ανάπτυξης και την Ατζέντα του ΟΗΕ για το 2030. Τέλος, τα ευρήματα κατέδειξαν τη σχέση μεταξύ της παγκόσμιας ικανότητας και της διεθνοποίησης της ΑΕ, τονίζοντας τη σημασία της ενσωμάτωσης διεθνών και παγκόσμιων διαστάσεων στα προγράμματα σπουδών των ΑΕΙ.

Λέξεις κλειδιά: παγκόσμια ικανότητα, ανώτατη εκπαίδευση, διεθνοποίηση του αναλυτικού προγράμματος, διεθνοποίηση της ανώτατης εκπαίδευσης, Πλαίσιο του ΟΟΣΑ-PISA.

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I would also like to thank the rest of the professors of the scientific committee, John Paravantis and Maria Mendrinou, for their valuable knowledge and wisdom during this Master programme.

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Last but not least, I would like to underline a key message I adopted during my master studies "The important thing is to never stop questioning [or learning]." – Albert Einstein.

"Science means constantly walking a tightrope between blind faith and curiosity; between expertise and creativity; between bias and openness; between experience and epiphany; between ambition and passion; and between arrogance and conviction – in short, between and old today and a new tomorrow."

Henrich Rohrer

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List of abbreviations

AUTH	Aristotle University of Thessaloniki
CoE	Council of Europe
ECHE	Erasmus Charter for Higher Education
ECTS	European Credit Transfer System
EHEA	European Higher Education Area
EQF	European Qualifications Framework
EKPA	Ethiko kai Kapodistriako Panepistimio Athinon
EU	European Union
GC	Global Competence
GCAI	Global Competence Assessment Instrument
GCE	Global Competence Education
GCLC	Global Competency Learning Continuum
GCLC	Global Competency Learning Continuum
GDE	Global Development Education
HE	Higher Education
HEI	Higher Education Institution
IaA	Internationalization at Home
ICC	Intercultural Competence Continuum
IoC	Internationalization of the Curriculum
IDI	Intercultural Development Inventory
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
R&D	Research and Development
RFCDC	Reference Framework of Competences for Democratic Culture
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization

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I. INTRODUCTION

1.1. The importance of this research

The study of this topic is part of the scientific interest in the fields of International and European Relations, Global Education Governance and Intercultural Studies (Perry & Southwell, 2011), Communication and Psychology (Chen, 2010). It also concerns the educational policy of the European Union and other International Organizations (UNESCO, OECD, WORLD BANK), which have influenced the relevant global developments worldwide through officially agreed decisions and actions, shaping a particular policy context for global education (SDG 4, New Erasmus 2021-2027, OECD Learning Framework 2030, World Bank Learning for all).

This thesis also promotes complementarity with Maastricht Global Education Declaration (2002). It is in line with the European Commission priorities regarding internationalization of Higher Education (HE) and with the Erasmus Charter for Higher Education and the renewed EU agenda for HE, which highlights the need for improvement of the human-capital basis, in order to reinforce both the performance of Higher Education Institutions (HEIs) and the competences of the students. Last, it can add value to the priorities of new Erasmus+ programme for the period 2021-2027 (Internationalization of HE and Inclusion & Diversity).

The need for this research arises from a series of phenomena and developments within a global perspective. Globalization processes, such as global economy and opening the world borders, technologies of travel, information and communication technologies and other current phenomena (such as, migration flows, intense people mobility, intercultural societies) are some of the characteristics of our rapidly changing world, which have affected the HE as well, and have introduced the concept of *"global competence"* in education (Anoshkova, 2015; Altbach & Teichler, 2001; Ramos & Schleicher, 2016; Mansilla & Jackson, 2011).

Such phenomena create the need for individuals to be effective when interacting with people from other cultures and civilizations. Societies need to go through these global changes by equipping young people (mostly students) with new skills and competences in order to manage the challenges, to be competitive and productive and finally to be able to excel in global work and education arena (Aktas, Pitts, Richards, & Silova, 2017). According to UNESCO (2013), increasing the diversity of the world's societies is a rapid

and dynamic process, which focuses on the need for individuals to acquire new skills aimed at both their personal development and the harmony of a multicultural society in which they live.

While UNESCO relates the global education with the resilience of multicultural societies and global citizenship, OECD adopts a more market-oriented approach by connecting the need for global education with the increasement of employability (Grotlüschen, 2018; Watkins & Smith, 2018). According to OECD (2018), *"Educating for global competence can boost employability"* (Ramos & Schleicher 2016). There are scholars supporting the claim that internationalization of HE develops students' employability and transferable skills (De Wit & Altbach, 2020; Cotton, Morrison, Magne, Payneb & Heffernan, 2019; Watkins & Smith, 2018; De Wit & Jones, 2018) and that HEIs should consider this by fostering their students' global competence, if they want to increase their internationalization (Griffith, Wolfeld, Armon, Rios & Liu, 2016). Besides, as Brustein (2009) highlights *"for students, global competence is an indispensable qualification of global citizenship"*. What is more, the role of HE teacher is crucial in order the students to successfully acquire the global competence (Anoshkova, 2015).

HE has the responsibility to train the highly skilled future workforce and to contribute to the knowledge-based economy (Altbach & Teichler, 2001). Internationalizing HE is a way to make it more responsible towards the above-mentioned global challenges, since it can bring more global and international perspectives to students by broadening their knowledge, horizons and mentality. According to several surveys, global competence and global understanding can be an important outcome of HE (Herrera, 2008).

Since educational policy remains an issue under the national authorities and responsibilities, each country or institution decides itself if it will apply any internationalization strategy or not and how. Internationalizing the HE is a part of "soft power" that belongs to nation states of the EU (Dutta, 2019). Thus, HEIs and universities become important global actors in terms of shaping global competent students and citizens (Slotte & Stadius, 2019).

1.2. Purpose of the research
The main aim of this thesis is to investigate the significance of "global competence" in HE and its contribution in shaping globally competent citizens through internationalization of education and "global competence" strategies in Greece.

The objectives of the thesis are (a) to comprehend the rationale for the development of Global Competence Framework by OECD and its integration in PISA metrics, (b) to deeply understand the basic components of global competence and its benefits in HE, (c) to identify and analyze the existing approaches and types of internationalization or/and global competence education offered or promoted to students within HE and (d) to implement the part of OECD PISA Assessment Tool regarding students' global competence in order to identify if the participation of students in internationalization practices in Greek HEIs can bring as an outcome the development of students global skills.

1.3. Research Question and Hypothesis

This study will explore the effectiveness of internationalization practices of HE on developing global competence of the students. The research question that will guide this study is the following:

RQ: *What are the effects of internationalization practices of higher education on students' global competence development?*

In particular, the researcher is going to examine the effects of internationalization programmes on the development of **specific features** (skills, knowledge, attitudes) of global competence at students and/or graduates in Greece. The features were selected from **OECD Global Competence Framework** are the following:

- *Awareness of global issues*
- *Adaptability*
- *Awareness of intercultural communication*
- *Student's engagement regarding global issues*
- *Respect for people from other cultural backgrounds*
- *Global mindedness*

Those 6 features (content domains) are selected as the most valuable among the others, since the majority of scholars are prioritizing them of high importance for the acquirement of global competence (Herrera, 2008; Horey, Fortune, Nicolacopoulos, Kashima & Mathisen, 2018; Griffith et al., 2016; Deardorff, 2015; Chen & Starosa, 2000; Matsumoto

& Hwang, 2013; Hammer Bennett & Wiseman, 2003; Hammer, 2009; Fantini, 2009; Terzuolo, 2018).

This study was designed and conducted to test the following hypotheses:

Null: "Internationalization practices in higher education will have *no* **effect** on students' global competence development".

Alternative: "Internationalization practices in higher education *will lead to the improvement of certain skills* of students related to the global competence".

1.4. Methodology

The scientific methods of this research are analytical and descriptive. The study has two main parts (i) the first part is the *theoretical framework* and (ii) the second part is the *quantitative research*.

The literature review was conducted by searching and identifying relevant surveys and papers for global competence and internationalization of HE, aligned to the purpose of this study. The researcher used relevant key words during the online searching. In the first phase, the aim was to identify as many papers as possible, by screening only the title and the abstract. In the second phase, the papers were fully screened for their suitability for this survey. Two key concepts framed this search: *global competence and higher education*.

The main online educational databases and scientific journals searched were *ERIC, Sage Education, ELSEVIER, International Journal of Educational Research, Policy Reviews in Higher Education, Comparative Education, Change: The Magazine of Higher Learning, University World News, Year in Review, Southeastern Europe, European Journal of Higher Education, Policy Futures in Education, Studies in the Education of Adults, Atlantic Studies, Globalization, Societies and Education, ANGEL, International Journal of Educational Research, Journal of Studies in International Education, International Higher Education),* while the main research databases were Google Scholar and Science Direct.

The search was limited to papers published after 2005 in the Greek and English language. Furthermore, a combination of key terms was used to limit the results

appeared on the online databases. Reports and surveys published by the EU and International bodies and organizations were reviewed, as well (European Commission, Council of Europe, UNESCO, OECD, WORLD BANK). Content analysis was conducted for all the collected papers. Finally, papers were categorized according to their main aim or research question. Statistical data were retrieved from official portals, such as Eurostat, World Bank Education Statistics, OECD Statistics, and UNESCO Institute of Statistics (UIS).

The quantitative research was conducted using a questionnaire developed by the researcher. The structure of the questionnaire has three main sections. The first is the demographics section, in which information regarding gender, age, city, national background, education level and spoken languages was asked. In the second section, after reviewing the literature, some of the existing internationalization of HE approaches and global education practices were included as possible answers. The last section of the questionnaire includes the part of PISA 2018 Global Competence Questionnaire for assessing students' global competence.

The questionnaire includes self-reported questions. The items measure the different elements of global competence according to OECD (2018a), such as, *awareness of global issues, adaptability, awareness of intercultural communication, student's engagement (with others) regarding global issues, interest in learning about other cultures, respect for people from other cultural backgrounds, and global mindedness.* For the purposes of this thesis only some of the features of global competence have been selected due to the limitations of space and time.

In order to answer in the research question of this thesis, we are going to compare the mean values from 39 items of 6 domain categories, which comprise the features (skills, knowledge, attitudes) of global competence according to OECD PISA Global Competence Framework,

- *from two groups of responders;* those who have participated in at least one internationalization practice (group 1) and those who had no engagement in internationalization practices (group 0);
- *and following from three groups;* those who have never participated in any of the internationalization practices (group 0), those who have participated in at least one activity at home, excluding abroad activities (group 1), and finally, those who have participated in at least one internationalization practice abroad (group 2).

Moreover, we are going to carry out statistic tests for each item so as to examine separately the groups and to identify if there are statistically significant differences between their responses.

1.5. The structure of this thesis

This thesis consists of 6 main parts, namely the introduction, the theoretical framework, the research methodology, the results and discussion, the conclusions, and finally the recommendations part. The introduction presents the importance and the scope of this research, the research question, the hypothesis and the methodology. The theoretical framework presents definitions and studies regarding the internationalization of HE and the global competence including the role of HE within those two contexts. The engagement of OECD in global education governance through its metrics and its alignment with UN 2030 Agenda is also described and analyzed. There is also a special chapter dedicated to the Higher Education scenery in Greece. The third part which is the research methodology describes in detail the research framework, the methodology that was followed, the type of study, the population profile, the data source and collection, and the method of analysis. It also presents and analyzes the data gathered from the questionnaire distribution. The forth part comprises the results of the descriptive and inferential statistics including also a part, which is focused on the discussion of the results stemming from the data analysis in conjunction with the literature review presented in the second part. Finally, conclusions, limitations, and recommendations for further research and practical purposes are presented in the last two parts.

II. THEORETICAL FRAMEWORK

This part of the research is going to discuss and clarify few key terms and definitions so as to build a strong base for further analysis and discussion. The key terms aligned with the purposes of this thesis are the *"internationalization of higher education"* and the *"global competence"*. However, the existence of relative terms belonging to the same field of interest and the fact that they have become increasingly important for Higher Education Institutes and universities makes their review of high importance. These terms are *"internationalization of the curriculum (IoC) /internationalization at Home (IaH)", "global education/learning", "global citizenship education", "intercultural competence (IC)".*

The educational policy of OECD, the rationale for developing Global Competence measure tool and integrating it into the PISA metrics and its engagement in global governance are also being discussed. This chapter presents also the policies, regimes, and other frameworks that have prepared and cultivated the ground for the Global Competence Framework. Following, an overview of HE in Greece, its efforts towards internationalization, laws and practices are being presented. Finally, in this part we have collected numerous internationalization approaches and practices for Global Competence Education in HE discussed and debated by several scholars. A particular focus has been given in the fact that global skills development should been seen as an outcome of internationalization practices, both abroad and at home.

2.1. Internationalization of Higher Education: Understanding the theoretical complexities

i. What is Internationalization of Higher Education?

Internationalization is the procedure of making something international in character or in scope and it is considered as a practice that facilitates the relations between different states. Within this procedure, what occurs is the free movement of goods, services, knowledge or people across well-defined national borders. As a result, internationalization takes place within globalization, but it is different from that, since the main scope of globalization is the securing of profit, benefit or interest of these movements and exchanges (Saunders, 2013; Guimarães, Mendes, Rodrigues, dos Santos Paiva & Finardi, 2019).

The structure of Higher Education (HE) in Europe refers to three levels according to European Qualifications Framework (EQF), namely Bachelor-Master-Doctoral degrees. Each of the abovementioned levels (or cycles) corresponds to a level of EQF based on the learning outcomes approach. For each level there is a descriptor (knowledge, skills, responsibility and autonomy) that demonstrates what the learner is able to achieve according to given qualifications (ECAHE, 2014).

EQF Level	Knowledge	Cycles of HE in Eu
Level 6	Advanced knowledge of a field of work or study	Bachelor degree
Level 7	Highly specialized knowledge	Master degree
Level 8	Knowledge at the most advanced frontier of a field of work or study	Doctoral degree

Table 1. Structure of HE in Europe according to EQF.

The internationalization of HE in Europe is a quite new noticeable phenomenon which is presented in the middle of '80s and it is related with the process of European Integration in terms of economic and political perspective and has been fortified by globalization (Guimarães et al., 2019; Altbach & Knight, 2007; Maragkos, 2012). For other scholars, internationalization of HE is a process principally connected with globalization and knowledge-based economy (Altbach, & Reisberg, 2018; Altbach & Teichler, 2001). It also is considered a part of capacity-building strategy of a Higher Education Institution (HEI) (De Wit & Altbach, 2020).

There are three main axes of an internationalization strategy of a HEI (Kakouri, 2017):
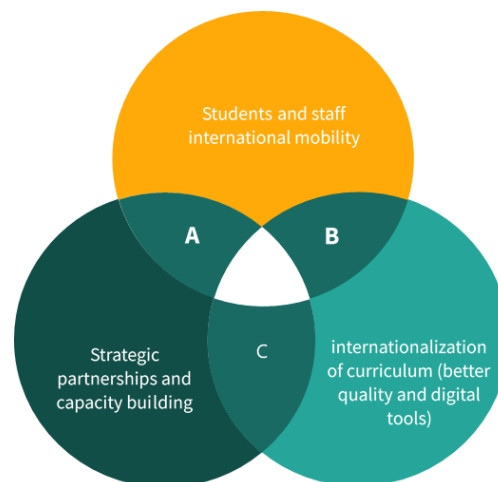
Figure 1. The three axes of internationalization strategy of a HEI according Kakouri (2017) [data provided by Kakouri (2017), further developed by Karampampa (2021)].

According to Wächter (2004), there are 3 important time stations of internationalization of HE; (i) the period between 1980-1990 when few partnerships between European HEIs start to appear, (ii) from 1995 and after, there is an organized intervention through the Erasmus programme, and (iii) in the beginning of 21st century the Bologna Process which reformed the HE overall.

ii.   Reasons for integrating internationalization policies within a HEI

Internationalization is one of the features and dimensions that characterized mostly the modern HE policy agenda at global, European, national and institutional level (Asderaki, 2012). It seems that internationalization affects the mission of an institution nowadays, because HEIs, besides the academic and research responsibilities, have also to achieve social and economic goals (Maragkos, 2012). There are economic, commercial, social and political forces that lead HE on internationalization (Altbach & Knight, 2007).

The last decades there are various global trends and drivers of change that have been affecting and shaping the internationalization of HE. Bibliography points out the social changes, political instability (i.e. the border closing and the rise of nationalism in some countries, the BREXIT, the development of China and India), the digital transformation of educational services, COVID19 pandemic and its implications in many sectors including education, the creation of multicultural societies, the far more concentration on employability skills (Altbach & Reisberg, 2018; Watkins & Smith, 2018; Asderaki, 2021). Asderaki (2021) underlines also the influence of political parties in power as drivers of change in educational issues. Thus, internationalization has been considered as a mechanism of adaptation in all the above-mentioned global developments (Benitez, 2019).

According to surveys, one component of internationalization is the increase of cross-border activities (Slotte & Stadius, 2019; Teichler, 2009) and the integration of global dimension in the mission and operational processes of HE (Knight, 2004). The reasons for integrating internationalization policies within a HEI vary, but the there is an indicative list of them; i.e. (a) the increase of the attractiveness and reputation of the HEI, (b) the increase of revenue and profit, (c) the creation of strategic partnerships and networks (Asderaki & Maragkos, 2012).

To set it out as closely as possible, for the institution itself, the benefits are related to strengthening their reputation, their position in global rankings, their academic excellence, their participation in policy discourses and their academic freedom and autonomy (De Wit & Altbach, 2020). There are also financial benefits, since it may earn its independence from the state and be able to freely trade on a certain level. It may achieve better quality standards, visibility and international cooperation and development characteristics by having a larger diversity of students, curricula and activities (Altbach & Reisberg, 2018; Benitez, 2019; Guimarães et al., 2019).

Furthermore, HEIs are seeking to integrate more internationalization strategies the last years for numerous reasons. According to Benitez (2019), universities want to act as key players in terms of influencing current and future policies, responding effectively to new trends, cultivating a culture of academic excellence, including global values and beliefs, and participating in international networks. Other reasons towards the fostering of internationalization are related to the global learning of their students, so as to prepare them live as global citizens in multicultural societies.

Internationalization along with research, teaching and employability is considered one of the elements of QS World University Ranking Index, which assesses the performance of universities through those four areas (Mylonas, 2017).
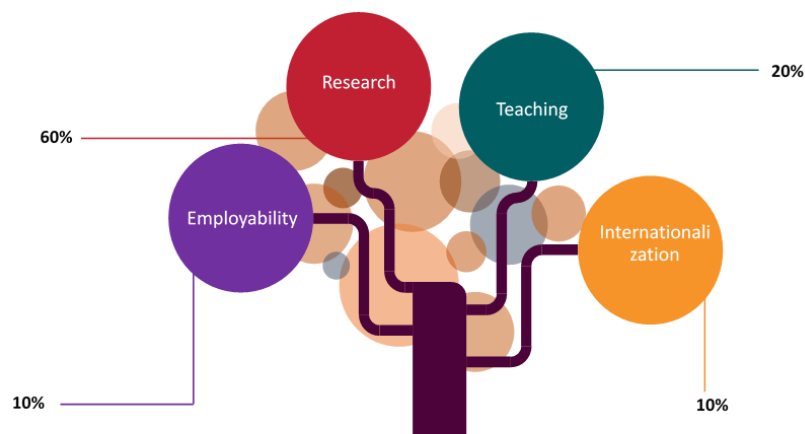
Figure 2. The four areas of QS World University Ranking Index. [data provided by Mylonas (2017), further developed by Karampampa (2021)].

iii.   The benefits of internationalization of HE to students

It is important to understand the benefits that internationalization brings not only to institutions, but also to students. Some of those benefits that brings internationalization of HE to students, according to American Council of Education, are the fact that it

develops their international skills and global competence, it supports the tackling of stereotypes and hate speech emerged into multicultural and diverse communities and it helps them to become more competitive and economically stronger succeeding in the global job market. Especially, in terms of mobility and exchange programmes, students cultivate the skills of better understanding, accepting and tolerating diversity (cultural, religious, political, other) contributing to a more resilient global society (Articulating Global Strategy, 2017; Slotte & Stadius, 2019). Other scholars point out the development of transferable employability skills (i.e. team work, problem solving, networking, conflict resolution, decision making, and interpersonal skills), of intercultural skills (i.e. sensitivity, open-mindedness, respect, tolerance) (De Wit & Altbach, 2020), and of global understanding (Altbach & Reisberg, 2018; Auld & Morris, 2019; Engel, Rutkowski & Thompson, 2019; Cotton et al., 2019). For Watkins & Smith (2018), there is a clear connection between employability and internationalization in HEIs, because students are getting prepared to work in a globalized world.

iv. Obstacles and barriers to the implementation of internationalization in HEIs

However, literature underlines a variety of factors which create obstacles to internationalization processes of a HEI. The lack of funding is considered to be one of the most common factors. Other obstacles might be the intervention of the state so as HE be aligned with national agendas, the conservatism of some academic or administrative staff, and the lack of strategic planning. Another important factor is the lack of capacity of a university to assess the outcomes of an internationalization strategy or programme in order to identify the benefits both for its students and its attractiveness and reputation (Altbach & Teichler, 2001). The bureaucratic procedures and the lack of foreign languages knowledge of staff and students consist other obstacles, as well (De Wit & Altbach, 2020).

Global phenomena and current trends can also be considered as barriers for the internationalization of HE. For example, nationalist and Eurosceptic movements, the rise of racism after the migration crisis and global health diseases are reducing the opportunities for students exchanges, university collaborations and international cooperation (De Wit & Altbach, 2020).

v. The different types and approached of internationalization of HE

Internationalization of HE can be identified in many functions and layers within a HEI, such as curriculum, teaching strategies, research and services (Benitez, 2019).

However, it is important to distinguish the internationalization of HE between ***internationalization abroad*** and ***internationalization at home*** (López-Rocha, 2021; Cotton et al., 2019; Watkins & Smith, 2018; De Wit & Jones, 2018; De Wit & Altbach, 2020).

Internationalization abroad is mostly referred to the students exchange programmes or mobilities for a long or a short period of time; either for studying, volunteering or pursuing placements, internships or scientific research (De Wit & Altbach, 2020). Mobility is the most traditional form of internationalization of HE, including degree mobility, credit mobility and certificate mobility (Leask, Jones & de Wit, 2018; López-Rocha, 2021; Rumbley, 2019; Guimarães et al., 2019). However, only a small percentage of students can be benefited by participating in mobilities. According to De Wit & Jones (2018), 99% of world's student population is excluded from exchange programmes abroad. Students of elite socio-economic backgrounds are dominating in such programmes (Cotton et al., 2019), while a great percentage of students worldwide remain out of the internationalization programmes. The less privileged are the low-income students, those with low grades, those with a different cultural background (migrants, refugees, TCNs) and students with disabilities or learning difficulties (De Wit & Altbach, 2020).

On the other hand, *internationalization at home (IaH)* or internationalization of the curriculum (IoC) has a domestic approach and refers to finding ways to strength education with international understanding and global perspectives in order to address global challenges and respond to the demands of global economy within the campus (Rumbley, 2019). IaH is also about incorporating international and global dimensions into the content of the curriculum (De Wit & Altbach, 2020; Slotte & Stadius, 2019). Scholars support that IaH has a positive impact on developing students global/international understanding and also in enhancement of their intercultural, global and transferable skills, boosting also their employability (Cotton et al., 2019; Watkins & Smith, 2018; Slotte & Stadius, 2019; Guimarães et al., 2019).

As stated above, at home internationalization practices have a domestic focus and they can be implemented as a part of the curriculum (teaching and learning methods, pedagogies and learning outcomes with an international dimension, assessment strategies) or as extra-curricular activities (active participation in social and political discourses and engagement with local communities) (Engel, 2019; López-Rocha, 2021). Some particular examples of IaH are integrating global context into the curriculum,

learning foreign languages, utilize non-formal education methods (i.e. experiential learning) (De Wit & Altbach, 2020; Slotte & Stadius, 2019; Guimarães et al., 2019).

Other surveys suggest that internationalizing the curriculum should mostly mean developing corporate and social skills to universities' graduates (Horey et al., 2018). Watkins & Smith (2018) support that IaH gives a great focus on skills-based learning of international/ intercultural /global competencies of students including their social skills (adaptability, intercultural communication, teamwork, etc.). Thus, the non-mobile students have also the opportunity to enhance their employability and prepare themselves as global citizens (Slotte & Stadius, 2019). For De Wit & Altbach (2020), there is a clear connection between global citizenship development and IaH.

Barker (2000) suggests a specific methodology towards internationalizing of the curriculum, (a) development of global competence of teachers or professors, (b) design of curricula which integrate global perspectives and provide students with international experiences, (c) engagement of business community, and (d) exploitation of information and communication technologies.

Until today, the greatest attention has been given to *internationalization abroad* rather than *internationalization at home* (De Wit & Altbach, 2020), even if the second one is more accessible to all students and it ensures the equity and inclusion of all students in internationalization practices (Engel, 2019; Watkins & Smith, 2018; Rumbley, 2019). According to Battistoni, Longo & Jayanandhan (2010), internationalization of the curriculum is still not a priority for most HEIs. Similar approach is described by other scholars (De Wit & Altbach, 2020; Watkins & Smith, 2018; Brustein, 2007).

To sum up the discussion about internationalization, we conclude that **internationalizing HE** could be *"any regular effort so as higher education react towards the requirements related to the globalization of societies, economy and labor markets",* while **internationalizing the curriculum** is referring to *"adding an international major or minor in the curriculum or within specific disciplines; infusing courses with international content; international service learning; foreign language or area studies; international relations degree programs; international students, faculty and scholars; study abroad and international internships or research; and faculty involvement in international research teaching and consulting"* (Herrera, 2008,17, 33, 47).

It is also important to highlight that the role of HE is multiple, since not only encourages academic and research excellence, but also promotes values to tackle humanitarian and social crisis, it prepares the future workforce for the global economy and it boosts the cooperation between the states by implementing cross-border activities in the fields of mobility and research (Altbach & Reisberg, 2018). Implementing all of the abovementioned activities, HEIs can strengthen the development of global skills of their students, because they cooperate with international peers and become aware of global issues.

Within this framework, we can conclude that internationalization has received many definitions as a response to several areas and actors that have been interested in that kind of policy. However, for the purposes of this research, a combination of the aforementioned definitions will be taken into consideration. Emphasis is given on students global understanding development and their readiness in global needs and challenges.

In particular, the definition we give for internationalization of HE in this thesis is:
- *a phenomenon of the last decades connected with political, economic, social, technological, trade factors and needs;*
- *a process which enhance the international presence of HEIs and it is connected with the responsiveness of HE in todays' global needs and challenges;*
- *an effort to reform HE by adding global dimensions and international topics and actions which brings benefits to the academic and administrative staff, students and researchers and the institution overall;*
- *a strategy of HEIs which affect students' readiness for global societies by developing skills and competences required by the global labor market.*

2.2. The OECD PISA Global Competence Framework

vi.   The engagement of OECD in global education governance

OECD is the International Organization for Economic Development and Cooperation. After the end of the World War II, OECD is mainly targeting the economic recovery of the EU countries promoting their economic growth. In the 60s, OECD started collecting educational data through its measurement tools in order to provide technical and scientific support to its member states regarding educational issues. Its main discourses regarding the field of education are concerning the knowledge economy and the investments in the human capital, while the period between 2011-2030, OECD policies are in line with Sustainable Development Goals and the UN Agenda for 2030 (Xiaomin & Auld, 2020).

The main engagement of OECD in the education governance until recently was achieved by producing educational data through its learning metrics, so as to create evidence-based policy documents and to support reforms in the national education systems (Xiaomin & Auld, 2020; Engel et al., 2019; Sellar & Lingard, 2014). As a leading global policy actor, it has developed measurement tools (metrics) in order to assess the outcomes of the progress in targets related to the education. Some of those tools are PISA, PIAAC, TALIS, and Education at a Glance. Until today, the measures were focused on general competencies regarding science, math and literacy of students (Xiaomin & Auld, 2020; Auld & Morris, 2019). In 2013, OECD decided to incorporate in PISA test a metric for global competence assessment of 15-year old students (Auld & Morris, 2019).

However, we need to start with the assumption that UNESCO is the first international agency that has introduced the **global citizenship education** acting as a norm-setter. In particular, in 2012 the UN Secretary General lanced *"The Global Education First Initiative (GEFI)"* as one of the core priorities of UNESCO's educational policy. The rationale for this initiative is mainly framed by a humanitarian discourse about peace and sustainable development (UNESCO, 2012; Auld & Morris, 2019; Vaccari & Gardinier 2019; Auld, Rappleye, & Morris, 2019). This is why the literature is full of global education and global citizenship scientific papers, but there is a lack of publications concerning global competence (Grotlüschen, 2018).

During the discussion for the *"Education 2030: Towards inclusive and equitable quality education and lifelong learning for all",* even if UNESCO was the leading agency, since

it is specialized in the field of education, culture and science, OECD provided the results of its surveys regarding the skills of adults that are mostly required towards the effective implementation of SDG4 (Vaccari & Gardinier, 2019; Dilari, 2017).

Furthermore, the global consultation that took place between 2013 and 2014 to identify the main global challenges should be tackled by the year 2030 with the engagement of representatives of all countries of the world and all interested parties also went into the concept of Global Education or Global Citizenship Education (UNESCO), Global Development Education-GDE (European Union), Education for Democratic Culture (Council of Europe), Education for Global Competence (OECD) under the SDG4 "Quality in Education" (Lanao-Madden, 2010). All relevant stakeholders, including OECD, tried to create a common ground on this issue.

Globalization is very relevant with the development of OECD PISA GC Framework. According to Grotlüschen (2018), OECD wanted to respond to current trends of the globalized world by designing this metric, so that nations will be ready to meet all the challenges related to the globalization. Same as globalization, global competence has also a market-oriented dimension (Grotlüschen, 2018).

As already said, OECD decided to incorporate among its metrics a measurement tool for "global competence" in order to assess the global citizenship of students introduced by UNESCO, but also to use it as influential tool towards specific directions (Engel et al., 2019; Auld & Morris, 2019; Auld et al., 2019). OECD inspired from UN's SDGs and wanted to be in line with SDG4 "Quality in Education" (Vaccari & Gardinier, 2019). So, OECD released its *Learning Framework 2030* including global competence development as a key target for 2030, since it is the responsible organization for tracking the progress on SDGs (OECD, 2018b; Auld & Morris, 2019).

Particularly, in 2014, OECD begins the discourse for the "global competencies" and in 2018 it lances the framework. As Auld & Morris (2019, 4) support *"When translated into the language of assessment, 'global citizenship' becomes 'global competencies or skills'".*

The *definition* of GC provided by OECD is (i) to live harmoniously in multicultural communities; (ii) to thrive in a changing labor market; (iii) to use media platforms effectively and responsibly; and (iv) to support the sustainable development goals. There

are four targets, but we can assume that the second one is more align with the OECD scope and agendas (Auld & Morris, 2019, 12-13).

It is important to observe that in 2018 there are some new additions in the new OECD PISA test which is the focus on *"inclusive societies"* and *"inclusive and sustainable world"* (Auld & Morris, 2019; Grotlüschen, 2018). The alignment with SDG4 is more than clear now. We can also identify in the OECD policy documents that *"Educating for global competence can boost employability"* and the scope is *"to act for collective well-being and sustainable development"* and also to *"shape a shared future built on the well-being of individuals, communities and the planet"* (OECD, 2018a; Auld & Morris, 2019; Grotlüschen, 2018).

Similarly, Grotlüschen (2018) and Xiaomin & Auld (2020) observe that even if employability is the primary focus of OECD, the instead of global citizenship, in the latest publications, there is a more humanitarian tone regarding GC with a particular emphasis on equity and inclusion.

vii.   What is Global Competence?

As already stated, OECD incorporates the "global competence" framework in the education policies of global agendas, acting as a *norm-setter* and as a standard setter. Regarding OECD PISA 2018 Global Competence Framework, representatives of 79 countries participating in the OECD Programme for International Student Assessment (PISA) demonstrated the need for a "global competence" in order to equip students to be able to live in multicultural societies.

The definition given by OECD experts is *"**Global competence** is the capacity to examine local, global and intercultural issues, to understand and appreciate the perspectives and worldviews of others, to engage in open, appropriate and effective interactions with people from different cultures, and to act for collective well-being and sustainable development"*. It is a compositional model, since it combines four dimensions "skills", "knowledge", "attitudes" and "values" (Piacentini, 2017, 507).
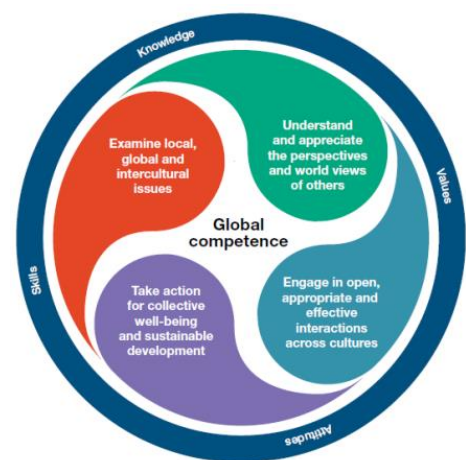
Figure 3. PISA 2018 Global Competence

A global competent person needs a variety of skills in order to understand the word, to consider the global issues and to communicate and be an active citizen in intercultural contexts (see Figure 4).

Figure 1. The dimensions of the proposed assessment of Global Competence

Assessment of the cognitive components in PISA | Self-reported in the PISA student questionnaire

SKILLS

Analytical and critical thinking*

Ability to interact respectfully, appropriately and effectively

Empathy

Flexibility

KNOWLEDGE & UNDERSTANDING

Knowledge and understanding of global issues

Intercultural knowledge and understanding

ATTITUDES

Openness towards people from other cultures

Respect for cultural otherness

Global-mindedness

Responsibility

COMPONENTS

*Components indicated in bold are assessed in the cognitive test.

VALUES
Valuing human dignity
Valuing cultural diversity

Components indicated in italics are analysed through self-reported data in the student questionnaire.

GLOBAL COMPETENCE

Figure 4. Skills, knowledge and attitudes that are essential for global competence according to OECD PISA 2018 Global Competence Framework.

Global competence is a multidimensional learning domain and the acquirement of global competence has clear learning outcomes. It comes to assess a set of skills and attitudes of students (Ramos & Schleicher, 2016).

Skills and Knowledge

⇒ Self-efficacy regarding global issues
⇒ Awareness of global issues
⇒ Perspective-taking
⇒ Adaptability
⇒ Awareness of intercultural communication
⇒ Student's engagement (with others) regarding global issues

Attitudes

⇒ Interest in learning about other cultures
⇒ Respect for people from other cultural backgrounds
⇒ Contact with people from other countries
⇒ Global mindedness
⇒ Attitudes towards immigrants

Figure 5. The dimensions of global competence (OECD, 2018a).

The GC framework was created by a small group of experts coming from USA and UK. Latin America and Africa were not represented at all during its creation (Auld et al., 2019). Many countries involved in PISA (i.e. England, Scotland, the USA, Germany, France,

Denmark, the Netherlands, Finland and Ireland) decided not to participate in taking the test for GC. In particular, only 28 countries participated in this metric. (Auld et al., 2019; Engel et al., 2019; Sälzer & Roczen, 2018).

Recommendations for the integration of global competence, among other qualifications, in educators, professionals and students are presented at the beginning of the 21st century by OECD Program of International Student Assessment (PISA). OECD introduces this framework for the first time as an agenda driver. Even if the purposes of such interventions are clearly the economic growth for its member nation states, OECD has the aim to reform national education systems in order to produce graduates equipped with the skills and competences required by current market needs (Hunter, 2019). Thus, states and governments should not accept and integrate to their national systems this framework uncritically and without doubts (Sellar & Lingard, 2014).

Among the OECD priorities, in terms of interculturalism, are the effective cooperation of people with different cultural profiles in various areas of everyday life, the global development, the empowerment of young people, the improvement of education systems, social inclusion, the promotion of all people integration into EU societies. (OECD, 2018a).

According to Ramos & Schleicher (2016), some of the dimensions of global competence are knowledge of global issues and phenomena (such as, climate change, migration, international conflicts, the consequences of poverty and hunger, gender equality, etc.), analytical and critical thinking, effective interactions, flexibility, openness to people from different cultures, respect for otherness, global mentality, responsibility and emotional intelligence.

viii.   The variety of perceptions in each country/region specific context
Global Competence receives a different meaning in each country specific context, since it has to be compatible with each country or continent local needs and characteristics (Engel, 2019).

For instance, in USA, GC receives a more economic interpretation, since there is demand for students to work in companies after their graduation, to be competitive and to get ready for the global labor market needs (Xiaomin & Auld, 2020; Goren & Yemini, 2017; Conolly, Lehtomäki & Scheunpflug, 2019).

In Canada, Australia and New Zealand, GC should be seen in terms of promoting multiculturality and environmental awareness (Goren & Yemini, 2017).

For the EU countries, GC undertakes a more cross-cultural approach framed by the need of different European nations to live harmoniously in multicultural societies without stereotypes or barriers created by the monocultural mindsets and the linguistic differences of people. So, it should promote tolerance, mutual respect and a common European citizenship (Goren & Yemini, 2017; Xiaomin & Auld, 2020; Conolly et al., 2019).

In China, Japan and South Korea, GC aims at strengthening the relationships with the west world and at preparing students for the global knowledge economy (Goren & Yemini, 2017).

For Latin America, GC targets mainly the English language skills of students who have to be competitive in the global labor market (Goren & Yemini, 2017).

Last, for Africa, it is framed mainly under the scope of promoting intercultural understanding, human rights and acceptance (Goren & Yemini, 2017).

So, we can identify deference rationales conceptualizing the definition of GC either related to political, social, economic, or cultural characteristics of a region.

ix.   Definitions according to scholars

Behind the term "global", one identifies the involvement of organizations specialized in the areas of economic cooperation, which, at the same time, claim a role in educational policies. OECD education policies including PISA GC Framework are mainly focused on economic rationales (Leask et al., 2018; Grotlüschen, 2018; Xiaomin & Auld, 2020).

Cotton et al. (2019) underline the dual meaning of the GC; either for social justice and moral purposes or for economic growth purposes by equipping students with new skills. They also support that until now scholars and practitioners have been focused on the capacity of internationalization offices of HEIs, on the mobilities of students and staff and on other services, in order to evaluate the process of internationalization. By assessing

global competence development of students, the interest shifts to students so as to understand the impact of internationalization of HE.

UNESCO approaches global citizenship education in terms of pointing out the importance of strengthening the relationships between the different nations and cultures. On the other hand, OECD define GC as a set of particular skills, knowledge, and attitudes, required for success in collective well-being (Engel, 2019).

Herrera (2008, 24), who studies deeply the effects of students exchange programmes in the development of their global competence and global consciousness proposes the following definitions *"Global competence can be defined as the ability to function effectively, from an economic, political and social perspective, in an increasingly interconnected and interdependent world that is accelerated by technology. Global consciousness can be characterized as the ability to understand the impact of globalization on humanity, serving to temper the market forces of globalization".*

According to Corbitt (1998) (as cited in Paige & Stallman, 2007) in Global Awareness Profile (GAP), which is a tool designed to assess global awareness, there are three core areas should be taken into consideration in order to examine the awareness of global issues of an individual, (a) knowledge of geography of different world regions, (b) knowledge of different thematic areas such as politics, environment, culture, and (c) knowledge of global issues (Paige & Stallman, 2007).

In some surveys global competence is described as the main element of **global education**. According to Anoshkova (2015), global competence emphasizes on three components, (a) cultural understanding, (b) intercultural communication, (c) foreign languages. In other words, global competence is based on an educational approach and to be acquired by individuals (students, teachers, tutors, professors, employers, employees) is the main goal of global education. Within this context, global education has some positive implications on individual competitiveness in the labour market and in his/her employability and it contributes in promoting a democratic society, social justice and respect of human rights (Anoshkova, 2015; Horey et al., 2018).

In another survey, it is testified that global competence is correlated with academic achievement and job readiness (Borys, Gabilondo & Waterston, 2013), while the opposite phenomenon ("global incompetency") makes the students unable to work and succeed in the globalized world (Crawford, 2016).

According to Xiaomin & Auld (2020), global competence historical route is coming from the beginning of internationalization in European countries, while Knight (2015) (as cited in Engel (2019, 2)) provides us with a definition of internationalization deeply related with global competence:

"internationalization refers to a set of processes and approaches evolving in response to an increasingly globalized world. It stresses cross-national and cross-cultural relationships, maintains a "sense of worldwide scope" and considers global competence a primary output".

Barker (2000) also related the globalization with internationalization defining as a starting point the "interest in learning about other parts of the world".

x. **The OECD rationale for the development of PISA Global Competence Framework**

Global citizenship is included in UN Agenda 2030 for Sustainable Development. OECD made efforts to align its strategy with the UN Agenda and SDGs by promoting PISA metrics as essential instruments for tracking the progress towards the achievement of SDG targets, but also as policy instruments for establishing new norms (Xiaomin & Auld, 2020; Engel et al., 2019; Sellar & Lingard, 2014).

Even if UNESCO has a leading and a coordinating role in the fields of global education policies, it cooperated with other bodies and international organizations who have a particular interest in education, such as OECD (an organization producing databases referring to education data) and WOLD BANK (which funds education programmes in developing and third-countries around the world) (Dilari, 2017). Both of them have entered in the dialogue for education (SDG4) (Auld et al., 2019).

According to scholars (Xiaomin & Auld, 2020; Auld & Morris, 2019; Auld, et. al. 2019; Grotlüschen, 2018), the OECD rationale for the development of this framework is the future economic growth of nations and the improvement of the quality of their human capital. What is more, OECD would be able to strengthen its influence in educational settings and expand its role in global education governance by presenting the results of the measurements and by drafting recommendation evidenced-based for policy reforms in the educational systems of countries proposing them to integrate more global dimensions into their systems and their national curricula (Engel et al., 2019; Grotlüschen, 2018). Thus, OECD expands its interested taking a leading role both in formulation of SDG4, but also in the monitoring of global education agenda

implementation by the states (Xiaomin & Auld, 2020; Auld, et. al. 2019; Engel et al., 2019).

The primary goal for the development of this new metric is to promote policies and practices in education, which are going to prepare students that will work and live in a globalized society. So, the results of the measures will be used as "policy lessons" and pressure to its member states, so as to improve their students' global competencies and the performance of their national educational systems (Auld & Morris, 2019; Grotlüschen, 2018). The reforms will be driven by particular evidence and will be implemented in various educational areas, such as new learning outcomes, new assessment methods, differentiated instruction strategies, multi-disciplinary courses, flexibility in teaching and learning, connection of learning with social and world developments, as well as teacher training and professional development (Grotlüschen, 2018; OECD, 2018b; Xiaomin & Auld, 2020; López-Rocha, 2021).

Even if the key rationale of this framework is the jobs growth and the economic development, PISA GC Framework is not focused only on skills and attitudes related to those fields (Grotlüschen, 2018). It incorporates also aspects related to gender equality, environment, intercultural communication, respect to human rights (OECD, 2018a; Auld & Morris, 2019; Grotlüschen, 2018). One explanation for that, is the fact that OECD needs to adapt itself in an area that has gained an increasing interest (namely education) the last decades and in order to remain an important actor (Xiaomin & Auld, 2020). It proves its capacity for adaptability and flexibility by developing the Learning Framework 2030 and the new assessment tool for GC (Xiaomin & Auld, 2020).

Within this framework, OECD is the first international organization that puts into the agenda the development of students' global competence worldwide and underlines its importance for a competitive global free market economy. OECD introduces for the first time the concept of education for global competence so as learners can take advantage of these competences and develop critical understanding of global issues (Lanao-Madden, 2010).

xi.   Policies and Regimes having prepared the ground for Global Competence

If global competence is the outcome of global citizenship, in order for conceptualize **global citizenship**, we should search its origins in Ancient Greek philosophy and particularly in philosopher Socrates who has mentioned *"I am not Athenian, neither a Greek Citizen, but a citizen of the world".* Similarly, the philosopher Diogenes had

described himself as *"a citizen of the world"* and not just a citizen of a nation-state (Herrera, 2008). Nowadays, scholars perceive global citizenship pretty much the same way.

There is a variety of models explaining what **global citizenship education** is and there are different structures according to the literature (Horey et al., 2018). Davies, Evans & Reid (2005) discuss on his survey the global citizenship education as an educational model that steps away from the typical curriculum of a national education system focused on cultivating national consciousness and identity. According to them, global citizenship education refers more to school education and includes changes to school curriculum. On the other hand, Flammia, Sadri & Mejia (2019) highlight that global competent people perceive themselves as citizens of the world rather than citizens of a particular country nation. Universities policies should be oriented towards the development of their graduates as global citizens in terms of cultivating to them corporate skills or social skills. Other terms for global citizenship are "cosmopolitanism" and "advocacy" (Horey et al., 2018).

Nowadays, there is lots of demand for people to acquire skills that are needed to meet certain challenges, such as globalization, digital transformation, the knowledge society, multicultural societies, migration and population rearrangements. The human factor is the most important for economic and social development as well as strengthening the competitiveness of European countries (Sipitanou, 2014).

As already stated previously, there are a lot of different agendas approaching the concept of education for global competence or global education. At an international level, there are policies and frameworks for *"Global Development education, Human Rights education, Education for Sustainability, Education for Peace and Conflict Prevention, Citizenship education, Gender & Children's Rights education, Intercultural & Interfaith education, Disarmament education, Social and Economic Education, Environmental education, global education, intercultural education",* developed by UNESCO, OECD, Council of Europe, and the European Union. There are also national strategies, with which, each country makes effort to implement the international agendas in order for reaching out the SDG 4.7 and building connections between state interests and global goals (Lanao-Madden, 2010).

During the global consultation that took place between 2013 and 2014 in order to identify the main global challenges should be tackled by the year 2030, all relevant stakeholders

tried to create a common ground on global citizenship education and relevant competences (including EoC, UNESCO, OECD, WORLD BANK).

The first policy document on global education is presented by **Council of Europe** (CoE) during the Maastricht declaration. Starting from Maastricht Global Education Declaration (2002), which main aim was to bring together national delegations from the member states of the Council of Europe, we can find the following *definition "Global education is education that opens people's eyes and minds to the realities of the globalized world and awakens them to bring about a world of greater justice, equity and Human Rights for all. Global education is understood to encompass Development Education, Human Rights Education, Education for Sustainability, Education for Peace and Conflict Prevention and Intercultural Education; being the global dimension of Education for Citizenship".* We can assume that the member states that have participated in the Maastricht Declaration have realized the importance of global education and agreed to integrate global education dimensions into their national policies and national education systems. The same actors (the states) who recognize the importance of global education and have initiated the discourse about it, will be those who will implement the relative initiatives in the future.

From the review of Lanao-Madden (2010) on behalf of CoE, "*Global education guidelines",* a set of observations can be summarized as follows: Global Education is an interdisciplinary pedagogical approach which focuses on four knowledge areas, peace education, human rights education, development education and environmental education. Those areas should be transversal in other teaching subjects. The starting point of global education is the critical understanding of global issues, the problem analysis, the participation in decision making processes and in society overall, the awareness that local actions have impact on the globe, the attempt to find solution to build a world with better living conditions, the engagement in initiatives that can bring positive changes into the world.

Council of Europe, which also participates in the Bologna Process, published in 2018 a Reference Framework of Competences for Democratic Culture (RFCDC), including the ***"Model of the skills needed for democratic culture and intercultural dialogue".*** which contains 20 competences and includes similar conceptions with the framework of OECD, but it is not the same (Lanao-Madden, 2010). In order to do so, experts relied on the conceptual framework of the definitions of "identity", "culture", "intercultural" and "intercultural dialogue". Interpreting and utilizing the definitions of the above concepts, he identified the individual competencies for intercultural competence. This is a set of 20

skills that are divided into (1) values, (2) attitudes, (3) skills and (4) knowledge, which should be used by trainers (Council of Europe, 2018).

In particular, intercultural dialogue in order to be achieved, requires mutual respect and mutual understanding of the speakers and requires the existence of intercultural competence. Intercultural competence is not automatically inherent in the individual, but can be acquired through learning and practice. It is a dynamic process of continuous adaptation. A solid base can be the emotional and social sensitivity and the exchange of views and worldviews of individuals. Intercultural dialogue contributes to the elimination of intolerance, negative criticism and stereotypes and enhances problem solving and social cohesion (Council of Europe, 2018).

Within this framework, CoE proposes democracy, human rights and justice as key goals and priorities of its educational policy (Council of Europe, 2018).
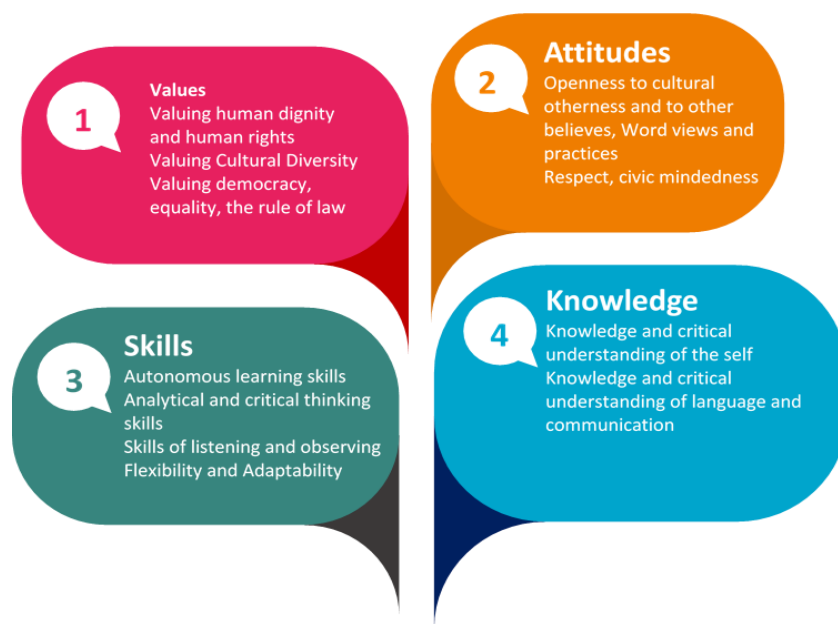
Figure 6. Reference Framework of Competences for Democratic Culture (RFCDC)
[data provided by Council of Europe, 2018, further developed by Karampampa, 2021]

Furthermore, Council of Europe have issued declarations on the civic responsibility of higher education and have created a Forum for higher education leaders and policy makers in order to develop an action plan for the responsibilities of HE towards a variety of current challenges, such as a broaden participation of students in political and civic activities, the cohesion of multicultural and diverse societies, etc. (Council of Europe, 2006). In 2010 Council of Europe has developed a methodological guide for educators and policy makers regarding global education (Lanao-Madden, 2010).

UNESCO, having as a starting point this definition of global education provided by Maastricht Global Education Declaration (2002), goes deeper in order to find the critical points and features of global education.

UNESCO has a more humanitarian oriented approach towards global citizenship: "*Global citizenship refers to a sense of belonging to a broader community and common humanity. It emphasizes political, economic, social and cultural interdependency and interconnectedness between the local, the national and the global*" and "*Global citizenship education aims to be transformative, building the knowledge, skills, values and attitudes that learners need to be able to contribute to a more inclusive, just and peaceful world*" (UNESCO, 2015, 14).

UNESCO presents guidelines and defines the dimensions of global citizenship and its learning outcomes through a series of policy documents, publications and technical consultations in this field-area, such as "*Unesco. (2015). Global citizenship education: Topics and learning objectives*" and "*Unesco. (2013). Global citizenship education: Preparing learners for the challenge of the 21st century*". However, it seems that UNESCO focuses its efforts mainly on students and teachers of primary and secondary education.

Figure 6. UNESCO, Global Education Guidelines (2010)

Apart from global education or/and global citizenship education framework, UNESCO has also developed a framework of Intercultural Competences (UNESCO, Leeds-Hurwitz & Stenou, 2013). According to UNESCO, *"Intercultural competence refers to sufficient specific knowledge about specific cultures, as well as a general knowledge and skills about issues that arise when people from different cultures come into contact with diverse others"* (UNESCO et al., 2013). It uses the term **"intercultural competence"** and places solidarity, mutual understanding, democracy and peace at the top of its vision. The main challenge of globalization according to UNESCO is the intense contact of people from different nationalities and cultures for the first time. As it is impossible to interrupt the continuous interaction of cultures, the "intercultural competence" and "intercultural communication" of individuals becomes a key demand of the multicultural societies that have been formed (UNESCO et al., 2013).

We can comment that there is a strong connection between the two reference frameworks launched by UNESCO during the period 2013-2015; the global citizen education and the intercultural competences framework. It seems that UNESCO act as a norm setter in the field of education by developing both the target and the instrument of its education policy. In particular, the global education is the instrument of achieving the target, which is people to be able to obtain intercultural skills in order to live harmoniously and contact with culturally diverse others in multicultural societies.

Even if we have a Strategy Framework for Improving and Increasing Global Education in Europe to the Year 2015 by CoE (Maastricht declaration 2002), ***European Union*** policies about global education are mostly concerning democratic citizenship, greater justice, sustainability, equity and human rights for all (O'Loughlin & Wegimont, 2002).

As early as 1993, the European Union promoted the development of multilingual and multicultural competencies, intercultural respect and understanding (Wächter, 2004). In fact, with regard to Higher Education, the EU has worked to promote student mobility with a view to intercultural sensitivity and the internationalization of education (European Union, 2017). In particular, with a series of guidelines, decisions and programmes from the Maastricht era, the EU focuses its education policy on two key actions (a) foreign language learning and (b) students and teachers' mobility to promote transnational cooperation and strategic partnerships (Sipitanou, 2014).

In 1995, European Union is able to influence the policies in education with the main EU funded tool, which is the Erasmus Programme (Wächter, 2004). In the field of higher

education, according to Erasmus+ Guide 2020, *"promoting internationalization is one of the core priorities which is fully aligned with EU Agenda for HE and European Bologna principles".* Erasmus with the encouragement of the mobility of students, teachers and academic staff could influence positively the development of global competence of the abovementioned participants.

What is more, references about the global readiness of students in a globalized world can be found in the Bologna Process and the creation of the European Higher Education Area since the beginning of 21st century through the promotion of mobility and cooperation of European HEIs (Asderaki, 2012). EHEA is a regime which have been contributing and influencing the global agendas for HE (Asderaki, 2019).

Regarding the European Higher Education Area, the Ministerial Conference that took place in Paris in 2018, among other issues, focused on cooperation between European and non-European countries in the field of higher education. In the final report of the conference, the representatives of the Member States pledged to promote policies that will concern a more inclusive society, enhancing intercultural awareness and equal access to inclusive higher education (EHEA, 2018).

In May 2018, the Council of European Union publish a recommendation regarding the *"8 Key Competences for life-long learning"*. Among them, we can identify **"the Citizenship competence"** and **"the Cultural awareness and expression competence"** (Council, 2018).

In other words, there are some European conceptions about global competence education and some EU policies surrounding the demands for global competences in EU societies, but until today, there is no specific EU framework on global competence education in HE.

It is important to mention that the member states of OECD are not only countries of the European Union. Thus, EU frameworks such as 8 key competences for lifelong learning or EoC frameworks such as Reference Framework of Competences for Democratic Culture (RFCDC) could not be able to respond appropriately to the needs of all member states.

Europe has been talking about intercultural dialogue and intercultural competences for so long. But those frameworks are not compatible with the OECD main fields of interest,

which are mainly market oriented approaches, representing the global economy, the development of human capital, and the jobs growth the enhancement of peoples' employability.

Another important observation is that the GC framework has no focus in the measurement of any foreign language skills (Grotlüschen, 2018). A primary explanation could be the fact that multilingualism is one of the EU's main policies due to the existence of different countries, different cultures and languages within the same continent. What is more, those who designed the framework were coming mainly from the US and the UK. Language is not a matter of policy for these countries, but for the EU it is a major issue. Foreign language skills are considered among the most important skills for economy, research and growth in the EU.

To sum up the dialogue on the global competence and the global education policies, we can observe that the different regimes co-shape and co-contribute in the formulation and implementation of policies for global education worldwide. Within this scope and by "dividing" the labor they act interdependently guided by their different interested and missions (human rights, economy and trade, justice and well-being of societies, sustainable development, intercultural dialogue). The same complex regime is observed in HE settings (Asderaki, 2019).

2.3. The scene of Higher Education in Greece

International activities in higher education systems can be found almost in every country around the world (Altbach & Knight, 2007). What describes this area in Greece is an "up-bottom" approach, which means that Greek State adopts policies that steam from the EU agendas. Thus, it is important to examine the scene of HE in Greece in order to understand what encourages or what hinders an internationalization policy.

Below are following the main characteristics of higher educational system in Greece, which provide a clear view of the state-of-the art and explore the internationalization aspects of Greek HEIs:

The two laws that frame the organization, operation and administration of universities in Greece are Law 4009/2011 and Law 4485/2017. With the amendment of the Law 4713/2020, article 18, the use of resources from EU programs is allowed to cover expenses for the participation of HEIs in those programmes. Furthermore, with the amendment of the Law 4692/20 Greek HEIs can organize bachelor programs (first cycle studies) in a foreign language (Foreign Language Curricula) and they may award dual specialization degrees. Moreover, they can establish foreign language programs with dual specialization together with foreign institutions (Eurydice, 2021a).

There are 24 universities including around five hundred departments in central and regional zones of the country. However, after the Law 4610 *("Synergies of Universities and TEI, access in higher education, experimental schools, General State Archives and other provisions")* in 2019, the separation between the universities and technological institutions no longer exists, since all of them are considered as HEIs (Eurydice, 2020).

Higher Education is a *"public good"* in Greece, under the supervision of the Ministry of Education and Religious Affairs of the Greek State regulated by the Constitution (Article 16) and relevant laws. The state has the authority to establish a new university and the responsibility to cover universities' operational and human resources expenses. Organizational aspects are also regulated from the Ministry of Education. Thus, there is a strict control of the state towards HEIs (Eurydice, 2020; Mylonas, 2017).

The *recruitment* and selection of undergraduate students is a process linked with the secondary education completion and not with higher education criteria and requirements. The access to universities is being realized through the Pan-Hellenic exams. This is an indicator of low independence of HEIs regarding the students and faculties selection

(Mylonas, 2017). In the postgraduate programmes, selection processes should be in accordance with the criteria of the Greek Law 4485/2017 (such as, exams, specific qualification, prior learning on specific knowledge areas, languages, research background, etc.) (Eurydice, 2021b).

The main *funding* of the HEIs is coming from government. Greek government gives 8,7% of total government expenditures on education and 36,1% of educational expenditures on tertiary education (World Bank, 2020). *Expenditures* on educational institutions per student is lower than both the OECD and EU averages (OECD, 2019). There is only a small proportion from external funding, coming tuition feed and EU funded research projects. Funds from the private sector are either negligible or zero (OECD, 2020). An explanation for this could be the fact that the intense involvement of business sector in HEIs is considered as a negative influence in the public characters of HEIs (Asderaki, 2021). OECD reports that Greek universities are depended by public funds, which are the lowest among OECD members (OECD, 2020). There are no fees for bachelor's and doctoral programmes, compared to average tuition fee across OECD countries. Also, in most EU countries there are some tuition for undergraduate programmes (Mylonas, 2017).

It is important to highlight that Greece has the *fourth highest tertiary enrolment rate* among OECD countries and there is a noticeable increase in HE attainment the last years. Greece has one of the highest percentages of young people expected to obtain a bachelor's or an equivalent degree before the age of 30 (OECD, 2020). However, graduates with bachelor's or master's degrees have the lowest employment rates across all OECD countries (OECD, 2019). According to World Bank Education Statistics, the gross enrollment rate in tertiary education in 2017 was 142,9% for both sexes (World Bank, 2020). Nevertheless, the high enrolment tares, the graduation rates are remaining law, and below the EU average (Asderaki, 2021).

The need to make internationalization a priority is reflected in law 4485/2017. Greece does efforts to promote European and International dimension in higher education system by implementing a variety of measures and strategies. Within this framework, strategies can be identified in both in a country and an institutional level (Eurydice, 2019; Eurydice, 2020a; Eurydice, 2020b):

Country Level
- Enhancing the quality of education   - Embracing cultural diversity   - Participating in the formulation and implementation of educational programs and policies of the European Union   - Developing international synergies (bilateral and multilateral agreements with several countries for the promotion of cultural and educational cooperation)   - Implementing the strategic plan "Education and Training 2020"   - Promoting the European and international dimension in curricula at all levels of education and training   - Upgrading the quality of Greek higher education institutions (HEIs)   - Creating an information portal on HE in Greece, Study in Greece NGO, for international students interested to study in Greece   - Establishing the International Hellenic University which offers postgraduate courses in English   - Adopting the ECTS credit system   - Establishing 10 UNESCO chairs in Greece   - Participating in Pilot programme on youth mobility (Mediterranean office for youth)   - Participating in the Bologna process with the aim to contribute to the creation of the European Area of Higher Education   - Signing bilateral educational agreements signed by Greece with third countries   - Participating in bilateral agreements between EU and China   - Eliminating stereotypes from school textbooks   - Participating in OECD Programme for International Assessment (PISA)   - Participating in the pilot programme for the recognition of 92 refugee qualifications, who have either completed or have started higher education in their own country   - Participating through working groups who drafted monitoring reports in the implementation of the United Nations Sustainable Development Goals and the Development Agenda 2030

Table 2. International strategies that can be identified in a country level (Eurydice, 2019 & Eurydice, 2020)

Institutional Level
- Participating in EU programmes and initiatives (Erasmus+)   - Enhancing the mobility of students, academics and staff   - Cooperating with other educational institutions and research bodies in the country and abroad   - Awarding joint degrees between Greek and foreign HEIs (ex. Erasmus Mundus Masters Courses)   - Participating in OECD programmes

- Integrating foreign language courses in the first cycle programmes
- Signing the Erasmus charter for Higher Education, HEIs commit to provide all the necessary support to participants in mobility activities in terms of linguistic preparation
- Participating in Erasmus Mundus Masters Courses (EMMCs)

Table 3. International strategies that can be identified in an institutional level (Eurydice, 2019 & Eurydice, 2020)

R&D activities and expenditures of Greek HEIs are weak. The cooperation with business sector is also very limited. According to Mylonas (2017,15), *"Greece ranks last among the EU members with regards to the collaboration between universities and the business sector (with a value of 3 on a scale of 1 to 7, compared with an EU average of 4.4 and an OECD average of 4.7)"*. However, according to Angelopoulos (2020), Greek HEIs emphasize more in internationalization strategies through research rather than teaching. An indicator for that is the high score of Greek involvement in HORIZON2020 programme.

The significant rate of Greek academic *diaspora* is another important attribute of Higher Education in Greece, since 60% of Greek academic staff are hired in universities abroad compared with 11% of EU average (Mylonas, 2017).

According to the UNESCO Institute of Statistics (UIS, 2021) the total number of Greek mobile students abroad is 39.096, while the top destination countries for Greek outbound students are United Kingdom, Bulgaria, Cyprus, Germany, Netherlands, etc.

Destination country	
United Kingdom	10,109
Bulgaria	3,792
Cyprus	3,748
Germany	3,611
Netherlands	2,790
Turkey	2,546
United States	2,236
Italy	1,863
France	1,815
Romania	876

Figure 7. Top destination countries for Greek outbound students (UNESCO Institute of Statistics (UIS) 2021).

Greece hosts a very small number of international students among OECD members (2,3% in 2018) and there is lots of explanation for that (OECD, 2020). Until recently, the dominant *language* of classes was only the Greek one, while there were only few master programmes conducting in English language. For example, Athens University of Economics and Business announced a graduate programme held in English language (MSc in Communication and Marketing) in 2018.

According to the Law 3549/2007, Article 17, International Hellenic University was the first Greek public university which carries out its course only in English in order to attract international students and to further promote the internationalization of HE in Greece (Asderaki, 2021; Asderaki, 2012).

However, in 2019, the first Greek undergraduate programme in English language was launched by the National Kapodistrian University of Athens (BA Program in the Archaeology, History, and Literature of Ancient Greece) and it is oriented towards foreign and international students. Moreover, a new undergraduate programme in English for the Department of Petroleum Engineering is expected to operate in Northern Greece (Kavala) after the merger of the local Technical Institution (TEI) with the International University for both foreign and national students.

Regarding *international students,* according to Eurostat, there were 1.3 million-degree mobile students from abroad who studied at HE across the EU in 2018. The majority of them (44%) were from European countries (Eurostat, 2020). Most of the international students were studying in Germany, France and Netherlands in 2018 (Eurostat, 2020). It is worthwhile to mention that, while Cyprus had one of highest proportion of students from abroad in 2017 (23.1 %), Greece had a really small proportion of the international students (3,4%) (Eurostat, 2017).

According to Erasmus Annual Report for 2019 data and statistics, 335.596 student mobilities (both for studies and traineeship) were completed between Programme Countries in 2018/2019, and 16.086 between Programme and Partner Countries (European Commission, 2020). For Greece, the total number of outbound students and trainees was 5.667, while the inbound students and trainees mobilities were 5.476 for the academic year 2018/19. The top three sending Greek HEIs were AUTH, EKPA and University of Patras, while the top three countries having received Greek students and trainees were Spain, Germany and Italy. Furthermore, Greece participated in three Erasmus Mundus master degrees reinforcing the collaboration between Greek and

European HEIs and enabling the mobility of Greek students in at least two countries (European Commission, 2021).

Greece has a small share of *international students* that have graduated from tertiary programmes compared to other OECD countries and partner economies. According to the latest OECD data, Greece ranks in 26th position of 29 countries in 2018 (2.3%) (OECED, 2020), while according to UNESCO Institute of Statistics (2021), the total number of mobile students hosted in Greek HEIs is 26.325.

Furthermore, OECD mentions that even if Greek HEIs receive a considerable number of international students, only 3% of those who apply for first time manage to enter into bachelor programmes and only 1% enter into doctoral programmes compared to the averages of OECD countries which are 8% and 25% accordingly. The main reasons for this are the complexity of selection procedures and the small number of positions available to them (specified by Greek law). On the other hand, OECD reports that 5% of Greek students are enrolled abroad, which is more than the OECD average (2% OECD countries average). The explanation of that is the limited positions for studies in Greek HEIs and law employability rates in Greece (OECD, 2019).

Greek state government policies are favoring particular international students, mainly from Cyprus. Moreover, large scale enrollments have been noticed from children of migrants (ex. from Albania) and from Greek diaspora population (ex. Germany). In the following graph there is a list of the top countries of origin of international students in Greece retrieved from the latest data of UNESCO Institute of statistics (UIS, 2021).

Country of origin	
Cyprus	13,794
Germany	1,457
Albania	1,297
Russian Federation	464
Bulgaria	314
Ukraine	270
Georgia	247
Syrian Arab Republic	221
Romania	209
United States	149

Figure 8. Foreign Students in Greek HEIs (UNESCO Institute of Statistics (UIS) 2021).

It is also important to take into consideration that there are universities departments that are more internationalized than others.

Finally, Greek Ministry of Education and Religious Affairs reports that there are some important issues concerning the internationalization of Greek HE which have negative effects. Broadly speaking, the following weaknesses have been observed (Ministry of Education and Religious Affairs, 2016):

- The opportunities for international studies and for the development of intercultural skills offered by the European exchange programs are not sufficiently and equally utilized by all Greek institutions, departments, and their students.
- The degree of Greek participation (institutions and students) in these programs remains low overall.
- The adoption of the European Credit Transfer System (ECTS) is only partially implemented.
- There are problems in the recognition of courses after the completion of students' mobility in institutions abroad.
- Greek HEIs attract a very small number of international students and researchers.

Last, Asderaki (2021) highlights the need for more internationalization of Greek HEIs in terms of attracting more international students in the Greek programmes, finding supplementary funds (in addition to public expenditures), and establishing further relations with the labor market.

2.4. Internationalization Approaches and Practices for Global Competence Education in Higher Education

Over the last two decades, more international activities are observed in HEIs (Altbach & Knight, 2007). One indicator for the increase of international activities is the number of students' mobility. In 2015, 4.5 million international students were recorded from about 1.8 million in 1995 and 0.8 million in 1975 (Mylonas, 2017). The interest for inserting global education approaches has recently increased because of the fact that more students study abroad or look for international experiences (internship, career or academic reasons) and more students study foreign language than ever before (Battistoni, Longo & Jayanandhan, 2010; Davies, Evans & Reid, 2005).

Towards the direction of Global citizenship education (the term that UNESCO uses), UNESCO recommends the implementation of "formal and informal approaches", "curricular and extra-curricular interventions" (UNESCO, 2015). Approaches and methods for global learning from pre-primary schools up to tertiary education are usually extra-curricular activities which are effective with the engagement of a teacher/ trainer and a facilitator. UNESCO's recommendations for implementing global education programmes including the following pedagogical approaches (Lanao-Madden, 2010):

▸ Problem-based learning methods
▸ Dialogue-based learning
▸ The project method
▸ The world-links method (bringing people from other countries, visiting countries, communication through online means, welcoming migrants, etc.)
▸ International partnerships (mutual visits between the partner schools/universities, etc.)
▸ Cooperative-based learning (learn through interaction and team work)
▸ Experiential learning
▸ Participative arts
▸ Community learning
▸ Soft skills training
▸ Lifelong learning

Table 4. Approaches and methods for global learning (Lanao-Madden, 2010).

Global competence education programmes and *internationalization of the curriculum* has become a common trend in higher education worldwide in a variety of ways. Such

approaches aim at fostering academic performance and global responsibility of students, helping them familiarize themselves with global challenges and demands and getting prepared for the global economy (Aktas et al., 2017; Altbach & Teichler, 2001). In other words, one of the main responsibilities of higher education systems should be the preparation of the young students as the future workforce for the global competition (Anoshkova, 2015). This goal cannot be achieved by the traditional curriculum, but instead, by developing a comprehensive internationalized curriculum (Flammia, Sadri & Mejia, 2019).

According to Barker (2000), educational institutions should focus on creating an educational model which will strengthen international understanding and will develop a *"global education curriculum"* in order to address global challenges. This curriculum should include knowledge for global issues and phenomena, real-world problems, cultures, world areas, international relations between countries of the world, knowledge of civics, history, geography, language, economics etc., international experiences of students, etc.)

The first step for a global education strategy is to support the academic and administrative staff of HEIs to develop a global perspective for themselves (Fernando, 2009; Barker, 2000).

For many years, the core internationalization/global education strategy was the mobility of students, academic and administrative staff (Leask et al., 2018). To be more specific, exchanges through the Erasmus programme were the main internationalization approach applied from universities in Europe (Maragkos, 2012). However, after a while, more and more HEIs enhanced their internationalization by exploiting other means and actions.

It is crucial to highlight the fact that internationalization strategies or global competence education approaches have been affected not only by global developments (such as globalization, ICT, free mobility, etc.) but also by challenges occurred the last two decades worldwide, namely the economic crisis and the COVID19 pandemic. Both of those phenomena have reformed many sectors, including HE.

Another important issue is the fact that, while internationalization of HE has become a tool for networking, fundraising and branding, global competence education is based on educational approaches and has the aim to equip students with skills and competences

in order to become the future citizens and employees. In other words, we can argue that strategies for internationalization have a more institution centric approach, while practices for GC education use more student-centered methods and pedagogies.

Bibliography doesn't distinguish the strategies of internationalization of HE and global competence education in HE, because both of them are being applied in higher education. The purpose of this research is not to proceed in putting them into categories. However, it is important to examine in what ways they are implemented and promoted in HE. What is more, in this thesis, the researcher is focused on the fact that these internationalization practices including global dimensions affect positively the "global growth" of students and they are not been approached as practices related to the performance of a HEI.

The main approaches according to bibliography are short-term international experience such as exchange programmes and mobility of students, researchers, academic and administrative staff (Dias & Amaral, 2014; Herrera, 2008; Asderaki & Maragos, 2012; Maragkos, 2012; Burstein, 2009; Flammia et al., 2019; Jurgens & Robbins-O'Connell, 2008; Altbach & Knight, 2007; Altbach, 2001; Battistoni et al., 2010). There are variable types of mobility, from short-term mobilities of a few days/weeks to longer movements of one year or more (Dias & Amaral 2014).

Figure 9. Core internationalization strategies.

Other common internationalization/global education approaches are the foreign language study as a part of the curriculum (Dias & Amaral, 2014; Herrera, 2008; Fernado, 2009; Battistoni et al., 2010; Altbach & Knight, 2007), the use of English ("lingua franca") as a principle language in the curriculum, especially in bachelors, not only for research but also for the instruction (Guimarães et al., 2019; Altbach & Teichler, 2001; Altbach & Knight, 2007), the use of information technology (Altbach & Knight, 2007), the

establishment of Career and Internationalization offices and other services and mechanisms (Asderaki, 2012), development of summers school programmes in the campus (Aitken, 2013; Bowes, Thomas, Peck, & Nathwani, 2013; Bell & Carrillo, 2007; Collins & Robertson 2003; Cooper, Charlton, Valentine, Muhlenbruck, & Borman, 2000), the creation of international internships, joint master or research programmes (Brustein, 2009; Herrera, 2008; Maragkos, 2012; Asderaki & Maragos 2012), international projects, study visits and joint conferences and symposia, programmes and curricula with internationalized content (Dias & Amaral, 2014).

summers school programmes

international internships

joint master or research programmes

international projects, study visits and joint conferences and symposia

programmes and curricula with internationalized content

setting up partnerships with foreign universities

use of English as the principle language

bringing foreign speakers to the campus

International and Erasmus students

internationalized lifelong learning courses

agreements with business community

virtual mobility

"Global Studies Certificate" in some universities as an extra-curriculum

community-based service activities

Figure 10. Other internationalization/global competence education approaches.

Internationalization strategies may also include that universities setting up partnerships with foreign universities (Brustein, 2009), bringing foreign speakers to the campus (Battistoni et al., 2010), include international relations degree programs (Herrera, 2008), are open to International and Erasmus students, faculty and scholars on campus, (Herrera, 2008; Flammia et al., 2019), they are being involved in in international research teaching and consulting (Herrera, 2008), they integrate internationalized lifelong learning courses, bilateral agreements between HEIs, agreements with business community, networks creation, use of ICT for raising the accessibility of all social groups (disable people, elderly, people who live in remoted areas, etc.) (Maragkos, 2012), virtual learning mobility (Asderaki & Maragos 2012), virtual collaboration/exchange (Flammia et al.,

2019; Altbach & Teichler, 2001), on-line programmes in foreign languages, usage of EU funding tools, development of networks and sunergies (Asderaki, 2012; Altbach & Teichler, 2001).

In American bibliography, there are some more practices related to the development of global competence education, such as, the existence of "Global Studies Certificate" in some universities as an extra-curriculum which forms students in obtaining global competencies (Brustein, 2007; Anoshkova, 2015) or one or two courses with global focus on the curriculum (Flammia et al., 2019). Business education and the connection with the local business community is also considered as a component of a global education curriculum (Barker, 2000). Service – learning (community-based service activities or civic engagement programmes) and the engagement with civil society and voluntary associations (Battistoni et al., 2010), Project-based learning (PBL) and Arts Integration (Borys et al., 2013) and Mobile learning (distance learning, social networking, language learning) (Fox, 2019) are considered some more practices to strengthen global competence in students.

The last years there is lots of scientific discourse about the *inclusive and accessible internationalization* or *the internationalization for all*. Scholars underline the importance of each student to be able to have the opportunity to participate in internationalization activities through which he will develop his global skills. For that purpose, far more scholars examine the importance of internationalization at home (IaH) (De Wit & Altbach, 2020; Cotton et al., 2019; Watkins & Smith, 2018; López-Rocha, 2021; Engel, 2019; Conolly et al., 2019; Rumbley, 2019; Slotte & Stadius, 2019).

IaH is a more inclusive and accessible approach for all students and it looks beyond the mobility of a minority of privileged students. IaH has a has domestic approach and it refers to the process of incorporating global and international dimension into the curriculum (new learning outcomes, assessment tasks, teaching methods, extra-curricular activities, learning foreign languages, utilize non-formal education methods (i.e. experiential learning and project-based learning), virtual exchanges, etc.) (Cotton et al., 2019; Slotte & Stadius, 2019).

There are also good many scientists claim that IaH is a method of incorporating more aspects of the SDGs, such as environment, gender equality, cultural diversity and tolerance (Auld & Morris, 2019), as well as global challenges, knowledge of cultures, areas and developments (OECD, 2018b).

Internationalization at Home practices are mainly referring to integrate intercultural experiences into the campus and aiming at developing global competence and global citizenship. According to Engel (2019), _global competence is an output of internationalization of HE._ Apart from global competence, IaH cultivates also other "transversal skills" and "social skills" of students and graduates, such as openness, curiosity, confidence, and tolerance. It also has a great effect in the development of "employability or professional skills" including problem-solving, teamwork, communication and leadership (Watkins & Smith, 2018).

Among other IaH practices, scholars have revealed the following (De Wit & Altbach, 2020; OECD, 2018b; Engel, 2019; Watkins & Smith, 2018; López-Rocha, 2021; Slotte & Stadius, 2019; Guimarães et al., 2019):

project based learning, differentiated instruction methods (i.e. a student will be able to choose what he wants to learn)	multi-disciplinary courses	virtual exchanges/virtual mobility via the Internet	integration of examples with global-oriented content
learning foreign languages	experiential learning	extracurricular activities	building relationships with local cultural and ethnic community groups
skills based learning (with a special focus on international/global skills)	open and distance education (i.e. MOOCs)	collaborative online international learning (COIL), meaning joint online courses taught by professors from partnering HEIs	research collaborations between students of different HEIs

Figure 11. Internationalization at Home practices.

Finally, particular attention has been given not only to the integration of teaching and learning activities for implementing IaH practices, but also to the internationalization of learning outcomes and content of curricula within HEIs. Recent bibliography focuses on the fact that there is a demand for mixed and alternative internationalization perspectives including all types and aspects of internationalization (abroad, at home, in teaching and learning, in research activities, in extra-curricular activities, in evaluation and assessment

procedures) (López-Rocha, 2021; De Wit, & Jones, 2018; De Wit & Altbach, 2020; Slotte & Stadius, 2019; Guimarães et al., 2019).

2.5. Assessing Global Competence: Tools and Models

Assessing the global competence of students can be a proof that internationalizing of HE brings the result of global learning and global understanding, since global competence is perceived as the learning outcome or global outcome of internationalization strategies of HE. It can also be a guide for further improvements of curriculum and a key indicator for measuring the effectiveness of extra-curricular global approaches (Herrera, 2008).

The aim of this chapter is to carry out a comparative literature review of some of the existing assessment tools of global competence. Existing research is discussed with special focus on construct of the tool, its main scope (what does it measure), type (compositional, developmental, causal), methods (ex. Likert scale), sample (number) etc.

There are a lot of instruments and models designed and developed to assess global competence or relevant to that competencies, such as global consciousness, global understanding, global citizenship identity, intercultural competence, intercultural sensitivity, etc. (Horey et al., 2018; Griffith, et. al. 2016; Deardorff, 2015; Chen & Starosa, 2000).

It is important to mention that the *complexity of the structure of global competence* is resulting from the variety of existing definitions, models, theories and names. There are competences with similar meaning, such as intercultural competence and global competence. According to Griffith et. al. (2016), bibliography has not clearly distinguished them yet. What is more, existing surveys target tutors and professors specializes in intercultural education, those who work as counselors for students wishing to continuous their studies abroad, those who teach foreign languages and those who are engaged in exchanging programmes. Only few researches focus on students' "global" development (Griffith et al., 2016).

The structure of a competence differs depending on the type of model (i.e. developmental or synthetic). It is complex and multidimensional. For this reason, the construction of an assessment tool is often characterized by ambiguities and unreliability

(Griffith et. Al., 2016; Deardorff, 2006). According to Matsumoto & Hwang (2013), while there are many assessment tools, no reviews of their validity and reliability have been done.

Surveys as that of Deardorff (2006) have shown that we need to identify and measure the components consisting a competence before making a holistic assessment (synthetic model). In contrast, studies such as Hammer et. al., (2003), use developmental models, which consist of several stages from which one moves from ethnocentrism to ethno-relative stage in order to acquire (intercultural) competence and sensitivity.

The literature does not suggest only one assessment method (Perry & Southwell, 2011). In contrast, several studies have argued that the combination of quantitative and qualitative methods can yield the most reliable measurements (Deardorff, 2006; Matsumoto & Hwang, 2013; Fantini, 2009). Indicatively, some of them are mentioned as following: interviews, observations, portfolios, self-reports and other reports, DELPHI method, questionnaires with open-ended questions, oral and written tests, scenarios, individual and group activities, role-plays.

Important elements in the process of measuring (intercultural) competence are the group involved in the assessment, the purpose and the context (Deardorff, 2006). Furthermore, there are more factors should be taken into consideration, such as how each individual acquires the competence, the level of education / learning development of each individual, the possibilities for non-formal and lifelong learning (Deardorff, 2015). The assessment must cover a specific period of time.

Most surveys have identified a number of skills and attitudes that are essential for global competence. Ramos & Schleicher (2016) mention analytical and critical thinking, ability to interact respectfully, appropriately and effectively, empathy, flexibility, intercultural knowledge and understanding, openness towards people from other cultures, respect for cultural otherness, etc. Herrera (2008) with the Global Competence Assessment Instrument (GCAI-1) examines cultural self-awareness, awareness of the culture of others, understanding of globalization, knowledge of current world events, successfully living in a culture different from one's own, ability to speak a foreign language, acceptance of and/or sensitivity toward cultural differences, etc. Global Competency Learning Continuum (GCLC) which consist of twelve different levels of global competence focuses on empathy and valuing multiple perspectives, a commitment to

promoting equity worldwide, understanding of multiple cultures, intercultural communication, use multiple languages, etc. (Carter, 2020).

There are Models and Tools which assess intercultural competence and understanding, that include skills, knowledge, values and attitudes, same or quite similar to global competence models. The most indicative example is the Pyramid Model of Intercultural Competence (ICC) of Deardorff (2006), which includes the following skills: *respect to cultural diversity, openness, empathy, flexibility, adaptability, etc.* Fantini (2009) lists some of the key ones that researchers largely agree on: *flexibility, patience, openness, curiosity, emotional intelligence, and tolerance for diversity.* Matsumoto & Hwang (2013) mainly refers to *adaptability, flexibility, interaction and collaboration.* Hammer & Bennett (2003) refers to *language proficiency skills, communication, adaptability, flexibility, empathy, listening skills, etc.*

With regards to good language skills, many different views have been expressed as to whether it should be included in the list of other skills as an essential element of global (or intercultural) competence. However, Fantini (2009) in his research categorizes the tools between (a) those measuring only the knowledge of a foreign language as a main feature for acquiring intercultural competence, (b) those including language as one of the skills for intercultural competence and (c) those that do not include it at all. According to Perry & Southwell (2011), knowledge of culture (language, history, politics) is not enough to acquire intercultural competence.

In order for the validity and reliability of the assessments to be achieved, the majority for assessment tools follow the following tactics: large sample of participants, including a testing phase, reviewing the results using another tool to identify the positive correlation, opinions of experts in the selection of questions, taking into consideration data from previous researches and existing literature.

In the following table, some of the most significant models and tools for the assessment of global (and intercultural) competence are presented.

Model/Tool	What measures?	Skills	Category	Methods	Sample
PISA 2018 Global Competence (OECD, 2018a)	Global Competence / understanding	analytical and critical thinking, ability to interact respectfully,	Compositional	Questionnaire and Cognitive Test	N/A

		appropriately and effectively, empathy, flexibility, intercultural knowledge and understanding, openness towards people from other cultures, respect for cultural otherness, etc.			
Global Competence Assessment Instrument - GCAI-1 (Herrera, 2008)	Global Competence	cultural self-awareness, awareness of the culture of others, understanding of globalization, knowledge of current world events, successfully living in a culture different from one's own, ability to speak a foreign language, acceptance of and/or sensitivity toward cultural differences, etc.	Compositional	Questionnaire	193 pretest respondents & 123 students
Global Competency Learning Continuum - GCLC (Carter, 2020)	Tool for international school teachers in order to assess their global competency	empathy and valuing multiple perspectives, a commitment to promoting equity worldwide, understanding of multiple cultures, intercultural communication, use multiple languages, etc.	Developmental	15 question Google form survey	12 full-time international school teachers
Pyramid Model of Intercultural Competence - ICC (Deardorff, 2006)	Intercultural Competence	Respect Openness Curiosity Cultural self-awareness Empathy Flexibility Ethno-relative view Adaptability	Compositional	a questionnaire completed by U.S. institutional administrators and a Delphi technique used to develop consensus by a panel of scholars	-24 of institutions of USA participated -23 intercultural scholars participated in a three-round Delphi study from a variety of disciplines.
Intercultural Development Inventory -IDI (Hammer et. al., 2003, Hammer, 2011)	Intercultural sensitivity	Language proficiency Ability to deal with psychological stress Ability to establish interpersonal relationships Cultural identity Cultural similarity	Developmental	Self-reported questions in a 5-point Likert scale	591 responders' wide range of age and activity. The largest number of subjects

		Communication adaptability flexibility empathy listening			was between the ages of 22–30 (25%; n= 144)
***Model of Social Thinking Process* Griffith et al. (2016)**	Intercultural Interaction (three stages: 1. APPROACH 2. ANALYZE 3. ACT)	Tolerance for Ambiguity Cross-Cultural Self-Efficacy Positive Cultural Orientation Self-Awareness Social Monitoring Perspective Talking/Suspending Judgment Cultural Knowledge Application etc.	Casual	Scenario-Based Items	N/A

Table 4. Models and tools for the assessment of global (and intercultural) competence.

All the aforementioned selected assessment tools of global competence (or relative to that competences, i.e. Intercultural competence) were designed after the year 2000.

From the summary table, one can draw the following observations:

(a) There is a wide variety of definitions and a variety of measurements. Each tool, depending on its purpose and the target group that wishes to examine, emphasizes on different variables.

(b) However, most of them are emphasizing on communication skills, adaptability, multicultural/global mindset, sensitivity, respect, openness and flexibility.

(c) Most of them are compositional models. They define competence as a combination of elements/features (knowledge, skills, attitudes, values). First of all, was Lapointe in 1994, that presented a relative compositional model, on which Deardorff (2006)'s model was based upon. At the same time, some development models were developed, such as Hammer & Bennett's IDI, which depicts the stages of intercultural sensitivity. While, only a few researchers propose causal models emphasizing intercultural interaction and interaction (Griffith et al., 2016; Arasaratnam, 2009).

(d) Although researchers agree that the combination of methods can yield the most reliable results of measuring global/intercultural competence, we observe that only a few studies apply this (Matsumoto & Hwang, 2013; Griffith et al., 2016, Ang et al., 2007). Questionnaires with a Likert scale of 4, 5 or 7 points being used more often. *This method*

(in combination with a cognitive test) is also used by OCED for developing Global Competence Framework.

III. RESEARCH METHODOLOGY

3.1. Research Framework

The most common performance indicators that assess internationalization of HE is related with world university rankings and with students' outcomes, such as enrolment rates, completion rates, drop-out rates and employment rates of graduates. Also, surveys are being carried out to capture the students' satisfaction regarding the quality of HEIs and learning gains (Dias & Amaral, 2014).

However, assessing global competence of students and graduates has a principle focus on providing data about the outcomes of internationalization of a HEI. Assessments of global competence could raise the attention for designing and developing more innovative curricula and strategies for global learning adapted in modern needs (Barker, 2000). It can be a tool to help HEIs understand if objectives and results initially planned were achieved and to provide them with evidence to work on future corrections and improvements, in order to increase the internationalization and global competence education.

As it has already pointed out global competence demands a set of skills and competences about global issues and intercultural communities. After, we have identified from literature review the main features of global competence and the internationalization practices, the scope of this chapter is to examine the relation between internationalization/global education approaches in HEIs and the students' acquirement of global competence.

3.2. Methodology

Quantitative research method was used for the purposes of this study. Content validity was ensured after a comprehensive literature review was conducted on internationalization of HE and on global competence of the students. A first draft was sent to a number of experts for review. Likert scales involve statements to which respondents indicate agreement or disagreement on a 4- or 5-point response scale. Scales were created with items that represent each element of global competence according to PISA 2018 Global Competence Questionnaire. Ramos & Schleicher (2016) underline the fact that *"it is practically not possible to define scales for self-reported attitudes and skills that are always 100% valid"*. This questionnaire is actually a self-assessment tool included from self-reported questions. Since, developing skills and

competencies is a continuous process; this tool can only evaluate the current skills and competences of one person.

Only an online version of the questionnaire was designed. An initial version of the questionnaire was used in a *pilot phase* by bachelor, master and doctoral students in order to identify any problems and ambiguities about the structure or the content of it providing also feedback for improvements. The final questionnaire was distributed in a total number of ***462 active students or recent graduates*** in numerous universities in Greece via *google forms*. For the analysis of the data collected, ***descriptive and inferential statistics*** were used. All statistical analyses were conducted using Excel and SPSS.

3.3. Population Profile

For the purposes of this study, the questionnaire targets active students or recent graduates of public HEIs (bachelor, master, PhD level) in Greece. The graduates should have completed their academic studies within the last three (3) years, so that their engagement with academics is recent and in accordance with the existing state-of-the-art. What is more, there are no specific criteria regarding the field of study, the school, department or faculty, the type of programme or its duration, scientific or technical knowledge area, etc.

3.4. Sample

Data collection will be carried out with the use of google forms and for the analysis of the data, descriptive statistics were used at the beginning of the sample analysis. Gender balance as well as sample from different regions and universities was taken into consideration for the assurance of the reliability and the quality of findings.

In case the number of students or recent graduates that have participated in international experiences and global education services *(first group)* and the number of them that have no such experiences *(second group)* is adequate, we will carry out statistic tests in order *to examine the differences between the two groups*. Each item of Section C was examined separately for both groups, so as to identify if there are differences on skills, knowledge and attitudes between students who have participated in internationalization practices (first group) and those who had none of such experiences (second group).

3.5. The questionnaire

In this Chapter, the main idea is to use part of the PISA 2018 Global Competence Questionnaire for the assessment of global understanding and students' awareness of global issues, and cultures, skills and attitudes by adapting it to higher education students (not 15-year-old students). We should use only the questions related to global competence in the student questionnaire (pp. 1-6) and not the questions concerned teachers or parents.

As described in the introductory part of this thesis, the questionnaire consists of three main sections *(a) Demographics, (b) Internationalization/Global Competence Education Practices and Programmes in Higher Education, and (c) Skills, Knowledge & Attitudes regarding Global Understanding (OECD-PISA Global Competence Questionnaire).* The questionnaire includes multiple choice questions, Likert scale questions and open questions. The average time to complete the questionnaire was about 7 minutes and consists from 50 items in total; 9 items for demographics, 2 items for Internationalization Practices, and 39 items for global competence of students/recent graduates.

As stated above, for the purposes of this study*, only some features of students' global competence* are going to be examined among the others of OECD-PISA Global Competence Framework in the Section C of the questionnaire. More specifically, the self-reported knowledge, skills and attitudes covering global issues and intercultural perspectives, according to definitions provided by OECD, are:

➢ **Awareness of global issues**

Global competence mostly requires awareness of global issues, which affects all people around the world, not only in local or national level, but also in international level as well. Such global issues might be environment protection, poverty, migration, international conflicts, human rights etc. Being aware about these issues, encounter people to take action in order to change the world by creating a better place for all human beings to live and handle global challenges (Ramos & Schleicher, 2016; OECD 2018a, Piacentini, 2017, Herrere, 2008).

➢ **Adaptability**

Global competence requires adaptability, since it is a capacity which helps the person to be flexible to new cultural environments, be able to tackle cultural shock, to handle unfamiliar situations and create more easily interpersonal relations with people from

different countries (Ramos & Schleicher, 2016; OECD 2018a; Piacentini, 2017; Deardorff, 2006).

> ➤ **Awareness of intercultural communication**

Students that have developed their intercultural communication, are able to accept the diversity in cross-cultural societies, they can interact and communicate effectively with people from different cultural backgrounds without stereotypes, they are against racism or discrimination, they speak foreign languages and they are active listeners and great observers (Ramos & Schleicher, 2016; OECD 2018a; Piacentini, 2017; Deardorff, 2006).

> ➤ **Engagement regarding global issues**

Since students are aware of global issues, they are involved in numerous activities in their daily lives in order to promote global prosperity and resilience. Actually, by participating in social, environmental, political, cultural, or other type of activities they can express themselves and their voice towards global issues and tackle numerous global challenges (Ramos & Schleicher, 2016; OECD 2018a; Piacentini, 2017).

> ➤ **Respect for people from other cultural backgrounds**

Respect towards people regardless their cultural background, nation, gender, religion, other believes is a core element of global competence. Global competence requires respect for human dignity in order to enhance the equity, inclusion and resilience in societies around the globe. Individuals build trust, express interest, interact and communicate respectfully with others prioritizing collective goals and peace. They accept the principles of human rights and democracy and reject discrimination, violence, hate speech, manipulation and cultural stereotypes (Ramos & Schleicher, 2016; OECD 2018a; Piacentini, 2017).

> ➤ **Global mindedness**

Global mindedness is an essential attitude of global competent people. The main concept of global mindedness, according to OECD PISA Framework is that *"one is a citizen of the world with commitments and obligations toward the planet and others, irrespective of their particular cultural or national background".* Global minded people take care of world issues and feel responsible of future generations and planet's well-being. They also critically examine global developments that occur in the world and act correspondingly in global problems (Ramos & Schleicher, 2016; OECD 2018a; Piacentini, 2017).

In the following table, there are the features of global competence, the category (skill and knowledge or attitude) where each one belongs and the questions which focus on specific features. Five to eight items will examine the facets of each feature. Each item is presented as a question accompanied with a 4 or 5 Likert scale or YES-NO answer.

Skills and knowledge	**Awareness of global issues**	How informed are you about the following topics? (4 Liker scale) 1. Climate change and global warming 2. Global health (e.g. epidemics) 3. Migration (movement of people) 4. International conflicts 5. Hunger or malnutrition in different parts of the world 6. Causes of poverty 7. Equality between men and women in different parts of the world
	Adaptability	How well does each of the following statements below describe you? (5 Likert scale) 1. I can deal with unusual situations. 2. I can change my behaviour to meet the needs of new situations. 3. I can adapt to different situations even when under stress or pressure. 4. I can adapt easily to a new culture. 5. When encountering difficult situations with other people, I can think of a way to resolve the situation. 6. I am capable of overcoming my difficulties in interacting with people from other cultures.
	Awareness of intercultural communication	Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements? (4 Likert scale) 1. I carefully observe their reactions. 2. I frequently check that we are understanding each other correctly. 3. I listen carefully to what they say. 4. I choose my words carefully. 5. I give concrete examples to explain my ideas. 6. I explain things very carefully. 7. If there is a problem with communication, I find ways around it (e.g. by using gestures, re-explaining, writing etc.).

	Student's engagement regarding global issues	Are you involved in the following activities? (Yes-No) 1. I reduce the energy I use at home (e.g. by turning the heating down or turning the air conditioning up or down or by turning off the lights when leaving a room) to protect the environment. 2. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive. 3. I sign environmental or social petitions online. 4. I keep myself informed about world events via Twitter or Facebook. 5. I boycott products or companies for political, ethical or environmental reasons. 6. I participate in activities promoting equality between men and women. 7. I participate in activities in favor of environmental protection. 8. I regularly read websites on international social issues (e.g. poverty, human rights).
Attitudes	**Respect for people from other cultural backgrounds**	How well does each of the following statements below describe you? (5 Likert scale) 1. I respect people from other cultures as equal human beings. 2. I treat all people with respect regardless of their cultural background. 3. I give space to people from other cultures to express themselves. 4. I respect the values of people from different cultures. 5. I value the opinions of people from different cultures.
	Global mindedness	To what extent do you agree with the following statements? (4 Likert scale) 1. I think of myself as a citizen of the world. 2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it. 3. I think my behaviour can impact people in other countries. 4. It is right to boycott companies that are known to provide poor workplace conditions for their employees. 5. I can do something about the problems of the world.

		6. Looking after the global environment is important to me.

The structure of the questionnaire is the following:

Section A: Demographics	
1. Are you an active student in a Greek University? If yes, select your academic level (bachelor, master, PhD level).	• Yes, I am a bachelor student in Greece. • Yes, I am a master student in Greece. • Yes, I am a PhD candidate student in Greece. • No, I am not a student.
2. Are you a recent graduate of the last 3 years in Greece? If yes, select your academic level (bachelor, master, PhD level).	• Yes, I am a bachelor recent graduate. • Yes, I am a master recent graduate. • Yes, I am a PhD recent graduate. • No, I am not a recent graduate.
3. What is your gender?	• Male • Female • Other
4. What is your nationality?	
5. What is your age?	• 18-24 • 25-34 • >=35
6. What is your educational background (faculty/department)?	• Humanities • Cultural Sciences & Arts • Architecture & Engineering • Business & Economics • Environmental & Natural Sciences • Computer Sciences • Education Sciences • Physical Education & Sport Sciences • Social & Political Sciences • Tourism & Hospitality • Marketing & Communication • Sciences (Mathematics, Physics, Chemistry, Biology, etc.) • Languages • Health Sciences • Other
7. What is your language level in English according to EQF?	• B1 • B2 • C1 • C2

8. What other languages do you speak?	
9. In which city do/did you study?	

1. Please, select as many as you think from the following items, in case you have participated during your academic studies in a university/college/higher education institution:	1-4 weeks short-term international experience 2-3 months short-term international experience - one academic semester short-term international experience - one academic year short-term international experience - study visits - summer school abroad - online mobility/ virtual learning - International internship - Foreign language classes (English or other) - use of English for lecturing and instruction (one or more courses) "Global Studies Certificate as extra-curriculum" - International research projects - Business education and connection with the local business community - Community-based service activities and engagement with civil society and voluntary associations - Project-based learning (PBL) - None of the above
2. Please, select as many as you think from the following items, in case your school/department/university provides them (even if you have NOT participated in them):	- Foreign language classes - Short-term international experience/Student exchange programs - Internationalization offices - Summer schools - International projects - Study visits abroad - Creating international internships and networks/partnership with foreign universities "Global Studies Certificate" as extra-curriculum - Presence of foreign students and scholars on campus - Business education and connection with the local business community - Community-based service activities and engagement with civil society and voluntary associations - Bringing foreign speakers/professors to the campus

	• Project-based learning (PBL)
	• Joint program academic design/Collaborative research
	• Multilingual staff
	• None of the above

Section C: Skills, Knowledge & Attitudes regarding Global Understanding

In this section, part of PISA 2018 Global Competence Questionnaire is used for the assessment of global understanding and students' awareness of global issues, and cultures, skills and attitudes adapted to higher education students or graduates.

A. How informed are you about the following topics? (4 Liker scale)	1. Climate change and global warming 2. Global health (e.g. epidemics) 3. Migration (movement of people) International conflicts 4. Hunger or malnutrition in different parts of the world 5. Causes of poverty 6. Equality between men and women in different parts of the world
B. How well does each of the following statements below describe you? (5 Likert scale)	1. I can deal with unusual situations. 2. I can change my behaviour to meet the needs of new situations. 3. I can adapt to different situations even when under stress or pressure. 4. I can adapt easily to a new culture. 5. When encountering difficult situations with other people, I can think of a way to resolve the situation. 6. I am capable of overcoming my difficulties in interacting with people from other cultures.
C. Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements? (4 Likert scale)	1. I carefully observe their reactions. 2. I frequently check that we are understanding each other correctly. 3. I listen carefully to what they say. 4. I choose my words carefully. 5. I give concrete examples to explain my ideas. 6. I explain things very carefully. 7. If there is a problem with communication, I find ways around it (e.g. by using gestures, re-explaining, writing etc.).
D. Are you involved in the following activities? (Yes-No)	1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive. 2. I sign environmental or social petitions online. 3. I keep myself informed about world events via Twitter or Facebook. 4. I boycott products or companies for political, ethical or environmental reasons.

	5. I participate in activities promoting equality between men and women.
	6. I participate in activities in favor of environmental protection.
	7. I regularly read websites on international social issues (e.g. poverty, human rights).
E. How well does each of the following statements below describe you? (5 Likert scale)	1. I respect people from other cultures as equal human beings.
	2. I treat all people with respect regardless of their cultural background.
	3. I give space to people from other cultures to express themselves.
	4. I respect the values of people from different cultures.
	5. I value the opinions of people from different cultures.
F. To what extent do you agree with the following statements? (4 Likert scale)	1. I think of myself as a citizen of the world.
	2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.
	3. I think my behaviour can impact people in other countries.
	4. It is right to boycott companies that are known to provide poor workplace conditions for their employees.
	5. I can do something about the problems of the world.
	6. Looking after the global environment is important to me.

Table 6. Questionnaire

3.6. Method of Data Collection

All data were collected via the *online distribution* of the google forms questionnaire. In this manner, an online open invitation was created in a post form in social media. The post invitation contains the name of researcher, the faculty and the university, the scope the thesis, the target group, minute to conclude the questionnaire and the link. There was also a statement regarding the data protection verifying that all data will be used for academic research purposes and they will be collected anonymously, ensuring the confidentiality of students' answers.

The students were invited to participate voluntarily to the survey through online channels, groups and sites mainly in social media (Facebook and LinkedIn). The invitation was posted on the following groups: Department of Mathematics (National and Kapodistrian University of Athens), School of Law (National and Kapodistrian University of Athens),

School of History and Archaeology (Aristoteles University of Thessaloniki), Department of Philosophy and Pedagogy (Aristoteles University of Thessaloniki), 7th and 8th Pan-Hellenic Conference of Archaeology, Department of Statistics (University of Piraeus), Department of International and European Studies (University of Piraeus), Architecture and Engineering of National Technical University of Athens, Business Administration (University of Applied Sciences of Thessaly), Faculty of Medicine (University of Thessaly), University of Crete, University of Peloponnese, Department of Agriculture of Florina, Ionian University, Democritus University of Thrace, School of Engineering DUTH, University of Aegean, University of Ioannina and University of West Attica (mainly Department of Computer Science).

IV. RESULTS AND DISCUSSION

4.1. Data Presentation and Description

This section aims to present and describe the data based on the questionnaires' answers from **435 participants**. The initial number of participants have completed the online questionnaire where 462, but based on the fact that some of them did not fulfil the basic assumptions. For example, they weren't neither students or recent graduates, they haven't studied in a Greek HEI or they left blanks in some questions. So, they were not eligible for this survey.

The first category in the questionnaire refers to the demographics of the respondents. Regarding the gender of the responders, among 435 participants, **283** were **female** (**65.06%**), **149** were **male** (**34.25%**), while 3 responded **other (0.69%)** (Table 7, Graph 1).

A.3. What is your gender?		
	Frequency	**Percent**
Male	149	34,25%
Female	283	65,06%
Other	3	0,69%
Total	435	100,00%

Table 7. Gender
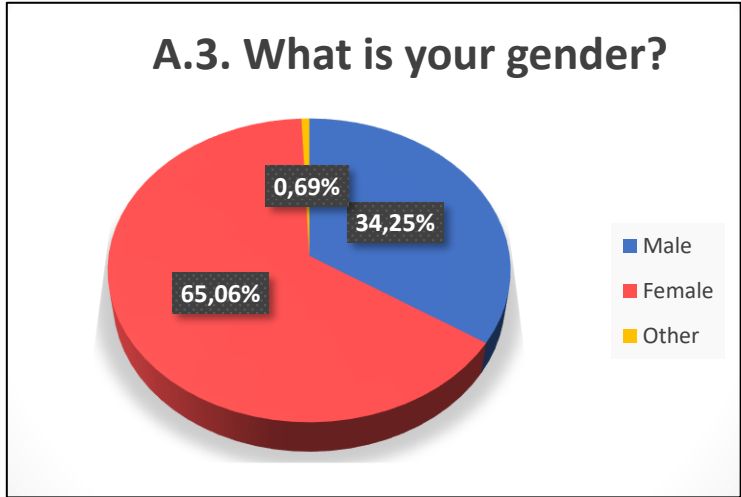
The age of the respondents of the sample are distributed as follows: 18-24 years old was the 60%, 25-34 years old was the 31.49% and finally 35 years old and above was the 8.51% (Table 8, Graph 2).

A.5. What is your age?			
	Frequency	**Percent**	**Cumulative Percent**
18-24	261	60,00%	60,0
25-34	137	31,49%	91,5
>=35	37	8,51%	100,0
Total	435	100%	

Table 8. Age
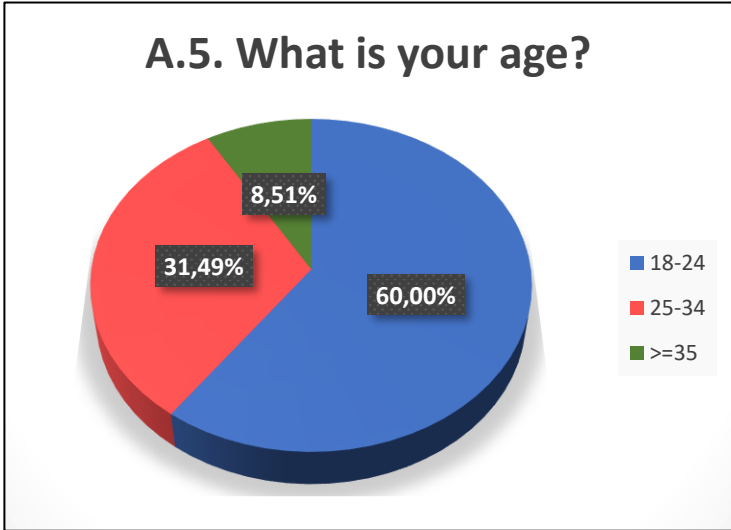
Graph 2. Age

The majority of respondents declared Greek as their nationality. Specifically, 97.01% have Greek nationality, 10 respondents (2.30%) answered Greek and another nationality (Albanian, Australian, Canadian, British, Bulgarian, Cypriot and Ukrainian), while finally 2 people declared Cypriot nationality and 1 person the Moldavian (Table 9).

A.4. What is your nationality?		
	Frequency	Percent
Greek	422	97,01%
Greek & Other	10	2,30%
Other	3	0,69%
Total	435	100%

Table 9. Nationality

Regarding the current educational status of the responders, 72 respondents (16.55%) stated that they are not active students in Greece and they have completed at least one undergraduate program in Greece, 200 (45.98%) answered that they are currently undergraduate students, while 120 (27, 59%) and 43 (9.89%) respondents answered that they are postgraduate and doctoral students respectively (Table 10, Chart 3).

A.1. Are you an active student in a Greek University? If yes, select your academic level (bachelor, master, PhD level).		
	Frequency	Percent
No, I am not a student in Greece.	72	16,55%
Yes, I am a bachelor student in Greece.	200	45,98%
Yes, I am a master student in Greece.	120	27,59%
Yes, I am a PhD candidate student in Greece.	43	9,89%
Total	435	100,00%

Table 10. Active Students
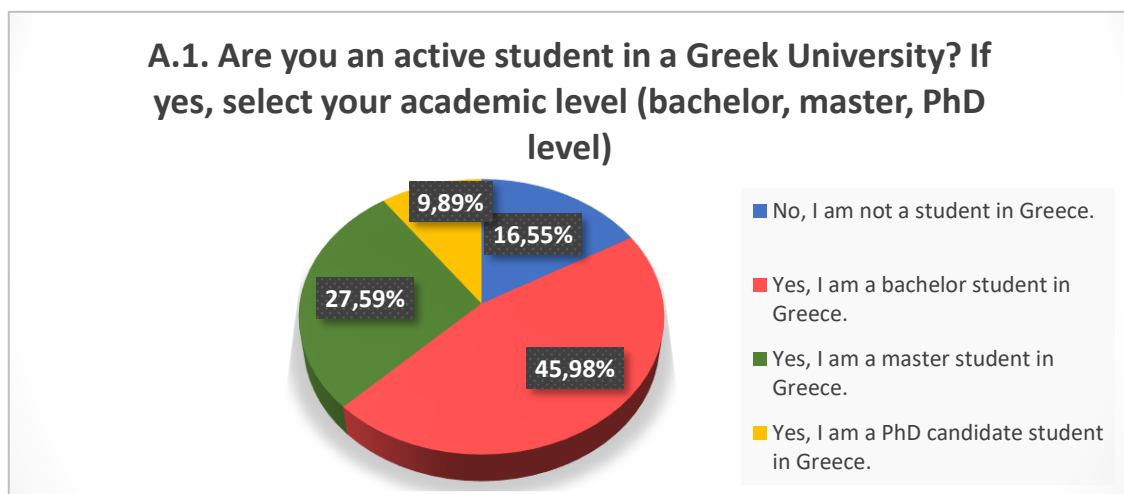
Graph 3. Active Students

In addition to that, from the total sample of respondents, 50.34% were not recent graduates of the last three years of any academic level of a Greek HEI; a fact that makes them active students. What is more, 29.43% are bachelor recent graduate students, 17.01% are master recent graduate students, and 3.22% are PhD recent graduate students (Table 11, Graph 4).

A.2. Are you a recent graduate of the last 3 years in Greece? If yes, select your academic level (bachelor, master, PhD level).		
	Frequency	Percent

No, I am not a recent graduate in Greece.	219	50,34%
Yes, I am a bachelor recent graduate in Greece.	128	29,43%
Yes, I am a master recent graduate in Greece.	74	17,01%
Yes, I am a PhD recent graduate in Greece.	14	3,22%
Total	435	100,00%

Table 11. Recent Graduates of the last 3 years

Graph 4. Recent Graduates of the last 3 years.

Regarding the educational background of the responders, it is obvious that the sample comes from a variety of faculties and departments. Thus 11,76% of the participants were from Human sciences, 17,16% were from architecture and engineering, 8,33% from Business and Economics, 15% from Social and Political Sciences, 10,31% from Sciences (Mathematics/Physics/Chemistry/Biology), etc.

The sample percentages were representative of the latest statistics provided by ELSTAT about the enrolled students in Higher Education in Greece providing data about gender, specialty and level of education for the academic year 2017-2018 (ELSTAT, 2018) (Table 12, Graph 5).

A.6. What is your educational background (faculty/department)?		
	Frequency	Percent
A.6.1. Humanities	51	11,76%
A.6.2. Cultural Sciences & Arts	9	2,03%
A.6.3. Architecture & Engineering	75	17,16%
A.6.4. Business & Economics	36	8,33%
A.6.5. Environmental & Agricultural Sciences	28	6,51%
A.6.6. Computer Sciences	32	7,32%
A.6.7. Education Sciences	26	6,05%
A.6.8. Physical Education & Sport Sciences	13	2,99%

A.6.9. Social & Political Sciences	67	15,33%
A.6.10. Tourism & Hospitality	2	0,40%
A.6.11. Marketing & Communication	6	1,32%
A.6.12. Sciences (Mathematics/Physics/Chemistry/Biology/etc.)	45	10,31%
A.6.13. Languages	14	3,20%
A.6.14. Health Sciences	19	4,44%
A.6.15. Other	12	2,84%
Total	435	100,00 %

Table 12. Educational Background

A.6. What is your educational background (faculty/department)?

Category	Value
A.6.15. Other	2,84%
A.6.14. Health Sciences	4,44%
A.6.13. Languages	3,20%
A.6.12. Sciences (Mathematics/Physics/Chemistry/Biology/etc.)	10,31%
A.6.11. Marketing & Communication	1,32%
A.6.10. Tourism & Hospitality	0,40%
A.6.9. Social & Political Sciences	15,33%
A.6.8. Physical Education & Sport Sciences	2,99%
A.6.7. Education Sciences	6,05%
A.6.6. Computer Sciences	7,32%
A.6.5. Environmental & Agricultural Sciences	6,51%
A.6.4. Business & Economics	8,33%
A.6.3. Architecture & Engineering	17,16%
A.6.2. Cultural Sciences & Arts	2,03%
A.6.1. Humanities	11,76%

Graph 5. Educational Background

It has been noticed that, even the majority of the sample selected only one field of study (87.59%), the rest of responders have studied more than one academic field as second degree (Table 13).

A.6.17. Fields of studies			
	Frequency	Percent	Cumulative Percent
1 field	381	87,59%	87,59%
2 fields	37	8,51%	96,09%
3 fields	16	3,68%	99,77%
4 fields	1	0,23%	100,00%
Total	435	100,00%	

Table 13. Fields of Studies

Additionally, 18 people selected more than one city of studies, as they may have completed a second bachelor degree, master or PhD in another city in Greece (Table 14, Graph 6). As it can been seen the grant majority of sample has studies in Athens or Thessaloniki, the largest cities in Greece, with the biggest campuses and the greatest number of schools and departments.

A.9. In which city do/did you study?		
A.9.4. Region	Frequency	Percent
Athens	185	42,53%
Thessaloniki	97	22,30%
Piraeus	20	4,60%
Epirus	21	4,83%
Crete	10	2,30%
Macedonia (Florina - Serres - Kozani)	17	3,91%
Thrace	15	3,45%
Periferia dyt. Elladas (Patra-Agrinio)	21	4,83%
Thessaly (Larissa-Karditsa-Volos)	11	2,53%
Aeagean Islands	13	2,99%
Ionion Islands	14	3,22%
Other (Levadia-Tripolis-EAP-Rest Greece)	11	2,53%
Total	435	100,00%

Table 14. Cities/Regions of Studies

A.9. In which city do/did you study?
A.9.4. Region
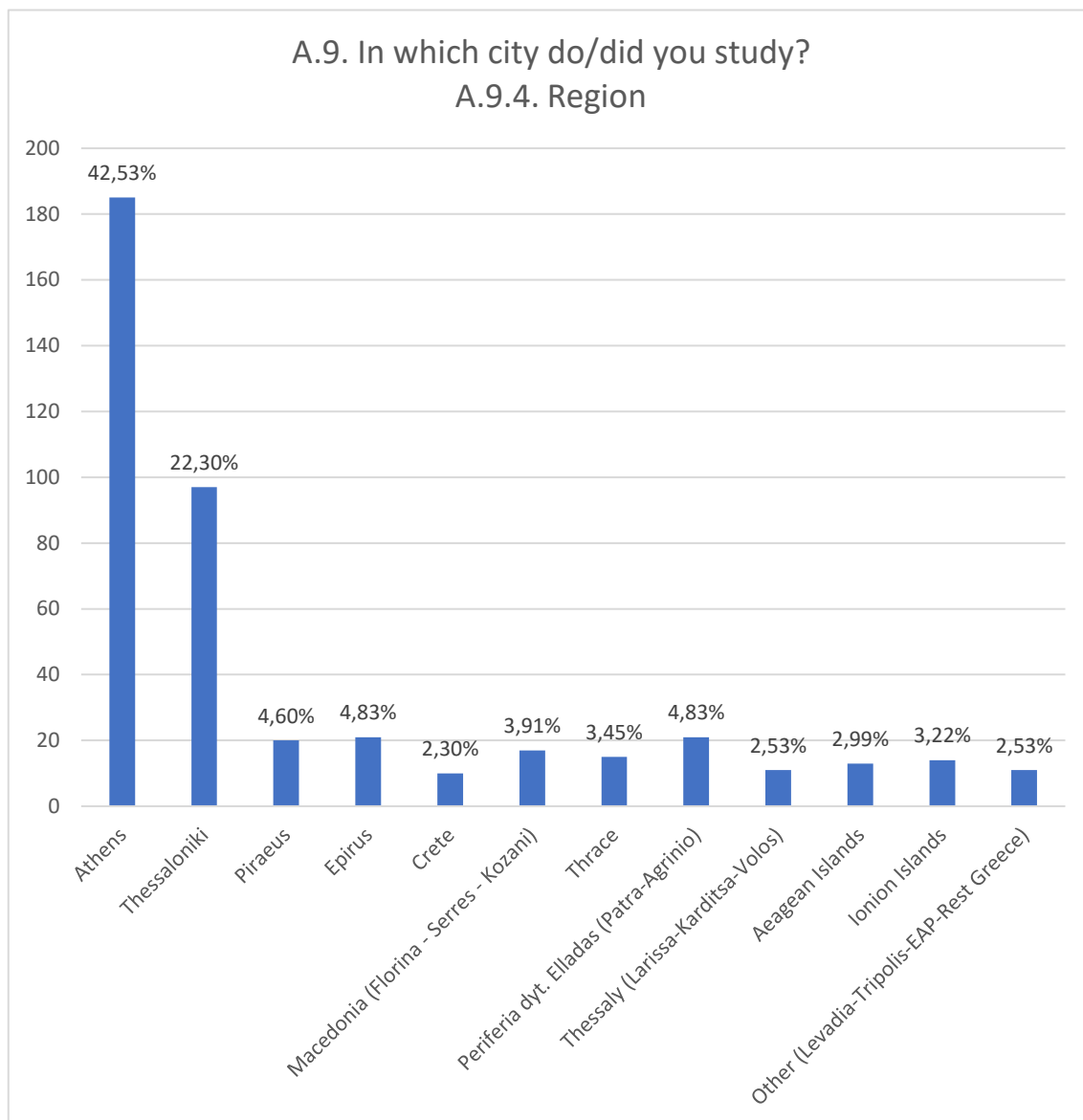
Graph 6. Cities/Regions of Studies

In terms of knowledge of foreign languages, the grant majority (70.57%) speaks proficient English (C2 level according to EQF) (Table 15, Graph 7) and more than 70% declared that they speak one more foreign language (Table 16, Graph 8).

A.7. What is your language level in English according to EQF?			
	Frequency	Percent	Cumulative Percent
B1	10	2,30%	2,30%
B2	87	20,00%	22,30%
C1	31	7,13%	29,43%
C2	307	70,57%	100,00%
Total	435	100,00%	

Table 15. Language Level in English.
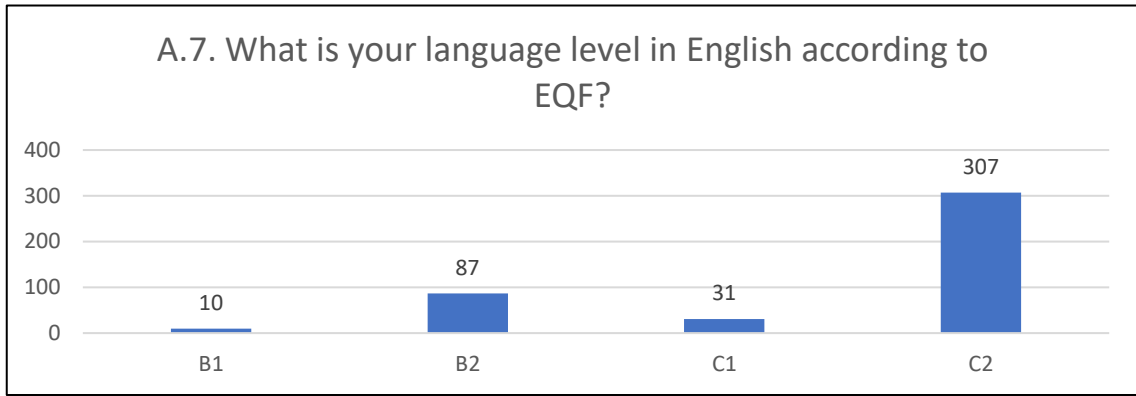
Graph 7. Language Level in English.

A.8. What other languages do you speak?		
	Frequency	Percent
A.8.1. French	168	38,62%
A.8.2. German	122	28,05%
A.8.3. Italian	43	9,89%
A.8.4. Spanish	53	12,18%
A.8.5. Russian	16	3,68%
A.8.6. Japannese-Chinese-Korean	7	1,61%
A.8.7. Other	15	3,45%
A.8.8. None	114	26,21%

Table 16. Other foreign languages.
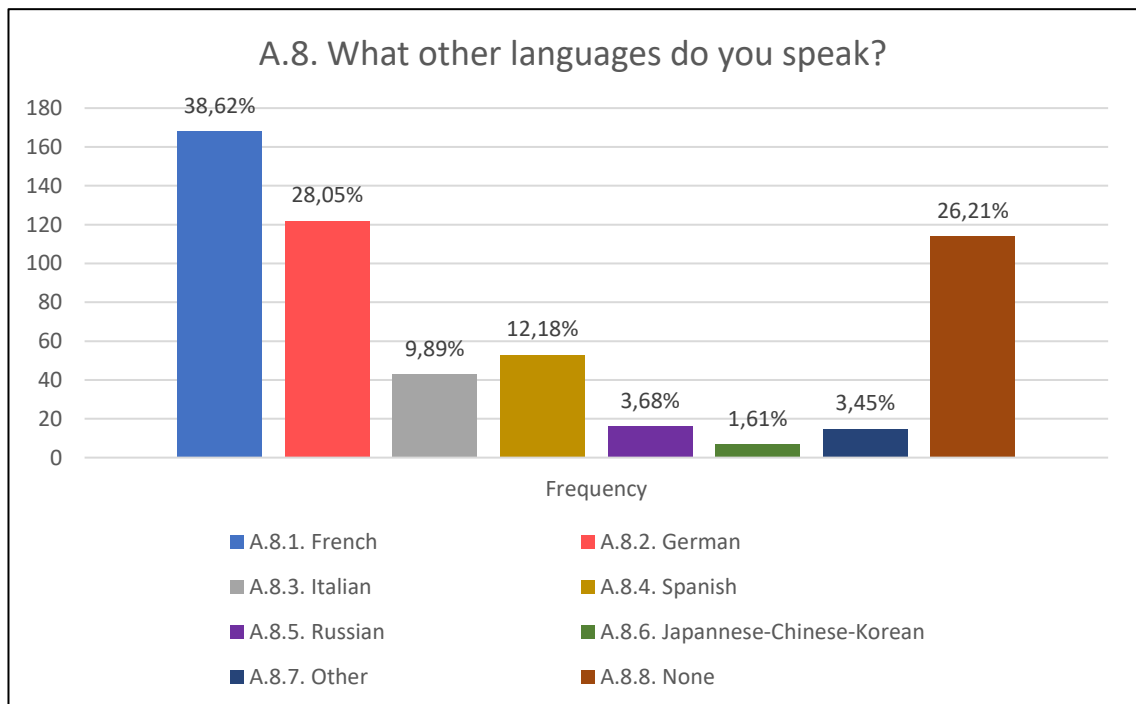
Graph 8. Other foreign languages.

In the following table and graph, the total number and total percentage of students speaking 0 to 4 foreign languages are pointed out (Table 17, Graph 9).

A.8.9. Total Number of other languages			
	Frequency	Percent	Cumulative Percent
0 other languages	114	26,21%	26,21%
1 other languages	235	54,02%	80,23%
2 other languages	72	16,55%	96,78%
3 other languages	10	2,30%	99,08%
4 other languages	4	0,92%	100,00%
Total	435	100,00%	

Table 17. Total Number of Other Languages.
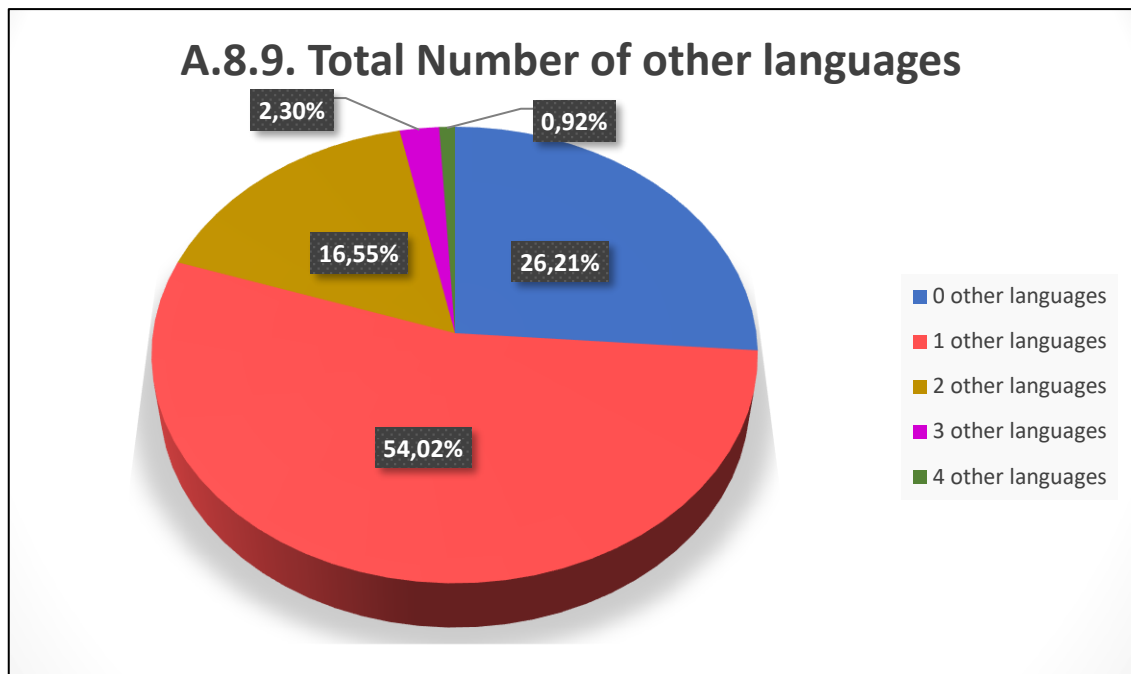
Graph 9. Total Number of Other Languages.

Following, there is a table including the internationalization practices or/and the global competence education approaches a HEI or other organization may have adopted in order to boost its global dimension and reinforce the global competence of young people. These practices were identified and selected from the literature review (Greek, European, American bibliography).

They can be implemented not only by a HEI but also by other organisation. In the table 19 and the graph 10, we can see the frequency and the percentage of the responders have participated in internationalization practices during their period of studies in a Greek university offered by a HEI or not.

The majority of the students/recent graduates (80.23%) have pointed out that they have participate in internationalization activities, while only the 19.77% of the sample admitted that had no active participation in those practices (Table 18).

B.1.18. How many activities you have participated			
	Frequency	Percent	Cumulative Percent
0	86	19,77%	19,77%
1	86	19,77%	39,54%
2	94	21,61%	61,15%
3	70	16,09%	77,24%
4	41	9,43%	86,67%
5	20	4,60%	91,26%
6	15	3,45%	94,71%
7+	23	5,29%	100,00%
Total	435	100,00%	

Table 18. Total Participation in Internationalization Activities

Among the top selected categories of internationalization practices were: foreign language classes (English or other) (37,24%), the use of English for lecturing and instruction (25,06%), the project-based learning (27,82%), virtual learning (23,68%), study visits abroad, 1-4 weeks short-term international experience and one academic semester short-term international experience.

On the other hand, the activities the participants were engaged the less during their academic studies in a Greek HEI are one academic year short-term international experience, 2-3 months short-term international experience, "Global Studies Certificate as extra-curriculum", International internship, International research projects, Summer schools and Business education and connection with the local business community.

B.1. Please, select as many as you think from the following items, in case you have participated during your academic studies in a university/higher education institution:		
	Frequency	Percent
B.1.1. 1-4 weeks short-term international experience	63	14,48%
B.1.2. 2-3 months short-term international experience	26	5,98%
B.1.3. One academic semester short-term international experience	59	13,56%
B.1.4. One academic year short-term international experience	12	2,76%
B.1.5. Study visits abroad	95	21,84%
B.1.6. Summer school	52	11,95%

B.1.7. Online mobility/ virtual learning	103	23,68%
B.1.8. International internship	37	8,51%
B.1.9. Foreign language classes (English or other)	162	37,24%
B.1.10. Use of English for lecturing and instruction (one or more courses)	109	25,06%
B.1.11. "Global Studies Certificate as extra-curriculum"	27	6,21%
B.1.12. International research projects	45	10,34%
B.1.13. Business education and connection with the local business community	50	11,49%
B.1.14. Community-based service activities and engagement with civil society and voluntary associations	77	17,70%
B.1.15. Project-based learning (PBL)	121	27,82%
B.1.16. None of the above	86	19,77%

Table 19. Participation in Internationalization Activities/Global Competence Education Practices

B.1. Please, select as many as you think from the following items, in case you have participated during your academic studies in a university/college/higher education institution:

- B.1.1. 1-4 weeks short-term international experience
- B.1.2. 2-3 months short-term international experience
- B.1.3. One academic semester short-term international experience
- B.1.4. One academic year short-term international experience
- B.1.5. Study visits abroad
- B.1.6. Summer school
- B.1.7. Online mobility/ virtual learing
- B.1.8. International internship
- B.1.9. Foreign language classes (English or other)
- B.1.10. Use of English for lecturing and instruction (one or more courses)
- B.1.11. "Global Studies Certificate as extra-curriculum"
- B.1.12. International research projects
- B.1.13. Business education and connection with the local business community
- B.1.14. Community-based service activities and engagement with civil society and voluntary associations
- B.1.15. Project-based learning (PBL)
- B.1.16. None of the above

Graph 10. Participation in Internationalization Activities/Global Competence Education Practices

Despite the abovementioned practices that students or recent graduates have been participating within or out of a Greek HEI during their academic studies, they have been asked to select the internationalization practices or activities offered by the universities they study or have studied, even they have not participated in them. Not all the selected items were officially applicable in Greek HEIs according to Greek Ministry of Education. However, responders have selected them; which is a fact that can enrich our knowledge about the practices that have been integrated within a HEI unofficially encountered more by personal initiatives of academic or administrative staff, and implemented in an institutional level rather than a country level.

As it is pointed out in the following table and graph, according to the responders, Greek university offer most of all short-term international experience/student exchange programs, foreign language classes, presence of foreign students and scholars on campus, presence of foreign speakers/professors in the campus, international internships, international projects, joint program academic design/collaborative research (Table 20, Graph 11).

B.2. Please, select as many as you think from the following items, in case you strongly believe that your department/university provides them (even if you have NOT participated in them):		
	Frequency	Percent
B.2.1. Foreign language classes	248	57,01%
B.2.2. Short-term international experience/Student exchange programs	338	77,70%
B.2.3. Internationalization offices	105	24,14%
B.2.4. Summer schools	88	20,23%
B.2.5. International projects	159	36,55%
B.2.6. Study visits abroad	128	29,43%
B.2.7. International internships	222	51,03%
B.2.8. "Global Studies Certificate" as extra-curriculum	49	11,26%
B.2.9. Presence of foreign students and scholars on campus	256	58,85%
B.2.10. Business education and connection with the local business community	123	28,28%
B.2.11. Community-based service activities and engagement with civil society and voluntary associations	120	27,59%
B.2.12. Bringing foreign speakers/professors to the campus	226	51,95%
B.2.13. Project-based learning (PBL)	149	34,25%
B.2.14. Joint program academic design/Collaborative research	155	35,63%
B.2.15. Multilingual staff	99	22,76%
B.2.16. None of the above	23	5,29%

Table 20. Internationalization Activities offered by Greek HEIs.

B.2. PLEASE, SELECT AS MANY AS YOU THINK FROM THE FOLLOWING ITEMS, IN CASE YOU STRONGLY BELIEVE THAT YOUR DEPARTMENT/UNIVERSITY PROVIDES THEM (EVEN IF YOU HAVE NOT PARTICIPATED IN THEM):

- B.2.1. Foreign language classes
- B.2.2. Short-term international experience/Student exchange programs
- B.2.3. Internationalization offices
- B.2.4. Summer schools
- B.2.5. International projects
- B.2.6. Study visits abroad
- B.2.7. International internships
- B.2.8. "Global Studies Certificate" as extra-curriculum
- B.2.9. Presence of foreign students and scholars on campus
- B.2.10. Business education and connection with the local business community
- B.2.11. Community-based service activities and engagement with civil society and voluntary associations
- B.2.12. Bringing foreign speakers/professors to the campus
- B.2.13. Project-based learning (PBL)
- B.2.14. Joint program academic design/Collaborative research
- B.2.15. Multilingual staff
- B.2.16. None of the above
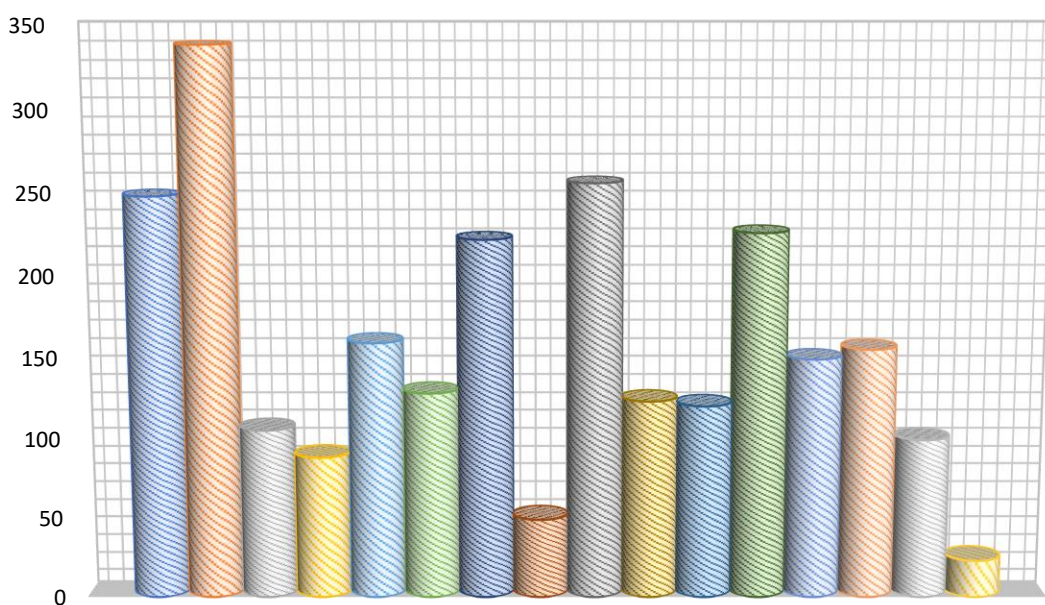
Graph 11. Internationalization Activities offered by Greek HEIs.

Moving on to the last section of the questionnaire about the *"Skills, Knowledge & Attitudes regarding Global Understanding"*, which is part of PISA 2018 Global Competence Questionnaire and it is used for the assessment of global understanding and students' awareness of global issues, and cultures, skills and attitudes, there are being presented the scores of responders regarding six features of global competence:

i.   Awareness of global issues

ii.   Adaptability

iii. Awareness of intercultural communication

iv.   Student's engagement regarding global issues

v.   Respect for people from other cultural backgrounds

vi.   Global mindedness

The following tables provide a holistic view of participants responses regarding global competence development.

In terms of **"awareness of global issues",** in most questions, responders answered that they **"know something about this and could explain the general issue"** (2 in Likert scale 0-3) or that **they are "familiar with this and they would be able to explain this well** (3 in Likert scale 0-3). For instance, in the item 1. Climate Change and global warming, from the total sample of 435 students/recent graduates, 54,71% selected the scale 2, 40% of the participants answered the scale 3, while only 4,6% and 0,69% selected the scale 1 and 0 correspondingly. However, in the questions 4 and 5 regarding the awareness of **"International conflicts"** and the **"Hunger or malnutrition in different parts of the world"**, as we can observe from the mean value (1,73 & 1,83) most of them selected 1 and 2 from Likert scale, which means that they **"have heard about this but they would not be able to explain what it is really about".**

Awareness of global issues								
C.A. How informed are you about the following topics?								
	0. I have never heard of this		1. I have heard about this but I would not be able to explain what it is really about		2. I know something about this and could explain the general issue		3. I am familiar with this and I would be able to explain this well		
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
1. Climate change and global warming	3	0,69%	20	4,60%	238	54,71%	174	40,00%	2,34
2. Global health (e.g. epidemics)	4	0,92%	75	17,24%	256	58,85%	100	22,99%	2,04
3. Migration (movement of people)	5	1,15%	50	11,49%	241	55,40%	139	31,95%	2,18
4. International conflicts	17	3,91%	162	37,24%	179	41,15%	77	17,70%	1,73
5. Hunger or malnutrition in different parts of the world	7	1,61%	137	31,49%	216	49,66%	75	17,24%	1,83

6. Causes of poverty	8	1,84%	89	20,46%	229	52,64%	109	25,06%	2,01
7. Equality between men and women in different parts of the world	6	1,38%	34	7,82%	217	49,89%	178	40,92%	2,30

Table 21. Awareness of global issues.
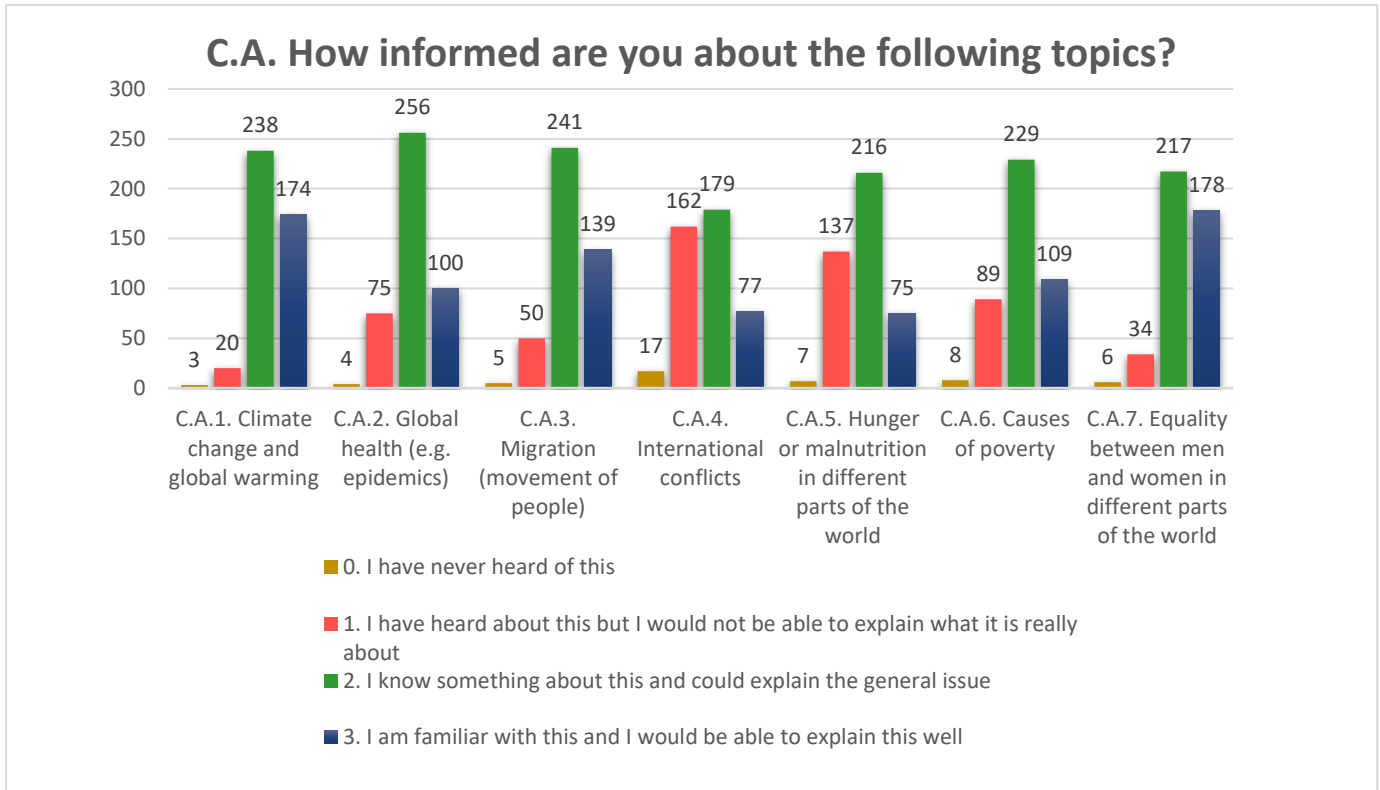
Graph 12. Awareness of global issues.

Regarding "adaptability", most items were between **"somewhat like me"** (2 in Likert scale 0-4) and **"mostly like me"** (3 2 in Likert scale 0-4), so as there are moderate values almost in all items.

Adaptability										
C.B. How well does each of the following statements below describe you?										
	0. Not at all like me		1. Not much like me		2. Somewhat like me		3. Mostly like me		4. Very much like me	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
1. I can deal with unusual situations.	5	1,15%	21	4,83%	135	31,03%	187	42,99%	87	20,00%	2,76
2. I can change my behaviour to meet the needs of new situations.	6	1,38%	22	5,06%	73	16,78%	197	45,29%	137	31,49%	3,00
3. I can adapt to different situations even when under stress or pressure.	12	2,76%	24	5,52%	87	20,00%	174	40,00%	138	31,72%	2,92
4. I can adapt easily to a new culture.	7	1,61%	38	8,74%	126	28,97%	159	36,55%	105	24,14%	2,73
5. When encountering	4	0,92%	23	5,29%	66	15,17%	197	45,29%	145	33,33%	3,05

	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
difficult situations with other people, I can think of a way to resolve the situation.											
6. I am capable of overcoming my difficulties in interacting with people from other cultures.	2	0,46%	24	5,52%	79	18,16%	177	40,69%	153	35,17%	3,05

Table 22. Adaptability
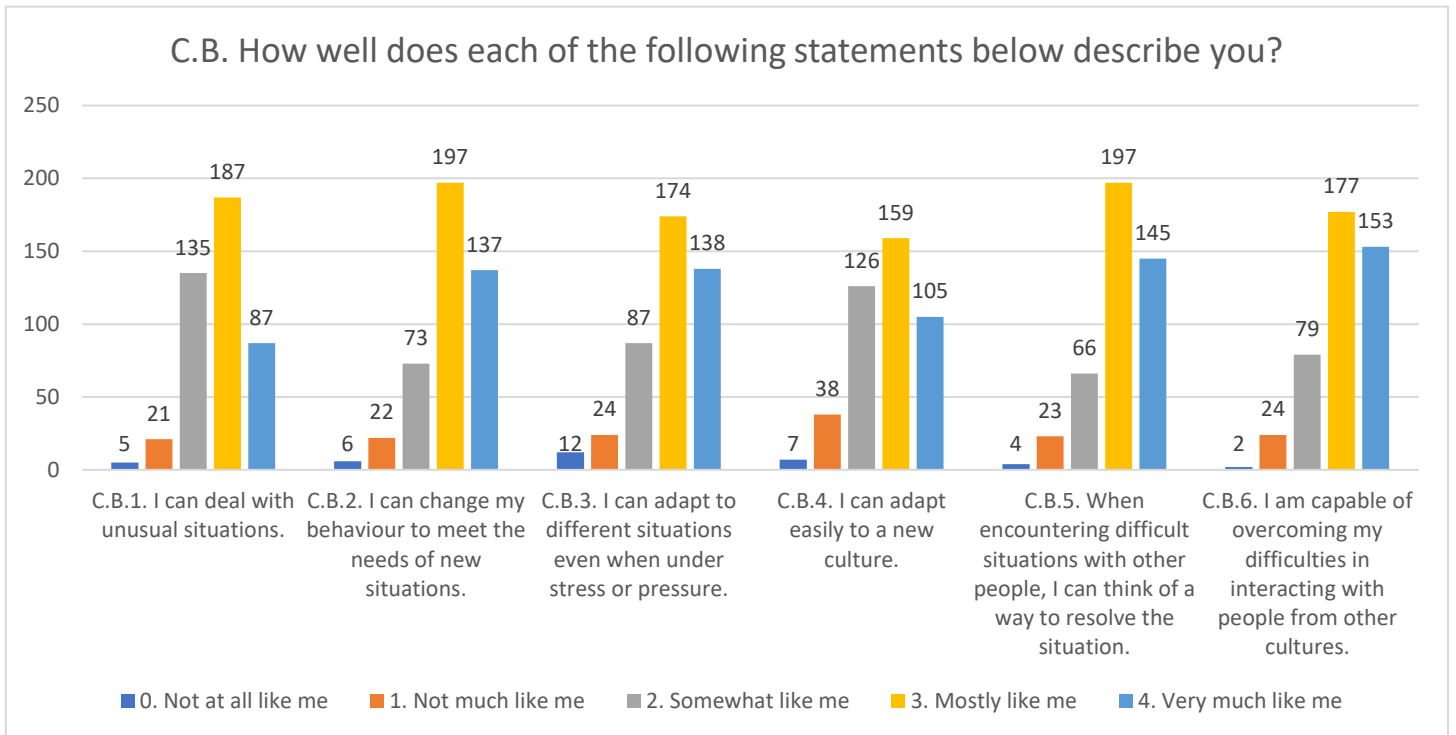
Graph 13. Adaptability

Concerning **"awareness of intercultural communication"**, more than 40% of students/recent graduates answered that they **"agree"** (2 in Likert scale 0-3) with the items. What can be highlighted among the highest percentages are the facts that 62,99% of the total sample **"strongly agree"** that when there are problems with communication, they find ways around it when communicate with people speaking other native languages, and 56,55% **"agree"** that they carefully observe their reactions of people speaking different native languages.

Awareness of intercultural communication								
C.C. Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements?								
	0. Strongly disagree		1. Disagree		2. Agree		3. Strongly agree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
1. I carefully observe their reactions.	10	2,30%	26	5,98%	246	56,55%	153	35,17%	2,24

2. I frequently check that we are understanding each other correctly.	9	2,07%	27	6,21%	190	43,68%	209	48,05%	2,37
3. I listen carefully to what they say.	8	1,84%	12	2,76%	176	40,46%	239	54,94%	2,48
4. I choose my words carefully.	12	2,76%	44	10,11%	202	46,44%	177	40,69%	2,25
5. I give concrete examples to explain my ideas.	10	2,30%	33	7,59%	217	49,89%	175	40,23%	2,28
6. I explain things very carefully.	9	2,07%	41	9,43%	220	50,57%	165	37,93%	2,24
7. If there is a problem with communication, I find ways around it (e.g. by using gestures, re-explaining, writing etc.).	10	2,30%	10	2,30%	141	32,41%	274	62,99%	2,56

Table 23. Awareness of intercultural communication
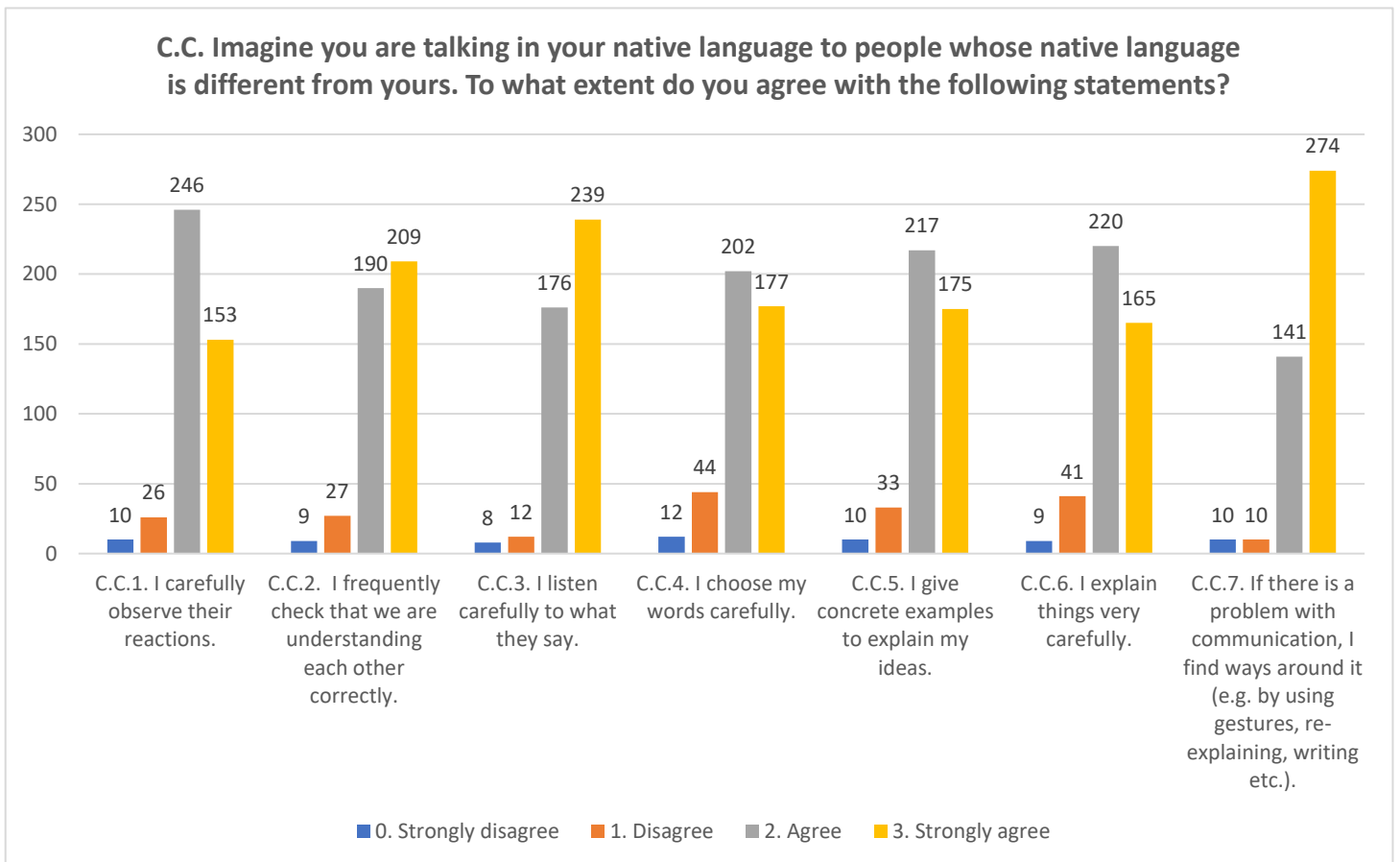
Graph 14. Awareness of intercultural communication

As to **"Student's engagement regarding global issues",** what is remarkable is the fact that 83,45% tries to protect the environment by reducing the energy used at home, while 79,31% of responders regularly read websites on international social issues and 70,57% keep themselves informed about world events via Twitter or Facebook. On the other hand, only 38,16% participates in activities in favor of environmental protection.

Student's engagement regarding global issues					
C.D. Are you involved in the following activities?					
	0. No		1. Yes		
	Frequency	Percent	Frequency	Percent	Mean
1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive.	169	38,85%	266	61,15%	0,64
2. I reduce the energy I use at home (e.g. by turning the heating down or turning the air conditioning up or down or by turning off the lights when leaving a room) to protect the environment.	72	16,55%	363	83,45%	0,20
3. I sign environmental or social petitions online.	265	60,92%	170	39,08%	1,56
4. I keep myself informed about world events via Twitter or Facebook.	128	29,43%	307	70,57%	0,42
5. I boycott products or companies for political, ethical or environmental reasons.	234	53,79%	201	46,21%	1,16
6. I participate in activities promoting equality between men and women.	261	60,00%	174	40,00%	1,50
7. I participate in activities in favour of environmental protection.	269	61,84%	166	38,16%	1,62
8. I regularly read websites on international social issues (e.g. poverty, human rights).	90	20,69%	345	79,31%	0,26

Table 24. Student's engagement regarding global issues
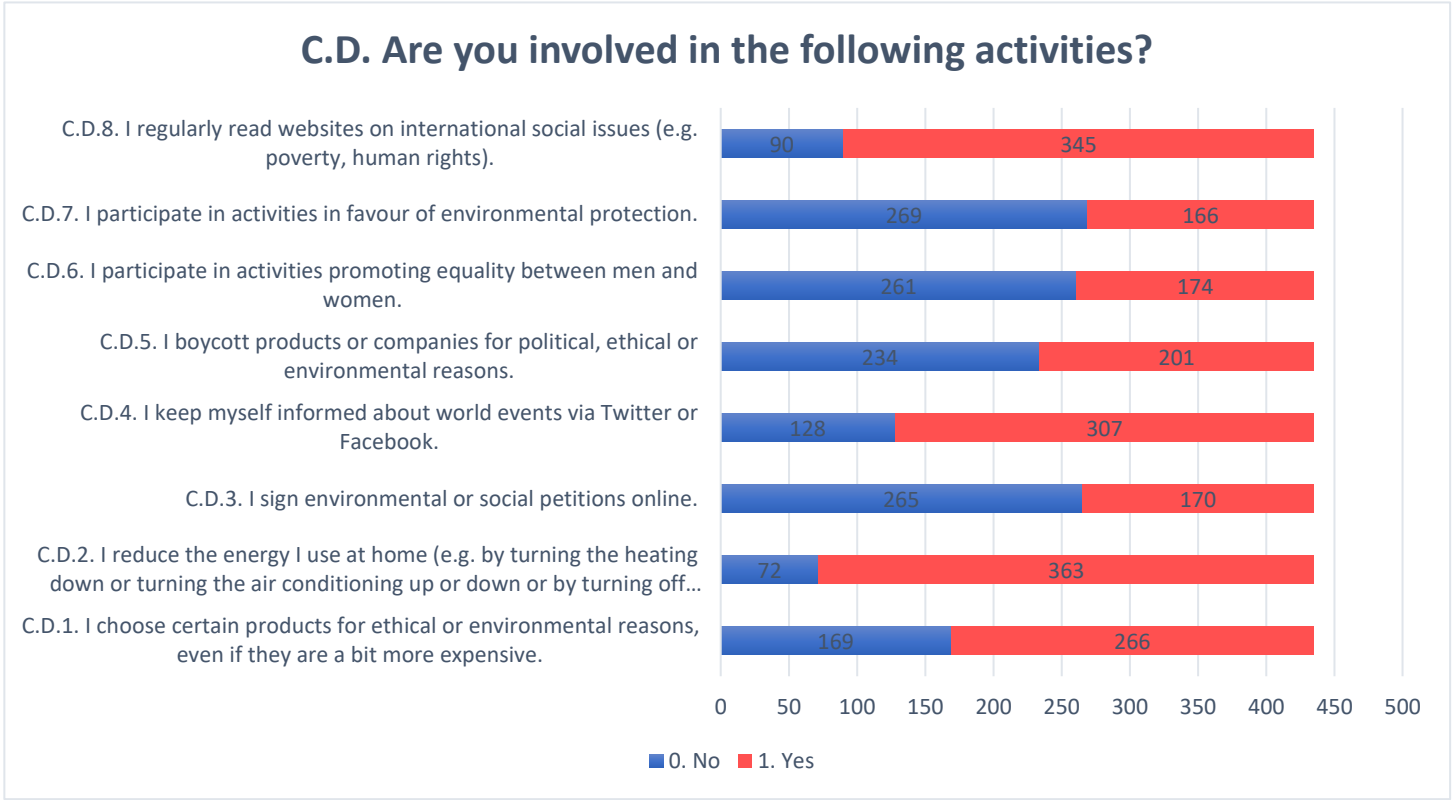
Graph 15. Student's engagement regarding global issues.

When it comes to "**Respect for people from other cultural backgrounds",** what we can observe is the fact that there are high percentages of the responders (above 65%) in all items that have selected the option "Very much like me" (4 in Likert scale 0-4). The highest score (79,77%) is in item 1. "I respect people from other cultures as equal human beings".

Respect for people from other cultural backgrounds										
C.E. How well does each of the following statements below describe you?										
	0. Not at all like me		1. Not much like me		2. Somewhat like me		3. Mostly like me		4. Very much like me		
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
1. I respect people from other cultures as equal human beings.	1	0,23%	1	0,23%	5	1,15%	81	18,62%	347	79,77%	3,77
2. I treat all people with respect regardless of their cultural background.	1	0,23%	3	0,69%	12	2,76%	92	21,15%	327	75,17%	3,70
3. I give space to people from other cultures to express themselves	1	0,23%	0	0,00%	23	5,29%	118	27,13%	293	67,36%	3,61
4. I respect the values of people from different cultures.	1	0,23%	3	0,69%	30	6,90%	100	22,99%	301	69,20%	3,60
5. I value the opinions of people from different cultures.	1	0,23%	2	0,46%	29	6,67%	114	26,21%	289	66,44%	3,58

Table 25. Respect for people from other cultural backgrounds
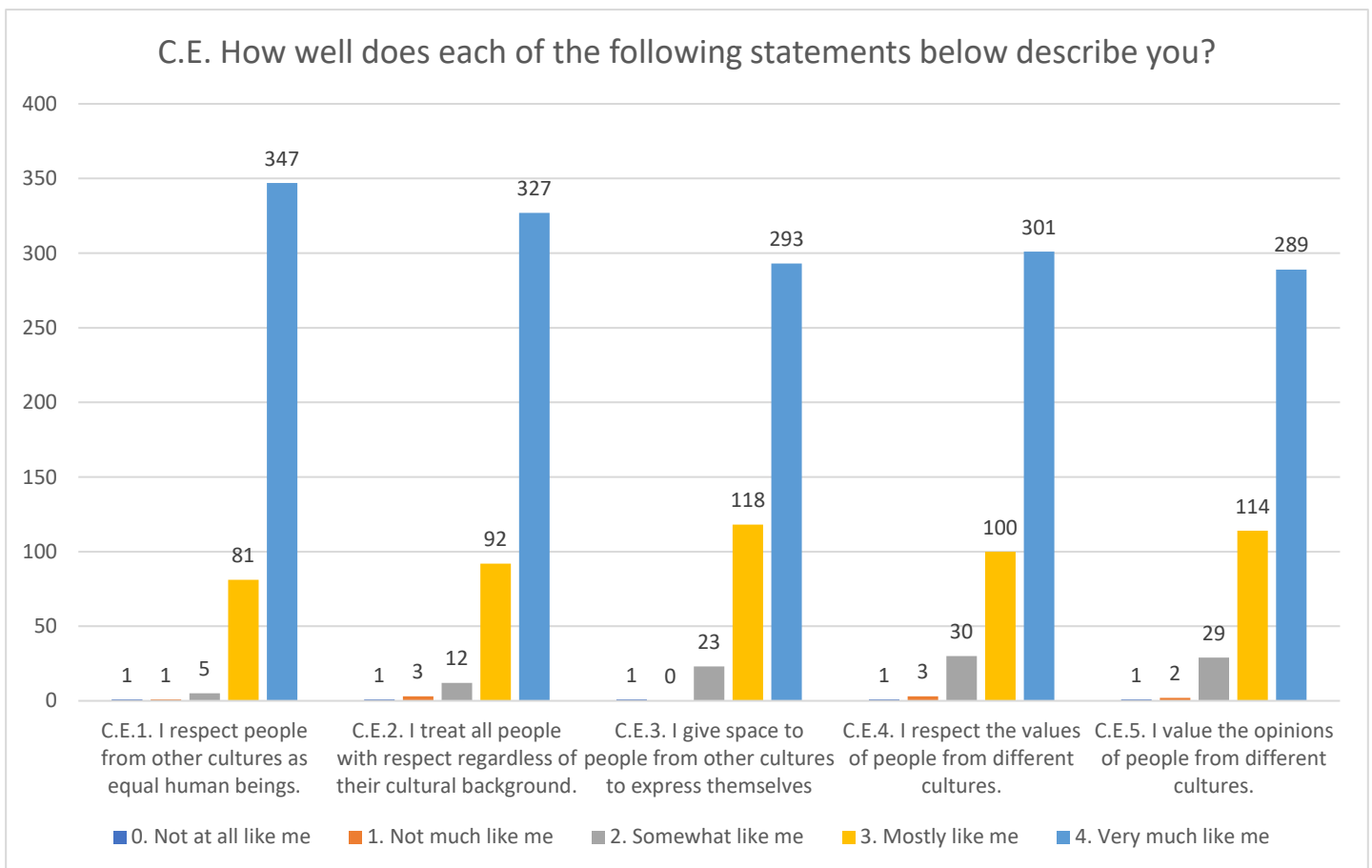
Graph 16. Respect for people from other cultural backgrounds.

Regarding "**Global mindedness**" which is the most important attitude required by global competent persons, more than 50% of responders answered that they consider themselves as citizens of the world, they feel responsibility for people live in poor conditions, they should act to fix the problems of the world and they believe that environment is important to them. However, 31,26% do not believe that their behaviour can affect people in other countries.

Global mindedness									
C.F. To what extent do you agree with the following statements?									
	0. Strongly disagree		1. Disagree		2. Agree		3. Strongly agree		
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Mean
1. I think of myself as a citizen of the world.	21	4,83%	42	9,66%	219	50,34%	153	35,17%	2,16
2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.	14	3,22%	67	15,40%	260	59,77%	94	21,61%	2,00
3. I think my behaviour can impact people in other countries.	24	5,52%	136	31,26%	210	48,28%	65	14,94%	1,73
4. It is right to boycott companies that are known to provide poor workplace conditions for their employees.	17	3,91%	76	17,47%	176	40,46%	166	38,16%	2,13
5. I can do something about the problems of the world.	25	5,75%	80	18,39%	255	58,62%	75	17,24%	1,87
6. Looking after the global environment is important to me.	17	3,91%	33	7,59%	234	53,79%	151	34,71%	2,19

Table 26. Global mindedness
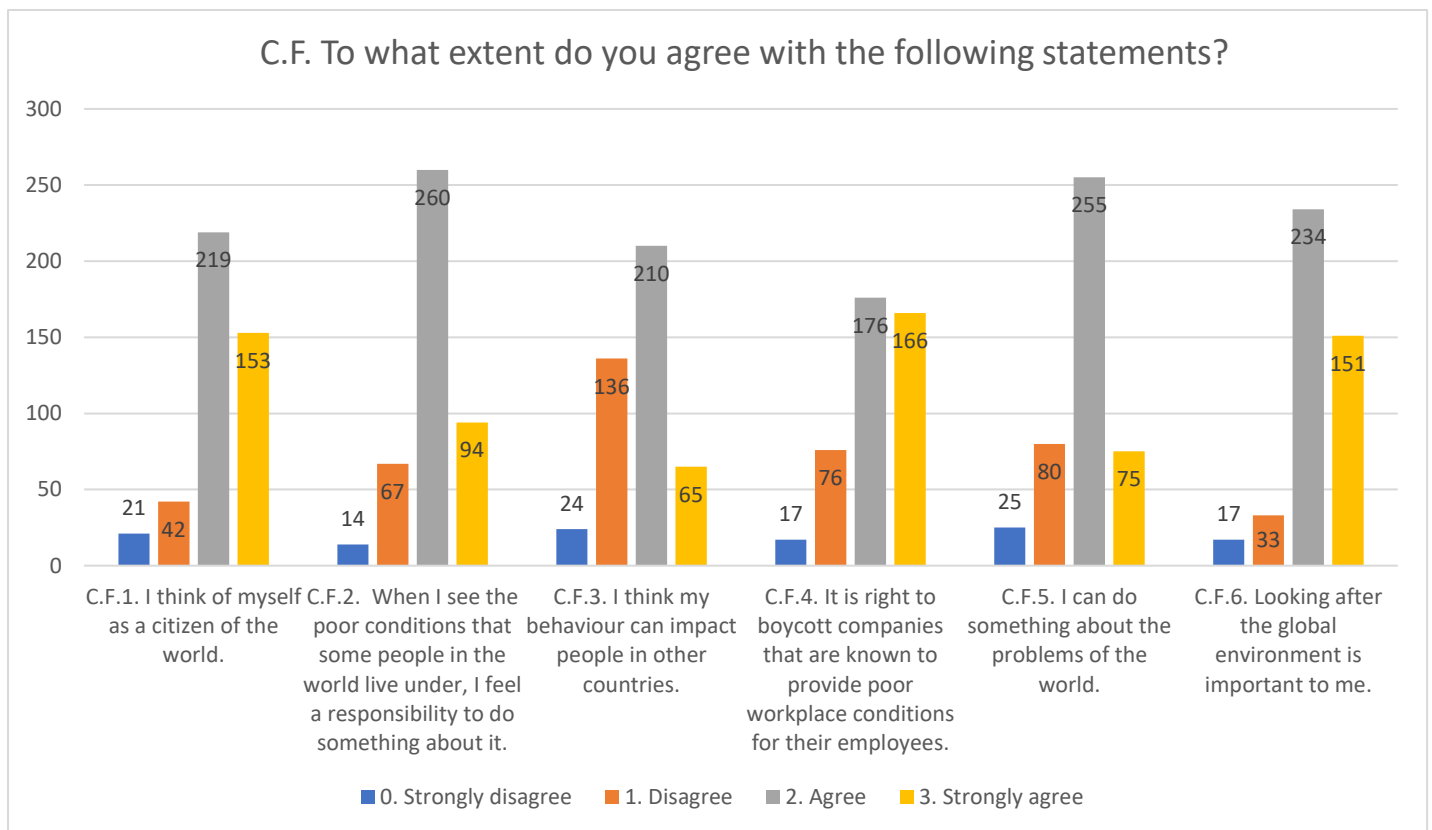
Graph 17. Global mindedness

4.2. Data Analysis and Discussion

4.2.1. Introduction

The scope of this study was to examine the effectiveness of internationalization practices of HE on developing global competence of the students. In order for that, through a comprehensive literature review, we identified, in the first place, (a) the basic components of global competence and its benefits in HE, we examined (b) the existing internationalization approaches and types of global competence education offered or promoted to students within HE and (c) we implemented the part of PISA Assessment Tool regarding students' global competence.

Having presented and descripted the sample and the data collected by the distribution of the online questionnaire in the previous chapter, now we can procced answering the research question: **"*What are the effects of internationalization practices of higher education on students' global competence development?*"** and we will decide to accept or reject the Research Hypothesis.

The survey was guided by the following rationale: *"Internationalization /global education practices and development of GC in students are two variables positively correlated".*

With a view to examine if the participation of students/recent graduates in internationalization practices of a HEI affect positively the scores of the items with regards to global competence development, we are going to derive **two new variables** based on the criterion of students' participation in such activities.

The **first variable** categories the students in **two groups**: those who have participated in at least one internationalization practice **(group 1 = Participation in Activities)** and those who had no engagement in any of those practices **(group 0 = No Participation).**

In the following table, it can be observed that **86 responders (19,8%)** have never participated in any of the internationalization practices included into the questionnaire in or out of a HEI, while the rest **349 (80,2%)** have participated in at least one activity.

E. Categories (0= No Participation, 1= Participation in Activities)		
	Frequency	Percent
No Participation	86	19,77%
Participation in Activities	349	80,23%
Total	435	100%

Table 22. Allocation between participants and non-participants

The **second variable** categorizes the students/recent graduates into **three groups**: those have never participated in any of the internationalization practices **(group 0 = No Participation),** those who have participated in at least one activity at home, excluding studying abroad activities **(group 1 = Not abroad activities),** and finally, those who have participated in at least one internationalization practice which involves studying abroad experience (1-4 weeks short-term international experience, 2-3 months short-term international, One academic semester short-term international experience, one academic year short-term international, International internship) **(group 2 = Abroad activities).**

The following table shows the distribution of participants according to whether they have participated in any internationalization activity abroad, in any other activity at home or if they have not participated in any activity. We observe that **86 of the respondents (19.8%)** have not participated in any activity, **137 (31.49%)** has participated in at least one activity abroad (1-4 weeks short-term international experience, 2-3 months short-term international, one academic semester short-term international experience, one academic year short-term international, International internship) and finally the remaining **212 (48.74%)** has participated in at least one internationalization activity at home:

D. Categories (0=No participation, 1= Not abroad activities, 2= abroad activities)		
	Frequency	Percent
No Participation	86	19,77%
Not abroad activities	212	48,74%
Abroad activities	137	31,49%
Total	435	100,00%

Table 23. Allocation between participants abroad, not abroad and not participant at all.

4.2.2. Method of Analysis

In order to answer in the research question: "*What are the effects of internationalization practices of higher education on students' global competence development?*" we are going to compare the mean values from 39 items of 6 domain categories from the two aforementioned groups, which comprise the features (skills, knowledge, attitudes) of global competence according to OECD PISA Global Competence Framework.

In the following tables, there are being presented the **mean value** and **standard deviation** of the responses of two groups **(group 1 = Participation in Activities &**

group 0 = No Participation) in order to compare if there are any differences between those who have participated in internationalization practices and those who had no participation in such practices.

Moreover, we are going to examine **statistic tests** with the use of SPSS for each item so as to examine separately the groups and to identify if there are differences their responses. We will select the more suitable statistic tests after we will have confirmed that the data met the assumptions. More specifically,

- for items using Likert Scales we will perform the **Mann-Whitney U test** that examines the difference in the allocation of questions between groups. This test is appropriate as the dependent variables of the questions are ordinal and the independent variable of the groups is categorical.
- for items using YES-NO scale, (YES=0, NO=1), we will perform the **χ^2 (chi-square),** because both variables are categorical and the rest of assumptions are being met.

With a view to examine if global education is an actual outcome of internationalization efforts of a HEI, we will choose to use **a = 0.05** as **the criterion for statistical significance** which is used more often in social sciences surveys. In case that p-value (Asymp. Sig.(2-tailed)) is greater than 0.05 there is no statistically and positively significance. On the other hand, hence p-value is lower or equal to 0.05, there is statistically and positively significance between two groups.

4.2.3. The Findings

The first domain category of Global Competence is **"Awareness of Global Issues"**. The mean values are greater for those who have participated in at least one internationalization practice (group 1 = Participation in Activities) in 5 out 7 items ranging between 0.01 and 0.11.

On the contrary, in one question (C.A.5. Hunger or malnutrition in different parts of the world) they have exactly the same mean value and in one question (C.A.6. Causes of poverty) the mean value is higher by 0.01 for those who have not participated in any of internationalization practices.

E. Categories (0=No Participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
C.A. How informed are you about the following topics?	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation

C.A.1. Climate change and global warming	2,26	0,598	**2,36**	0,598	2,34	0,599
C.A.2. Global health (e.g. epidemics)	2,03	0,694	**2,04**	0,655	2,04	0,662
C.A.3. Migration (movement of people)	2,10	0,736	**2,20**	0,652	2,18	0,670
C.A.4. International conflicts	1,69	0,786	**1,74**	0,798	1,73	0,795
C.A.5. Hunger or malnutrition in different parts of the world	**1,83**	0,739	**1,83**	0,720	1,83	0,723
C.A.6. Causes of poverty	**2,02**	0,811	2,01	0,707	2,01	0,728
C.A.7. Equality between men and women in different parts of the world	2,26	0,689	**2,32**	0,668	2,30	0,672

After conducting the statistic test Mann-Whitney U, (see the two following test tables) the answers do not differ statistically significantly between the two groups, since the p-value of all 7 tests (Asymp. Sig. (2-tailed)) was greater than 0.05.

Table 24. Awareness of Global Issues, Mean & Std

Ranks				
C.A. How informed are you about the following topics?	E. Categories (0=No participation, 1= Participation in Activities)	N	Mean Rank	Sum of Ranks
C.A.1. Climate change and global warming	No participation	86	201,94	17366,50
	Participation in Activities	349	221,96	77463,50
	Total	435		
C.A.2. Global health (e.g. epidemics)	No participation	86	217,79	18730,00
	Participation in Activities	349	218,05	76100,00
	Total	435		
C.A.3. Migration (movement of people)	No participation	86	208,28	17912,00
	Participation in Activities	349	220,40	76918,00
	Total	435		
C.A.4. International conflicts	No participation	86	214,25	18425,50
	Participation in Activities	349	218,92	76404,50
	Total	435		
C.A.5. Hunger or malnutrition in different parts of the world	No participation	86	217,16	18676,00
	Participation in Activities	349	218,21	76154,00
	Total	435		
C.A.6. Causes of poverty	No participation	86	223,74	19242,00
	Participation in Activities	349	216,58	75588,00
	Total	435		
C.A.7. Equality between men and women in different parts of the world	No participation	86	209,96	18056,50
	Participation in Activities	349	219,98	76773,50
	Total	435		

Table 25. Awareness of Global Issues, Ranks.

Test Statistics							
C.A.1. How informed are you about the following topics?	1. Climate change and global warming	C.A.2. Global health (e.g. epidemics)	C.A.3. Migration (movement of people)	C.A.4 International conflicts	C.A.5. Hunger or malnutrition in different parts of the world	C.A.6. Causes of poverty	C.A.7 Equality between men and women in different parts of the world
Mann-Whitney U	13625,50	14989,00	14171,00	14684,50	14935,00	14513,00	14315,50
Wilcoxon W	17366,50	18730,00	17912,00	18425,50	18676,00	75588,00	18056,50
Z	-1,506	-,020	-,897	-,331	-,075	-,519	-,737
Asymp. Sig. (2-tailed)	,132	,984	,370	,741	,940	,604	,461
a. Grouping Variable: E. Categories (0=No Participation, 1= Participation in Activities)							

Table 26. Awareness of Global Issues, Test Statistics

With respect to **"Adaptability",** the findings from all of the 6 items of this feature of global competence show that the mean value is greater for group 1 rather than group 0 and the differences are ranging between 0.17 and 0.34.

E. Categories (0=No participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
How well does each of the following statements below describe you?	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
C.B.1. I can deal with unusual situations.	2,49	0,864	**2,83**	0,855	2,76	0,866
C.B.2. I can change my behaviour to meet the needs of new situations.	2,77	0,978	**3,06**	0,872	3,00	0,901
C.B.3. I can adapt to different situations even when under stress or pressure.	2,74	1,054	**2,97**	0,972	2,92	0,991
C.B.4. I can adapt easily to a new culture.	2,58	1,000	**2,77**	0,969	2,73	0,977
C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation.	2,83	1,008	**3,10**	0,841	3,05	0,882
C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures.	2,91	0,928	**3,08**	0,880	3,05	0,892

Table 27. Adaptability, Mean & Std.

The statistic test Mann-Whitney U carried out for this domain category present another remarkable finding: in three items (C.B.1. I can deal with unusual situations, C.B.2. I can change my behaviour to meet the needs of new situations, C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation), p-value is lower than 5%, and the answers between the two groups differ statistically significantly. Moreover, p-values of the items C.B.3 and C.B.6. range between 0.05 and 0.1, which means that they are ranking limited values.

Ranks				
How well does each of the following statements below describe you?	**E. Categories (0=No participation, 1= Participation in Activities)**	**N**	**Mean Rank**	**Sum of Ranks**
1. I can deal with unusual situations.	No participation	86	182,52	15697,00
	Participation in Activities	349	226,74	79133,00
	Total	435		
C.B.2. I can change my behaviour to meet the needs of new situations.	No participation	86	188,02	16169,50
	Participation in Activities	349	225,39	78660,50
	Total	435		
C.B.3. I can adapt to different situations even when under stress or pressure.	No participation	86	197,30	16967,50
	Participation in Activities	349	223,10	77862,50
	Total	435		
C.B.4. I can adapt easily to a new culture.	No participation	86	200,62	17253,00
	Participation in Activities	349	222,28	77577,00
	Total	435		
C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation.	No participation	86	192,39	16545,50
	Participation in Activities	349	224,31	78284,50
	Total	435		
C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures.	No participation	86	199,06	17119,50
	Participation in Activities	349	222,67	77710,50
	Total	435		

Table 28. Adaptability, Ranks.

Test Statistics						
How well does each of the following statements below describe you?	**C.B.1. I can deal with unusual situations.**	**C.B.2. I can change my behaviour to meet the needs of new situations.**	**C.B.3. I can adapt to different situations even when under stress or pressure.**	**C.B.4. I can adapt easily to a new culture.**	**C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation.**	**C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures.**
Mann-Whitney U	11956,00	12428,50	13226,50	13512,00	12804,50	13378,50
Wilcoxon W	15697,00	16169,50	16967,50	17253,00	16545,50	17119,50
Z	-3,110	-2,646	-1,801	-1,499	-2,266	-1,660
Asymp. Sig. (2-tailed)	**,002**	**,008**	,072	,134	**,023**	,097
a. Grouping Variable: E. Categories (0=No participation, 1= Participation in Activities)						

Table 29. Adaptability, Test Statistics.

In the next feature-category, which is **"Awareness of intercultural communication"**, we can observe that the mean values are greater in 6 out of 7 items of this category for group 1 and the differences are ranging between 0.01 and 0.14. However, in the C.C.4. item, mean values is greater for group 0.

E. Categories (0=No participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
C.C.1. I carefully observe their reactions.	2,22	0,658	**2,25**	0,669	2,25	0,666
C.C.2. I frequently check that we are understanding each other correctly.	2,37	0,614	**2,38**	0,715	2,38	0,696
C.C.3. I listen carefully to what they say.	2,47	0,608	**2,49**	0,655	2,49	0,645
C.C.4. I choose my words carefully.	**2,30**	0,753	2,24	0,745	2,25	0,746
C.C.5. I give concrete examples to explain my ideas.	2,19	0,711	**2,30**	0,699	2,28	0,702
C.C.6. I explain things very carefully.	2,19	0,759	**2,26**	0,692	2,24	0,706
C.C.7. If there is a problem with communication, I find ways around it	2,45	0,663	**2,59**	0,653	2,56	0,657

Table 30. Awareness of intercultural communication, Mean & Std.

After conducting the Mann-Whitney U statistic test, we can point out that there is a statistically significant difference between two groups only in one question (C.C.7.) with the mean value being higher for the group of those who participated in internationalization practices of a HEI.

Ranks				
Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements?	E. Categories (0= No participation, 1= Participate in Activities)	N	Mean Rank	Sum of Ranks
C.C.1. I carefully observe their reactions.	No participation	86	212,33	18260,50
	Participation in activities	349	219,40	76569,50
	Total	435		
C.C.2. I frequently check that we are understanding each other correctly.	No participation	86	212,08	18238,50
	Participation in activities	349	219,46	76591,50
	Total	435		
C.C.3. I listen carefully to what they say	No participation	86	211,27	18169,00
	Participation in activities	349	219,66	76661,00
	Total	435		
C.C.4. I choose my words carefully	No participation	86	227,05	19526,50
	Participation in activities	349	215,77	75303,50
	Total	435		
C.C.5. I give concrete examples to explain my ideas.	No participation	86	201,60	17338,00
	Participation in activities	349	222,04	77492,00
	Total	435		
C.C.6. I explain things very carefully.	No participation	86	210,30	18086,00
	Participation in activities	349	219,90	76744,00
	Total	435		
C.C.7. If there is a problem with communication, I find ways around it	No participation	86	195,83	16841,50
	Participation in activities	349	223,46	77988,50
	Total	435		

Table 31. Awareness of intercultural communication, Ranks.

Test Statistics							
Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements?	C.C.1. I carefully observe their reactions.	C.C.2. I frequently check that we are understanding each other correctly.	C.C.3. I listen carefully to what they say	C.C.4. I choose my words carefully	C.C.5. I give concrete examples to explain my ideas.	C.C.6. I explain things very carefully.	C.C.7. If there is a problem with communication, I find ways around it
Mann-Whitney U	14519,500	14497,500	14428,000	14228,500	13597,000	14345,000	13100,500
Wilcoxon W	18260,500	18238,500	18169,000	75303,500	17338,000	18086,000	16841,500
Z	-,530	-,544	-,633	-,818	-1,500	-,702	-2,158
Asymp. Sig. (2-tailed)	,596	,587	,527	,414	,134	,483	**,031**
a. Grouping Variable: E. Categories (0=No Participation, 1= Participation in Activities)							

Table 32. Awareness of intercultural communication, Test Statistics.

Regarding the **<u>"Student's engagement regarding global issues"</u>** responders use the YES-NO scale so as to give answers to the question items of this domain category (YES=0, NO=1). From the following table, we observe that in 7 out 8 items, the mean value is greater for those who have participated in internationalization practices (group 1) and the differences range from 5% to 16%. However, in C.D.2 the group that had not participated in any activity (group 0) answered positively 3% more than the group 1.

E. Categories (0=No participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
Are you invloved in the following activities?	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive.	0,49	0,503	**0,64**	0,480	0,61	0,488
C.D.2. I reduce the energy I use at home (e.g. by turning the heating down or turning the air conditioning up or down or by turning off the lights when leaving a room) to protect the environment.	**0,86**	0,349	0,83	0,378	0,83	0,372
C.D.3. I sign environmental or social petitions online.	0,35	0,479	**0,40**	0,491	0,39	0,488
C.D.4. I keep myself informed about world events via Twitter	0,65	0,479	**0,72**	0,450	0,71	0,456
C.D.5. I boycott products or companies for political, ethical or environmental reasons.	0,38	0,489	**0,48**	0,500	0,46	0,499
C.D.6. I participate in activities promoting equality between	0,27	0,445	**0,43**	0,496	0,40	0,490
C.D.7. I participate in activities in favour of environmental	0,30	0,462	**0,40**	0,491	0,38	0,486
C.D.8. I regularly read websites on international social issues (e.g. poverty, human rights).	0,71	0,457	**0,81**	0,390	0,79	0,406

Table 33. Student's engagement regarding global issues, Mean & Std.

Following, with the use of Chi-square test, we find out that in items C.D.1., C.D.6. and C.D.8., p-value is lower than 0.05 and there is a statistically and positively significance between the mean values of two groups.

In the rest items, the differences were not statistically significant as the p-value was higher than 0.05. The Mann-Whitney U non-parametric test gives us exactly the same results.

C.D. Are you involved in the following activities?			C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive.		C.D.2. I reduce the energy I use at home to protect the environment.		C.D.3. I sign environmental or social petitions online.		C.D.4. I keep myself informed about world events via Twitter or Facebook.	
			No	Yes	No	Yes	No	Yes	No	Yes
E. Categories (0=No participation, 1= Participation in Activities)	No participation	Count	44	42	12	74	56	30	30	56
		% within E. Categories	**51,2%**	48,8%	14,0%	**86,0%**	65,1%	34,9%	**34,9%**	65,1%
	Participation in Activities	Count	125	224	60	289	209	140	98	251
		% within E. Categories	35,8%	**64,2%**	**17,2%**	82,8%	59,9%	**40,1%**	28,1%	**71,9%**
	Total	Count	169	266	72	363	265	170	128	307
		% within E. Categories)	38,9%	61,1%	16,6%	83,4%	60,9%	39,1%	29,4%	70,6%

Table 34. Student's engagement regarding global issues, Group Frequencies (C.D.1 - C.D.4)

C.D. Are you involved in the following activities?			C.D.5. I boycott products or companies for political, ethical or environmental reasons.		C.D.6. I participate in activities promoting equality between men and women.		C.D.7. I participate in activities in favour of environmental protection.		C.D.8. I regularly read websites on international social issues (e.g. poverty, human rights).		Total
			No	Yes	No	Yes	No	Yes	No	Yes	
E. Categories (0=No participation, 1= Participation in Activities)	No participation	Count	53	33	63	23	60	26	25	61	86
		% within E. Categories	**61,6%**	38,4%	**73,3%**	26,7%	**69,8%**	30,2%	**29,1%**	70,9%	100,0%
	Participation in Activities	Count	181	168	198	151	209	140	65	284	349
		% within E. Categories	51,9%	**48,1%**	56,7%	**43,3%**	59,9%	**40,1%**	18,6%	**81,4%**	100,0%
	Total	Count	234	201	261	174	269	166	90	345	435
		% within E. Categories	53,8%	46,2%	60,0%	40,0%	61,8%	38,2%	20,7%	79,3%	100,0%

Table 35. Student's engagement regarding global issues, Group Frequencies (C.D.5 - C.D.8)

Chi-Square Tests – C.D.1.					
Question C.D.1.	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6,840[a]	1	,009		
Continuity Correction[b]	6,209	1	,013		
Likelihood Ratio	6,706	1	,010		
Fisher's Exact Test				,010	,007
Linear-by-Linear Association	6,824	1	,009		
N of Valid Cases	435				
a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 33,41.					
b. Computed only for a 2x2 table					

Table 36. C.D.1. Chi-Square Tests

Chi-Square Tests – C.D.8.					
Question C.D.8.	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4,588[a]	1	,032		
Continuity Correction[b]	3,973	1	,046		
Likelihood Ratio	4,310	1	,038		
Fisher's Exact Test				,038	,026
Linear-by-Linear Association	4,577	1	,032		
N of Valid Cases	435				
a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 17,79.					
b. Computed only for a 2x2 table					

Table 37. C.D.8. Chi-Square Tests

Chi-Square Tests – C.D.6.					
Question C.D.6.	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7,848[a]	1	,005		
Continuity Correction[b]	7,175	1	,007		
Likelihood Ratio	8,172	1	,004		
Fisher's Exact Test				,005	,003
Linear-by-Linear Association	7,830	1	,005		
N of Valid Cases	435				
a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 34,40.					
b. Computed only for a 2x2 table					

Table 37. C.D.6. Chi-Square Tests

With reference to the domain category **"Respect for people from other cultural backgrounds",** there also significant observations indicate that in 4 out of the 5 items the mean value is higher for the group 1 and the differences in the mean value range from 0.03 to 0.10. In addition, in item C.E.4. the mean value is equal between the two groups.

E. Categories (0=No participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
How well does each of the following statements below describe you?	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
C.E.1. I respect people from other cultures as equal human beings.	3,70	0,634	**3,79**	0,446	3,77	0,489
C.E.2. I treat all people with respect regardless of their cultural background.	3,62	0,672	**3,72**	0,551	3,70	0,578
C.E.3. I give space to people from other cultures to express themselves.	3,53	0,715	**3,63**	0,580	3,61	0,609
C.E.4. I respect the values of people from different cultures.	3,60	0,708	3,60	0,660	3,60	0,669
C.E.5. I value the opinions of people from different cultures.	3,56	0,729	**3,59**	0,640	3,58	0,658

Table 38. Respect for people from other cultural backgrounds, Mean & Std.

After conducting the Mann-Whitney U test we can identify the fact that there is no significant difference in the scores of two groups, since in all 5 statistics test, p-value was greater than 0.05.

Ranks				
How well does each of the following statements below describe you?	E. Categories (0=No participation, 1= Participation in Activities)	N	Mean Rank	Sum of Ranks
C.E.1. I respect people from other cultures as equal human beings.	No participation	86	208,20	17905,00
	Participation in Activities	349	220,42	76925,00

	Total	435		
C.E.2. I treat all people with respect regardless of their cultural background.	No participation	86	203,70	17518,00
	Participation in Activities	349	221,52	77312,00
	Total	435		
C.E.3. I give space to people from other cultures to express themselves.	No participation	86	207,48	17843,00
	Participation in Activities	349	220,59	76987,00
	Total	435		
C.E.4. I respect the values of people from different cultures.	No participation	86	219,63	18888,50
	Participation in Activities	349	217,60	75941,50
	Total	435		
C.E.5. I value the opinions of people from different cultures.	No participation	86	217,03	18665,00
	Participation in Activities	349	218,24	76165,00
	Total	435		

Table 39. Respect for people from other cultural backgrounds, Ranks.

Test Statistics					
How well does each of the following statements below describe you?	C.E.1. I respect people from other cultures as equal human beings.	C.E.2. I treat all people with respect regardless of their cultural background.	C.E.3. I give space to people from other cultures to express themselves.	C.E.4. I respect the values of people from different cultures.	C.E.5. I value the opinions of people from different cultures.
Mann-Whitney U	14164,000	13777,000	14102,000	14866,500	14924,000
Wilcoxon W	17905,000	17518,000	17843,000	75941,500	18665,000
Z	-1,158	-1,566	-1,055	-,166	-,096
Asymp. Sig. (2-tailed)	,247	,117	,291	,868	,924
a. Grouping Variable: E. Categories (0=No participation, 1= Participation in Activities)					

Table 40. Respect for people from other cultural backgrounds, Test Statistics

The last domain category consisting of 6 item-questions is **"Global mindedness".** In the table with the mean value and standard deviation we can observe that 5 out 6 items have their mean value with greater score for group 1 and the differences are ranging between 0.03 and 0.15. On the contrary, thought, in C.F.5 item, the mean value is 0.04 higher for those who have not participated in any activity (group 0).

E. Categories (0=No participation, 1= Participation in Activities)	No participation		Participation in Activities		Total	
To what extent do you agree with the following statements?	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
C.F.1. I think of myself as a citizen of the world.	2,05	0,750	**2,19**	0,793	2,16	0,786
C.F.2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.	1,92	0,707	**2,02**	0,707	2,00	0,707
C.F.3. I think my behaviour can impact people in other countries.	1,65	0,699	**1,74**	0,799	1,73	0,781
C.F.4. It is right to boycott companies that are known to provide poor workplace conditions for their employees.	2,10	0,868	**2,13**	0,828	2,13	0,835
C.F.5. I can do something about the problems of the world.	**1,91**	0,730	1,87	0,763	1,87	0,756
C.F.6. Looking after the global environment is important to me.	2,07	0,732	**2,22**	0,736	2,19	0,737

Table 41. Global mindedness, Mean & Std.

After having carried out the Mann-Whitney U test, we have identified that the answers do not differ statistically significantly between the groups and the p-value (Asymp. Sig. (2-tailed)) was greater than 0.05 in all of the 6 tests. It is important to note that the two items C.F.1 and C.F.6 have a p-value slightly higher than 0.05 and specifically 0.068 and 0.053 respectively which means that they are ranking limited values.

Ranks				
To what extent do you agree with the following statements?	E. Categories (0=No participation, 1= Participation in Activities)	N	Mean Rank	Sum of Ranks
C.F.1. 1. I think of myself as a citizen of the world.	No participation	86	197,87	17017,00
	Participation in Activities	349	**222,96**	77813,00
	Total	435		
C.F.2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.	No participation	86	206,11	17725,50
	Participation in Activities	349	**220,93**	77104,50
	Total	435		
C.F.3. I think my behaviour can impact people in other countries.	No participation	86	206,59	17766,50
	Participation in Activities	349	**220,81**	77063,50
	Total	435		
C.F.4. It is right to boycott companies that are known to provide poor workplace conditions for their employees.	No participation	86	215,65	18546,00
	Participation in Activities	349	**218,58**	76284,00
	Total	435		
C.F.5. I can do something about the problems of the world.	No participation	86	**220,97**	19003,00
	Participation in Activities	349	217,27	75827,00
	Total	435		
C.F.6. Looking after the global environment is important to me.	No participation	86	196,95	16938,00
	Participation in Activities	349	**223,19**	77892,00
	Total	435		

Table 42. Global mindedness, Ranks.

Test Statistics						
To what extent do you agree with the following statements?	C.F.1. I think of myself as a citizen of the world.	C.F.2. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it.	C.F.3. I think my behaviour can impact people in other countries.	C.F.4. It is right to boycott companies that are known to provide poor workplace conditions for their employees.	C.F.5. I can do something about the problems of the world.	C.F.6.. Looking after the global environment is important to me.
Mann-Whitney U	13276,000	13984,500	14025,500	14805,000	14752,000	13197,000
Wilcoxon W	17017,000	17725,500	17766,500	18546,000	75827,000	16938,000
Z	-1,822	-1,114	-1,017	-,207	-,275	-1,935
Asymp. Sig. (2-tailed)	**,068**	,265	,309	,836	,783	**,053**
a. Grouping Variable: E. Categories (0=No participation, 1= Participation in Activities)						

Table 43. Global mindedness, Test Statistics.

Summarizing the abovementioned data, in terms of mean value, we can conclude that the **mean values** are greater for those who have participated in at least one internationalization practice (group 1 = Participation in Activities) in **33 out 39** items compared to those who have not participated in any activity (group 0). The mean values of two (2) items were equivalent (*C.A.5. Hunger or malnutrition in different parts of the world, C.E.4. I respect the values of people from different cultures*). The rest four (4) items have their mean values greater for the group 0 compared to group 1 *(C.A.6. Causes of poverty, C.C.4. I choose my words carefully, C.D.2. I reduce the energy I use*

at home to protect the environment, C.F.5. I can do something about the problems of the world).

What is more, the results for global competence showed statistically significance with p-value <0.05 in **7 items** for group 1 (Participation in Activities), namely:

- C.B.1. I can deal with unusual situations (Adaptability)
- C.B.2. I can change my behaviour to meet the needs of new situations (Adaptability)
- C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation (Adaptability)
- C.C.7. If there is a problem with communication, I find ways around it (Awareness of intercultural communication)
- C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive (Student's engagement regarding global issues)
- C.D.6. I participate in activities promoting equality between men and women (Student's engagement regarding global issues)
- C.D.8. I regularly read websites on international social issues (e.g. poverty, human rights) (Student's engagement regarding global issues)

Another important finding of the survey was the fact that there were items which had a p-value between 0.05 – 0.10 for the group 1 (=Participation in Activities) and there are worthy to be mentioned, namely:

- C.B.3. I can adapt to different situations even when under stress or pressure (Adaptability)
- C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures (Adaptability)
- C.F.1. I think of myself as a citizen of the world (Global mindedness)
- C.F.6. Looking after the global environment is important to me (Global mindedness)

With a view to the **second variable,** which categorizes the sample into **three groups**:
- those have never participated in any of the internationalization practices **(group 0 = No Participation),**
- those who have participated in at least one activity at home, excluding studying abroad activities **(group 1 = Not abroad activities),** and,

- those who have participated in at least one internationalization practice which involves studying abroad experience (1-4 weeks short-term international experience, 2-3 months short-term international, One academic semester short-term international experience, one academic year short-term international, International internship) **(group 2 = Abroad activities),**

we have also carried out **statistic tests** with the use of SPSS for each item so as to examine separately the three groups and to identify if there are differences in their responses.

It total, the mean values of the **group 1 (=Not abroad activities)** were higher in comparison with the mean values of **group 0 (=No participation)**. Additionally, when comparing the scores of 39 items between group 0 and group 1, the results showed statistically significance with p-value <0.05 in 5 items, namely:

- C.B.1. I can deal with unusual situations (Adaptability)
- C.B.2. I can change my behavior to meet the needs of new situations (Adaptability)
- C.C.7. If there is a problem with communication, I find ways around it (Awareness of intercultural communication)
- C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive (Students' engagement with global issues)
- C.F.6. Looking after the global environment is important to me (Global Mindedness)

When comparing the scores of **group 0 (=No participation) and group 2 (=Abroad activities)**, results for global competence showed significant differences (p-value <0.05) in 10 out of 39 items for the group 2 in the following items:

- C.B.1. I can deal with unusual situations (Adaptability)
- C.B.2. I can change my behavior to meet the needs of new situations (Adaptability)
- C.B.3. I can adapt to different situations even when under stress or pressure (Adaptability)
- C.B.4. I can adapt easily to a new culture (Adaptability)
- C.B.5. When encountering difficult situations with other people, I can think of a way to resolve the situation (Adaptability)

- C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures (Adaptability)
- C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive (Students' engagement with global issues)
- C.D.6. I participate in activities promoting equality between men and women (Students' engagement with global issues)
- C.D.7. I participate in activities in favor of environmental protection (Students' engagement with global issues)
- C.F.1. I think of myself as a citizen of the world (Global Mindedness)

Another important finding is the fact that the mean values of group 2 were greater than those of group 0 overall.

In the comparison between the **group 1 (=Not abroad activities) and group 2 (=Abroad activities)**, the mean values of group 2 were greater than group 1 and the statistical tests showed that 6 out of 30 items were different in level of statistical significance of 5% and specifically in questions

- C.B.1. I can deal with unusual situations (Adaptability)
- C.B.3. I can adapt to different situations even when under stress or pressure (Adaptability)
- C.B.4. I can adapt easily to a new culture (Adaptability)
- C.B.6. I am capable of overcoming my difficulties in interacting with people from other cultures (Adaptability)
- C.D.1. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive (Students' engagement with global issues)
- C.D.6. I participate in activities promoting equality between men and women (Students' engagement with global issues)

Finally, in the item **C.A.6. Awareness of global issues How informed are you about the Causes of poverty** there was statistically significant difference for **group 1** with p-value > 0.05. We can claim that it was an unexpected finding.

4.2.4. Discussion

My findings show that "internationalization practices" and "the development of global education in students/recent graduates" are two variables positively correlated to a significant degree.

It has to be pointed out that the differences in mean values when comparing the two groups in the first new variable (group 0 = No participation & group 1= Participation in activities) were slightly greater for the group 1 in most items. However, we found out that there is a difference in a statistically significant level of 5%, only in some features (content domains) of global competence, namely **"Adaptability, Awareness of intercultural communication, Student's engagement regarding global issues, Global mindedness".**

In the second new variable, differences in a statistically significant level of 5%, have also been identified in those who have participated in internationalization practices (excluding abroad activities) when comparing with those who have never been involved in such activities. However, the findings came from the comparison between those who have participated in abroad activities and the other two groups (group 0 = No participation & group 1 = Not abroad Activities) were certainly a significant outcome. Statistical tests showed significant gains for group 2 in all of the items of **adaptability,** in items related to awareness about **environmental protection**, **gender equality issues** and last but not least, in the item regarding the **Global Mindedness (I think of myself as a citizen of the world).**
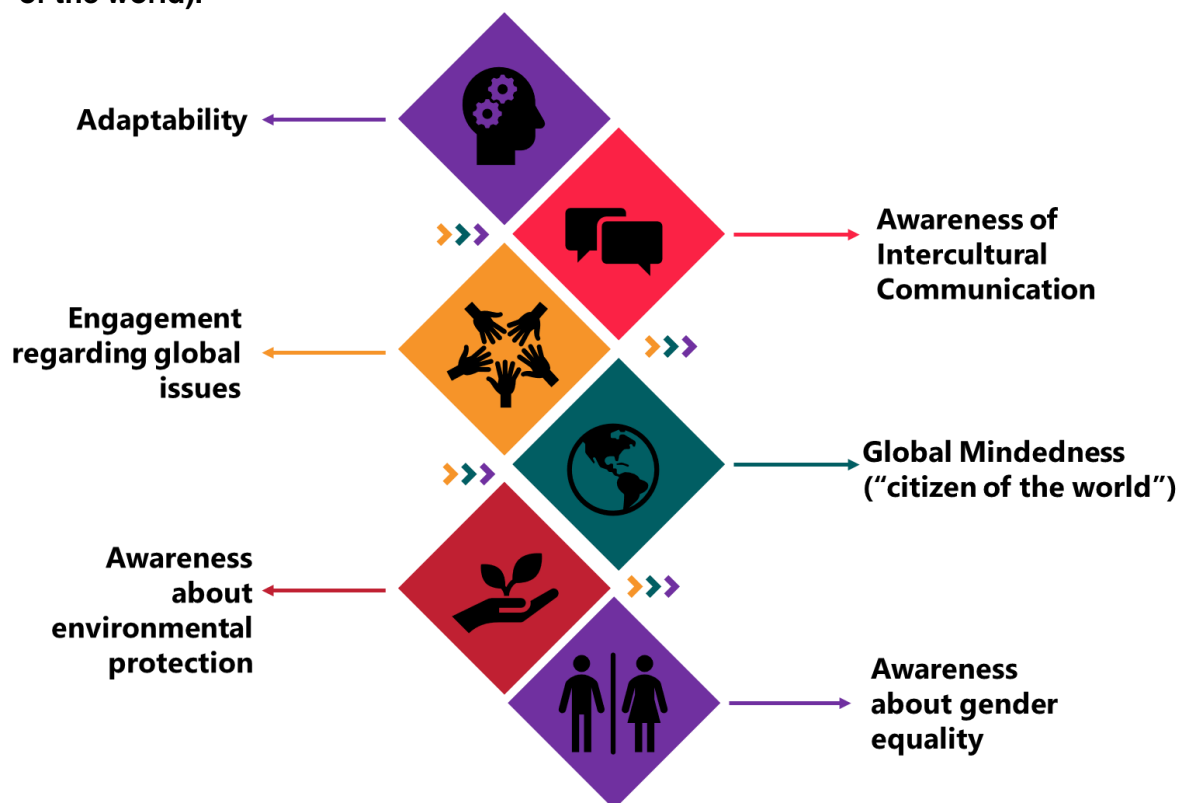

Figure 12. The effectiveness of internationalization practices in participants global competence development (developed by Karampampa, 2021).

So, there are sufficient evidence **to reject the Null Hypothesis** *"Internationalization practices in higher education will have no effect on students' global competence development"*, since the evidences are stronger **in favor of the Alternative Hypothesis** *"Internationalization practices in higher education **will lead to the improvement of certain skills** of students related to the global competence".* In other words, we should retain the Alternative Hypothesis and reject the Null Hypothesis.

The results of this thesis are in line with several scholars who are pointing out the existent relationship between internationalization practices (including both mobile and non-mobile students) with the development of international/global skills and also social and professional/employability skills (Engel, 2019; Watkins & Smith, 2018).

We can also agree with Engel (2019) and Herrera's (2008) view that global competence is an outcome of internationalization of HE, since we found out that several global skills of students have been developed with their participation in internationalization activities (both abroad and at home). It is important to point out that statistic tests showed that not only mobile students, but also non-mobile students who have participated in internationalization activities in a domestic learning environment have presented global skills development. Those findings shed light on the importance of inclusive and accessible internationalization at home, which is scientific topic acknowledged by far more scholars recently (De Wit & Altbach, 2020; Cotton et al., 2019; Engel, 2019; Watkins & Smith, 2018; De Wit, & Jones, 2018; Slotte & Stadius, 2019).

My findings also showed that the groups did not differ statistically significantly on the items with regards to *Awareness of global issues* and *Respect for people from other cultural backgrounds.* Even if the mean values were greater for those who have participated in internationalization practices, the criterion for statistical significance was higher than 5% (p-value > 0.05) and thus they have been rejected.

Literature presents numerous explanations for that. First of all, the participation of an individual in internationalization practices is not the only variable influencing the development of global competence. Cui & Awa (1992) have presented in their survey that **personality traits** of an individual are playing an important role in the adjustment in a new culture, in intercultural awareness and communication. The traits that have been emphasized mostly were patience, tolerance for ambiguity and uncertainty, and flexibility. Apart from personality traits, there are also other moderators (as independent variables) according to Peng & Wu (2016). In particular, Peng & Wu (2016) found out

that there are both **direct contacts and indirect contacts** that can have positive effects on global competence. Those contacts might be realized through domestic social media, foreign social media, domestic intercultural communication activities and foreign intercultural communication activities.

Furthermore, the survey of Terzuolo (2018) should also draw attention towards other moderators influencing the development of global competence of the students. According to this survey, **demographic characteristics or prior life experiences** of students are associated with the growth of an intercultural/global mindset. Among a variety of demographics, Terzuolo (2018) found that female gender, multicultural background and having a grandparent born and raised abroad were statistically significant at 5% level for those who studied abroad.

The findings concerning the students who have participated in internationalization activities spending from 1 week to 1 year abroad showing statistically significance in comparison to those who have participated in internationalization activities on their home campus or those who have not participated in activities at all, is not a surprising evidence, since there are previous similar surveys examining intercultural competence or intercultural mindset of this group.

Concerning the light of previous research carried out, Herrera (2008) who was examined the effects of studying abroad on global competence and global consciousness development[1], she found out that students who have studied abroad had greater scores with statistical significance in comparison with those who remained on the home campus in the following content domains:

- Awareness of the culture of others
- Effective use of professional skills in another cultural environment;
- Successfully living in a culture different from one's own;
- Ability to speak a foreign language
- Desire/willingness to improve the human condition
- Willingness to step outside of own cultural comfort zone
- Openness to new experiences
- Willingness to take risks to learn more about other cultures

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[1] She constructed two new models of Global Competence and Global Consciousness on her own.

Similarly, in another survey of Sutton & Rubin (2004) who examined 6 measures (learning outcomes) of cultural sensitivity conducting t-tests by comparing study abroad participants and non-participants, he found out that the groups differed significantly in 4 out of 6 measures, namely:

- functional knowledge
- knowledge of world geography
- knowledge of cultural relativism
- knowledge of global interdependence

He also pointed out that studying abroad brings outcomes in a variety of skills of students, such as autonomy or self-efficacy, flexibility, sociability, interethnic tolerance, and world-mindedness.

Finally, Peng & Wu (2006) showed with his survey that international experiences brings outcomes to students in terms of developing their intercultural sensitivity, cultivating open non-ethnocentric attitudes toward different cultures and helping them cope with intercultural differences.

V. CONCLUSIONS AND LIMITATIONS

5.1. Key conclusions of this survey

The present thesis is a preliminary step towards a long-term effort by academics and education practitioners to examine the OECD PISA Global Competence Framework in HE and to use it in order to assess the outcomes of the internationalization practices of a HEI and their effectiveness in the development of global competence of their students and graduates in Greece.

In this research, internationalization of HE has been seen under a particular perspective, which can bring benefits by affecting positively the students' readiness for global societies by developing their global understanding and the skills and competences required by the global labor market.

After having applying literature review and field research, we have reached the following conclusions:

1. The process of internationalizing the HE can be an up-bottom approach (from a European to a national level) or a bottom-up approach (from an individual, faculty or institutional level to a country level). Types of global competence education in HEIs can include both curricular (use of English for instruction, project-based learning, foreign language classes) and extracurricular activities (exchange programmes, international internships, study visits abroad, etc.), including abroad and at home international approaches.

2. HE plays an important role in shaping global competent people, since findings showed that the participation of students in internationalization practices affect positively in the development of particular skills and attitudes (i.e. adaptability, awareness of environmental protection, intercultural communication, etc.) fostering their global responsibility. It is an undeniable fact that HEIs can strengthen the development of global skills of their students, because they cooperate with international peers and become aware of global issues. Thus, we can conclude that HEIs as key actors contribute not only to academic achievement, but also to social and economic goals, such as the Sustainable Development Goals.

3. The top four internationalization practices the Greek students participate in, according to their answers, are (1) foreign language classes (37,24%), (2) the use of English for lecturing and instruction (25,06%), (3) the project-based learning (27,82%), and (4) virtual learning (23,68%). All those practices are being applied into the university campus and therefore they are so called "at home internationalization practices" or alternatively "global competence education approaches". We can assume that more Greek students have opportunities to participate in IaH practices rather that internationalization abroad practices and we can agree with those scholars that are highlighting the need for more inclusive and accessible internationalization of HE.

4. Even if the Greek HEIs do efforts to implement internationalization practices in order for promoting the European and global dimensions in HE, the degree of Greek participation (institutions and students) in abroad programs remains low overall. This is also confirmed by the field research, since the students' participation in European programmes (exchanges programmes, short-term or long-term mobility, international internships) is less than 15% of the total sample in comparison with other practices realized into the home campus (i.e. virtual learning, Foreign language classes (English or other), Use of English for lecturing and instruction, Project-based learning), in which the participation of the sample is more than 23%. It is also confirmed by the fact that, nevertheless 77,70% answered that the university provides to their students Short-term international experience/Student exchange programs, in the questions concerning the participation of students in exchange programs and the acquisition of international experience, the participation rates range between approximately 15% -3%. It also worthy to be mentioned that even if there are internationalization offices in all universities in Greece, only 24,14% of the students is aware of their existence and their role.

5. Even if the literature and OECD Framework include a set of numerous knowledge, skills, competences and values as outcomes of global competence education, the present survey showed that the participation in internationalization practices of HE has an effect on particular features of students' global competence development. Results showed that the students/recent graduates have developed more **their adaptability, their awareness of intercultural communication, their engagement regarding global issues (mostly issues concerning environmental protection and equality between men and women) and their global mindedness ("I think myself as a citizen of the world").** All the above-mentioned results should be considered as global learning achievements.

6. Finally, there are strong evidence showing that international experience abroad (exchange programmes, internships, etc.) have an increased impact in the development of global competence and in the enhancement of particular skills (adaptability, intercultural communication, global mindedness, etc.) of students/recent graduates.

5.2. Limitations of the study

Despite the fact that this study has contributed to the identification of the effectiveness of internationalization practices on students' global competence development in Greece and it has brought a new perspective in the utilization of OECD PISA Global Competence Framework and in the fact that global competence could be one of the outcomes when internationalizing HE, there are several limitations that should be pointed out.

First of all, only 6 out of 11 features of OECD Global Competence Framework were examined and included as items into the questionnaire. Nevertheless, the bibliography underlines the fact that more than one research methods should be used when assessing skills and competences, we followed the structure of OECD PISA Framework; including mainly Likert scale items. No interviews, observations, or other methods of qualitative research were implemented.

The questionnaire does not include all the identified internationalization practices or global competence education approaches, but some of the most discusses and debated by scholars.

What is more, due to the implications and social distancing of COVID19, the distribution of the questionnaire was realized only through online means, namely it was published via social media, websites and emails. We didn't approach Greek students of the two new Bachelors offered by Greek HEIs in English language, because the establishment of those programmes has become only until recently.

Global Competence has a complex structure with various meanings and definitions. Additionally, there are numerous surveys examining similar competences such as intercultural competence or global understanding. However, there is no survey which has used and implement the OECD PISA Global Competence Framework.

Regarding the case of Greece, there were identified only few surveys about internationalization of HE in Greece and there was no survey about students' global competence in Greece. So, there was no possibility of comparing and contrasting the

findings of this thesis with those with another one concerning the Greek HEIs and students.

5.3. The added value of this study

This thesis contributes to the argument of *"What is the role of Higher Education in the formulation of a global competent workforce and how HEIs can affect students' readiness for global societies by developing skills and competences required by the global labor market and knowledge economy?"*.

What is more, this thesis adds value to the existing initiatives concerning the internationalization of HE in a national level, since it provides a theoretical framework in the design and adoption of new policies and strategies regarding the global dimension of HE, taking also under consideration the particular needs in Greece.

In a European level, the key concepts and the milestones of this thesis can contribute to the educational policy of the European Union and other International Organizations focusing on Internationalization of Higher Education. Finally, it adds value in the priorities of new Erasmus+ programme 2021-2027 and in the renewed EU agenda for Higher Education, which highlights the need for improvement of the human-capital basis in order to reinforce both the performance of HEIs and the competences of the students.

VI. RECOMMENDATIONS

6.1. Recommendations for further research

There are numerous gaps in academic knowledge around the topics of this thesis. More research should be carried out in order to understand how "global education" policies can be developed in particular national, political, socio-economical contexts, since the approach "one-size-fits-all" cannot be effective under this topic. Therefore, it follows a set of recommendations for further research:

1. Conduct more surveys so as to examine the other features of global competence, including more internationalization practices (both abroad and at home);
2. Conduct surveys aiming at examine the correlation between employability and internationalization of HE, so as to further comprehend the impact of internationalization on students' global competence development;

3. Carry out further studies towards the direction of integrating global competence education into the curriculum of HE as a significant component of internationalization;

4. Take into consideration the regional and national needs and challenges of HE in order for a more tailor-made research and results;

5. Combine methods when assessing skills for more reliable results when conducting field research. For instance, use mixed methodologies: scenario-based assessments, case studies, exposure of students in real life situations, use of videos, interviews;

6. Global competence has a complicate and complex structure since it consists of several components. Further research should be done to clear the definition of this key term and its main characteristics;

7. Examine and identify the impact of globalization in the transformation of HE and in the personal and professional growth of the students in Greece;

8. Examine and compare the participation of Greek students in internationalization activities and the skills gained from those in comparison with other European countries;

9. Design Assessment Models and Tools for global competence with a specific focus on students and graduates of higher education institutions;

6.2. Recommendations for the practitioners

Another set of recommendations should encourage the practitioners of Higher Education and the policy makers in relevant fields to act towards specific directions:

1. Design and implement new models of internationalization practices and activities either curricular or extra-curricular in all levels of tertiary education (bachelor, master, PhD);

2. Use the OECD PISA Global Competence Framework to create new learning outcomes for the curricular or extra-curricular internationalization practices and activities;

3. Deploy a strategy for the strengthen of internationalization of Higher Education in Greece concerning all types (abroad and at home);

4. Develop an Internationalization Plan considering the dimensions and features of global competence and global learning;

5. Evaluate the programmes and practices of a HEI integrating the global competence as an outcome of those programmes;

6. Measure and assess the effectiveness of internationalization practices on the development of global understanding and the growth of skills and competences of the students;

7. Enhance and acknowledge the skills gained during and after an internationalization programme. It is crucial for students and graduates to understand and verbalize the knowledge and skills they gained and translate them into employability opportunities;

8. Operate internationalization offices in every HEI in Greece by building a responsive and effective system when delivering activities and programmes;

9. Improve the access of students in internationalization practices by addressing the Quality in Education according to United Nations adopted 2030 Agenda for Sustainable Development (SDG4);

10. Promote equity of resources, non-discrimination and equal opportunities for participation to all students regardless their personal characteristics, such as gender, ethnicity, cultural background, socioeconomic status, etc. based on European Union Agency for Fundamental Rights of the European Union (2012/C 326/02);

11. Enhance students' participation in both internationalization programmes abroad and in the campus and encourage the European integration process;

12. Review the existing programmes and design and operate new programmes carefully by developing specific indicators (both quantitative and qualitative) and by recognizing the global competence of students;

13. Offer training solutions including global competence dimension to academic and administrative staff of the HEIs;

14. Raise the global awareness of students, academics and other staff by exposing them in significant global and intercultural issues;

15. Provide support towards the HEIs (departments and faculties) in order to respond in a more efficient and direct way in global needs and challenges so as to prepare the future generation becoming "global professionals";

16. Enhance cooperation between key stakeholders and the involvement of key persons of the three levels: local – national – European; in terms of awareness raising about global understanding and responsibility of the HEIs to educate for global competence.

Finally, practitioners can use the LogFrame Model as a proposed framework for assessing the effectiveness of internationalization programmes on students' global competence development in Higher Education.

Inputs
→ Global oriented Staff
→ Interested Students
→ Funding
→ Internationalization offices
→ Strategic Partnerships Development of Internationalization Plan
→ Assessment Tools and KPIs

Activities
→ Offering trainings to academic and administrative staff
→ Implementation of internationalization practices and global education programmes
→ Utilization of OECD Framework

Outputs
→ Increasement of programmes and activities
→ More students that participate in campus activities,
→ More students participate in programmes abroad
→ More opportunities for students to learn about global developments

Outcomes
→ Global competent students and graduate
→ Enhancement of key skills needed for intercultural societies and global labor market (adaptability, awareness of intercultural communication, global mindedness, etc.),
→ Enhancement of students readiness for global societies
→ Better understanding of global and intercultural issues Appreciation of the world views of others
→ Engagement in interactions across cultures, etc.

Impact
→ Boost Employability
→ Development of global understanding and global mindset
→ Raise awareness of young generation to support the Sustainable Development Goal
→ Active participation of young people in shaping future developments and in decision making of global issues
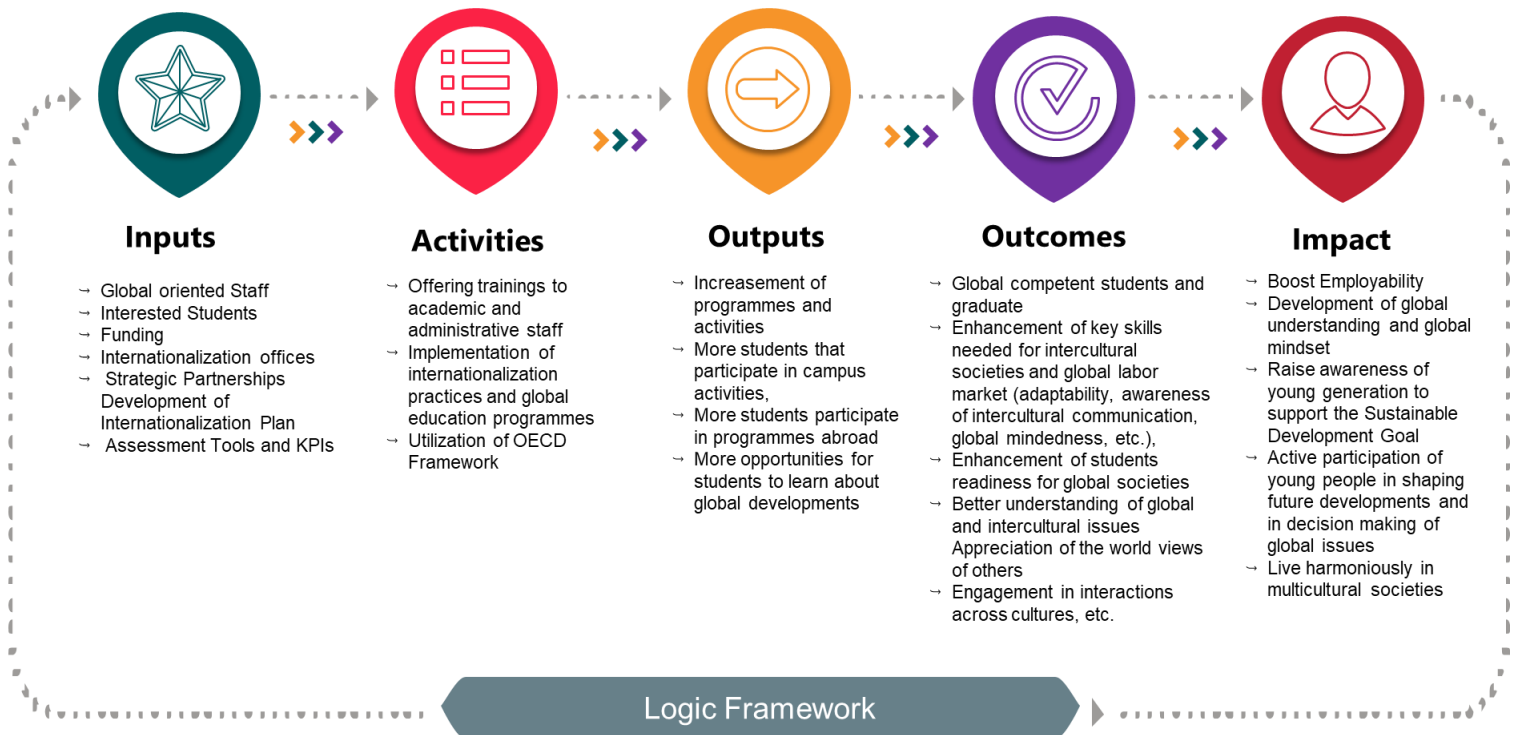→ Live harmoniously in multicultural societies

Logic Framework

Figure 13. LogFrame Model in the development of global competence through the participation in internationalization practices in HE (developed by Karampampa, 2021).

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ANNEXES

The Questionnaire

Section A: Demographics	
1. Are you an active student in a Greek University? If yes, select your academic level (bachelor, master, PhD level).	• Yes, I am a bachelor student in Greece. • Yes, I am a master student in Greece. • Yes, I am a PhD candidate student in Greece. • No, I am not a student.
2. Are you a recent graduate of the last 3 years in Greece? If yes, select your academic level (bachelor, master, PhD level).	• Yes, I am a bachelor recent graduate. • Yes, I am a master recent graduate. • Yes, I am a PhD recent graduate. • No, I am not a recent graduate.
3. What is your gender?	• Male • Female • Other
4. What is your nationality?	
5. What is your age?	• 18-24 • 25-34 • >=35
6. What is your educational background (faculty/department)?	• Humanities • Cultural Sciences & Arts • Architecture & Engineering • Business & Economics • Environmental & Natural Sciences • Computer Sciences • Education Sciences • Physical Education & Sport Sciences • Social & Political Sciences • Tourism & Hospitality • Marketing & Communication • Sciences (Mathematics, Physics, Chemistry, Biology, etc.) • Languages • Health Sciences • Other
7. What is your language level in English according to EQF?	• B1 • B2 • C1 • C2
8. What other languages do you speak?	
9. In which city do/did you study?	

Section B: Internationalization/Global Competence Education Practices and Programmes in Higher Education	
1. Please, select as many as you think from the following items, in case you have participated during your academic studies in a university/college/higher education institution:	• 1-4 weeks short-term international experience • 2-3 months short-term international experience • one academic semester short-term international experience • one academic year short-term international experience • study visits • summer school abroad • online mobility/ virtual learning • International internship • Foreign language classes (English or other) • use of English for lecturing and instruction (one or more courses) • "Global Studies Certificate as extra-curriculum" • International research projects • Business education and connection with the local business community • Community-based service activities and engagement with civil society and voluntary associations • Project-based learning (PBL) • None of the above
2. Please, select as many as you think from the following items, in case your school/department/university provides them (even if you have NOT participated in them):	• Foreign language classes • Short-term international experience/Student exchange programs • Internationalization offices • Summer schools • International projects • Study visits abroad • Creating international internships and networks/partnership with foreign universities • "Global Studies Certificate" as extra-curriculum • Presence of foreign students and scholars on campus • Business education and connection with the local business community • Community-based service activities and engagement with civil society and voluntary associations • Bringing foreign speakers/professors to the campus • Project-based learning (PBL) • Joint program academic design/Collaborative research

| | · Multilingual staff |
| | · None of the above |

Section C: Skills, Knowledge & Attitudes regarding Global Understanding

In this section, part of PISA 2018 Global Competence Questionnaire is used for the assessment of global understanding and students' awareness of global issues, and cultures, skills and attitudes adapted to higher education students or graduates.

A. How informed are you about the following topics? (4 Liker scale)	7. Climate change and global warming 8. Global health (e.g. epidemics) 9. Migration (movement of people) International conflicts 10. Hunger or malnutrition in different parts of the world 11. Causes of poverty 12. Equality between men and women in different parts of the world
B. How well does each of the following statements below describe you? (5 Likert scale)	7. I can deal with unusual situations. 8. I can change my behaviour to meet the needs of new situations. 9. I can adapt to different situations even when under stress or pressure. 10. I can adapt easily to a new culture. 11. When encountering difficult situations with other people, I can think of a way to resolve the situation. 12. I am capable of overcoming my difficulties in interacting with people from other cultures.
C. Imagine you are talking in your native language to people whose native language is different from yours. To what extent do you agree with the following statements? (4 Likert scale)	8. I carefully observe their reactions. 9. I frequently check that we are understanding each other correctly. 10. I listen carefully to what they say. 11. I choose my words carefully. 12. I give concrete examples to explain my ideas. 13. I explain things very carefully. 14. If there is a problem with communication, I find ways around it (e.g. by using gestures, re-explaining, writing etc.).
D. Are you involved in the following activities? (Yes-No)	8. I choose certain products for ethical or environmental reasons, even if they are a bit more expensive. 9. I sign environmental or social petitions online. 10. I keep myself informed about world events via Twitter or Facebook. 11. I boycott products or companies for political, ethical or environmental reasons. 12. I participate in activities promoting equality between men and women. 13. I participate in activities in favor of environmental protection.

	14. I regularly read websites on international social issues (e.g. poverty, human rights).
E. How well does each of the following statements below describe you? (5 Likert scale)	6. I respect people from other cultures as equal human beings. 7. I treat all people with respect regardless of their cultural background. 8. I give space to people from other cultures to express themselves. 9. I respect the values of people from different cultures. 10. I value the opinions of people from different cultures.
F. To what extent do you agree with the following statements? (4 Likert scale)	7. I think of myself as a citizen of the world. 8. When I see the poor conditions that some people in the world live under, I feel a responsibility to do something about it. 9. I think my behaviour can impact people in other countries. 10. It is right to boycott companies that are known to provide poor workplace conditions for their employees. 11. I can do something about the problems of the world. 12. Looking after the global environment is important to me.