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Hufnagl, Julia; Schneider, Pascal; Annen, Silvia

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Global Citizenship in Higher Education: The Role of Academic Mobility

Julia Hufnagl¹, Pascal Schneider¹ & Silvia Annen¹

¹ Faculty of Social Sciences, Economics and Business Administration, University of Bamberg, Bamberg, Germany

Correspondence: Julia Hufnagl, Professorship of Business Education, Faculty of Social Sciences, Economics and Business Administration, University of Bamberg, Kärntenstrasse 7, 96052 Bamberg, Germany. Tel: 49-(0)951-863-2754. E-mail: julia.hufnagl@uni-bamberg.de

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Abstract

The concept of Global Citizenship (GC) is frequently discussed in literature as a means of countering the effects of globalization. Higher education institutions are playing an increasingly prominent role in the field of Global Citizenship Education (GCE). It is essential that teachers possess the requisite skills and willingness to engage responsibly and effectively in a global environment, as they play a pivotal role in the dissemination of GCE. This contribution therefore quantitatively analyzes the extent of GC among teacher students and students of Social Sciences at German universities as a whole and as a function of experiences abroad during their studies (n=66). Using t-tests with independent samples and a one-factorial ANOVA, differences in the expression of GC are identified (1) based on whether an academic stay abroad was present and (2) based on the duration of the academic stay abroad. The data suggest that students who have had experience studying abroad tend to score higher along the three GC dimensions and in the total GC score compared to those who have not. It is noteworthy that students who spent the least amount of time abroad (2 to 8 weeks) scored the highest in GC, social responsibility, and global citizenship engagement. The results indicate that GC is a complex construct with several sub-dimensions, and it is not solely dependent on experience abroad.

Keywords: global citizenship, higher education, internationalization, stay abroad, teacher education

1. Globalization and Its Implications

Globalization and its consequences are omnipresent in today's society. Local events have global effects, which in turn require common political solutions (Dower, 2003; Galipeau-Konate, 2014; Wintersteiner, Grobbauer, Diendorfer & Reitmair-Juárez, 2015). From an economic perspective, access to new markets, the promotion of international trade, technological progress, and the opportunity to tackle global problems are discussed as benefits (Stiglitz, 2006). In view of global developments, there is a growing urgency to prepare individuals for life as global citizens and to enable them to actively participate in a sustainable society (Grobbauer, 2014). In this context, the internationalization of higher education has been an important topic of policy and research for the last two decades (Gümüş, Gök & Esen, 2020).

One approach frequently discussed to deal with challenges resulting from globalization while preserving human dignity and democracy, is the concept of Global Citizenship (GC) (Dower, 2003; Lang-Wojtasik, 2024; Schattle, 2009). Despite the lack of a universally valid definition of the term, authors largely agree that GC does not serve any form of nationality (Van Den Anker, 2010; UNESCO, 2014; Wintersteiner et al., 2015). GC instead represents an approach to a sustainable future in which people, as part of a larger community, are aware of the effects of their actions and take responsibility for them and for the well-being of the community (Nair, 2017; UNESCO, 2014; Wintersteiner, 2019). The prominent theoretical and philosophical perspectives described in the literature on GC can be narrowed down to social responsibility, global competence, and global civic engagement as central, interrelated dimensions of GC (Morais & Ogden, 2011). A global citizen is characterized by cosmopolitan values and morally based actions (Wollmann & Lutter, 2022).

The Sustainable Development Goals (SDGs), an agenda to meet current global challenges, include the promotion of GC and the field of higher education in the fourth goal (Lang-Wojtasik & Michalski, 2022; United Nations, 2020) and the need to promote GC through education has been highlighted by politicians such as UN Secretary-General Ban Ki-Moon (UNESCO, 2014). The fact that GC is an educational task (Wintersteiner & Wulf, 2017)

has led to it becoming one of the most important strategic principles in higher education in recent decades. It is supposed to make teaching more international and higher education programs more future proof (Heuchemer, 2017; Rhoads & Szelényi, 2011; Schattle, 2009). However, the SDGs have hardly been implemented in the higher education landscape (Müller-Christ, Giesenbauer & Tegeler, 2018).

With the growing interest in the concept of GC, current research has repeatedly emphasized the need to prepare students for their role as global citizens (Perry et al., 2013). In contrast to a broad theoretical basis (e.g., Wintersteiner et al., 2015), there are still too few empirical results for Germany. However, there is a need to assess GC in students and record it in the form of a metric (Tarrant, Rubin & Stoner, 2014). This makes it necessary to relate GC to students at German higher education institutions, which leads to the central research questions of this paper: How do students evaluate their social responsibility, global competence and global civic engagement and what GC scores result from this? Are there differences between students with and without academic stays abroad and depending on the duration of these stays abroad?

The second section of this paper gives an overview of the existing research on the effects of international experiences on the development of GC among students. Furthermore, in this section the main gaps and limitations in the current literature are elaborated. The third section describes the research design and the fourth section the methodology. The fifth section presents the results of the study. After the descriptive results, the differences in the evaluation of GC based on the presence of an academic stay abroad and based on the duration of this stay are presented. Finally, in section six we discuss our results in regard of the existing research and end with a conclusion.

2. Understanding the Role of Academic Mobility in Global Citizenship Education

A number of studies refers to the increasing share of students studying abroad and the effectiveness of academic stays abroad in promoting GC. These studies examine this topic partly in relation to the time spent abroad (e.g. Friar, 2016; Galipeau-Konate, 2014; Horn & Fry, 2013; Ingersoll, Sears, Hirschhorn, Kawtharani-Chami & Landine, 2019; Karatekin & Taban, 2018; Kishino & Takahashi, 2019; Mule, Audley & Aloisio, 2018; Sherman, Cofield & Connolly, 2020). The development of GC in higher education is often described as a market-oriented approach that aims to prepare students for a global economy through Global Citizenship Education (GCE) (Caruana, 2014; Friar, 2016; Green, 2012; Kopish, 2017; Massaro, 2022). GCE is linked to the civic, social, and political socialization function of education and is a pedagogical approach to transformation based on sustainability, justice, non-violence and partnership (Lang-Wojtasik, 2024). It highlights the vital role of education in the formation of citizenship and concerns “knowledge, skills, and values for the participation of citizens in, and their contribution to, dimensions of societal development” (Tawil, 2013, p. 4). It prepares learners to tackle the challenges in an ever more interconnected and interdependent world, driven by multiple processes of globalization (UNESCO, 2014).

Teachers take on a multiplier role in GCE: They need to have the skills and willingness to engage responsibly and effectively in a global environment and be prepared to teach the values of GC. Therefore, teacher education needs to prepare prospective teachers for GC (Ingersoll et al., 2019; Kopish, 2017). GC appears important for higher education as (1) the focus on GC alone is a clear signal for the internationalization of academic education, (2) it encourages students to act responsibly towards their fellow human beings and (3) GC can be seen as a bridge between internationalization and intercultural education (Green, 2012). While the notion of GC holds relevance for the entirety of the student body, the present study focuses specifically on the group of prospective teachers. In this particular group, the disparities in GC in relation to academic mobility are of particular interest. Academic mobility is in the following understood as academic experience in which students physically leave their home country to study in the host country and interact culturally. It can comprise studying and taking courses, living with a foreign host family, internships and other jobs (Kishino & Takahashi, 2019).

The impact and effectiveness of academic study abroad programs have been discussed by several authors (Braskamp, L. A., Braskamp, D. C. & Merrill, 2009; Friar, 2016; Galipeau-Konate, 2014; Ingersoll et al., 2019; Karatekin & Taban, 2018; Kishino & Takahashi, 2019; Perry et al., 2013; Sherman et al., 2020; Stoner et al., 2014; Tarrant et al., 2014). They agree on the positive effects of academic stays abroad for students on the formation of GC values. The mobility of students continues to increase (Ingersoll et al., 2019; Kishino & Takahashi, 2019; Tarrant et al., 2014). In 2005, only 2.8 million students were studying outside their home country. While the number rose by 35% to 3.8 million students in the following five years, mobility has since increased by 60% and around 2.3 million to a total of 6.1 million by the last reporting year 2019 (DZHW, 2022). Although the COVID pandemic led to a slump between 2020 and 2022, the long-term trend of academic stays abroad during studies is on the rise.

A substantial body of research has demonstrated that students who participate in international experiences exhibit notable progress in terms of developing GC (Braskamp et al., 2009; Friar, 2016; Galipeau-Konate, 2014; Horn &

Fry, 2013; Karatekin & Taban, 2018; Kehl & Morris, 2007; Kishino & Takahashi, 2019; Mule et al., 2018; Perry et al., 2013; Sherman et al., 2020). Over the last few decades, the scope of a study or internship abroad has shifted away from those that extend over an entire calendar year towards those that are of shorter duration (Kehl & Morris, 2007; Vanden Berg & Schwander, 2019). Considering restrictions during the COVID pandemic, it is likely that this trend will continue. The discourse on study-abroad experiences typically focuses on language learning and pedagogy, as well as the intercultural competencies of students (Gümüş et al., 2020). In contrast, discussions on long-term student mobility, such as long-term degree students, primarily address the sociocultural, emotional, and academic well-being of international students.

While there is widespread agreement in the academic literature on the effectiveness of academic stays abroad, authors disagree on how their impact depends on the time spent abroad. Some studies show that duration correlates positively with the development of GC (Dwyer, 2004; Horn & Fry, 2013; Kehl & Morris, 2007; Mule et al., 2018; Sherman et al., 2020). These differences based on duration could not be confirmed in other studies (Friar 2016; McKeown, 2009; Perry et al., 2013; Tarrant et al., 2014).

A theoretically sound, validated instrument to measure GC, which has already been used by various researchers, is the Global Citizenship Scale (GCS) by Morais and Ogden (2011; Friar, 2016). Its questions measure the respondents' level of GC along three dimensions (social responsibility, global competence, and global civic engagement). Using this measure, Friar (2016) indicates differences in GC scores based on duration, Galipeau-Konate (2014) shows higher levels of GC for students participating in a GC project, and Karatekin and Taban (2018) confirm higher GC levels for Polish students with study abroad experience.

3. Research Design and Methodology

In the following section, the research question and the hypotheses, the data collection and the sample as well as the data analysis techniques will be described. Finally, we provide the results of the conducted reliability analysis.

3.1 Research Question and Hypotheses

This study aims to contribute to the growing body of literature that highlights the significance of academic stays abroad in fostering GC by investigating differences in the self-assessment of social responsibility, global competence, and global civic engagement between students with and without academic stays abroad, and how these factors contribute to their GC score. Despite doubts about the value and accuracy of self-assessment, the technique produces consistent results across items and short time periods and generates information that is otherwise very difficult to collect (Ross, 2006). Both the GC sub-dimensions and the sum score are addressed separately in hypotheses. In light of the current state of the literature and the theoretical considerations previously outlined in this paper, the following hypotheses can be formulated:

H1: Students with academic stays abroad have a higher GC score, composed of three sub-dimensions, than students without academic stays abroad.

H1a: Students with academic stays abroad rate their own *social responsibility* higher than students without academic stays abroad.

H1b: Students with academic stays abroad rate their own *global competence* higher than students without academic stays abroad.

H1c: Students with academic stays abroad rate their own *global civic engagement* higher than students without academic stays abroad.

As evidenced by our literature review, study results differ on whether and how the duration and the development of GC values correlate: While some studies suggest a positive relationship between longer stays and increased GC, others do not find such a correlation. Based on the conflicting evidence, we hypothesize:

H2: Students with academic stays abroad differ in their GC score, which is made up of three sub-dimensions, depending on the duration of the stay.

H2a: Students with academic stays abroad differ in their assessment of their own *social responsibility* depending on the duration of their stay.

H2b: Students with academic stays abroad differ in their assessment of their own *global competence* depending on the duration of their stay.

H2c: Students with academic stays abroad differ in their assessment of their own *global civic engagement* depending on the duration of their stay.

3.2 Data Collection and Sample

The standardized questionnaire was carried out using Microsoft Forms between May and June 2023. The questionnaire took an average of just under ten minutes to complete. At the beginning of the survey, participants were briefly introduced to the topic, followed by 51 statements or questions to be evaluated, including questions on demographic data and the data protection notice. The independent sample consists of students who were enrolled at a German college or university during the summer semester of 2023. As it is usually not feasible to conduct a comprehensive survey that includes all individuals in the population, including all students, a non-probability opportunity sample was employed in a non-experimental design (Bossow-Thies & Krol, 2022; Döring & Bortz, 2016). All completed surveys (n = 66) could be included as they had no missing values along the 43 GC items measured.

3.3 Data Analysis Techniques

A quantitative approach was particularly suitable to test the hypotheses, as quantitative research includes both the conscious selection of existing and the development of one's own standardized measurement instruments (Döring & Bortz, 2016). After a successful test of the data for normal distribution, a one-sided t-test with independent samples was performed to test H1 and its associated sub hypotheses H1a to H1c, including Levene tests to check the homogeneity of the variances. To test H2 and its sub-dimensions, two-sided t-tests and a one-way ANOVA were performed. For each hypothesis, starting with the items of the sub-dimensions, the respective mean values of the sub-dimensions along the dimensions of GC were calculated step by step. The GC score was calculated by using the mean values for social responsibility, global competence and global civic engagement. The data analysis was carried out using SPSS software 3.4.

The GCS developed by Morais and Ogden (2011) was used to measure GC among students. This scale is a theoretically sound, validated and standardized measuring instrument used by various researchers (e.g., Friar, 2016; Galipeau-Konate, 2014; Karatekin & Taban, 2018; Tarman & Kilinc, 2023; Yussupova et al., 2023). Furthermore, the scale is appropriate for the analysis of the extent to which academic stays abroad influence GC. It is also suitable for the investigation of the extent to which certain characteristics of academic stays abroad, such as duration, influence GC (Morais & Ogden, 2011). The questionnaire was created after four development stages and consists of 43 statements along three dimensions (social responsibility, global competence, global civic engagement) and the respective sub-dimensions. The 5-point Likert scale ranges from (1) "strongly disagree" to (5) "strongly agree" for each statement. The three dimensions are described below.

Social responsibility is measured using 13 different items and is described as the perceived degree of interdependence and social commitment towards others, society and the environment (Morais & Ogden, 2011). The sub-dimensions are:

1. Global justice and disparities. Students evaluate social issues and identify instances and examples of global injustice and disparity.
2. Altruism and empathy. Students examine and respect diverse perspectives and construct an ethic of social service to address global and local issues.
3. Global interconnectedness and personal responsibility. Students understand the interconnectedness between local behaviors and their global consequences.

Global competence means being open-minded, understanding the cultural norms and expectations of others and using this knowledge to interact, communicate and work effectively outside one's own environment (Morais & Ogden, 2011). This dimension is measured using 13 different items along the following sub-dimensions:

1. Self-awareness. Students recognize their own limitations and ability to engage successfully in an intercultural encounter.
2. Intercultural communication. Students demonstrate an array of intercultural communication skills and can engage successfully in intercultural encounters.
3. Global knowledge. Students display interest and knowledge about world issues and events.

Global civic engagement is described as the ability to recognize problems at local, state, national and global levels, and the willingness to respond to them, (e.g. through volunteering, political activism, or social participation) (Morais & Ogden, 2011). The construct is measured using 17 different items and includes the following sub-dimensions:

1. Involvement in civic organizations. Students engage in or contribute to volunteer work or assistance in global civic organizations.

2. Political voice. Students construct their political voice by synthesizing their global knowledge and experiences in the public domain.
3. Global civic activism. Students engage in purposeful local behaviors that advance a global agenda.

Furthermore, the participants were asked whether they had already completed an academic stay abroad or were planning one. If the answer to these questions was 'yes', respondents were then asked to specify the exact period of time. In consideration of the aforementioned state of research on duration, respondents could choose between "less than 2 weeks", "between 2 and 8 weeks", "between 8 and 16 weeks (corresponds to 1 semester)", "between 16 and 32 weeks (corresponds to 2 semesters)" and "more than 32 weeks (corresponds to more than 2 semesters)".

3.4 Reliability Analysis

Despite the widespread use and proven reliability of the GCS by various researchers, the constructs need to be tested for internal consistency. According to the results of our own reliability analysis, the internal consistency coefficients are .76 for social responsibility, .76 for global competence, .78 for global civic engagement and .82 for the overall GC score (Table 1). These values establish the reliability of the scale and scale items used at a threshold value of .70. The Cronbach's Alpha values were also comparable with those of the study by Morais and Ogden (2011) (Table 1).

Table 1. Comparison of the results for Cronbach's Alpha

Dimension	Cronbach's Alpha in Morais & Ogden (2011)	Cronbach's Alpha in our study
Social responsibility	.79	.76
Global competence	.73	.76
Global civic engagement	.94	.78
GC Score	Not reported	.82

Note. GC=Global Citizenship. Cronbach's Alpha is a measure of internal consistency reliability, indicating the extent to which items in a scale or measure are interrelated. A Cronbach's Alpha value closer to 1.00 suggests higher internal consistency among the items, with values typically exceeding 0.70 considered acceptable for research purposes (Nunnally, 1978; Schecker, 2014). In this study, Cronbach's Alpha was calculated for each scale to assess the reliability of the measures used.

4. Results

Before the inferential statistical analysis, descriptive results of the sample and normal distribution tests are presented. To test the hypotheses, differences in social responsibility, global competence, and global civic engagement between students with and without academic stays abroad and differences depending on the duration of the academic stay abroad are investigated. The three sub dimensions are tested separately and added up to measure GC. The latent constructs were recorded and subjected to statistical analysis using the 43-item GCS, which was presented in section three.

4.1 Descriptive Results

In the sample, 53% (n = 35) of the participants identified as male and 47% (n = 31) as female. Their age ranged from 19 to 45 years (mean: 26). Two thirds of the participants were currently studying for a master's degree, while 24.2% (n = 16) were aiming for a bachelor's degree and 9.1% (n = 6) for a state examination in teacher training. On average, the students were between the seventh and eighth semester (min: 1, max: 20). A quarter of those surveyed students (n = 17) had already completed an academic stay abroad. Students' stays lasted between 2 and 8 weeks (17.7%), between 8 and 16 weeks (35.3%), between 16 and 32 weeks (29.4%) or more than 32 weeks (17.7%). Table 2 shows that the GC score of 3.27 across all three dimensions (social responsibility, global competence, global civic engagement) is very close to the average of the 5-point Likert scale. Social responsibility and global competence achieve the highest values, each with a maximum of 4.81. On average, the participants have a higher level of social responsibility (3.78) than global competence (3.47). The dimension with the absolute minimum (1.22) is that of global civic engagement. The descriptive findings suggest that the dimensional characteristics yield divergent outcomes, underscoring the necessity for a more thorough examination of not only the GC score, but also the sub-dimensions. While social responsibility and global competence are above the average of the overall score, global civic engagement is the least pronounced among the students in comparison (Table 2).

Table 2. Minimum, maximum and mean values of the GC score (whole sample) and its sub-dimensions

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>
GC Score	2.11	4.40	3.27
Social responsibility	2.47	4.81	3.78
Global competence	2.11	4.81	3.47
Global civic engagement	1.22	4.19	2.56

Table 3 shows that the mean values of students with academic stays abroad are higher at all levels than those without such a stay.

Table 3. Mean values of the GC score (depending on academic stay abroad) and its sub-dimensions

	<i>Academic stay abroad</i>		<i>Total</i>
	<i>Yes</i>	<i>No</i>	
GC Score	3.53	3.18	3.27
Social responsibility	3.98	3.71	3.78
Global competence	3.85	3.34	3.47
Global civic engagement	2.76	2.49	2.56

The mean values of the GC score differ slightly depending on the duration (Table 4). Notably, the students with shorter academic stays abroad achieve the highest scores in GC, social responsibility, and global civic engagement. In global competence, all student groups have comparably high scores.

Table 4. Mean values of the GC score (depending on duration of academic stay abroad) and its sub-dimensions

	<i>Duration of academic stay abroad</i>			
	<i>2–8 weeks</i>	<i>8–16 weeks</i>	<i>16–32 weeks</i>	<i>>32 weeks</i>
GC Score	3.76	3.37	3.64	3.53
Social responsibility	4.24	4.03	3.88	3.80
Global competence	3.91	3.68	3.92	4.04
Global civic engagement	3.14	2.39	3.13	2.52

Note. Sample includes only students with academic stays abroad.

Before testing the individual hypotheses, the Kolmogorov-Smirnov test and the Shapiro-Wilk test were used to check the normal distribution to determine whether a parametric or non-parametric test procedure was applicable (Table 5). The tests indicate that the data for the variables dependent on the respective hypotheses, with the exception of social responsibility, are significantly normally distributed ($p \geq .05$). Accordingly, the Mann-Whitney U test is used for the construct of social responsibility and a two-tailed t-test for the other constructs.

Table 5. Normal distribution tests

Measure	Kolmogorov-Smirnov test			Shapiro-Wilk test		
	<i>Statistics</i>	<i>Df</i>	<i>Significance</i>	<i>Statistics</i>	<i>Df</i>	<i>Significance</i>
GC Score	.090	66	.200*	.983	66	.443
Social responsibility	.067	66	.200*	.963	66	.046
Global competence	.089	66	.200*	.967	66	.076
Global civic engagement	.061	66	.200*	.979	66	.333

Note. *This is a lower limit of true significance.

4.2 Differences in the Expression of GC

The subsequent sections present the findings on the disparities in social responsibility, global competence, and global civic engagement between students with and without academic stays abroad. These three sub-dimensions are tested separately and added up to a GC score. Afterwards, differences depending on the duration of the academic stay abroad are investigated.

4.2.1 Differences Based on Academic Mobility

It is not possible to employ a parametric method for testing hypothesis 1a (differences in *social responsibility*) due

to the identified absence of a normal distribution. Using a Mann-Whitney U test, the mean difference in social responsibility between students with academic stays abroad ($M = 3.98$, $SD = .312$) and without academic stays abroad ($M = 3.71$, $SD = .544$) proved to be non-significant ($U (n_0 = 17, n_1 = 49) = 289$, $p > .050$).

As the data for the other sub-dimensions is normally distributed, parametric test procedures can be used for testing hypothesis 1b (differences in *global competence*) and hypothesis 1c (differences in *global civic engagement*). The Levene test provides homogeneous variances for H1b ($p = .078$) and H1c ($p = .627$). Regarding H1b, the mean difference between students with academic stays abroad ($M = 3.85$, $SD = .463$) and without academic stays abroad ($M = 3.34$, $SD = .652$) proved to be significant ($t (64) = 2.991$, $p < .050$). Thus, students with academic stays abroad rated their own global competence significantly higher than students without academic stays abroad. For H1c, the mean difference between students with academic stays abroad ($M = 2.76$, $SD = .763$) and without academic stays abroad ($M = 2.49$, $SD = .648$) proved to be non-significant ($t (64) = 1.436$, $p > .050$).

Regarding H1, which serves to test the difference in the overall GC score between students with academic stays abroad and those without, the Levene test yielded heterogeneous variances ($p = .043$). The mean difference between students with academic stays abroad ($M = 3.53$, $SD = .408$) and without academic stays abroad ($M = 3.18$, $SD = .538$) proved to be significant ($t (36,640) = 2.814$, $p < .050$). This means that students with academic stays abroad have a significantly higher GC score overall than students without academic stays abroad.

4.2.2 Differences Based on Duration of Academic Mobility

Given the non-normal distribution of the data on social responsibility, as previously indicated, a non-parametric test procedure, specifically the Kruskal-Wallis test, is employed to assess the significance of hypothesis 2a (differences in *social responsibility*). The difference in mean values between the four student groups with academic stays abroad depending on the duration ((1) $M = 4.24$, $SD = .089$; (2) $M = 4.03$, $SD = .349$; (3) $M = 3.88$, $SD = .224$; (4) $M = 3.80$, $SD = .425$) proved to be non-significant ($p > .050$). This means that it cannot be confirmed that students with academic stays abroad significantly differ in their assessment of their own social responsibility depending on the duration of their stay.

A one-factorial ANOVA is carried out to test hypothesis 2b (differences in *global competence*) and hypothesis 2c (differences in *global civic engagement*). The variances are homogeneous for both H2b ($p = .190$) and H2c ($p = .518$). The difference in mean values in *global competence* between the four student groups with academic stays abroad depending on the duration ((1) $M = 3.90$, $SD = .711$; (2) $M = 3.68$, $SD = .553$; (3) $M = 3.92$, $SD = .373$; (4) $M = 4.04$, $SD = .098$) proved to be non-significant ($p > .050$). Furthermore, the difference in mean values in *global civic engagement* between the four student groups ((1) $M = 3.14$, $SD = .761$; (2) $M = 2.39$, $SD = .945$; (3) $M = 3.13$, $SD = .579$; (4) $M = 2.52$, $SD = .359$) was non-significant ($p > .050$). Hence, we cannot confirm that students with academic stays abroad differ in their assessment of their own global competence or their own global civic engagement depending on the duration of their stay.

We used a one-way ANOVA to test the difference in the overall GC score depending on the duration stays abroad (H2). The variance proved to be homogeneous ($p = .382$). The difference in mean values between the four student groups with academic stays abroad depending on the duration ((1) $M = 3.76$, $SD = .495$; (2) $M = 3.37$, $SD = .533$; (3) $M = 3.64$, $SD = .276$; (4) $M = 3.45$, $SD = .150$) proved to be non-significant ($p > .050$). This means that none of the hypotheses testing differences in the four student groups with four different time periods can be accepted (Note 1).

5. Discussion

The results show (1) how students evaluate their social responsibility, global competence and global civic engagement and what GC score results from this, (2) whether there are differences in this respect between students with and without academic stays abroad, and (3) whether there are differences depending on the duration of these stays. While social responsibility and global competence are higher than the GC score in total, global civic engagement is the least pronounced among students in comparison. The same ranking can be seen in Friar (2016), Galipeau-Konate (2014), and Karatekin and Taban (2018). The investigated differences between students with and without academic stays abroad were not significant for social responsibility and global civic engagement. Friar (2016) did not find significant differences in all three sub-dimensions. Even though it cannot be confirmed that students with academic stays abroad rate their own social responsibility and global civic engagement higher than students without academic stays abroad, students with academic stays abroad have a significantly higher GC score overall than students without academic stays abroad. Descriptively, the means were also higher for students with academic stays abroad by .27 for social responsibility and global civic engagement. The results justify the assumption that some sub-dimensions of GC cannot be effectively promoted solely through international experiences. Instead, as evidenced by the findings of a study conducted by Benzehaf and Zyad (2024), voluntary

work and hands-on activities can also result in higher scores.

Descriptively, students with shorter academic stays abroad achieve the highest scores, except for global competence, where all student groups have high scores. This is in line with the results of Friar (2016) that there are no significant differences in the development of GC between students who have studied abroad for longer periods compared to those who have studied abroad for shorter periods. This also refutes the observations by Dwyer (2004) and Kehl and Morris (2007) that a longer period is better. Before any conclusions can be drawn from this, however, a number of limitations must be taken into account.

5.1 Limitations

Due to the selective convenience sample and the small sample size, the results should only be interpreted as preliminary and not representative. Even if t-tests and one-way ANOVA are commonly used statistical methods to compare means between two or more groups, assumptions of normality, homogeneity of variance and independence come with several limitations that should be taken into account. Both t-tests and ANOVA can be sensitive to outliers, particularly when sample sizes are small.

Furthermore, this study measures GC based on self-assessment by the students, which is a common approach to measuring GC, but also comes with limitations in terms of accuracy and consistency (Basnet, Basson, Hohbohm & Cochrane, 2012; Blue, 1994). It is possible that individuals who only manage to travel abroad for superficial reasons (such as to optimize their career path) may consider themselves superior to those who have had a genuine and extensive intercultural experience. To address the issue of self-rating bias in future studies, an external assessment could be considered.

Plus, GC is grounded on a Western concept of liberal democracy and the corresponding understanding of rights and justice (Wintersteiner et al., 2015). Contributions from the West, particularly from Anglo-American countries, dominate the discourses on GC (cf. Nordén & Avery, 2021) and on international student mobility (cf. Gümüş, Gök & Esen, 2020). These Western perspectives may have influenced the results through the scale used and/or the underlying theoretical constructs. Academic discourse should evolve to include more non-Western perspectives and further differentiate the construct of GC.

A mixed-methods approach would allow misleading assessments of statements or dimensions with lower salience, as was the case for global civil society engagement, to be pursued further (cf. Friar, 2016). Here, qualitative work would contribute to theory building. The importance of length of stay should also be further explored, as the descriptive results that students with shorter stays have the highest scores are counterintuitive. This, combined with the fact that the current state of research on differences in scores by length of stay raises questions that should be addressed in further research. Furthermore, longer periods abroad than two semesters, for example to obtain a degree as an international student abroad, could be regarded in more detail in further studies. It should also be considered how the manifestation of GC is related to other experiences than student mobility (e.g., volunteering). In addition, the utilization of pre-post designs in future studies would facilitate a more comprehensive examination of the impact of international stays. Such designs, as evidenced by prior research (e.g., Friar, 2016), have demonstrated an increase in GC scores.

5.2 Recommended Actions

To increase the level of GC among students, internationalization in higher education should be further promoted. Cities and universities should consider important factors that attract students, such as the city's offerings, social life, and academics (e.g., lectures, classes, methods). Given the differences between degree and credit mobility students (Perez-Encinas et al., 2020), the complex individual starting points should be considered. Students should also be encouraged to volunteer, which could increase the low levels of global civic engagement in this study. This would be possible, for example, through service learning projects or university group activities, which could be better rewarded with ECTS points.

Only 25% of the students in the sample had completed an academic stay abroad. It is necessary to remove barriers that prevent them from spending time abroad or contribute to overcoming them. Such barriers may include costs, rigid academic curricula, and professional and family commitments (Galipeau-Konate, 2014; Perez-Encinas, Rodriguez-Pomeda & de Wit, 2020). The structural design of various degree programs should be modified to facilitate greater opportunities for students to study or complete an internship abroad. Additionally, disparities in academic disciplines should be addressed to ensure a more balanced academic experience.

6. Conclusion

In conclusion, GC is increasingly important in our interconnected world to achieve a sustainable future where people, as part of a larger community, are aware of the impact of their actions and take responsibility for them and

for the community's wellbeing. There are various approaches for promoting GC, ranging from an emphasis on attitudes in day-to-day interactions to the manner in which companies respond to the evolving demands for highly skilled employees, to internationalization and the cultivation of volunteering in higher education. This study provides implications for the latter by examining students' assessment of their own GC.

The study makes the effect of stays abroad on GC more tangible, which is especially relevant in the light of its current promotion by the UN, the SDGs and an increasing number of universities. The results indicate that the surveyed students already demonstrate a certain degree of GC across the three dimensions. Students with experience abroad tend to have higher values along the GC dimensions and in the overall GC score than those who have not spent time abroad. The findings of the study indicate that GC is not merely contingent on international experience but is, in fact, a multifaceted construct comprising multiple sub-dimensions. Interestingly, the scores in GC, social responsibility, and global civic engagement are highest for the students who spent the least time abroad (2 to 8 weeks). However, this result cannot be proven significantly, and this may be due to the limited sample size. Further studies with a more comprehensive sample should therefore assess the extent to which the duration of an academic stay abroad influences GC development, consider external assessment of GC to increase reliability, and regard the relatedness of GC with other experiences than stays abroad. The findings should be considered as a basis for further investigation and implementation in university practice, taking into account the limiting factors and recommendations mentioned above.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

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The Publication Ethics Committee of the Canadian Center of Science and Education.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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Notes

Note 1. Given the non-significant overall test, further exploration was conducted through multiple pairwise comparisons using t-tests across various groupings (less than 8 weeks vs. 8 weeks and more; less than 16 weeks vs. 16 weeks and more; less than 32 weeks vs. 32 weeks and more). However, these subsequent t-tests also failed to reveal any significant differences between groups ($p > 0.05$).