

DOI: 10.1080/14767724.2023.2265840

Document Version Peer reviewed version

Link to publication record in Taylor Francis platform

Citation for published version (APA):

Hernández Arriaza, M., Muñoz San Roque, I., Aza Blanc, G. y Shorey, S. (2023). Gen-Z university students' attitudes toward current global trends: environment, globalization, immigration, feminism and capitalism. *Globalisation, Societies and Education*. <https://doi.org/10.1080/14767724.2023.2265840>

Citing this paper

Please note that where the full-text provided on Taylor Francis Portal is the Author Accepted Manuscript or Post-Print version this may differ from the final Published version. If citing, it is advised that you check and use the publisher's definitive version for pagination, volume/issue, and date of publication details. And where the final published version is provided on the Research Portal, if citing you are again advised to check the publisher's website for any subsequent corrections.

General rights

Copyright and moral rights for the publications made accessible in the Research Portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Research Portal

Take down policy

If you believe that this document breaches copyright please contact [Taylor & Francis Group \(taylorfrancis.com\)](https://www.taylorfrancis.com) providing details, and we will remove access to the work immediately and investigate your claim.

Gen-Z university students' attitudes toward current global trends: environment, globalization, immigration, feminism and capitalism

Marta Hernandez-Arriaza^a, Isabel Muñoz-San Roque^a, Gonzalo Aza Blanc^b, Shefaly Shorey^c

^a Department of Education, Universidad Pontificia Comillas, Madrid, Spain

^b Department of Psychology, Universidad Pontificia Comillas, Madrid, Spain

^c Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, Singapore.

Abstract

Generation Z is characterized by being digitally native, socially conscious, and diverse. These values influence the way they learn, communicate and relate to the world. The present study aims to examine the attitudes of university students towards some emerging global trends, including environmental change, globalization, immigration, feminism and capitalism. It involves a cross-sectional exploratory study to describe the attitudes of a group of 1,346 students belonging to Generation Z from a Spanish university. Most students are concerned about the environment and support policies to protect it. They also view globalization and immigration positively. A specific critical view of the capitalist system, however, is reflected by more intermediate scores. There are also gender differences in perceptions of progress on feminism and criticism of the capitalist system. Men score higher on globalization but less on immigration. There are two profiles among Gen-Z students: those with more positive attitudes towards immigration, feminism and a critical view of the capitalist system (Social Sciences, Health, Translation-RI, Philosophy-Theology students) and those with less positive

attitudes (Business, Law and Engineering). These distinctions coincide with different fields of study. Overall, these results are important in enabling social psychologists and educators to understand better the values of their students.

Keywords: Gen-Z; attitudes; student perceptions; characteristics; higher education.

Introduction

We are facing and living in difficult and challenging times, a global pandemic, ecological and climate emergencies, economic crises, border crises, refugees and displacement, and chaos in education. It has never been more urgent to think about how to mobilize global citizenship education (GCED) and education for sustainable development (ESD) together, hopefully, and synergistically to create alternative futures (Khoo and Jørgensen 2021). Schools are expected to help prepare students to become engaged citizens (Maurissen, Claes, and Barber 2018) for which it is essential to know what the current students attending our universities are like. Thus, every generation has unique characteristics shaped by shared experiences and various social or world events that have occurred during their formative years. Due to their different upbringings, individuals from different generations may develop different attitudes towards current global trends, learning styles, and values (Mohr and Mohr 2017). Generation-Z (Gen-Z) is the generation born between 1995 and 2010. They are gradually beginning to graduate from their universities and entering the workforce. As a generation that emerged during rapid technological advances, Gen-Z individuals are also known as digital natives who are more tech-savvy than preceding generations (Rothman 2016). Therefore, it is no surprise that the teaching pedagogies used to educate the millennials might not be as effective for the teaching of Gen-Z.

Existing literature has highlighted that students of Gen-Z tend to prefer flipped classrooms (Rothman 2016) and learn best by watching others complete a task before proceeding to do so themselves (Seemiller and Grace 2017). Due to their technological literacy and ease of access to a wide variety of online information, Gen-Z students are independent learners who enjoy learning at their own pace (Seemiller and Grace 2017). Consequently, to provide a practical educational experience and a successful transition to the world of work, it is essential to understand how members of Gen-Z think, what they care about, and how they prefer to be engaged in their learning process (Seemiller and Grace 2016).

Gen-Z has been studied in different disciplines, such as nursing (Chicca and Shellenbarger 2018; DiMattio and Hudacek 2020; Hampton and Welsh 2019; Smith-Trudeau 2016) medicine (Lerchenfeldt et al. 2021; Talmon 2019; Walsh 2011) engineering (Moore, Jones and Fraizer 2017) and business (Cameron and Pagnattaro 2017). However, little research has addressed this generation's thinking by comparing students from different fields of study.

Generational theory

Generational theory is based on the idea that people born in a period are connected by experiences and circumstances that give rise to social cohorts called generations (Hernandez-de-Menendez, Díaz and Morales-Menendez 2020). Those born at the same time belong to the same generation, firstly, to the extent that they are exposed to the same historical and social events, and, secondly, to the extent that they are at the same stage in their development as individuals (Mannheim 1970). Generations born with different external influences develop different views on priorities, values and preferences. Differences between generations result from the social changes that occur and the time in

the life cycle when these changes appeared (Ricketts 2016). The life-cycle effect refers to the difference in perspectives of an event bearing in mind age or where a group is in its life cycle (Seemiller and Grace 2018). Additionally, there is a need to consider the influence of global issues on generational cohorts. Thus, to understand better the characteristics of the generations, it is necessary to examine the context surrounding each one.

Seemiller and Grace (2016) classified each generation based on different characteristics. *The children of the war* (1930-1948) were characterized by austerity, while those belonging to the *Baby Boom Generation* (1949-1968) were ambitious and represented the triumph of the middle class. *Generation X* (1969-1980), the least studied generation, is known as the 'spanner in the neck generation' because of the consequences for their upbringing of their mothers' entry into the workforce. *Millennials*, or Generation Y (1980-1995), were raised thinking they could achieve anything and encountered the economic crisis as they began their careers (Vilanova and Ortega 2017). *Gen-Z*, born after 1995, also exhibit different traits from their predecessors; they have grown up surrounded by technology and the Internet, have lived with social networks, and have experienced a variety of unpredictable social issues that have made them more flexible and globally aware (Schwieger and Ladwig 2018). Finally, the *Alpha Generation*, raised by Millennials, do not know a world without the Internet in which Google does not answer their questions immediately (McCrinkle 2021). Including Gen-Z, these six generational cohorts are represented in the Spanish population today (Vilanova and Ortega 2017).

Unlike their older siblings, 'the Z's' have grown up immersed in a world that is evolving at a speed never known before (Schwieger and Ladwig 2018). They are the so-called digital natives, and the Internet, mobile phones and Web 2.0 are natural phenomena for them. Quick access to information is vital for this generation; generally, they are

characterized as multitaskers (Fodor and Jaeckel 2018). For this reason, they have also been referred to as iGeneration, Gen Tech, Online Generation or Post-Millennials. They are also known as Generation C by alluding to their status as internet-connected, (changeable, computerized, or communicative) (Dolot 2018).

Although Gen-Z is tech-savvy, early online exposure from childhood and adolescence has shown them the negative side of the world as they can see violence and suffering of people at the touch of a fingertip from their mobile phones. They are also more exposed to remote places than their predecessors because they are connected to a globalized and borderless world (Tulgan 2013). They are very aware of the environment and climate change (González-Anleo et al. 2021), and believe they can change the world (Pousson and Myers 2018).

In this vein, Gen-Z has witnessed advances in equal rights during their childhood and adolescence, such as the election of the first African American president in the United States and developments relating to same-sex marriage (Talmon 2019). This generation represents and reflects a unique set of individuals, with their own values and a new way of thinking. Due to their diversity, it is less likely that they may fall into previously recognized generational categories, and they are more likely to have overlapping identity components and viewpoints (Tulgan 2013).

Attitudes: environment, globalization, immigration, feminism, and criticism of the capitalist system

Various national (Benedicto et al. 2020; Díaz et al. 2021; González-Anleo et al. 2021; Sánchez-Beato et al. 2019) and international (Cilliers 2017; Dolot 2018; Hampton and Keys 2017; Helaluddin et al. 2019; Johnson and Sveen 2020; Rothman 2016;

Seemiller and Grace 2016, 2017, 2018; Selingo 2018) researchers have studied the characteristics, values and attitudes of Gen-Z.

On the one hand, environment-related attitudes are a fundamental construct in environmental psychology and have been widely studied (Milfont, Duckitt and Wagner 2010). This construct can be defined as the ‘set of beliefs, affects and behavioral intentions that a person has regarding activities or issues related to the environment’ (Schultz et al. 2005, 458). This definition is quite broad; hence some studies assessed people’s ecological beliefs, connectedness to nature, attachment to place, biophiliasense (connectedness to nature), and willingness to participate in environmentally related activities (Rosa and Collado 2019).

Gen-Z has been found to be concerned about the environment (Katz et al. 2022; Kymäläinen, Seisto and Malila 2021; Tyson, Kennedy and Funk 2021). Seemiller and Grace (2018) found that 58% of Gen-Z students were very concerned about the environment, but only a third were concerned about climate change. Furthermore, a third of students did not think that tackling climate change should be a priority for the government (Seemiller and Grace 2017).

Despite this data, the rise of activists such as Greta Thunberg, a member of Gen-Z, may have influenced greater participation by young people in seeking solutions for climate change in recent years by showing that they have a voice that can be heard (McCrindle 2021). It is even envisaged that participation in climate change marches will serve as a lever for the socialization of younger cohorts (Díaz et al. 2021). This has been observed in young Spaniards, where four out of five indicate they are very interested in the environment, 25% more than adults. In addition, 83% of young people agree with the recycling campaigns that are carried out in their communities (Díaz et al. 2021).

Cultural diversity, international brands, social media and globalization have

influenced this generation (McCrindle 2021). Thivierge, Aparicio and Tornos (2014) found that 75.9% of Western European students agreed that globalization was an opportunity for the development for all countries. However, the capitalist system that governs today's societies, in which everything is treated as a commodity, inevitably leads to economic, environmental and social crises (Curiazi and Guijarro 2019). Indeed, in the wake of the economic and social crisis of 2008, the questioning of the liberal order on which globalization is based has led to the rise of nationalist political forces (Sanahuja 2019).

In this sense, at the national level, the latest research by the Spanish Youth Institute and the Youth Observatory reveals a cohort that is very concerned about globalization, although more detached from their political representatives than their predecessors (Benedicto et al. 2020; Díaz et al. 2021; González-Anleo et al. 2021).

As a result of globalization, immigration is another important pillar for this generation as the number of foreign-born young people, especially those born outside the European Union, has increased since 2002. Indeed, immigration has been one of the most pressing challenges facing EU countries in recent years (Genge and Bartolucci 2022).

Cultural diversity is a feature that marks today's societies on a global level, and Spain is no exception (Martínez-Sánchez, Moreno and Carrasco 2022). In Spain, young people with a migrant background account for around 20% of the population, although the proportion varies significantly between different areas of the country (Benedicto et al. 2020). According to the Sociological Research Center, 29.3% of Spaniards believe that the number of immigrants currently in Spain is excessive, and 17.15% strongly believe that Spaniards should have a preference in accessing health care. On the other hand, 26.5% think it is very positive for Spanish society to be made up of people from

different countries, and 43.8% point to cultural enrichment as a positive effect of immigration (Centro de Investigaciones Sociológicas 2017).

Finally, Gen-Z has experienced the rise of feminism, understood as equality between men and women in all spheres of social and cultural life (Seemiller and Grace 2018). However, although some objectives have been achieved, it appears that some of the youth still perceive that it is necessary to continue improving women's opportunities (González-Anleo et al. 2021). González-Anleo et al. (2021) analyzed differences in gender equality concerns and found that women were more concerned than men. These data are similar to those collected in a sample of young Spaniards, where the concern is more significant among women aged 20-24 (86%) compared to men of the same age (61.6%) (Díaz et al. 2021). Moreover, the data differed when young people were asked to rate their concerns using the term gender equality rather than feminism. Thus, men felt more worried about gender equality, while women tended to identify more with the struggle for feminism (83% women; 61% men) (Díaz et al. 2021).

In addition, a new form of sexism has emerged in recent years, known as Neosexism (Ramiro and Montaña 2017). Modern sexism, unlike traditional sexism, is more subtle and is based on the denial of discrimination against women, criticism of the protests that this discrimination generates, and opposition to the policies designed to correct it (Martínez and Paterna-Bleda 2013). In Spain, Díaz et al. (2021) found that 14.4% of men and 9.7% of women agreed that discrimination against women is no longer a problem. Furthermore, 16.8% of men and 7.4% of women neither agreed nor disagreed.

There is therefore a need to understand and compare Gen-Z's views from different fields of study relating to the diversity of attitudes towards global trends. This study aims to find out the attitudes of young Gen-Z university students on different global issues. The research questions for this study were:

(1) What attitudes do Gen-Z university students have towards the environment, globalization, immigration, feminism and the capitalist system?

(2) Are there differences in the attitudes of these students according to their fields of study and gender?

Material and methods

Design

A cross-sectional ex-post-facto exploratory study design was used.

Participants and sampling

The target population consisted of undergraduate students at a private Spanish university born after 1995. Due to the study's exploratory nature, convenience sampling was used to recruit students from the entire university, irrespective of the course they were taking. Participants recruited were pursuing a university degree in seven fields of study to increase the variability of the sample: Social Sciences (Education, Psychology, and Social Work); Law, Business, Engineering, Health (Nursing and Physiotherapy); International Relations-Translation and Philosophy-Theology. A total of 1,346 students participated in this research.

Instruments

First, a qualitative study was conducted through focus groups with students and professors from different degrees and with administrative and service staff from the university (13 focus groups with 90 participants). Second, a survey was drawn up for students to carry out a longitudinal study that included the 16 items of the final questionnaire. The focus group analyses made it possible to contrast and validate the

content of the 16 items of the initial survey, resulting in the consolidated version that was finally used as the data collection instrument for research, the empirical validation of which is shown in the results section.

Considering the objectives and the theoretical framework of the research, 16 items were selected from validated scales for each of the dimensions to be studied. These were based on the proposal made by (Thivierge, Aparicio and Tornos 2014) for the scale items on globalization (three items) and a critical view of the capitalist system (three items), with the items on the environment scale (three items) being taken from (Milfont and Duckitt 2010). The items on immigration (three items) were based on the European Scale of Attitudes towards Immigration (Meuleman and Billiet 2012). The items on feminism (four items) were based on DeBlaere et al. (2017).

Thus, the final instrument consisted of, in addition to sociodemographic data (sex, age, year, area of study, type of secondary school), 16 items that encapsulated the student's perception of the world through a Likert scale (1=totally disagree to 7=totally agree).

Procedure (data collection)

The questionnaire was distributed between March and April 2021. Due to the COVID-19 pandemic, teaching at the university was given in a blended format (students attended one week in person and another week following classes from home). As such, the questionnaire was administered online using IQ2 software during class hours, and instructions were provided by a professor or by staff from the research team. Students provided informed consent before starting the application and were informed that they could stop at any time. Only the responses of those participants who completed all 16 items were included.

Data analysis

The data analysis was conducted using IBM SPSS Statistics 26 software.

The reliability of the dimensions was estimated in terms of internal consistency (Cronbach's Alpha) and composite reliability (MacDonald's ω). Each set of items as independent scales was subjected to an Exploratory Factor Analysis (EFA) using the Principal Component Analysis extraction method and the Promax rotation method with Kaiser normalization. In addition, descriptive statistics were calculated for the 16 items.

The student's t-test for independent samples was chosen to test the differences in the attitudes of the students according to their sociodemographic characteristics. One-Way ANOVA and factorial ANOVA were used to analyze the interaction between gender and areas of study for the five scales. Since the assumptions of homogeneity of variances and normality were not met, the Mann Whitney U and Kruskal-Wallis tests were calculated to complement the student's t-test and Snedecor's F to confirm the results found.

The Games-Howell post hoc test assessed differences between study areas since this test does not assume equal variances and sample sizes. Cohen's d and partial Eta-squared (η^2) were used as measures of effect size in the student's t-test (d around 0.20, 0.50, and 0.80 are considered low, moderate, and high, respectively), and ANOVA (η^2 around 0.01, 0.06 and 0.14 are considered low, moderate and high, respectively).

Ethical considerations

Participants responded voluntarily, anonymously, and without any financial reward for participation in the study. The study was approved by the Ethics Research Committee of the [RETRACTED] (with reference [RETRACTED]).

Results

A total of 1,346 undergraduates participated in the study. Of the total sample, 902 students were in their first academic year (67%) and 444 (33%) in their final year. The mean age of the students was 20.2 years (SD=4.29). There was a slight feminization of the sample, with 65% female (875) and 35% male (471), consistent with the population of the university. Furthermore, the distribution was unequal according to the fields of study, with a higher number of women in Social Sciences (84%), Translation and International Relations (Translation-IR, 79%), Health (71%), Law (66%), and Economics (62%) and a higher number of men in Engineering (67%) and Philosophy-Theology (71%).

In terms of socio-economic status, there were differences in the type of secondary school according to their fields of study, with more students coming from public schools in the fields of Health (48%), compared to only 5% of those studying Law, Business or Engineering (Table 1).

[Table 1 near here]

The final items that make up each scale can be found in Table 2.

[Table 2 near here]

Regarding the reliability analysis, Table 3 shows the reliability analyses for the five scales from two perspectives: internal consistency from Cronbach's alpha statistic (α), and composite reliability (McDonald's ω). The five dimensions had values between 0.60 and 0.80.

[Table 3 near here]

The Kaiser-Meyer-Olkin test of sampling adequacy was acceptable on all scales (greater than 0.5), and Barlett's test of sphericity was significant ($p < .001$). The items of

all dimensions explained a percentage of the variance between 56.3% and 62.5%. According to the Exploratory Factor Analysis, all scales were composed of a single factor.

The most positive attitudes were, in order, the importance of caring for the environment ($M = 5.86$), followed by a positive view of migratory phenomena ($M = 4.90$), feminism ($M = 4.61$), globalization ($M = 4.60$) and, lastly, a critical view of capitalist societies ($M = 3.94$).

A high percentage of young people disagreed that climate change is being perceived too much and that recycling does not contribute to improving the *environment* (71.3% and 90% responded 5, 6, or 7 on a scale of 1 to 7). In addition, 87.6% believe it is important to raise awareness of environmental issues (scores 5, 6, and 7).

Regarding the attitude towards *immigration*, 70% of students believed it is positive for a country's economy when people from other countries come to live in it. However, 18.6% disagreed that a country should legislate to allow the reception of refugees or people fleeing situations of extreme poverty. In addition, although 28.3% agreed that illegal immigrants should not have the same health benefits as the rest of the population, the same percentage disagreed.

The students showed some discrepancies regarding their attitudes towards *feminism*. Although 73.4% of the students agreed that there are still situations of discrimination against women in our society, 52.5% agreed that women and men have access to the same working opportunities.

There was less agreement on *globalization*. Overall, 62.2% agreed that globalization represents a positive opportunity for all countries and people. However, over half of the students (52.5%) believed that globalization leads to the impoverishment of developing countries, and 42.6% agreed that globalization poses a threat to national identity and culture.

Concerning the *capitalist system*, 61.3% of students agreed that there is a widening gap between rich and poor in most countries today, and 39.1% disagreed that capitalism and neo-liberalism are the only ways for economic development and improvement of living conditions. However, 59.2% students disagreed that capitalism led to the current economic crises.

Differences between groups

The differences in the scales according to gender are shown in Figure 1. Concerning the homogeneity of variances (Shapiro-Wilk $< .001$), the Mann-Whitney U and Kruskal Wallis tests were calculated to confirm the results obtained.

[Figure 1 near here]

Based on the analysis regarding gender differences, it was found that there were statistically significant differences in the five scales with a $p < .01$. It is in the attitude towards feminism where the highest difference was found ($d = 0.88$), with women who had the highest mean ($d = 0.88$). Regarding a critical view of capitalist societies, the difference was low ($d = 0.32$), as well as in care for the environment ($d = 0.28$) and the attitude towards immigration ($d = 0.24$). On the other hand, in terms of attitudes towards globalization, men had a higher mean ($d = 0.18$), but the difference was very low ($d = 0.21$).

Regarding students' perceived knowledge of the environment, students of Social Sciences and Translation-IR degrees differed from those studying Law ($p < .01$) and Engineering ($p < .001$), with the former obtaining higher averages. There were also differences between Translation-IR students and those studying Business Studies ($p < .05$), Law ($p < .001$) and Engineering ($p < .001$). The effect size was $\eta^2 = .02$, which is considered to be low.

In terms of *globalization*, Engineering students differed significantly from Social Sciences ($p < .001$), Health ($p < .01$) and Translation-IR ($p < .05$), with engineers having the highest scores ($M = 4.81$). The effect size was $\eta^2 = .02$ and, therefore, of low magnitude (Table 4).

[Table 4 near here]

Regarding perceptions of *immigration*, students of Philosophy-Theology, and degrees associated with Social Sciences, Translation-IR and Health, had the highest scores. On the other hand, Law, Economics, Business Studies and Engineering were the areas with the lowest scores but close to an average of 4.5 and, therefore, with relatively positive attitudes. There were statistically significant differences ($p < .01$) between the students of Law, Business and Engineering and the students of Social Sciences, Translation-IR, Health and Philosophy-Theology. The effect size indicated a moderate difference, $\eta^2 = .07$.

[Figure 2 near here]

Regarding *feminism*, Social Sciences, Translation-IR and Health students had higher values than Economics, Law and Engineering students. There were significant differences with a probability of $p < .001$ between students of Law, Business and Engineering and students of Social Sciences, Translation-IR, Health and Philosophy-Theology. There was also a difference ($p < .05$) between the students of Philosophy-Theology, Social Sciences and Business and between those of Philosophy-Theology and Engineering ($p < .001$). There were significant differences ($p < .05$) between Law and Engineering students. The effect size was $\eta^2 = .10$, of moderate magnitude.

Finally, concerning a critical view of *capitalist societies*, the students of Social Sciences, Translation-IR, Philosophy-Theology and Health had higher values than those of Economics, Law and Engineering. There were highly significant differences ($p < .001$)

between Social Sciences, Translation-IR, Philosophy-Theology and Health, and Law, Business Studies and Engineering. Less significant differences ($p < .05$) were observed between Translation-IR and Philosophy-Theology. The effect size was $\eta^2 = .16$, valued as high (Cohen 1992).

If we study the interactions between gender and area of study with factorial ANOVA, F values and $p < .05$ appear in the areas of feminism and critical view of the capitalist system. The effect of this interaction shows that women in the area of Social Sciences have a higher mean in the attitude towards feminism. However, the difference is slight ($\eta^2 = .01$), as is a critical view of the capitalist system held by women in Philosophy_Theology, with a moderate difference ($\eta^2 = .13$).

Discussion

The present study sought to examine the attitudes which Gen-Z university students have towards some global trends, namely the environment, globalization, immigration, feminism and the capitalist system, as well as how these attitudes may differ in relation to their fields of study and gender. As a whole, most students have a positive attitude regarding caring for the environment and supporting immigration, feminism and globalization. In addition, many students also hold a critical view of capitalism. (González-Anleo et al. 2021).

Firstly, this study found that most students felt that increasing awareness about environmental issues is important. These results are consistent with the information provided by other studies that define this generation as young people who are very concerned about the environment (Benedicto et al. 2018; Díaz et al. 2021; González-Anleo et al. 2021; Katz et al. 2022; McCrindle 2021). In contrast to the data found by Seemiller and Grace (2018), our sample seems quite in favor of the policies carried out

to fight climate change. This may be related not only to the fact that there is a growing sensitivity towards environmental issues in this generation, but also because the most relevant political mobilization they have experienced is connected to environmental issues (Díaz et al. 2021).

Gen-Z comprises young people connected to a borderless world (Tulgan 2013). This was demonstrated in our sample of students, where the majority agreed that immigration and globalization might produce positive effects in the economy. However, unlike the data collected by Thivierge, Aparicio and Tornos (2014), in which 75.9% of Western European students agreed that globalization represented an opportunity for the development of all countries, it seems that our sample is more aware of the negative aspects of *globalization*, as this percentage is now reduced to 62.2%. Furthermore, more than half of them agreed that globalization leads to the impoverishment of developing countries. Although this generation is described as one that would like to live in a society with people of different origins, cultures and religions (González-Anleo et al. 2021), our sample seems to have varying views on this matter. Even though 70% of the students believe that immigration is positive for a country's economy, a significant proportion of them were also more reluctant to welcome refugees or people in situations of illegal immigration. These data are consistent with the information collected by the Spanish Sociological Research Center (Centro de Investigaciones Sociológicas 2017). Nonetheless, most students were still welcoming of refugees, and a substantial number of them felt that illegal immigrants should have the same healthcare benefits as them. This agrees with prior research noting that Gen-Z individuals hope the system would make the legal immigration processes less challenging to help vulnerable groups like refugees and minority groups (Broadbent et al. 2017).

In our study, as in previous studies, there are differences in the perception of progress in gender equality. Thus, women are more dissatisfied with these advances. However, a limitation when interpreting these results is that in this research, the term ‘feminism’ was used instead of the expression ‘gender equality’. Díaz et al. (2021) indicates that young people are much more comfortable with the idea of the struggle for gender equality than feminism. This is especially evident in the case of men who felt more worried about gender equality and tended to identify less with the struggle for feminism (Díaz et al. 2021). It is, therefore, necessary to consider how the use of the term feminism may have affected the analysis of the results, especially for men.

Secondly, we examined gender differences in relation to five dimensions. It was found that women scored higher on feminism and had a more critical view of the capitalist system, environment and immigration. In the specific case of the attitude towards feminism, the results agree with those found in other studies, which report a more significant concern for gender equality on the part of women (Díaz et al. 2021; González-Anleo et al. 2021).

On the other hand, men score higher on globalization but not on immigration. These results are consistent with those reported by González-Anleo et al. (2021) in a sample of young Spaniards, in which men were found to have a more negative view of immigration. One possible reason for this may include a perceived threat that more immigrants may bring about fewer job opportunities for them (Grigorieff, Roth and Ubfal 2020). However, future research is needed to examine the reasons behind this gender difference in attitudes related to immigration.

Thirdly, regarding differences in the student’s area of study, engineering students are the lowest scorers in all dimensions except globalization. The difference between these students’ scores on globalization and immigration is also noteworthy. They are the

only group of students, together with law students, with higher scores on globalization than on immigration. Future research is needed to investigate the reasons for this difference, to know whether it is due to the course content, gender or the socioeconomic status of the students (mostly coming from private high schools).

Finally, it seems that there are two profiles within this group of students from Gen-Z: those who score higher in attitudes towards immigration, feminism and a critical view of the capitalist system (students from the areas of Social Sciences, Health, Translation- IR and Philosophy-Theology) and those who score lower in these dimensions (Business Studies, Law and Engineering). In this case, the distinctions align with gender differences since the first group has a higher enrollment of women. These students may have developed a more open and critical mindset towards such issues because they have been more exposed to such topics during their curriculum compared to their counterparts in Business Studies, Law and Engineering. Nonetheless, more qualitative research may be needed to identify the reasons for such differences in attitudes related to study area.

Limitations of our study

Although this study reports on some of the attitudes of young university students as members of Gen-Z, and their differences according to gender and area of study, it has limitations in terms of the representativeness of the sample analyzed as members of their generation, given the social context in which the data were collected, since they were students studying at a private, Catholic university. Furthermore, when looking at the type of secondary school attended by students, significant differences can be observed between those studying law, engineering and business (who mainly come from private schools) and those in other fields who have more diverse backgrounds.

This makes the generalizability of the results limited. Although we may refer to this sample as representative of a particular sector of Gen-Z, it may not be possible to extrapolate easily our findings to other populations.

Finally, as stated in the Spain 2020 Youth Report (Díaz et al. 2021), ideology seems to be critical in determining different attitudes towards sexism or the treatment of people from other countries. Including a political ideology variable in this study would therefore have been interesting. In the university context, it would also have been desirable to see whether these attitudes were likely to vary throughout the university period or be stable over time. Given that a university is a place for critical reflection, it would have been interesting to know if there might have been changes in this respect by comparing the scores in the first and final years.

Conclusion

This study examined the attitudes of Gen-Z undergraduates regarding various global issues and how these attitudes may differ depending on their gender and study major. Our findings reveal that Gen-Z tend to be more concerned about saving the environment, have positive attitudes regarding feminism and are critical of capitalist societies. They also have generally positive attitudes regarding immigration and globalization, believing they would bring various economic benefits to society. The results have identified some gender differences as well as differences in views between students from different majors. Future research could look to examine further the perspectives of Gen-Z students regarding these global issues to facilitate a better understanding of their values and attitudes.

Disclosure statement

The authors report there are no competing interests to declare.

Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article.

References

- Benedicto, J., A. Echaves, T. Jurado, M. Ramos, and B. Tejerina. 2018. *Informe Juventud en España 2016 [Youth in Spain 2016 Report]*. Madrid: Instituto de la Juventud.
- Benedicto, J., A. Echaves, T. Jurado, M. Ramos, and B. Tejerina. 2020. “La juventud que sale de la crisis [Youth emerging from the crisis.]” *Revista Española De Sociología* 29 (3-Sup2): 131-147. doi:10.22325/fes/res.2020.78
- Broadbent, E., J. Gougoulis, N. Lui, V. Pota, and J. Simons. 2017. *What the World’s Young People Think and Feel. Generation Z: Global citizenship survey*. Varkey Foundation.
- Cameron, E. A., and M. A. Pagnattaro. 2017. “Beyond millennials: Engaging generation Z in business law classes.” *Journal of Legal Studies Education* 34 (2): 317-324. doi:10.1111/jlse.12064
- Centro de Investigaciones Sociológicas. 2017. “Estudio nº 3190. Actitudes hacia la inmigración (X).” Accessed May 5 2023.
https://www.cis.es/cis/openm/ES/1_encuestas/estudios/ver.jsp?estudio=14367

- Chicca, J., and T. Shellenbarger. 2018. "Connecting with Generation Z: Approaches in nursing education." *Teaching and Learning in Nursing* 13 (3): 180-184.
doi:10.1016/j.teln.2018.03.008
- Cilliers, E. J. 2017. "The challenge of teaching generation Z." *PEOPLE: International Journal of Social Sciences* 3 (1): 188-198. doi:10.20319/pijss.2017.31.188198
- Cohen, J. 1992. "A power primer." *Psychological Bulletin* 112 (1): 155.
doi:10.1037//0033-2909.112.1.155
- Curiazi, R., and J. C. Guijarro. (2019) "Crisis civilizatoria capitalista y "otras economías": de la distopía a las alternativas. [Capitalist crisis of civilization and "other economies": from dystopia to alternatives]". *Revista De Sociología* 29: 47-84. doi:10.15381/rsoc.v0i29.16973
- DeBlaere, C., C. N. Chadwick, D. G. Zelaya, J. Bowie, M. F. Bass, and Z. Finzi-Smith. 2017. "The feminist identity composite: An examination of structural validity with sexual minority women." *Psychology of Women Quarterly* 41 (1): 20-31.
doi:10.1177/0361684316676046
- Díaz, M. T. P., P. Simón, S. Clavería, G. García-Albacete, A. L. Ortega, and M. Torre, 2021. *Informe Juventud en España 2020*. [Youth in Spain 2020 Report]. Madrid: Instituto de la Juventud.
- DiMattio, M. J. K., and S. S. Hudacek. 2020. "Educating generation Z: Psychosocial dimensions of the clinical learning environment that predict student satisfaction." *Nurse Education in Practice* 49: 102901.
doi:10.1016/j.nepr.2020.102901
- Dolot A. 2018. "The characteristics of Generation Z." *E-Mentor* 2 (74): 44-50.
doi:10.15219/em74.1351

- Fodor, M., and K. Jaeckel. 2018. "What does it take to have a successful career through the eyes of generation Z-based on the results of a primary qualitative research." *International Journal on Lifelong Education and Leadership* 4 (1): 1-7.
- González-Anleo, J. C., I. Megías, A., Pérez, and J. C. Ballesteros. 2021. *Jóvenes españoles 2021. Ser joven en tiempos de pandemia. [Young Spaniards 2021. Being young in times of pandemic]*. Madrid: Fundación SM. Observatorio de la Juventud en Iberoamérica.
- Genge, E., and F. Bartolucci, 2022. "Are attitudes toward immigration changing in Europe? An analysis based on latent class IRT models." *Advances in Data Analysis and Classification* 16 (2): 235-271. doi:10.1007/s11634-021-00479-y
- González-Anleo, J. M., M. L. Gutierrez, J. R. Escobar, E. Ribeiro, J. P. da Silva, L. Gómez, P. Carrano, M. Pereira, M. Ortiz-Hernández, and N. Reyes. 2021. *Jóvenes en Iberoamérica 2021. [Young people in Iberoamerica 2021]*. Madrid: Fundación SM. Observatorio de la Juventud en Iberoamérica.
- Grigorieff, A., C. Roth, and D. Ubfal. 2020. "Does information change attitudes toward immigrants?" *Demography* 57 (3): 1117-1143. doi:10.1007/s13524-020-00882-8
- Hampton, D. C., and Y. Keys. 2017. "Generation Z students: Will they change our nursing classrooms." *Journal of Nursing Education and Practice* 7 (4): 111-115. doi:10.5430/jnep.v7n4p111
- Hampton, D., and D. Welsh. 2019. "Work values of generation Z nurses." *JONA: The Journal of Nursing Administration* 49 (10): 480-486. doi:10.1097/NNA.0000000000000791
- Helaluddin, H., S. Syawal, N. Nurmadiyah, and Z. Zulfah. 2019. "Perception and expectation of university students as generation z: A qualitative study about

- learning scenario.” Paper presented at the 4th International Conference on Teacher Education and Professional Development of 2019, Yogyakarta, Indonesia, November 13-14.
- Hernandez-de-Menendez, M., C. A. E. Díaz, and R. Morales-Menendez. 2020. “Educational experiences with Generation Z.” *International Journal on Interactive Design and Manufacturing* 14 (3): 847-859. doi:10.1007/s12008-020-00674-9
- Johnson, D. B., and L. W. Sveen. 2020. “Three Key Values of Generation Z: Equitably Serving the Next Generation of Students.” *College and University* 95 (1): 37-40.
- Katz, R., S. Ogilvie, J. Shaw, and L. Woodhead. 2022. *Gen Z, Explained: The art of living in a digital age*. Chicago: University of Chicago Press.
- Khoo, S.-M., and N. J. Jørgensen. 2021. “Intersections and Collaborative Potentials between Global Citizenship Education and Education for Sustainable Development.” *Globalisation, Societies and Education* 19 (4): 470-481. doi:10.1080/14767724.2021.1889361
- Kymäläinen, T., A. Seisto, and R. Malila. 2021. “Generation Z food waste, diet and consumption habits: A Finnish social design study with future consumers.” *Sustainability* 13 (4): 2124. doi:10.3390/su13042124
- Lerchenfeldt, S., S. M. Attardi, R. L. Pratt, K. E. Sawarynski, and T. A. Taylor. 2021. “Twelve tips for interfacing with the new generation of medical students: iGen.” *Medical Teacher* 43 (11): 1249-1254. doi:10.1080/0142159X.2020.1845305
- Mannheim, K. 1970. “The problem of generations.” *Psychoanalytic Review* 57 (3): 378-404.
- Martínez, C., and C. Paterna-Bleda. 2013. “Ideología masculina e igualdad de género: valorando el neosexismo. [Masculinity Ideology and Gender Equality:

Considering Neosexism].” *Anales De Psicología* 29 (2): 558-564.

doi:10.6018/analesps.29.2.141311

Martínez-Sánchez, A. M., R. E. Moreno, and M. P. Carrasco. 2022. “Análisis de las actitudes hacia el hecho multicultural en una muestra de estudiantes españoles de Magisterio. [Analysis of attitudes towards multiculturalism in a sample of Spanish teacher training students]” *Revista Electrónica Interuniversitaria De Formación Del Profesorado* 25 (1): 19-34. doi:10.6018/reifop.496431

Maurissen, L., E. Claes, and C. Barber. 2018. “Deliberation in citizenship education: How the school context contributes to the development of an open classroom climate.” *Social Psychology of Education* 21: 951-972. doi:10.1007/s11218-018-9449-7

McCrindle, M. 2021. *Generation Alpha*. London: Hachette UK.

Meuleman, B., and J. Billiet. 2012. “Measuring attitudes toward immigration in Europe: The cross-cultural validity of the ESS immigration scales.” *Ask. Research & Methods* 21 (1): 5-29.

Milfont, T. L., and J. Duckitt. 2010. “The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes.” *Journal of Environmental Psychology* 30 (1): 80-94. doi:10.1016/j.jenvp.2009.09.001

Milfont, T. L., J. Duckitt, and C. Wagner. 2010. “The higher order structure of environmental attitudes: A cross-cultural examination.” *Interamerican Journal of Psychology* 44 (2): 263-273.

Mohr, K. A. J., and E. S. Mohr. 2017. “Understanding Generation Z Students to Promote a Contemporary Learning Environment.” *Journal on Empowering Teaching Excellence* 1 (1): 84-94. doi:10.15142/T3M05T

- Moore, K., C. Jones, and R. S. Frazier. 2017. "Engineering education for generation Z." *American Journal of Engineering Education* 8 (2): 111-126.
doi:10.19030/ajee.v8i2.10067
- Pousson, J., and K. Myers. 2018. "Ignatian Pedagogy as a Frame for Universal Design in College: Meeting Learning Needs of Generation Z." *Education Sciences* 8 (4): 193. doi:10.3390/educsci8040193
- Ramiro, B. E., and P. F. Montaña. 2017. "¿Actitudes sexistas en jóvenes?: Exploración del sexismo ambivalente y neosexismo en población universitaria." *FEMERIS: Revista Multidisciplinar De Estudios De Género* 2 (2): 137-153.
doi:10.20318/femeris.2017.3762
- Rickes, P. C. 2016. "Generations in Flux: How Gen Z Will Continue to Transform Higher Education Space." *Planning for Higher Education* 44 (4): 21-45.
- Rosa, C. D., and S. Collado. 2019. "Experiences in nature and environmental attitudes and behaviors: Setting the ground for future research." *Frontiers in Psychology* 10: 763. doi:10.3389/fpsyg.2019.00763
- Rothman, D. 2016. "A Tsunami of learners called Generation Z." Accessed May 5 2023.
https://mdle.net/Journal/A_Tsunami_of_Learners_Called_Generation_Z.pdf
- Sanahuja, J. A. 2019. "Crisis de la globalización, el regionalismo y el orden liberal: el ascenso mundial del nacionalismo y la extrema derecha. [Crisis of globalization, regionalism and the liberal order: the world climb of nationalism and the extreme right.]" *Revista Uruguaya De Ciencia Política* 28 (1): 59-94.
doi:10.26851/rucp.28.1.3
- Sánchez-Beato, E. A., J. C. B. Guerra, J. E. Imaz, J. M. González-Anleo, E. M. Valenzuela, A. M. Mínguez, E. R. S. Julián, A. M. R. Castillo, and P. Canaviri.

2019. *Protagonistas y espectadores. Una mirada longitudinal sobre la juventud española* [*Protagonists and spectators. A longitudinal look at Spanish youth*]. Madrid: Centro Reina Sofia sobre Adolescencia y Juventud. Fundación de Ayuda contra la Drogaducción.
- Schultz, P. W., V. V. Gouveia, L. D. Cameron, P. Schmuck, and M. Franěk. 2005. "Values and their relationship to environmental concern and conservation behavior." *Journal of Cross-Cultural Psychology* 36 (4): 457-475. doi:10.1177/0022022105275962
- Schwieger, D., and C. Ladwig. 2018. "Reaching and retaining the next generation: Adapting to the expectations of Gen Z in the classroom." *Information Systems Education Journal* 16 (3): 45-54.
- Seemiller, C., and M. Grace. 2016. *Generation Z goes to college*. San Francisco: Jossey-Bass.
- Seemiller, C., and M. Grace. 2017. "Generation Z: Educating and engaging the next generation of students." *About Campus*, 22 (3): 21-26. doi:10.1002/abc.21293
- Seemiller, C., and M. Grace. 2018. *Generation Z: A century in the making*. New York: Routledge.
- Selingo, J. J. 2018. *The new generation of students: How colleges can recruit, teach, and serve Gen Z*. Chronicle of Higher Education.
- Smith-Trudeau, P. (2016). "Generation Z Nurses Have Arrived. Are you ready?" *New Hampshire Nursing News* 40 (2): 13-14.
- Talmon, G. A. 2019. "Generation Z: What's Next?" *Medical Science Educator* 29 (S1): 9-11. doi:10.1007/s40670-019-00796-0
- Thivierge, G., R. Aparicio, and A. Tornos. 2014. *Las culturas de los jóvenes en las universidades católicas: un estudio mundial*. [*Youth cultures in Catholic*

universities: a global study]. Paris: Federación Internacional de Universidades Católicas,

- Tulgan, B. 2013. "Meet Generation Z: The second generation within the giant "Millennial" cohort." Accessed May 5 2023. <https://grupespsichoterapija.lt/wp-content/uploads/2017/09/Gen-Z-Whitepaper.pdf>
- Tyson, A., B. Kennedy, and C. Funk. 2021. "Gen Z, millennials stand out for climate change activism, Social Media Engagement with Issue." Accessed May 5 2023. <https://www.pewresearch.org/science/2021/05/26/gen-z-millennials-stand-out-for-climate-change-activism-social-media-engagement-with-issue/>
- Vilanova, N., & Ortega, I. 2017. *Generación Z: Todo lo que necesitas saber sobre los jóvenes que han dejado viejos a los millennials* [*Generation Z: Everything you need to know about the young people who have outgrown millennials*]. Barcelona: Plataforma Editorial.
- Walsh, D. S. 2011. *Mind the Gap: Generational Differences in Medicine*. *Northeast Florida Medicine* 62 (4): 12-15.

Table 1. Sociodemographic characteristics of the sample.

Field of study	Gender		Type of school system		
	M	F	Public	Semi-Private	Private
Philosophy-Theology	71%	29%	38%	37%	25%
Social Sciences	16%	84%	19%	49%	32%
International Relations-Translations	21%	79%	13%	44%	43%
Health	29%	71%	48%	45%	6%
Law	34%	66%	4%	43%	53%
Finances	38%	62%	5%	39%	57%
Engineering	67%	33%	5%	43%	55%

1 **Table 2.** Items on attitudes toward current global trends.

Attitude	Item	Mean	SD	1*	2*	3*	4*	5*	6*	7*
Environment	The problem of climate change is being perceived in an excessive and unfounded way (recoded).	5.29	1.70	3.3	5.6	8.4	11.4	15.5	24.2	31.6
	Recycling our waste does not contribute to an improvement in the environment (recoded).	6.27	1.29	1.6	1.3	2.7	4.5	6.4	19.6	64
	I think it is important to make others aware of environmental issues.	6.00	1.27	0.7	1.6	2.8	7.2	15	24.6	48
Globalization	Globalization represents a very positive opportunity for all countries and people.	4.94	1.47	2.2	4	9.4	22.2	21.8	25.2	15.2
	Globalization leads to the impoverishment of developing countries (recoded).	4.65	1.52	2.3	6.5	13.2	25.6	19.4	20.6	12.5
	Globalization means a threat to national identities and cultures (recodified).	4.23	1.65	4.8	10.7	20.1	21.8	16.1	17	9.5
Immigration	A country should legislate to allow the reception of refugees or people fleeing situations of extreme poverty.	4.98	1.62	2	6.7	9.9	19.4	19.8	19.1	23.2
	It is positive for the economy of a country when people from other countries go to live there.	5.20	1.32	1	2.5	5.6	20.4	24.7	28.5	17.2
	Illegal migrants should not have the same healthcare benefits as the rest of the population (recodified).	4.51	1.95	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Feminism	In our society there are still situations of discrimination against women.	5.30	1.74	3	7	8.8	7.7	18.4	21.2	33.8
	The feminist movement is currently damaging relations between men and women (recoded).	3.72	2.03	17.8	16.6	15.7	13.2	11.4	12.6	12.6

	Men and women currently have access to the same conditions in the workplace (recoded).	4.28	1.94	9.5	15.1	12.9	10.1	20.4	16.9	15.2
	There should be more female leaders in the world.	5.14	1.65	3.6	4.2	4.8	25.2	15.9	16.9	29.4
Critical view of the capitalist system	Capitalism is what leads to the current economic crises.	3.10	1.64	19.9	22.6	16.7	22.2	9.2	5.7	3.6
	Nowadays we are witnessing in the world a widening gap between the rich and the poor in most countries.	4.86	1.58	2.2	7.7	9.5	19.5	21.8	22.4	17.1
	Capitalism and neoliberalism are the only paths to economic development and improvement in living conditions (recodified).	3.87	1.60	7.9	13.1	18.1	30.2	13.2	10.9	6.6

2
3

*Note: * Scores of the Likert scale as a percentage*

4 **Table 3.** Reliability analysis of the scales.

Attitudes	M	SD	Cronbach's α	McDonald's ω	% of variance
Environment	5.86	1.07	.602	.623	56.5
Globalization	4.60	1.16	.61	.61	56.3
Immigration	4.90	1.25	.624	.663	57.5
Feminism	4.61	1.45	.796	.803	62.5
A critical view of the capitalist system	3.94	1.25	.678	.692	60.9

5

6

7 **Table 4.** Differences according to the field of study.

	Environment		Globalization		Immigration		Feminism		View of the capitalist system	
	F Prev.	d/η ²	F Prev.	d/η ²	F Prev.	d/η ²	F Prev.	d/η ²	F Prev.	d/η ²
Gender (M/F)	-5.01*** F	-0.286	3.19*** M	0.182	-4.14*** F	-0.237	- 15.33** * F	-0.876	-5.59*** F	-0.319
Field of study	4.97*** T-IR, SS	.022	4.51*** E	.02	16.67*** SS, T-IR, H, P-T	.07	25.79** * SC, H, T-IR	.10	43.89*** P-T, H, SS, T-IR	.16
Gender - Field of study	1.185	.005	1.35	.006	1.88	.008	2.67* F+SS	.01	2.81* F + P-T	.13

8 * p < .05; ** p < .01; *** p < .001

9 Prev. Prevalence. The highest average is highlighted.

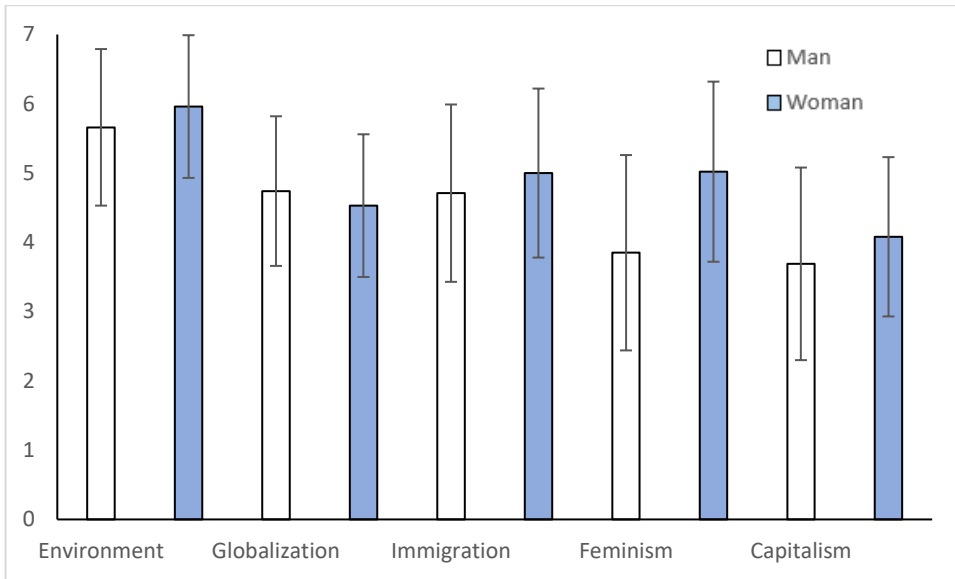
10 F=Female M=Male

11 SS: Social Sciences, T-IR: Translation-IR, H: Health, P-T: Philosophy and Theology, L: Law, E:

12 Engineering.

13 Source: Developed by author.

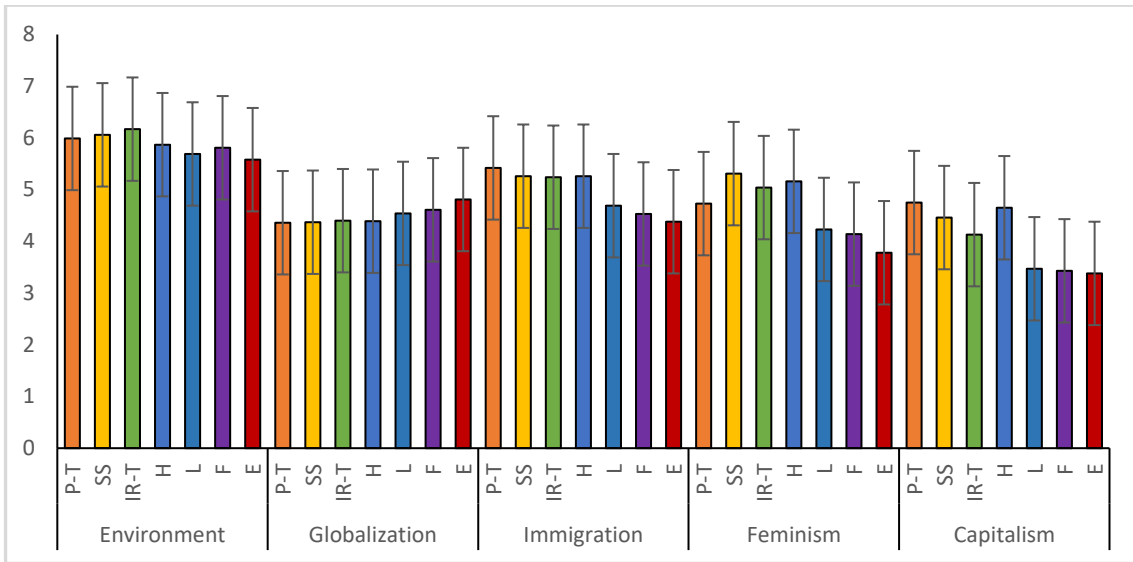
14



15

16 **Figure 1.**

17



18

19 **Figure 2.**

20

21 **Figure captions**

22

23 **Figure 1.** Means and standard deviation of the scales by gender.

24 **Figure 2.** Means and standard deviation dimensions by subject area. *Note:* SS: Social

25 Sciences, IR-T: International Relations - Translation, H: Health, P-T: Philosophy and

26 Theology, L: Law, E: Engineering