Powerful synergies: gender equality, sustainable development and peace

Annelisa Miglietti

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Abstract

This study explores the mutually reinforcing dynamic interlinking sustainable development, gender equality and peace. Equal participation of women and man is essential to address the emerging global challenges to humanity and to achieve sustainable development.

Women's participation and empowerment are crucial components also for the maintenance of international peace and security. Although the international community has increasingly recognized the importance of women's contribution also at decision making level, the gender gap in this field is still persistent.

This research analysis impediments to women's full and effective inclusion in general terms and in the context of disarmament. Through the analysis of a capacity building initiative targeted to young professional women in disarmament, it tries to provide recommendations for effective measures to improve gender equality in this field.

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List of abbreviations

United Nations Office for Disarmament Affairs UNODA

United Nations UN

Women Scholarship for Peace WSP

Disarmament and Non-Proliferation DNP

Sustainable Development Goals SDGs

United Nations Entity for Gender Equality and the Empowerment of Women UN Women

1. Introduction

Context

This study focuses on exploring the mutually reinforcing dynamic interlinking sustainable development, gender equality and peace.

Gender equality is a fundamental human right which involves almost half of the human population (49.55% of 2017 global population according to World Bank data). It therefore matters as a crucial development objective itself. Furthermore, equality represents a key catalyst to progress in other development objectives (Duflo 2012). Realization of women's potential is an essential driver not only for economic growth but for achieving full sustainable development, both for the current generation as well as future ones. Another side to this issue is the question of inclusiveness. Several researchers (Klasen, 1999; Woetzel, 2015) proved that more inclusive institutions perform more efficiently in all areas including peace and security. As stated by Zoellick in the World Development Report: Gender Equality and Development (World Bank, 2012, p. XIV) "Gender equality is at the heart of development. It's the right development objective, and it's smart economic policy."

Despite this understanding, gender disparities still persist both in developing and developed countries, across several areas of societal and economical spectrums. Since the fifties, a broad range of literature investigated causes and effects of gender (i.e. Duflo, 2012; Kabeer, 2016) suggesting possible solutions to address the multiple economical and societal constraints that still hold the world to achieve true gender parity.

The central role of gender parity for achieving progress in sustainable development is strongly emphasized across the 17 Sustainable Development Goals of the United Nations 2030 Agenda for Sustainable Development (United Nations, 2015). Studies proved that gender and development are linked in a symbiotic relationship; as a country develops, so to does its gender its equality indicator improve. As an example, when girl's illiteracy rates decrease, women rights progress (World Bank, 2012). Retrospective studies on progress in gender equality achieved in the last 50 years evidenced a positive relationship between development and equality: by reducing poverty, improving access to health and education, lowering fertility rates and freeing time from house care, it creates more opportunities for women (World Bank, 2012). However, Duflo (2012), echoed by Kabeer (2016) and other scholars, in her extensive research on women empowerment and development claims that although development does affect women empowerment, economic growth alone cannot be enough to ensure significant progress in all dimensions of gender equality. Focussed policies have to be implemented to make an impact

and change societal stereotypes on women's role. Women capacity has to be developed. Measures to facilitate access to education such as scholarships have to be introduced, together with quota systems, to improve women's participation in the societal and political sphere. An example of the impact of such interventions is analysed as a case study in the present study.

In addition to the above mentioned arguments, disarmament and arms control provide new and vitally important perspective when looking at issues of gender equality and sustainable development.

The United Nations Charter (Article 26) explicitly links disarmament and development, recognizing the need to ensure the maintenance of international peace and security with the least diversion of the world's economic and human resources to arms. Excessive military expenditure has a direct negative impact on inclusive and sustainable development, absorbing resources otherwise used in capital investment and social programs (Gillis, 2017). More recently, the 2030 United Nations Agenda for Sustainable Development took an important step towards articulating how arms control, peace and security contribute to development stating that "There can be no sustainable development without peace and no peace without sustainable development" (UN, 2015, p. 2). Beyond addressing core arm control issues, such as illicit arms flows, disarmament objectives should contribute to many other Sustainable Development Goals, including goal number five on Gender.
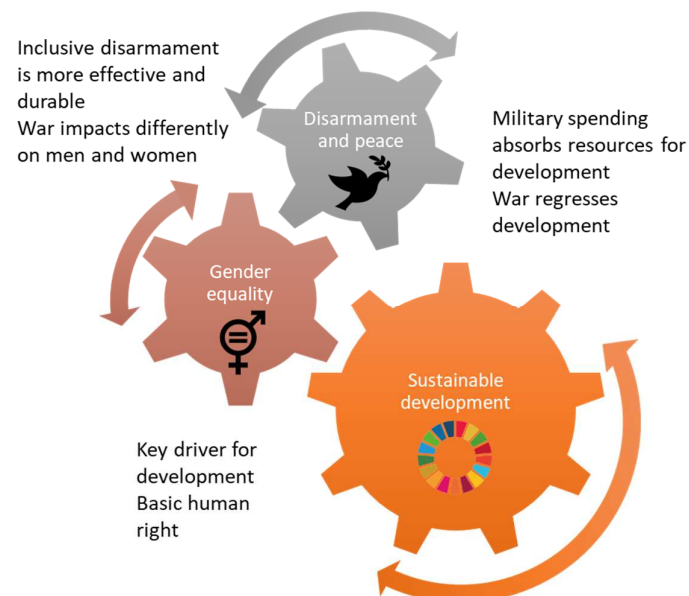
Figure 1.1 Synergies across sustainable development, gender equalities and disarmament (Source: own contribution)

Gender-responsive disarmament and arms control has a recognized role to play in reducing violence against women and girls in both public and private spheres. Firearms are often an

instrument to perpetuate violence against women, intimidate, coerce and kill them. In addition, weapons have differentiated impacts on women and men, girls and boys. Unfortunately, the number of women working and making decision in the field of disarmament and arms control remain low with the consequence that women's interests are not well represented. Statistics show a gap between the number of men and women attending negotiations of multilateral agreements and peace consultations.

International organisations, including the United Nations (UN) called for states to commit to address the gender gap in disarmament by approving Security Council Resolution 1325 in 2005. The Resolution affirms that women are agents of change and their participation is vital to achieving and sustaining peace. Therefore, the number of women working and making decisions in the field should be increased. To fulfil the obligations originating from the resolution, UN member states and multi-lateral organisations adopted different plans to empower women in the area of disarmament and peace. Among the measures adopted by countries and organisations are commitments to more gender balance panels and delegations, reserved seats for women, as well as scholarship opportunities to access capacity building initiatives. The effectiveness and the transformative potential of the different measures are difficult to assess because of the interconnected nature of the issues.

Research aims and objectives

In order to contribute to a better understanding about the impacts of measures aimed at addressing the gender gap in male dominated fields such as the one of disarmament, this study provides a comparative analysis of the Women Scholarship for Peace (WSP) a scholarship opportunity offered to women to access a capacity building initiative implement by the United Nations Office of Disarmament Affairs (UNODA). The knowledge and understanding on disarmament are key pre-requisites for meaningful participation. For this reason, the WSP provides training opportunities for young women in disarmament and non-proliferation to build knowledge and skills relevant to facilitate their access to career opportunities in the field, with the ultimate goal of increasing women's participation in preventing and responding to conflict. Because the gender gap is particularly strong in developing countries, the initiative specifically targeted young professional women from the Global South.

To shed light on the subject matter, the study attempts to answer the following research questions:

1   How successful was the Women Scholarship for Peace initiative, analysed as a case study, in delivering relevant knowledge and skills to the women participating in the training courses thus enhancing their capacity to address disarmament issues?

2   Is there a correlation between attending the training courses offered under the Women Scholarship for Peace initiative and gaining access to career opportunities in the field?

Based on the data collected through different surveys conducted by UNODA, this analysis uses the Kirkpatrick Model of Change (Kirkpatrick, 1994) to examine the performance of the WSP initiative and how it contributed in stimulating a change and facilitating the access for more women in the area of disarmament. The model includes four levels which should be assessed sequentially, starting from level one move forward through levels two, three, and four. Each succeeding level represents a more advance stage of the evaluation. Data gathered from previous levels feed the following ones.

Evaluation should start with Level 1 Reaction. According to Kirkpatrick (1994) this level is essential to collect inputs the training program improvement and should be conducted for all training programs. Level 1 Reaction aims at assessing how participants in a training program reacted, it measures their perceived satisfaction with the course. Tools used for this level include post-course surveys and interviews.

Although essential to gain some insights on the quality of a training course, a positive reaction does not necessarily imply that the program was effective in transferring any learning. The second level moves the evaluation beyond learner satisfaction and attempts to assess to what extent students' skills, knowledge, or attitude have advanced after attending the program. Methods to measure the amount of learning occurred during a training range from formal to informal testing. Ideally, participants are tested before the training (pre-test) and after training (post-test) to determine advancements in their level of knowledge. Measurement at this level is more difficult and laborious than those in level one.

Level 3 Transfer focuses on changes in participants behaviour occurred due to the training program. This stage aims to assess if the acquired skills, knowledge, or attitude are used by the participants in their professional or personal life. According to Kirkpatrick this level of evaluation is key to understand the effectiveness of a program. However, it is important to consider that change in behaviour does not occur immediately after the completion of the program, therefore this level should be evaluated some after time after the programme completion, possibly conducting more than one survey. Decisions in terms of when to evaluate and how often to evaluate are critical to achieve relevant conclusions.

The final level of Evaluation, Level 4 Results attempts to assess training how successful was the program in reaching its intended goal. It aims at measuring the concrete impacts which might be related to the program, such as an increase in production or a decrease in the unemployment rate depending on the defined goal. Determining results in quantitative terms is not easy to measure, in addition the direct link with a training might be difficult to be identified. This level requires a more rigorous and time-consuming analysis.

Given its flexibility the Kirkpatrick methodology has proved effective both for traditional face to face courses, as well as for e-learning programmes (Kirkpatrick and Kirkpatrick 2016) therefore it was considered as a suitable approach to evaluate the blended online and in-person WSP programme.

The analysis begins with a qualitative assessment of the programme based on the participant's feedback and results. In the second part of the analysis a comparative analysis between performance of the treatment group (the participants) and the control group (composed by a sample of non-selected applicants). Progress of the two groups are analysed in terms of increased knowledge about disarmament, size of the professional network and access to career opportunities.

Structure of thesis

The first part of this study will discuss the relevance of gender mainstreaming and how it complements the efforts to achieve inclusive and sustainable development. The current status of women participation is analysed, including achievements and unsolved challenges. Insights on concrete actions to tackle these challenges will also be explored. The following chapter would focus on disarmament and peace and their mutually reinforcing relationship with development. Next, the study will move into analysing the gender gap in the field. Although studies proved that full and effective participation of women have a significant positive impact on the promotion and maintenance of peace, women are still underrepresented in the negotiation of multilateral agreements and peace processes. In addition, armed conflict has a disproportionate and unique impact on women; recognizing and integrating gender differences into the different dimensions of the prevention and resolution of conflicts is essential for sustainable peace to be achieved. A chronological overview of the main commitments adopted by the international community to advance gender and disarmament is given. The final chapter presents a case study which tackles women empowerment through capacity building, namely the Woman Scholarship for Peace initiative of the United Nations Office for Disarmament Affairs (UNODA). Training courses on disarmament, non-proliferation and development-related issues

targeted at young professional women might play a crucial role to boost their knowledge and confidence, empowering them to contribute as peace-building leaders. The analysed initiative is intended to increase the number of women working and making decisions on issues related to disarmament and non-proliferation through the transformative role of education. Its implementation is described and in the final part of the chapter the impacts are assessed based on quantitate analysis which compares the achievements of the participants with those of non-selected applicants.

The research hypothesis is that attending a training course offered under the Woman Scholarship for Peace programme would enhance participants' skills and would create better conditions for them to gain access to career opportunities in the field of disarmament compared to other young professional women. It was also expected that there would be a positive relationship between attending the course and expanding the professional network of the participants.

Data gathered through online surveys, both on qualitative implementation of the project, as well as its follow-up impacts on participants and a control group are analysed and discussed. In the conclusion, recommendations on the effectiveness and transferability of such types of initiatives are given building on the empirical analysis. The tools used for this study are percentage analysis, likert-s point scale analysis, mean, ranking method and Non Parametric Two-sample Mann–Whitney U test.

2. Gender equality and sustainable development: a constructive interaction

The issue of gender equality is part of the broad challenging theme of "global justice" that includes problems such as the equal distribution of wealth, north-south gaps, migration fluxes, environmental protection, and the war against terrorist networks. Acknowledging that all types of inequity generate consequences on sustainable development, this study will focus on the effects of gender disparity alone.

Discussions on gender issues are often confused by competing interpretations or uses of the term "gender". According to the United Nations Entity for Gender Equality and the Empowerment Women (UN-Women), gender refers to "the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/ time-specific and changeable. Gender determines what is expected, allowed and valued in a woman or a man in a given context."

Gender equality is nowadays a well established principle in international law and public policy. It is strongly affirmed throughout the United Nations Universal Declaration of Human Rights which is the milestone document of human rights adopted by the United Nations General Assembly in 1948. Human rights are at the core of all the work of the United Nations system, together with peace and security, and development they represent one of the three interlinked and mutually reinforcing pillars of the United Nations. Gender based discrimination is also directly addressed at multilateral levels by the Convention on Elimination of all forms of Discrimination against women (1979) and the Beijing Declaration and Platform of Action (1995). Furthermore, it is recognised in domestic legislative system of almost all countries.

However, gender equality is not only a goal which calls to be accomplished, it is also a key driver to achieve progress in a number of development issues from poverty reduction to environmental sustainability. Quoting Kofi Annan, former United Nations Secretary General Gender "equality is more than a goal in itself. It is a precondition for meeting the challenge of reducing poverty, promoting sustainable development and building good governance" (statement delivered at the Conference on African Women and Economic Development, in Addis Ababa on 30 April 1998).

2.1. Gender equality and development

Achieving sustainable development is an ambitious goal which can only be addressed at a global level by acting consistently, tackling a number of issues which range from poverty, to education, from climate change to gender equality. This latter factor has a central role to play in the global challenge as argued in the following.

The symbiotic relationship among the different factors of sustainable development is a core element in the United Nations 2030 Agenda for Sustainable Development (approved in New York in September 2015) with the adoption of the resolution "Transforming our World: the 2030 Agenda for Sustainable Development" (AR 1/70/2015). The agenda is composed by 17 goals, known as the UN Sustainable Development Goals (SDGs), and a total of 169 measurable targets. The SDGs cover a broad range of sustainable development issues, they recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

Figure 2.1 The 17 Sustainable Development Goals (Source: United Nations, 2015)

Leal Filho et al. (2018) explain that when the world leaders endorsed the 2030 Agenda voting in favour of the UN General Assembly resolution "Transforming our World: the 2030 Agenda for Sustainable 95 Development" (AR 1/70/2015) they committed their countries to promote the cause of sustainable development, taking concrete actions towards ending poverty, combating climate change and fighting injustice, "leaving no one behind" (United Nations, 2015 p. 1). The SDGs build on the success of the previous 15-year plan created in the year 2000: The Millennium

Development Goals (MDGs) which came to an end in 2015. As argued by Leal Filho et al. (2018) the SDGs go beyond the MDGs as they call for action from all countries, developed and developing, poor, rich and middle-income and aim to end all forms of poverty as well as addressing inequalities, and climate change to promote prosperity while protecting the planet. While the SDGs are not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals. Countries have the primary responsibility for follow-up and review of the progress made in implementing the Goals, which requires quality, accessible and timely data collection. Regional follow-up and review will be based on national-level analyses and contribute to follow-up and review at the global level. Non state actors including institutions, non-governmental organisations (NGOs), academia, multilateral, international, and regional organization and others are also called to contribute to the implementation of the SDGs.

The 2030 Agenda (UN 2015) with the SDGs reaffirms the indivisible nature of economic, social, and cultural rights, on the one hand, and civil and political rights, on the other, and the mutually reinforcing nature of these rights on sustainable development and peace, with gender equality being cross-cutting throughout the entire spectrum of rights. Transitioning towards more sustainable and resilient societies requires a cohesive approach that recognizes that today's challenges, and their solutions, are interrelated. The interlinked nature of the SDG is one of the key characteristics of the 2030 Agenda, as described by Leal Filho et al. (2018). It is not possible to achieve concrete progress under one goal without a coordinated action on other goals.

A stand alone goal (goal number 5) is dedicated to gender equality and the empowerment of women; stating that women and girls, everywhere, must have equal rights and opportunity, and be able to live free of violence and discrimination. Nevertheless, achieving gender equality and women's empowerment is integral to progress in all 17 goals. The 2030 agenda recognises that development can only be sustainable if the benefits are distributed equally among men and women, thus mainstreaming gender equality as a cross-cutting issue throughout all the 17 goals. Equally important, efforts to improve women rights must act in synergy with efforts towards progress in other development issues across all the three dimensions of sustainable development, namely economic, social and environmental dimensions (Sen and Mukherjee, 2014). An example of how interlinks among goals work is given by the relationship between target number 17 of Goal 16 "Peace, Justice and strong institutions", and target number 5 of goal 5 "Gender Equality". Target 16.17 focuses on "ensuring responsive, inclusive, participatory and representative decision making at all levels" (UN, 2015). Clearly, progress in this target is dependent on ensuring "women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life" (UN, 2015) which

is target number 5 of goal 5. The reverse relationship between the two targets would also be applicable.

Figure 2 effectively illustrates the dense network of connections across the 17 goal and how goal 4 on gender equality is linked to the success of all the other 16 goals (UN Women, 2018). The figure is part of the UN Women Report "Why Gender Equality Matters Across All SDGs" and it aims at graphically showing the catalytic role that gender equality has in accelerating progress in the overall 2030 Agenda. The figure is the result of a study conducted analysing over 600 publications and articles, published in English, from 2010 to 2017. The size of the rays in the central section of the figure represents the number of articles analysed in reference to each goal.
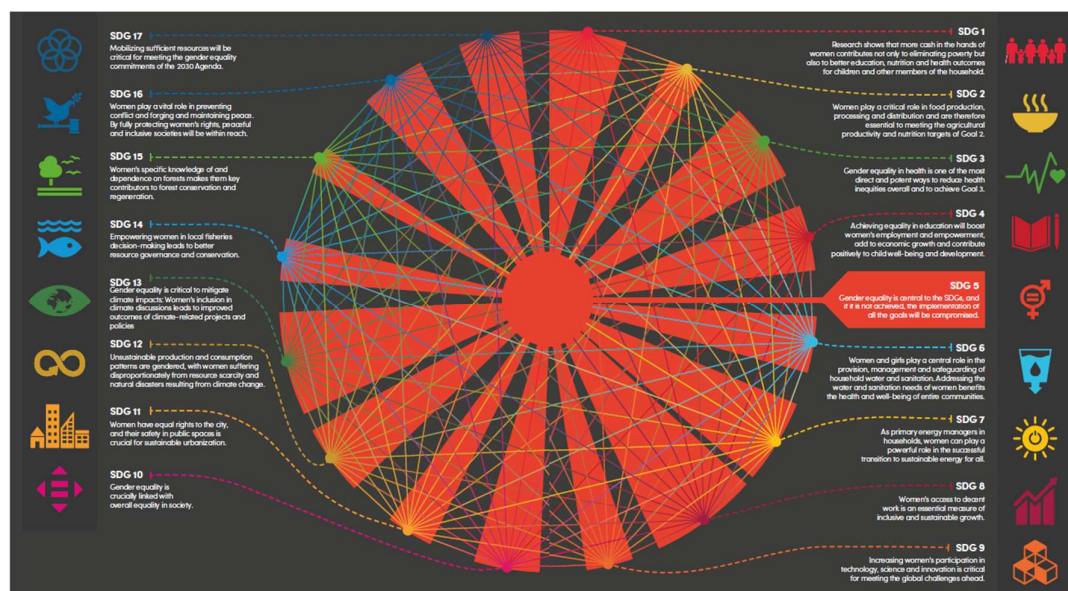
Figure 2.2 *Gender Equality Is Key to Delivering on The Transformative Vision of The 2030 Agenda*

(Source: UN Women, 2018)

The relationship between development and gender equality and how they interact with other factors affecting sustainable development have been studied by several scholars. Klasen (1999) identified two key factors indicating why progress in gender equality would directly contribute to macro-economic growth and would also fosters sustainable development. The first factor described by Klasen (1999) is linked to women's social role in the society: traditionally the duties of youth education are mainly delegated to women. Women are the main caregiver in all societies, by improving women status, a spill over on next generation's human capital would be generated, as evidenced by a correlation between resources controlled by women and investment in children. Klasen (1999) assumption is confirmed by several case studies evaluating the impact of projects targeting women and how they spread beyond the direct beneficiaries.

An example is provided in "Women as Agent of Change: female Income and Mobility in India" by Luke and Munshi (2011), who measured a positive relationship between the increase of children's years in school and an increase in income controlled by women. Additionally, analysing the effects of an education project in Africa, Back et al. (2003) identified a positive relationship between women's access to education and children's health. The United Nations Girls' Education Initiative analysed by Back et al. (2003) was implemented in Africa between 1996 and 2004, Back et al. (2003) study proved that children of mothers who had received five years of primary education were 40% more likely to live beyond the age of five.

A second factor in Klasen (1999) is related to productivity: providing equal opportunities to women in terms of education and access to market would unlock unexploited skills and talents present in the society, thus maximising productivity. Woetzel, in his study for Mckinsey Global Institute (2015), calculated the potential increase to global economy generated by improving gender equality. Based on these estimations: fully closing the gender gap might contribute an additional 28 trillion dollars to global annual gross domestic product (GDP) in 2025. This full potential scenario is calculated considering a 95% global average rate of participation in paid work of working-age women, equal to an increase of 31% from the current 64%. A less ambitious scenario assesses the benefit generated if each country would progress in gender equality with the same rate of the best performer in its region. In this case the increase in GDP in 2025 would be equal to 12 trillion dollars. From Woetzel's estimates (2015) we can conclude that not providing equal opportunities to women represent a market failure which has a dramatic cost for human progress, thus supporting the argument that gender equality has a crucial role in achieving sustainable development and progressing in the 2030 Agenda for Development.

An additional benefit of levelling the playing field is emphasized by the World Bank World Development Report 2012. The authors argue that closing the gender gap in political and social representation might have a transformative impact on societies. Diversity has proved to be an added value in many contexts. Inclusive democratic institutions must hear a broad range of voices and interests; the resulting diversity of opinions would feed the decision-making process with a broader perspective which is more likely to lead to more informed policy choices capable of adequately addressing complex challenges. Case studies conducted in India and Nepal on public resources management highlighted better results in conservation when a bigger influence was given to women. Duflo (2012) uses an analysis of different studies to conclude that women and men priorities different issues which are reflected in different policy preferences, with women preferring those related to a more balanced distribution of power in the society. Thus, excluding one side of the society from participating in the political life, namely women, represents a missed opportunity in taking into account a broader spectrum of policy issues, in

addition more women in the decision making process would help to progress in gender equality as they would advocate for gender parity. Furthermore, a more equal distribution of power would also contribute to breaking the so called "inequality trap" described by the World Bank Development Report 2006. This "inequality trap" is as a self-reinforcing negative mechanism which happens when institutions are controlled by fewer powerful interests protecting themselves. As a consequence, those excluded will never have a chance to improve their condition and realise their potential.

Chapter three of this thesis will further explore the effects of women's participation in the context of peace and disarmament.

Duflo (2012) conducted a masterful literature analysis exploring both directions of the empowerment-development nexus. In the first part of her study, she argues that development does open opportunities for better gender equality and women's empowerment. Development reduces poverty, bringing a benefit to all levels of society and women in particular, as they are the ones suffering the most when resources are limited. Duflo explains how boys education and health is prioritised over that of girls when poor families have to make a choice. When more resources are available, family choices become more balanced among children regardless of their sex. Furthermore, development is correlated with a decline in fertility rate and a decrease of maternal mortality rate. A lower number of children also allows more free time for women as they are the main caregiver in the family. Finally, development expands opportunities for women by enlarging the availability of jobs in the market, thus opening up chances for women. Increasing opportunities for women to access the job market gives them the chance to earn an income and improves their status in different ways. Not only they do gain independence but by contributing directly to the family economic condition, their bargaining power in the family improves. In addition, the perceived value of investing in girl's education and health changes as the return of the investment become apparent. Jensen (2010) conducted an experiment in northern India that provides direct evidence of this mechanism. In the experiment, job opportunities where offered only to girls or both to girls and boys in randomly selected villages. Not surprisingly, the school enrolment rate of girls registered a five per cent increase in the villages where the jobs offered were only open to girls.

However, Duflo (2012) concludes that despite the tangible benefits which it brings for women, economic development alone is not sufficient to ensure progress in gender equality. The same insights are grasped by Kabeer (2016) who compered several gender empowerment and development related studies with different analytical approaches. Based on the empirical evidence gathered, she confirms a positive relationship between woman empowerment and

development. However, Kabeer also argues that gender equality outcomes vary according to geographical and economic contexts. Additionally, she also argues an interrelationship in the opposite direction; namely the effect of development in diminishing gender disparities appears to be much weaker and inconsistent.

Many inequalities are still persisting across and within countries. The next subsection analyses aspects of gender equalities that are lagging behind and identifies reasons for and options to address persistent gender inequalities. Duflo (2012) and Kabeer (2016) recommend that policies such as girls' scholarships and quotas for participation by women at decision making level to be adopted. Additionally, it has been shown that measures targeting women and improving their access to labour market effects gender balance in society and adjust gender equality (Jensen, 2010).

2.2. Persisting gaps in gender equality

In the past decades, the policies of most countries have included strong commitments on improving gender equality. Progress in areas such as rights, education, health and access to jobs has been recorded at global level. However, gender disparities persist in many areas and regions. No state has achieved full women's equality, including developed countries such as Canada, Finland and Sweden (Kilgour, 2007). Gaps between men and women remain significant in many dimensions. Furthermore the improvements have not effected all regions and all social classes equally. Gender inequalities manifest themselves in all three dimensions of sustainable development (economic, social and environmental). Some of the most evident unsolved gender inequality are explored in this sub-section.

Discriminatory laws are still present in domestic legislation of several countries and in many there is no proactive legislation aimed to advance equality and to protect women from domestic violence. Still, 39 countries do recognize equal inheritance rights for daughters and sons (World Bank, 2012).

Gender-based violence is one of the most pervasive human rights violations which becomes even more dramatic in war situations. World Health Organization estimates that that 20% of women under the age of 50 will have experienced physical and/or sexual violence within the last 12 months and 15 million girls under age 18 every year are subject to harmful practices, such as child marriage or steal of their childhood (World Health Organization, 2017).

The balance of responsibility is unfair. In their background paper for the preparation of the World Bank World Development Report 2012 Berniell and Sánchez-Páramo (2011) studied gender patterns of time use in a sample of developed and developing countries and how the

societal gender stereotypes influences the division of labour. Their findings show that domestic work share is higher for women than men in all analysed countries for all level of income. The higher share of unpaid work is a burden with several consequences: women have less time to engage in leisure activities and to invest in their career which results in an evident pay gap as well as a lower representation in high level positions. Data sadly confirms these assumptions: the International Labour Organisation (2010) has declared that women with equal qualifications earn often a lower salary compared to their male counterpart, furthermore women globally occupy less than a third of senior and middle management positions (Schein, 2007).

Anxo et al. (2011) investigated the societal use of time with the empirical study "Gender Differences in Time Use over the Life Course in France, Italy, Sweden, and the US". In addition to confirming that women were responsible for a higher share of unpaid work, the authors they also identified a clear correlation between the amplitude of the inbalance and the institutional context related to the family policies and employment regulations in the country. This was found to be true across all analysed cases for all considered age groups and life stages (between 18 and 80). Sweden scores the fairest of the analysed countries where time allocation is concerned. The reasons explaining this phenomenon are related to Sweden's institutional framework which actively promotes gender equality. Policies such as flexible parental leave system and provision of a quality childcare offer offset the earning loss due to childbirth. In addition, the pollical context where gender is mainstreamed and female participation is high also play a role (Anxo et al. 2011). They also found empirical evidence proving that, overall, these factors facilitate in balancing the bargaining power between Swedish men and women and fostering equality (Anxo et al. 2011).

With regards to representation in political positions, globally women only hold a mere 23.7 per cent of parliamentary seats (World Bank, 2012). According to Duflo (2012) women's underrepresentation in the public-political sphere is related to contextual factors such as the country electoral system or the role of political parties. However, the author argues that the most prominent reason has to be found in the widespread social misperception of women lacking leadership skills. This view is participially explained by women lack of experience in policy making but it is mainly due to a strong gender bias without concrete basis. To support this thesis Duflo refers to several studies examining the perception of women in leadership. Duflo cites one experiment in particular (Beaman et al. 2009) where the same political speech receives a different evaluation when it is read by a male or a female narrator; sadly, being the comments of the female read speeches are significantly less positive.

A similar discriminative bias causes an employment segregation by gender, according to this widespread bias men are associated with careers in science-related fields and women with art

and education (Duflo, 2012). Reasons for this bias are related to the unbalanced share of house and care responsibilities traditionally assigned to women, as explained earlier in this section, which forces women to prefer jobs with flexible schedules and a reduced number of hours mainly in the informal sector. This pattern of choice contributes to reinforce stereotypes, and the limited presence of women in certain sectors may discourage other women to pursue a career in these sectors.

As a consequence, the majority of women are occupied in sectors flagged as "female appropriate" while some professional sectors continue to be male dominated, as showed in figure 3 (World Bank 2012). Addressing this gender segregation requires action in multiple directions with gender sensitive interventions targeted at lifting time constraints suffered by women, correcting gender stereotypes and acting to improve market failures creating incentive for women to enter certain fields.
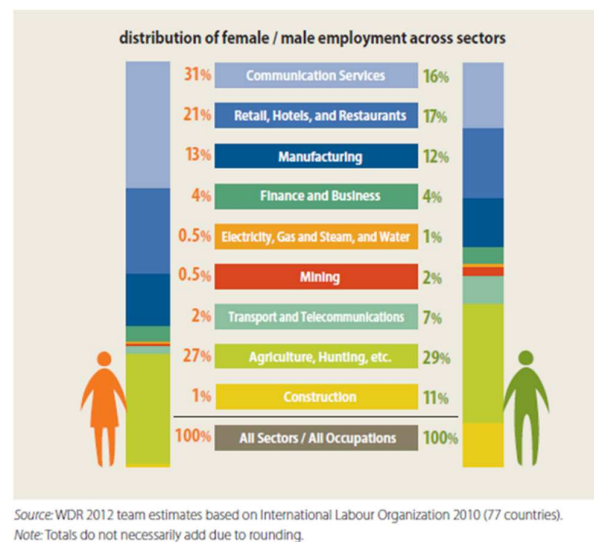
Figure 2.3 *Gender distribution per sector* (*Source: World Bank, 2012*)

Disarmament is one of the fields suffering from the persistence of a bias which discourages women's participation. This results in strong overrepresentation of men at all levels, particularly at decisions making ones. Women are a critical resource in advocacy and awareness raising campaigns, as well as in decision making and negotiation of sustainable peace and security agreements. The effects of gender inequalities in disarmament and the impact of education, such as training courses, will be explored later in this study.

2.3. The importance of gender mainstreaming for women empowerment

Concluding this review on how gender parity and development interact, it becomes clear that to achieve full gender equality the boosting effect of development alone would not be enough. Challenges to gender equality and women's rights continue to thrive both in developing

countries as well as in the developed ones, gender-based discrimination still exists in every society in different degrees and it manifests itself in different ways. The persisting gaps widely studied by scholars such as Duflo (2012) prove that converting commitments into concrete actions to achieve broad-based gender equality has proven difficult. Multiple reinforcing factors in markets, institutions, and social norms act in combination, blocking progress. Designing effective solutions requires a deep understanding of how these factors interact in the specific context. Multisector coordinated actions with a number of sequential interventions is needed, in many cases in the form of general policies incorporating gender-related focus. Active measures designed to specifically target gender disparities are required, which need to be supported by integrating gender mainstreaming and women empowerment into development policy making and programming.

Gender mainstreaming is intended as a comprehensive approach in political, economic and societal spheres where women's and men's concerns and experiences are considered in all phases of policies and programmes. Starting from the design, through implementation, monitoring and finally evaluation women, men, boys and girls should benefit equally. The ultimate goal is to achieve gender equality and to break the perpetuation of inequalities (Caglar, 2013).

The World Bank (2012) identified priority areas which seems to have a greater potential to address inequalities. According to the World Bank they include first of all reducing gender gaps in human capital-specifically education. Secondly, improving equal access to economic opportunities. Thirdly, advancing equal representation of men and women in the society. Finally, limiting the perpetuation of gender inequality across generations. This study specifically focuses on the potential of capacity building initiatives in levelling the play field.

Reducing gaps in human capital is indicated by the World Bank (2012) as one of the areas of highest priority for addressing women disadvantage. Additional years of education for girls have important multiplier effects. They decrease the chance of early marriage and improve their health and well-being, improve women's employment outcomes, and transfer benefits to future generations. Providing appropriate education and training to women professionals is key to accelerating progress to advance gender equality and achieving the targets of the 2030 Agenda (UN, 2015).

3. Gender perspective in the context of peace, disarmament and non-proliferation (DNP)

3.1. What is disarmament

Disarmament and the regulation of armaments represent some of the core objectives of the United Nations Organisation. They are mentioned in the UN Chart is articles 11 and 47 (UN Chart, 1945). The UN General Assembly has put a strong emphasis on disarmament since its foundation: the very first resolution adopted by the UN General Assembly during its first session on 24 January 1946 refers to the need to establish a commission to deal with the problem raised by the discovery of atomic energy, including the elimination of nuclear weapons (UN, 1946). At the end of the same year a Resolutions calling the Security Council to formulate practical measures "for the general regulation and reduction of armaments and armed forces" was adopted (UN Res 41, 14 December 1946 Principles Governing The General Regulation And Reduction Of Armaments").

As explained by Gillis (2017) in Disarmament A Basic Guide, the disarmament efforts focus on two main areas. The first one is the abolition of weapons of mass destruction, namely nuclear, biological and chemical weapons. Though these weapons are very different, they do share the characteristic of being indiscriminate, meaning that they cannot differentiate between military and civilian targets. As argued by Godsberg (2012) the UN has a key role to play in the abolition of weapons of mass destruction, nuclear weapons in particular, as the disarmament machinery of the UN was specifically designed to negotiate multilateral disarmament treaties.

The second area refers to conventional arms. The accumulation of conventional arms by states is related to their right to self-defence, which is recognised in the UN Charter. It includes the protection of borders, the maintenance of internal order, as well as the supply of armed forces for international peacekeeping purposes. The role of disarmament in this context is not to eliminate these types of weapons, but to limit, reduce, and regulate them. Exceptions to this rule include certain categories of conventional weapons, the use of which is considered inhumane and have been banned under the Convention on Certain Conventional Weapons. For example, laser blinding weapons or explosives that release shrapnel that is invisible to medical x-rays.

The ultimate goal of disarmament at the global level is the prevention of armed conflicts, eliminating war as an instrument of foreign policy, and at national and local level to prevent armed violence. Disarmament and arms control help prevent armed conflict and mitigate its

impacts. Humanitarian concerns of the effect of weapons are among oldest motivators and at the centre of recent efforts.

The list below outlines the disarmament toolbox composed of different disarmament measures available to progress in achieving the objectives as described in the UN Secretary General Agenda for Disarmament (UN, 2018)

- Measures for <u>elimination and destruction</u>: applied to all levels of weapons to maintain stability, restore peace, prevent conflicts, reduce cost of military spending, uphold humanitarian principles
- Measures for <u>prohibitions and restrictions</u>: applied to certain types of weapons to uphold humanitarian principles
- Measures for <u>non-proliferation</u>: most often weapons of mass destruction, to prevent the dissemination
- Measures for <u>regulation</u> (trade control, physical security, stockpile management): in addition to general disarmament goals specifically to enhance public safety, prevent diversion, combat crime
- Measures for <u>reduction and limitation</u> (binding and non-binding control agreement): applied to strategic weapons and major conventional weapons, to maintain stability, end or prevent arms race
- Measures for <u>transparency and confidence building</u> (voluntary means to share information, baseline for legally binding instruments): to create mutual understanding and trust, ultimately reduce the risk of armed conflicts
- Measures for <u>remediation</u> (explosive ordnance, destruction and demining, repair of natural environment, assistance to victims and survivors): uphold humanitarian principles

Gillis, in the third edition of the Disarmament Basic Guide (2017) argues that peace is not merely the absence of war. She describes sustainable peace as a composite status which might only be achieved through a cross cutting process that encompasses human rights, justice, reconciliation and broad participation. Thus the representation of diverse views including those of women, youth, indigenous peoples and other minorities is crucial for sustainable peace.

International peace and security are essential drivers of inclusive and sustainable development, economic growth, poverty reduction and social integration are all of which are negatively affected by war and lack of security.

3.2. The link between Disarmament, Arms Control and Development

The idea that disarmament and arms control are connected to development was introduced by Article 26 of the Charter of the United Nations which recognizes disarmament as a precondition for durable peace, security and development. First resources devoted to arms accumulation are diverted from investment in development projects, furthermore, they increase the conditions for armed conflict and violence, leading to devastating socioeconomic impacts as well as environmental degradation. Studies have shown that excessive military spending negatively impacts economic growth, capital investment and employment. Reducing military budgets can lessen these negative effects and allow public spending to be redirected towards people-centred programmes for social and economic development. The United States President Dwight D. Eisenhower expressed this idea during his speech on April 16, 1953, emphasising the hidden human costs of the Cold War arms race: "Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed." (Eisenhower, 1953).

Peace serves the current generation by providing direct benefits with a secure and stable society and it serves future generations by creating positive expectations and a culture of peace for tomorrow. History confirms that there is direct correlation with the absence of war and development in a country, as in case of Sweden enjoying a period of over 200 years of peace. On the other hand, it is apparent how colonial legacies and the current conditions of violence and instability hinder development in many African countries today.

The United Secretary-General Agenda for Disarmament, launched on 24 May 2018, offers new perspectives on better integrating disarmament and arms control into the context of sustainable development emphasising the direct contribution of disarmament and arms control to the 2030 Agenda and the Sustainable Development Goals (SDGs). First of all, the SDG number 16 focuses on peaceful and inclusive societies, justice and strong institutions. Goal 16 defines how durable peace and security contribute to long-term development, recognising disarmament as a crucial part of the integrated approach needed to achieve progress. The 2030 Agenda explicitly reflects upon the importance of arms control in promoting peace, security and sustainable development, while placing disarmament within the scope of development policies.

The advancement of disarmament and arms control objectives also supports the achievement of other SDGs, from good health and quality education to gender equality, economic growth, reduced inequalities and safe cities.

Disarmament and arms control can advance progress in achieving SDG 3 on good health and well-being, since armed violence is the leading cause of premature death and a key source of injuries, disability, psychological distress and disease.

SDG 4 on quality education benefits from disarmament education, which promotes a culture of peace and non-violence. Raising awareness about disarmament issues emphasizes approaches to reducing and eliminating violent conflicts. It also encourages efforts to enhance national and international security at lower levels of armaments. Such education imparts knowledge and skills that empower individuals to participate in the achievement of concrete disarmament objectives.

With respect to SDG 5 on gender equality, gender-responsive disarmament and arms control have a recognized role in eliminating violence against women and girls in both public and private spheres. Weapons have differentiated impacts on women, men, girls and boys. While men and boys account for most violent deaths and constitute the majority of weapon owners and users, women and girls are more frequently the victims of gender-based violence facilitated by small arms, including domestic and sexual violence. To address violence against women, it is essential that gender considerations inform the development of legislation and policies on disarmament and arms control. There is also a need to challenge predominant gender stereotypes of masculinity associated with the ownership and use of small arms, which increase the risk of gender-based violence. To achieve greater inclusivity, it is necessary to further promote the equal and full participation of women in all disarmament decision-making processes and support the active participation of all States, especially developing countries, in disarmament forums. A more inclusive disarmament machinery will lead to more effective and sustainable policy outcomes in all areas of peace and security, and it should be a major focus of the efforts.

3.3. Woman and disarmament

In "Women, weapons, peace and security" Peace Nobel Prize awarded Jody Williams (2015) argues that in conflict time it is more dangerous to be a woman than to be a soldier. In addition, weapons have disproportionate effects on women that on men, although in general women are not involved in their design, production, sale and use. This assumption is true both for small arms as well as for weapons of mass destruction such as nuclear ones. Ironically, women underrepresentation at peace and disarmament negotiations is apparent.

The impacts of armed conflicts and wars are always disastrous on humanity. Their consequences do not effect all humans equally. Women experience war differently under many dimensions which are their gender roles in society, namely reproductive, productive and community work.

Rehn and Sirleaf (2002) provide an overview on how conflict and post-conflict situations exacerbate women's vulnerability. First of all, in most countries women's incomes are lower than those of men due to the reason explained in the previous chapter. The decreased availability of food and the increase in prices generated by the consequences of a conflict affect women more severely than men. Also, women have specific health needs related to their reproductive function. When public infrastructure fails, is taken over by the enemy, or is simply not accessible, women who need these resources for their health or the heath of their children bear an unfortunate consequence. Women tend to remain behind during armed conflicts, to maintain the home and take care of the family thus being exposed to a range of vulnerabilities: death, torture, sexual violence, disability, hunger, exploitation, cultural practices and trafficking. Sexual violence is nowadays considered a weapon of war, rather than an 'unfortunate by product' of war (UN, 2000). Human trafficking is also a carefully structured war strategy in certain conflicts, where the idea is to enslave women of the enemy to assert dominance.

Large (1997) observes that among the many disruptive consequences of armed-conflicts, community norms are challenged, gender interactions become more complex and violence against women spreads enormously. Cultural practices such as female genital mutilation, honour killings and children marriages, among others, often increase in war time.

Researchers and activists have highlighted and elaborated on the linkages between gender and disarmament including weapons of mass destruction and directed attention to the gendered impact of specific weapons including nuclear weapons. As argued by Borrie et al. (2016) in their study on gender, disarmament and nuclear weapons, there is scientific evidence that effects of ionizing radiation are more harmful for women because women have 50 percent more high risk, sensitive reproductive and fatty tissue, as well as because of to the metabolic differences between women and men. In addition to the differentiated biological effects of ionizing radiation, other gendered impacts of a nuclear weapon detonation would be related to the socially and culturally assigned roles of the two genders related to health, displacement and discrimination. As all conflicts, a nuclear conflict would compound to the existing economic situation, thus worsening the condition of those living on or below the poverty line.

Given the above described gendered impacts of wars and weapons, in addition to the previously discussed advantages of more inclusive discussion and decision making process, gender equality in disarmament and peace negotiation would bring along other context specific benefits. Representative disarmament impacts across three different dimensions of the peace and security agenda:

i)   better gender balance in intergovernmental bodies and expert bodies at all level including decision making would contribute to diversifying the debate and lead to a more inclusive participatory process; also, given the significant role played by women at the grassroots level in rebuilding the lives of their communities after conflicts (Sorensen 1998).

ii)   incorporating women's perspectives into the substance of the negotiation to improve understandings about the causes and consequences of conflict;

iii)   peace agreements and treaties that are more responsive to the specific needs of women and girls have more chances to foster economic recovery, sustainable growth and the creation of cohesive societies. (Nakaya, 2003).

The issue of women, conflict and peace received intense debate during the last century and was finally translated into many international community commitments, the following subsection provides a chronological review of main achievement in this context and on how gender perspectives have been mainstreamed into peace and disarmament processes.

3.4. Chronological review of gender issues in disarmament

The links between gender equality, development and disarmament have been widely recognized by the international community. Gender equality is strongly affirmed throughout the United Nations Universal Declaration of Human Rights which is the milestone document of human rights adopted by the United Nations General Assembly in 1948.

The first UN Conference on Women was held in Mexico in 1975. On this occasion the three inter-linked goals of equality, development and peace were established. The multilateral milestone treaty which specifically addresses gender-based discrimination is the Convention on Elimination of all forms of Discrimination against Women (CEDAW), adopted by the United Nations in 1979. The CEDAW elaborates further the relationship between human rights and women and conflicts, making clear the connection between gender, disarmament and development. The convention notes that disarmament promotes social progress and development and might contribute in achieving full equality between men and women (Karl, 1995). Further, the Committee on CEDEW in its General Recommendation on women in conflict prevention, conflict and post conflict situations (CEDAW/C/CG/30, 2013) highlighted the low participation of women in institutions working on disarmament, pointing out that gender blind conflict prevention measures cannot adequately prevent conflict to happen.

It was in 1995 in Beijing at the Third UN Conference on Women that a concrete Women Peace and Security Agenda emerged (Pratt and Richter-Devroe, 2011). Women's organizations

attending the Conference from different countries effected by war voiced their concerns and called for a more inclusive participation of women in peace negotiations. The Beijing Platform for Action was adopted as an outcome of the Conference indicating a list of action to be taken to move forward in the Women Peace and Security Agenda.

In 2000 the United Nations Security Council adopted the landmark Resolution 1325 "Women Peace and Security" (UN, 2000) which recognizes for the first time the crucial importance of women participation in decision-making processes in the international peace and security arena: women should not only be given special protections during war, but that they must play an integral and active role in building sustainable peace (Pratt and Richter-Devroe, 2011). With its four key pillars, namely participation, prevention, protection, and relief and recovery, Resolution 1325 brought a much more holistic understanding of the impacts of war on women: from one hand, it is acknowledged that women experience war differently than men and on the other hand they are not seen just as victims in conflicts but as potentially powerful agents of change. The Resolution articulated the principle that women have an important role to play around decision-making tables from which they are still notably absent when peace treaties are being shaped and signed. UNSCR Resolution 1325 opens by referring to broad normative standards on women's equality, including human rights and humanitarian law, as well as previous UN resolutions, declarations and documents, such as the Beijing Platform for Action and the United Nations Charter. The body of the Resolution articulates across three main themes. First, the relevant contributions of women to peacebuilding and conflict resolution is recognised calling for an increase in their participation at all levels including decision-making. Second, the gendered impacts of armed conflict are emphasized and protection of women's rights and from gender-based violence is demanded. Finally, the Resolution calls upon stakeholders, member states and international organizations, to adopt a gender perspective in peace negotiations and disarmament agreements (UN, 2015).

As a follow-up to Resolution 1325, in 2015, the UN Security Council unanimously adopted Resolution 2242 acknowledging the substantive links between women's participation and sustainable peace and security (UN, 2015). Several other resolutions on women, disarmament, non-proliferation and arms control have been also passed by the UN General Assembly, although none are as binding for member states as the ones adopted by the Security Council, they still carry political relevance. All together these documents provided states and non- state actors (such as civil society organisations) with an important tool to advocate for women's inclusion in peace and reconstruction processes.

Part of Security Council 1325 was the commitment for United Nations member states to define Nation Action Plans for its implementation (UN, 2000). As of November 2018, an analysis conducted by Miller et al. (2014) shows that only 40% of UN Member States (77 out of 193 member states) have presented their UNSCR 1325 National Action Plans (NAP). Poland was the last country to launch its in October 2018. Despite this progress the full implementation of the Resolution is still far from been achieved; not only are the majority of member states still missing their NAP, but of the 77 NAPs adopted, only 29 (37%) include an allocated budget. Furthermore, only 29% of them include references to disarmament and provide specific actions to move forward in diminishing the level of armament.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
■ UN Member states	193	193	193	193	193	193	193	193	193	193	193	193	193	193
■ National Action plan adopted	1	4	7	12	18	29	35	43	47	52	59	62	73	77
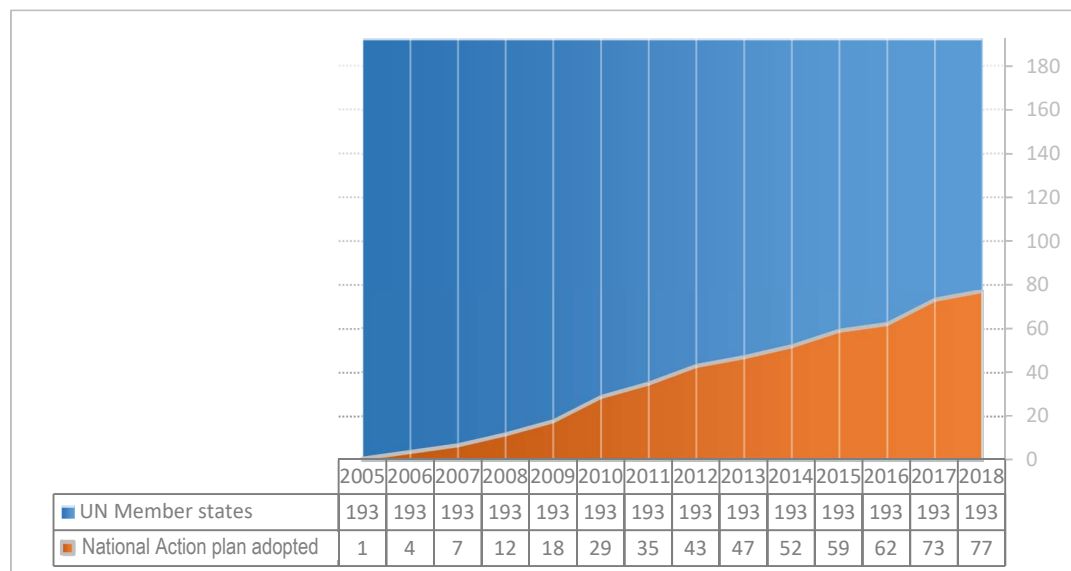
Figure 3.1 Progress in the adoption of UNSCR 1325 National Action plans by UN Member States

The above analysis by Miller et al. (2014) reflects how, progress in moving forward in the Women, Peace and Security agenda is slow, despite the formally adopted commitments. According to the 2015 Report of United Nations Secretary-General on Women and Peace and Security (UN, 2015) there is still a clear gender gap in the field of disarmament and non-proliferation. Even when the discrepancy in gender appears to be decreasing slightly with time, women still represent a very small percentage of those individuals working and making decisions in this area.

As described in the previous chapter, the increased participation of women in the labour market did not translate into equal opportunities: women and men tend to work in different areas of the labour market. The field of disarmament represents a traditionally male dominated sector where the number of women remains well below parity. The gender gap in the field of disarmament will be explored in the next chapter.

3.5. Analysing gender gap in disarmament and non-proliferation

It is widely recognised by the international community that equal rights for men and women are essential to fostering peace and democracy and sustainable development. However, despite the shift in political climate toward gender equality, women remain seriously underrepresented in bodies and processes related to key disarmament issues (Nakaia, 2003 and UN Women 2012). This can, in part, be related to the persistence of serious gender disparities in women's participation in the social and political sphere in general. In addition, this field is traditionally associate suffer of gender stereotypes which associates it with men. Achieving a better gender balance in intergovernmental bodies and expert bodies on disarmament needs to be given increased priority. Efforts should be made to involve more women as experts and as representatives of civil society and to integrate gender equality into policies and practice to overcome persisting inequalities.

The underrepresentation of women in peace talks is apparent. A study conducted by UN Women on women's participation in peace negotiations reviewed data on the number of women participating in 31 major peace processes between 1992 and 2011 (UN Women, 2012). It is relevant to note that the sample of meetings included in the research is limited because for many of the meetings sex disaggregated data on participants was not available. A necessary first step towards addressing the issue of women's attendance and delivery of statements is the consistent monitoring, publication and analysis of this information, including examining the interaction of gender with other forms of marginalisation in multilateral disarmament discussions.

For the meetings where data was available across the forums studied, on average 96 per cent of signatories are men, women are only nine per cent of negotiators and 2.4 per cent of chief mediators at any given meeting. The most gender balanced meeting in the sample was the Oslo meeting in the Philippines in 2011, where with 33% of the signatories and 35% of delegates where women. Important to notice that several meetings did not include women at all.
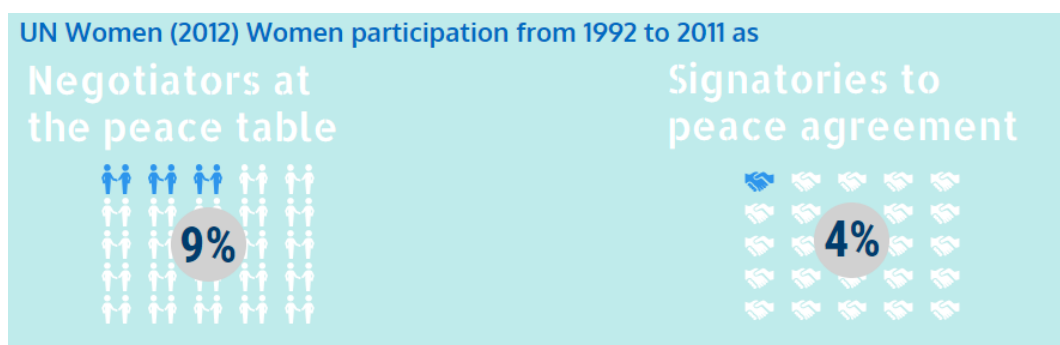

Figure 3.2: Women's low participation in peace processes. (Data source UN Women, 2012)

Borrie et al. (2016) extensive analysis of women's participation in nuclear related multi-later forum confirms this pattern of gender imbalance. Based on the data collected on official participants to 26 meetings held in the period 1980-2015, a very pronounced over representation of men was measured especially in meetings concerned with security and disarmament issues. The gender gap remains stable across all the regional groups, although countries in lower income groups tended to have a lower proportion of women delegates. This combined pattern of low-income and underrepresentation suggest the relevance of considering how different forms of marginalisation may interact.

A less empirical but still relevant perspective of the issue of participation is provided by Williams (2015). In 2013 an advocacy campaign against the introduction of killer robots was launched under the full coordination of a woman, however when a year later the first multilateral meeting to discuss this issue was convened at the UN in Geneva, the panel of experts was composed totally by men. Williams argues that the unofficial explanation of the Conference President was that no qualified women were identified for these roles.

The above data shows that despite the shift in political climate toward gender equality, women remain seriously underrepresented in bodies and processes related to key disarmament issues. This can, in part, be related to the persistence of serious gender disparities in political representation as well as to the tenacity of gender stereotypes on women and weapons which sustain the resistance of government and international bodies in considering women fit for this field. As concluded by UN Women (2012) the underrepresentation of women in disarmament and peace negotiations is much more marked than in other public decision-making contexts. The Security Council Resolution 1325 did not significantly shift this trend as no appreciable increase was recorded after is adoption and progress in women's representation are still slow (UN Women, 2012). The inertia of progress is pictured by the number of female speakers at 2018 UN General Assembly general debate: among the 193 Member States speaking, only 19 of them were represented by a woman (UN, 2018).

Peace agreements are part of the process of rebuilding trust between states, society and social groups undermined by the conflict. Gender equality is essential for this process to be inclusive, representative and therefore more likely to reach a lasting agreement. Conflict resolution and peacebuilding represent a window of opportunity for social transformation and integration of gender equality. (Nakaya, 2003). Therefore, achieving a more representative disarmament needs to be given increased priority. A correlation has been identified between the degree of gender sensitivity in the text of the agreements and the participation of women groups in its negotiation (UN Women, 2012). Efforts should be made to address access barriers and gender stereotypes in the disarmament field, to involve more women as experts and as representatives

of civil society. Education and training have a role to play in achieving equal disarmament: both creating capacity to consistently integrate gender perspective into all policies and practices, as well as empowering more women to become active agents in the field. Besides providing technical knowledge on the provisions and international normative framework, the capacity to integrate gender perspectives into disarmament is a key for progress.

Advocacy and education campaigns should identify the best means of reaching and engaging with key stakeholders who can be effectively utilized to mobilize public opinion for inclusive disarmament and to women as key target trainees. Women, as agents of change, need to be strengthened with appropriate knowledge and skills. By increasing competencies of women in the field, it is possible to remove access barriers and stereotypes. Nakaya (2003) noted a positive trend in international and regional organisations. Donors and civil society support training initiatives on peace and disarmament related topics with the aim of increasing their participation at the negotiation table.

Along these lines, the next chapter analyses the effect of the Women Scholarship for Peace initiative, a capacity building program implemented by the UN Office for Disarmament with the objective to train women on disarmament related issues, including gender mainstreaming, and to ultimately contribute to a more equal disarmament. The study aims to assesses if the project was effective in delivering relevant knowledge and if taking part in the course had any impacts on the participants in terms of increasing their engagement in the field.

4. A Case study: evaluation of the Woman Scholarship for Peace programme

4.1 Context of the programme

As described in the previous chapter women represent a very small percentage of those individuals working and making decisions on issues related to disarmament, non-proliferation, security and cooperation. As a result of the UN commitments to improve gender balance in the field resulting from the adoption of several resolutions including the landmark Security Council Resolution 1325 (UN, 2000), several initiatives have been taken to tackle the persistent gender gap in this field. This chapter describes the programme launched by the United Nations Office for Disarmament Affairs (UNODA) in Vienna, Austria, which aims at levelling the playing field. First, a general overview on the initiative is provided, then the programme is assessed through a four-level approach designed from the Kirkpatrick Model of Change (Kirkpatrick, 1994). The proposed methodology has also been inspired by the holistic approach described in "Addressing gender inequality in science: the multifaced challenge of assessing impact" (Schmidt and Cacace, 2017). The analysis aims at assessing if the programme could create the adequate conditions for change in the field of DNP. The analysis starts by providing an overview on the context of the programme, it continues with the description of the elements included in the programme followed by a descriptive analysis of the findings.

As a first step, in order to effectively design and implement a capacity building programme the United Nations Office for Disarmament Affairs (UNODA) in Vienna initiated the Disarmament and Non-Proliferation (DNP) Education Partners. The Partnership comprises 30 partners representing international and regional organizations, media, NGOs and academia. Partners have joined forces to develop curricula on Disarmament and non-Proliferation in order to promote new educational networks and outreach activities, as well as foster the participation of women in the field of disarmament and non-proliferation with a particular focus on the linkage between disarmament and development. The DNP Education partnership have contributed in developing the materials used as modules in the training courses. The participation of organisations directly involved in the subject-matter has been crucial in order to provide first end information directly created by the source. For example module, the module on the nuclear disarmament have been developed by the Comprehensive Test Ban Treaty Organisation (CTBTO). The following Figure illustrate the Partners of the DNP Education Partnership.

Figure 4.1 Partners of the DNP Education Partnership.

Furthermore, as part of the preparatory activity for the preparation of the Woman Scholarship for Peace programme, UNODA has successfully developed an online Disarmament and Non-proliferation training course platform (Dashboard), an online platform designed to deliver dual modality online and in-person training courses to expand the number and quality of training opportunities in the field of DNP. The educational material developed, in close collaboration with the partners, has been uploaded on the dashboard to compile the training courses.

4.2   Objective and scope of the Programme

The Women Scholarship for Peace (WSP), launched in 2016, is one of the initiatives developed under the above described DNP Education Partnership. The WSP aimed to offer interdisciplinary training courses in disarmament, non-proliferation and development-related issues. The training courses have been created assembling the educational materials developed by the DNP Education Partners. The DNP Education dashboard was used to deliver the courses.

The initiatives are aimed at:

(a) widening women's capacity to address disarmament and non-proliferation issues
(b) boosting the participation of women, in particular from the Global South, on disarmament and non-proliferation activities

The initiative included two components, first four training courses organised in the following four regions of the global south: from Africa, Asia-Pacific, Latin America, the Caribbean, and the Middle East. A total of 138 scholarships were awarded to young professional women to enable them to attend the courses. The training courses were further complemented by the Vienna

Forum where participants, including WSP-sponsored participants, were provided with information on career and employment opportunities in disarmament, non-proliferation and development fields. The Vienna Forum aimed at bridging the gap between the young professional searching for new opportunities and the organisations looking for talents. For this initiative, an additional 30 scholarships were made available, bringing the total number of scholarships under the WSP to 168.

Total scholarships awarded: 168
Total women trained in WSP initiative: 158

Africa	Asia-Pacific	Latin America and the Caribbean (LAC)	Middle East	Vienna Forum
40	35	35	28	30 (10 of which training course participants)

Figure 4.2 Number of scholarships awarded and participants trained under the WSP initiative (Data source UNODA)

The following chart map shows the eligible countries colour-coded by region. The size of the dot represents the number of participants selected in each country.

Legend
Africa — Latin America and the Caribbean — Asia — Middle East — Participants per country
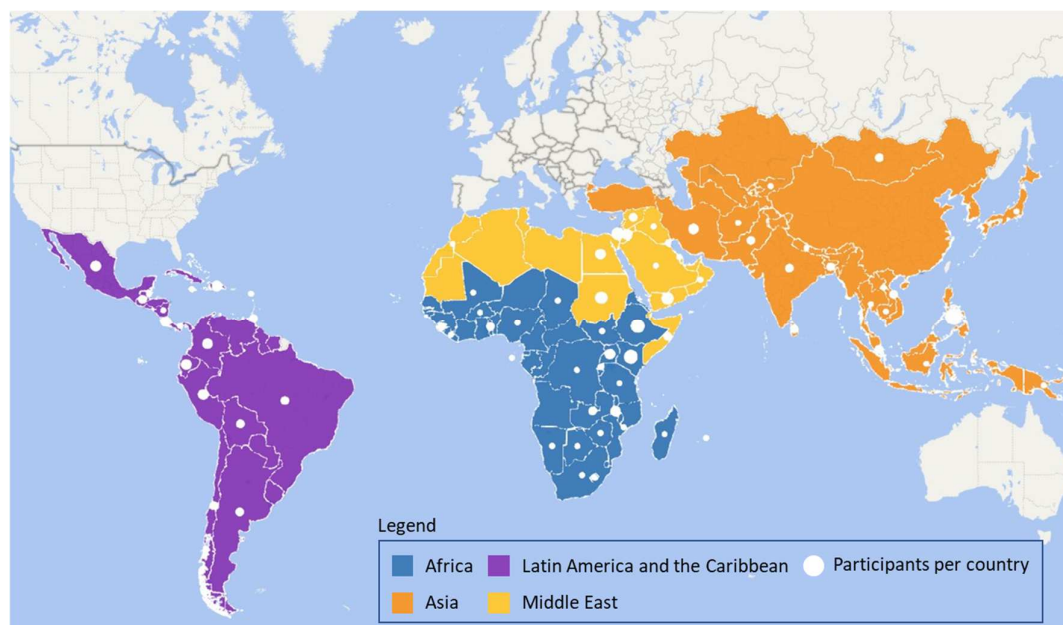
Figure 4.3 WSP eligible countries per region and number of participants selected (Data source UNODA)

Below a summary of the initiatives included in the programme is provided:

- Women Higher Education for Peace Vienna Forum held in Vienna 5-7 July 2015, a 2-day conference aimed at highlighting job opportunities, raising awareness, and educating on issues related to disarmament and non-proliferation through the Vienna Forum. Participation was open to the general public and 30 scholarship recipients from the above mentioned four regions in the Global South.

- Women Scholarship for Peace training courses on disarmament and non-proliferation, as well as cross-cutting issues, such as development and gender. The training courses were organised by region: Africa, Asia-Pacific, the Middle East, Latin America and the Caribbean. Each training course had a total duration of 9 weeks, 8 weeks online and one week in-person. The one-week in-person course took place in a location within the respective region and was organised in an interactive seminar format.

The first course started in the Middle East region on November 2016 followed by one in Africa, then Asia and finally Latin America and the Caribbean. By April 2017 all training courses had been concluded, training 138 women, ten of which were also awarded with a scholarship for the Vienna Forum. The total number of young professional women trained under the WSP initiative, which constitutes the treatment group in the analysis presented in this paper is 158.
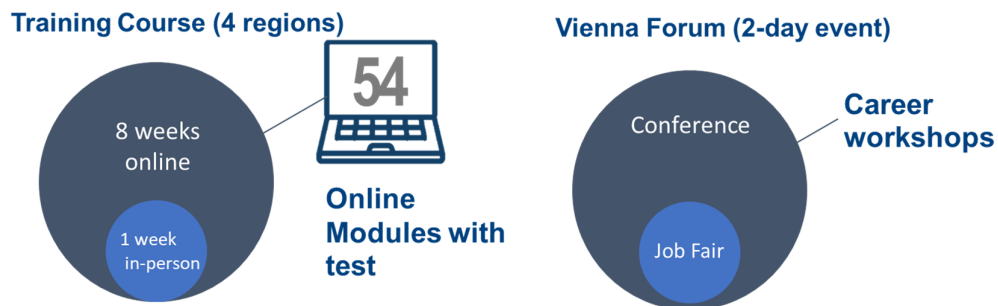
Figure 4.4 Activities implemented under the WSP initiative

The activities related to the training courses were divided into:

a) Scholarship application and selection process of participants

b) Online training course

c) In-person training courses

d) Final evaluation

e) Follow-up impact survey on participants and non-selected applicants.

Overall more than 2.600 candidates applied to the programme from 114 countries in the Global South. The participants were carefully chosen by the implementing partner through a competitive selection process taking into consideration both qualification and motivation of the candidates.

Organizational aspects of the online courses:

- The DNP Education online Dashboard was used as a teaching tool.
- Each course was organized in 8 thematic sessions, each session lasted for one week.
- Each session was made up of a number of thematic modules for a total of 54 modules, each of which had to be completed with a multiple-choice examination in order to move to the next session
- To assess the opinion of course participants on the quality of the training course, as well as on the substantive content of the modules, evaluation questionnaires were provided to participants at the end of each session. The questionnaire was structured into 11 multiple choice questions requesting participants to express their agreement or disagreement on statements referring to different aspects of the session, including organization and content.
  This contributed to a pool of detailed information for in-depth analyses and future improvements of each session and module.

Organizational aspects of the in-person courses:

- Lasted 1 week (1 course per region).
- Organized in 10 sessions (3 hours per session).
- Each session organized in an interactive seminar format.

Documents awarded to scholarship recipients:

- Certificate of participation online: awarded to participants who obtained the passing grade of 80% to the online course. The final passing grade was calculated as an average of their final test scores.
- Certificate of participation in-person: awarded upon participating in the in-person course
- Diploma (holding 3 university credits from the UN mandated University for Peace, UPEACE): participating in the online and in-person course and a final essay on a related topic.

4.3 Evaluation of the programme

This chapter outlines the methodology utilised in this study. This study used a descriptive research design to analyze quantitative data. The Kirkpatrick Model for training evaluation (1994) was utilised as a methodological framework to guide the analysis. This chapter provides a description of Kirkpatrick model as well as a rationale for selecting this approach to guide the research. The chapter also describes how the qualitative data were generated across three online surveys and how the analysis was conducted.

The purpose of this analysis is to provide an understanding on how the WSP was effective in delivering relevant skills and knowledge on disarmament thus creating conditions for the participants to progress in their professional career in this field. Further, the analysis is expanded by comparing the progress of WSP participants with those achieved by a control group, specifically a sample of candidates who applied for the program but were non-selected.

4.3.1 Proposed Methodology

The four stage Kirkpatrick Model for training evaluation was originally developed in 1954 by Donald Kirkpatrick, it provides a practical approach for assessing the value and success of training courses in delivering knowledge and in achieving the intended goals. Updated versions of the methodology have been released by the author over the decades. In each new edition of his book Kirkpatrick adapted the model to the latest developments emerged in the education field. As described in "Evaluating training programs: The four levels", (1994) the model is based on based on four interconnected stages. The stages are linked to each other in subsequent relations. Evaluation starts from stage one, reaction, followed by learning, transfer and result. The model was originally developed to evaluate formal classroom training courses. However, how explained in Kirkpatrick and Kirkpatrick (2016) the flexibility of the model makes it suitable for all types of training courses, including e-learning programmes and informal learning. The four-level evaluation model provides a framework which can be applied to different training types. The appropriate survey tools, timeline and technologies have to defined according to the specific context.

In general, training programme evaluation has three main objectives. First to collect inputs to improve the programme. Second, to increase the knowledge and the skills transferred so to maximise results in terms of added value transferred. Finally, to quantify the value a training for the organiser or the donors by assessing the impact on participants (Kirkpatrick and Kirkpatrick, 2016).

The four evaluation stages are summarised in the following.

- **Level 1 Reaction:** the first stage of the model aims at assessing how participants in a training program reacted, it measures to what extent learners liked the training in terms of satisfaction levels. Tools used for this level of evaluation include post-course surveys and interviews. Questions in the reaction stage cover different organisational aspects related to the implementation of the programme, such as facilitation, methodology, organization, supporting materials etc. this level is essential to collect inputs the training program improvement and should be conducted for all training programs.
Level 1 is essential to gain insights on the quality of a training course, however a positive reaction does not necessarily imply that the evaluated program was effective in transferring any learning.

- **Level 2 Learning**: building on the result of the previous level the second level moves the evaluation beyond learner satisfaction and attempts to assess if any knowledge or skills have been acquired during a training and as an outcome of the training. Measuring these achievements might result more challenging and laborious than collecting feedback on participant satisfaction. Methods to measure the amount of learning occurred during a training range from formal to informal testing. Ideally, participants are tested before the training (pre-test) and after training (post-test) to determine advancements in their level of knowledge. Survey methods include test and self-assessment through questions on contents offered during the training.

- **Level 3 Behaviour**: once the evaluation has assessed how a programme was successful in transferring knowledge or skills the third stage builds on the findings gathered in level 2 and focuses focus on changes in learners' behaviour and actions in the work environment as an outcome of the training; if the skills and knowledge acquired during the course have been transferred by the participants to their work environment. The behaviour level is considered crucial by the author (Kirkpatrick, 1994) to understand the effectiveness of a program. Kirkpatrick also emphasises that behavioural changes do not occur immediately after the completion of a program, therefore evaluation for this level should only be conducted a certain time after the programme completion. Decisions in terms of when to evaluate and how often to evaluate are critical to achieve relevant conclusions. Conducting more than one survey contributes to collect to improve results. Questions in this level of evaluation are related to the use of knowledge and skills acquired, such as how the capacities obtained during the training are applied.

- **Level 4 Result**: the final stage refers to impacts on participants which might be attributed to the training and examines how successful the programme was in creating an added value for the participants. Results attempts to assess how successful was the program in reaching its intended goals. As an example, how the participants progress in their career or how their motivation to learn more on the topic at academic level increased. Kirkpatrick (1994) considers Result as the most complex level of his model, it requires a more rigorous and time-consuming analysis.

The model is schematised in the below figure.
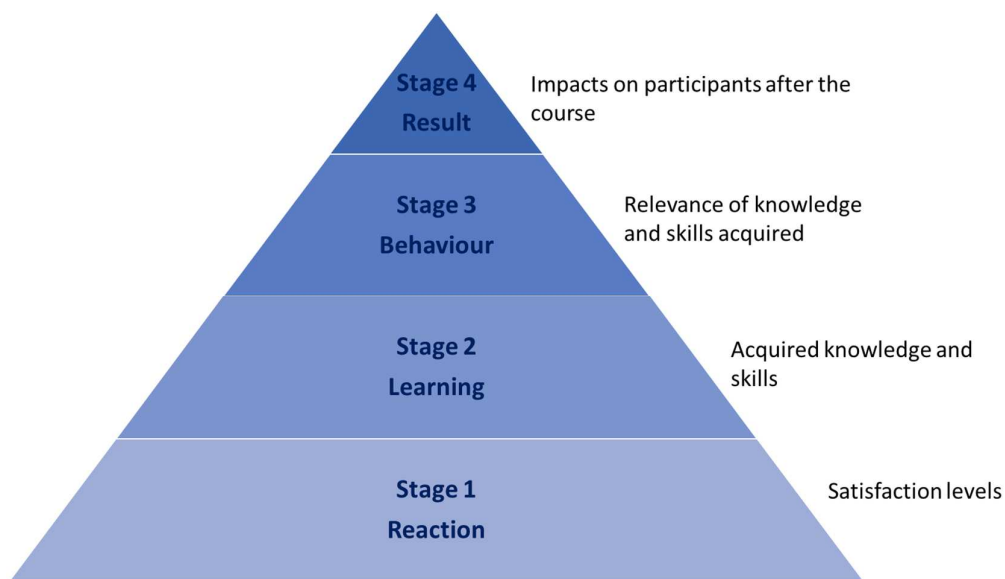
Figure 4.5 The four stage of Kirkpatrick Model for training evaluation

Considered its practical approach and its flexibility, which makes it suitable both for in-person and online training courses, the Kirkpatrick four stage Model methodology was considered an appropriate for the assessment of the WSP programme.

Furthermore, the methodological approach adopted in this study also builds on Schmidt and Cacace's (2017) holistic methodology described in "Addressing gender inequality in science: the multifaced challenge of assessing impact". The paper claims the relevance of building a multidimensional framework of reference to assess impact of programs aiming at improving gender balance in male dominated fields and to identify lessons learned and best practices from them.

According to the study, the growing number of female PhD students in scientific subjects does not correspond to an equal increase of female academics. A disparity between the number of

female researchers in scientific subjects and female authors of scientific publication is also described by Rodrigo et al. (2008). In recent years, several academic institutions mobilised resources to address this persisting gender gap through adopting different kind of measures. Schmidt and Cacace (2017) conducted a comparative study among a number of universities providing a reference list of relevant indicators and targets to be used to assess programs in similar contexts. The authors build on the idea that gender inequality in science is caused by multiple interacting factors. Structural, cultural, institutional and economic factors all contribute to perpetuate the gender gap. To reach an impact, policies and programmes designed to address such a complex issue should tackle simultaneously different dimensions of the problem in an integrated manner. Focusing only on a single aspect of the problem would not be effective. Similarly, evaluating the effectiveness of interventions aimed at addressing this issue, would also require an equal multidimensional approach. In Schmidt and Cacace's (2017) perspective, the impact of programmes implemented in this context has to be evaluated measuring their potential to create the adequate conditions for change. The described impact assessment strategy develops through three strategies. First a preliminary quality assessment. Second an analysis of the impact areas reached, in terms of the specific set of issues addressed by the programme, such as enabling a women-friendly environment or strengthening women's leadership. The third strategy refers to the potencial impacts in term of transferability, analysing conditions to successfully implement the programme in different settings. Schmidt and Cacace's (2017) approach inspired the conclusions drown in this study.

Research questions and hypothesis formulated for the study

Specifically, this study seeks to answer the below research questions:

1   How successful was the Women Scholarship for Peace initiative, analysed as a case study, to deliver relevant knowledge and skills to the women participating in the training courses, thus enhancing their capacity to address disarmament issues?

2   Is there a relationship between attending the training courses offered under the Women Scholarship for Peace initiative and gaining access to career opportunities in the field?

The research hypothesis is that attending a training course offered under the Woman Scholarship for Peace programme would enhance participants' skills and would create better conditions to for them to gain access to career opportunities in the field of disarmament compared to other young professional women who applied for the programme but were not selected to attend it. It was also expected that there would be positive relations between attending the course and expanding the professional network of the participants.

Additional assumptions are that motivation and change in attitude of respondents after attending the training are independent and there is no significant difference between the mean of the sample and the original mean of 60% of respondents acquired special skills and knowledge through training. Tables of mean value are provided in Appendix D.

Research instrument

The research design used in this study is quantitative based on data gathered through three surveys. The analysis is descriptive, the methodological approach is based on a dual qualitative and qualitative analysis.

The empirical analysis in this essay uses different sources of data. Specifically, thee analysis drew on three datasets obtained by quantitative surveys administered by UNODA: I) training course Final Evaluation; II) Alumni Impact Survey; III) Non-selected applicants Impact Survey. The questionnaire used for surveys II and III is almost identical, the key difference between the two refers to the formulation of the questions. For the participants sample the questions were asked in reference to their participation to the WSP. For the non-selected applicants sample the questions were asked in reference to the last year.

The surveys are described in more details in the following section of this chapter. Questionnaires are provided as appendix A, B and C of the document.

An additional source of data considered in the analysis is the Participant test scores gathered automatically by the Disarmament and Non-proliferation training course platform (Dashboard).

Survey data was summarised as simple descriptive percentages, presented in the figures in form of bar charts and pie charts. All the data was read through to obtain a broad perspective of the information, a cross- table analysis was conducted, and patterns and trends were identified. Replies provided on the Likert scale were translated into numeric data with the following scale of correspondence:

- Strongly agree or Very relevant = 4 points
- Agree or Relevant = 3 points
- Do not agree or Somewhat relevant = 2 points
- Strongly disagree or Not relevant = 1 point

Further the score of each individual was computed and the mean value for each group was computed. Then all results were reviewed and checked for the similarities and differences between them. The Non Parametric Two-sample Mann–Whitney U test was used to test the research hypothesis that the WSP would enhance participants' skills and would create better

conditions to for them to gain access to career opportunities in the field of disarmament compared to the control group of non-selected applicants. Tables of mean value for each indicator are provided in Appendix D.

Data was analysed following the Kirkpatrick (1994) model using different statistical tools like percentage analysis, Likert's point scale analysis and mean. Results are presented through summary tables with distribution percentages and graphical representations of the aggregated answers per training course.

Data collection and population

The analysis drew on three sources of data: I) training course Final Evaluation; II) Alumni Impact Survey; III) Non-selected applicants Impact Survey.

Data source I) Training course Final Evaluation survey

The training course Final Evaluation was conducted by UNODA in May 2017 immediately after the conclusion of the planned training courses in all the four regions. The survey assessed the perception and satisfaction level of the scholarship recipients who participated in the four training courses organised within the Women Scholarship for Peace in the Middle East, Africa, Asia and the Pacific, Latin America and the Caribbean. In addition, the evaluation also aimed at drawing lessons for the future development of similar initiatives and at identifying areas where improvement may be necessary to enhance the relevance and efficiency of the programme.

Data was obtained from an online structured questionnaire administered through the e-learning platform used to administer the online course, the DNP Education Dashboard. The sample included all participants in the four Global South courses held between November 2016 and April 2017 in the four following regions: Middle East, Africa, Asia and the Pacific, Latin America and the Caribbean.

The questionnaire included 30 multiple-choice questions focussing on different areas of the training including:

1. General satisfaction
2. Organisational aspects
3. Substantive contents
4. Online platform.

The complete Final Evaluation questionnaire is provided as Appendix A of the document.

The survey received 107 responses out of a total sample of 143 participants, with an average response rate of 75%. The response rates for the different training courses are detailed in the table below. All the questions were required to be answered to submit the questionnaire.

Training Course	Response rate
Middle East course	65%
Africa course	73%
Asia and the Pacific (Asia) course	67%
Latin America and the Caribbean (LAC) course	84%
Average	*75%*

Table 4.1 Final evaluation response rate per training course

A statistical analysis of some of the areas relevant for this study is provided in the following chapter.

Data source II) Alumni Impact Survey (treatment group) and III) Non-selected applicants Impact Survey (control group)

A second survey (Impact Survey) was launched by UNODA in December 2017, to assess follow-up impacts of the programme on the participants some months after they completed the training courses. Taking into consideration the intended impacts of the programme implemented, the Impact Survey aimed at assessing to what extent the WSP initiative contributed to the capacity development of direct beneficiaries to participate in disarmament and non-proliferation activities. An objective of the survey was also to understand how effective the program was in achieving the intended goal of increasing the number of women working in the field.

To be able to measure the impacts of the programme the survey was conducted on two groups:

1. A treatment group, including the scholarship recipients who participated in the Women Higher Education for Peace Vienna Forum and/or to the Women Scholarship for Peace Global South training courses
2. A control group, including a sample of applicants who applied for the programme but were not selected to take part in the course

Data was gathered through two semi-structured compatible questionnaires, some of the questions had to be adjusted to reflect specificities of the two groups surveyed. For the alumni group the questions focused on the changes in their skills, knowledge and professional status

after having received the scholarship. For the comparison group of non-selected applicants, the survey questions investigated changed in their skills, knowledge and professional status referring to the last year. Furthermore, some specific questions were only proposed to one of the two survey groups, details are provided later in the study. (See Annex B and C for the detailed questions).

The questionnaire also included two optional open-ended questions focused on gathering testimonials of actions taken by the scholarship recipients in the DNP field, as well as on their recommendations.

The sample of the survey is described below:

- Treatment group: 158 scholarship recipients who participated in the Women Higher Education for Peace Vienna Forum and/or to the Women Scholarship for Peace Global South training courses (defined as "treatment group" for this research)
- Control group: 947 applicants who presented a full application in English but were not selected to take part in the course (defined as "control group" for this research).

An invitation to take part in the survey was sent via email. Respondents could access the questionnaire through the link provided in the invitation email for a period of two weeks.

The questionnaire focussed on different areas of the training including:

1. Relevance of the substantive knowledge acquired
2. The force-multiplier and networking effect
3. Career development

The two complete questionnaires are provided as annex II and annex III to this document.

The survey received a total of 206 replies:

- 67 replies from alumni participants, out of a sample of 158 participants (42%)
- 139 replies from the control group, out of a sample of 947 applicants invited (15%).

The below pie chart shows the distribution of response received by each group.
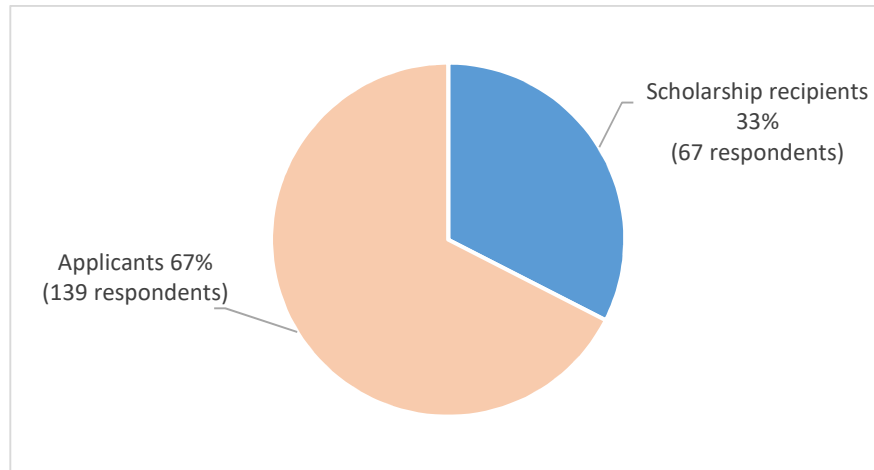
Figure 4.6 Respondents per group as a percentage of total received questionnaires

Overall, the geographical distribution of the responses was balanced with an adequate representation of all the four regions interested: Middle East, Africa, Asia, Latin America and the Caribbean with the highest number of replies received from Africa.
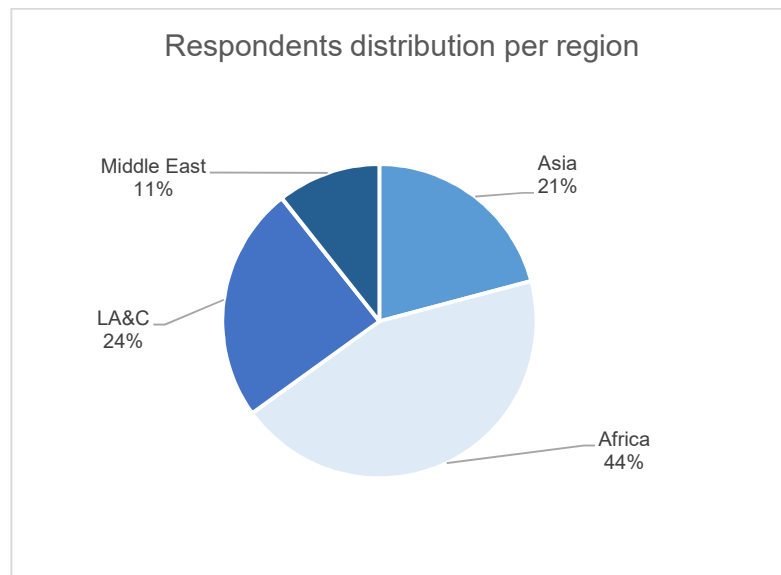
Figure 4.7 Respondents per region as a percentage of total received questionnaires

Data source IV) Participant test scores

At the end of each thematic module, participants were required to take a final test with multiple choice questions. Participants were allowed to take the test a maximum of three times. The e-learning platform used to administer the online component of the WSP course, namely the Disarmament and Non-proliferation training course platform (Dashboard), was programme to record the highest mark reach by each participant. In this analysis the test scores are used to measure the participation in the course as well as the success in completing it.

The following sections provide an assessment of the WSP programme presenting data gathered through the two above described surveys. The analysis follows the Kirkpatrick four-stage model for training programs evaluation. The first two stages of the analysis, reaction and leaning, are based on data gathered through the Final Evaluation and participants' test scores; the evaluation conducted under stage three and four, behaviour and results, are based on the data collected during the Impact Survey Analysis. The analysis in the final section is expanded by comparing the progress of WSP participants with those achieved by a control group, specifically the non-selected applicants.

Descriptive analysis

The descriptive analysis follows the four levels of Kirkpatrick Model (1994). First, each of the four levels is described, then a set of relevant indicators is examined with a percentage analysis. For each figure the average of positive feedback provided was calculated adding together responded who indicated "Strongly Agree" or "Agree". When relevant to improve understanding the value of the mean is calculated as indicated in the Research instrument section. Finally, a short conclusion related to the level of evaluation is provided. The descriptive analysis concludes with key findings highlighting the added value delivered to the participants with the WSP.

Level 1. Reaction

Stage one of the Kirkpatrick Model is Reaction, it aims at measuring the respondent's perception and general satisfaction about the course. In this study, the satisfaction level has been measured through participants degree of agreement with the proposed statements on a Likert scale with four options, namely agree, strongly agree, disagree and strongly disagree. Positive replies (agree, strongly agree) are represented in the bar charts with diminishing shades of green, the threshold of 80% is marked in the chart.

First of all, the respondents were asked to provide feedback regarding their general satisfaction on the courses, indicators included in this study refer to: expectation, solution and practice-oriented approach, intention to recommend the course to other early career women, inspiration and motivation.

In addition, on some specific key areas, respondents were asked to provide indication on aspects to be improved. In this case multiple choice questions included a number of options.

A visual and tabular representation of the participant feedback data is provided in the following.

The training course fulfilled my expectations

Average positive feedback 99.1%
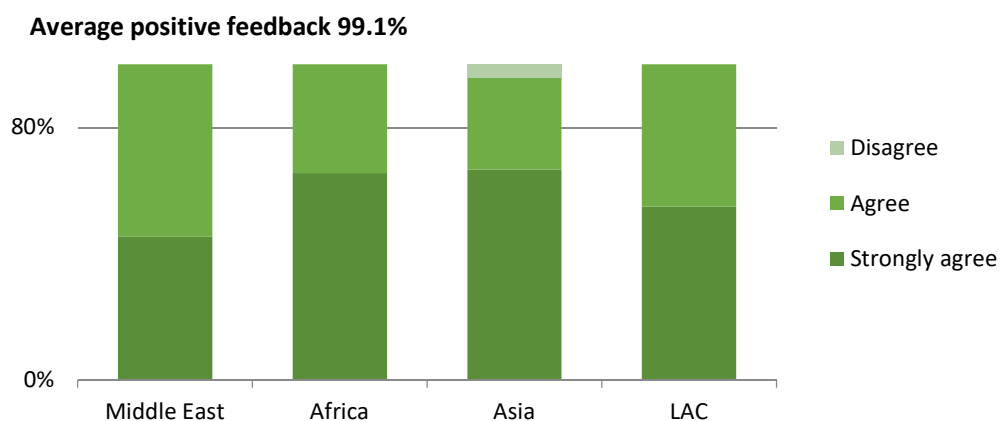
Figure 4.8 The training course fulfilled my expectations

REGION	STRONGLY AGREE	AGREE	DISAGREE	TOTAL
MIDDLE EAST	45.5%	54.5%	0.0%	100.0%
AFRICA	65.5%	34.5%	0.0%	100.0%
ASIA	66.7%	29.2%	4.2%	100.0%
LAC	54.8%	45.2%	0.0%	100.0%
TOTAL	**58.5%**	**40.6%**	**0.9%**	100.0%

Table 4.2 The training course fulfilled my expectations

The training course was solution and practice oriented

Average positive feedback 95.2%
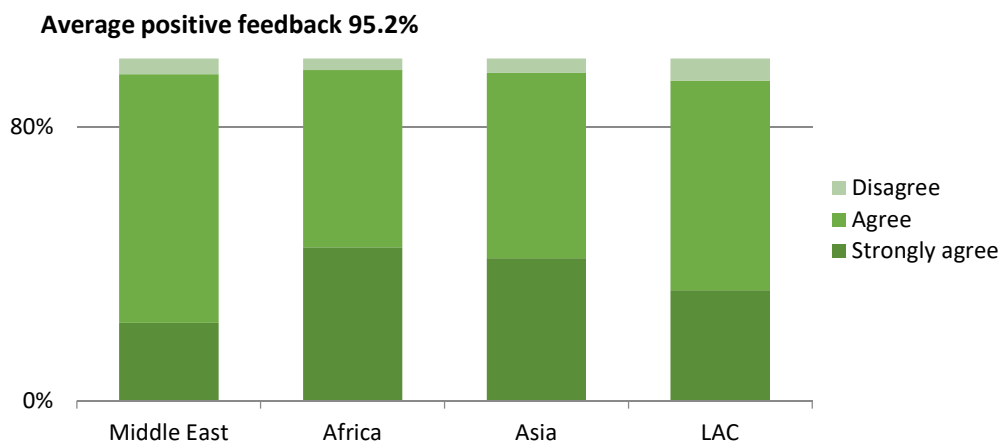
Figure 4.9 The training course was solution and practice oriented

REGION	STRONGLY AGREE	AGREE	DISAGREE	TOTAL
MIDDLE EAST	22.7%	72.7%	4.5%	100.0%
AFRICA	44.8%	51.7%	3.4%	100.0%
ASIA	41.7%	54.2%	4.2%	100.0%
LAC	32.3%	61.3%	6.5%	100.0%
TOTAL	**35.8%**	**59.4%**	**4.7%**	**100.0%**

Table 4.3 The training course was solution and practice oriented

I would recommend this training course to other early career women

Average positive feedback 99.1%
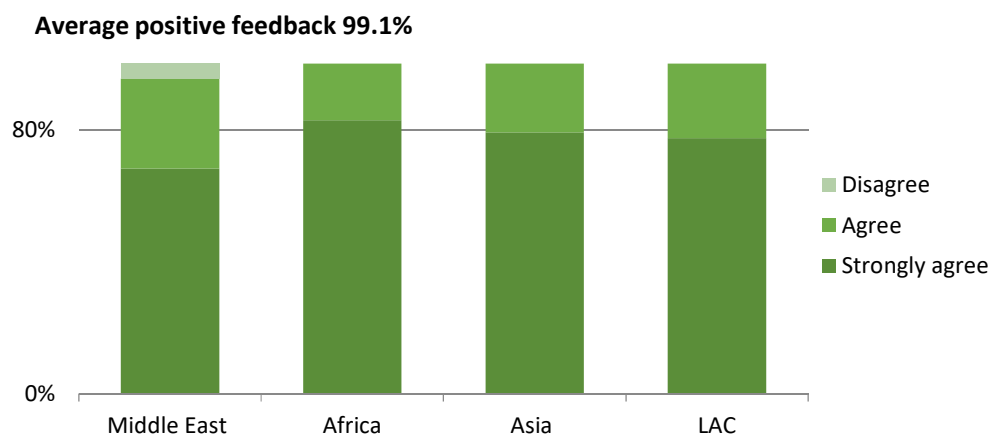
Figure 4.10 I would recommend this training course to other early career women

REGION	STRONGLY AGREE	AGREE	DISAGREE	TOTAL
MIDDLE EAST	68.2%	27.3%	4.5%	100.0%
AFRICA	82.8%	17.2%	0.0%	100.0%
ASIA	79.2%	20.8%	0.0%	100.0%
LAC	77.4%	22.6%	0.0%	100.0%
TOTAL	**77.4%**	**21.7%**	**0.9%**	**100.0%**

Table 4.4 I would recommend this training course to other early career women

Average positive feedback 89.1%
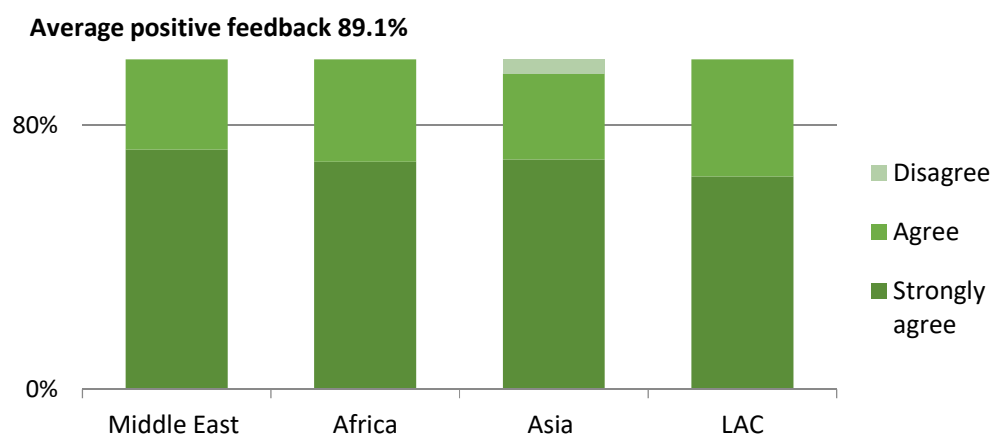
Figure 4.11 The course inspired me and gave me the tools to become more involved in disarmament

REGION	STRONGLY AGREE	AGREE	DISAGREE	TOTAL
MIDDLE EAST	72.7%	27.3%	0.0%	100.0%
AFRICA	69.0%	31.0%	0.0%	100.0%
ASIA	69.6%	26.1%	4.3%	100.0%
LAC	64.5%	35.5%	0.0%	100.0%
TOTAL	68.6%	30.5%	1.0%	100.0%

Table 4.5 The course inspired me and gave me the tools to become more involved in disarmament

Overall, what aspect of the training could be improved?
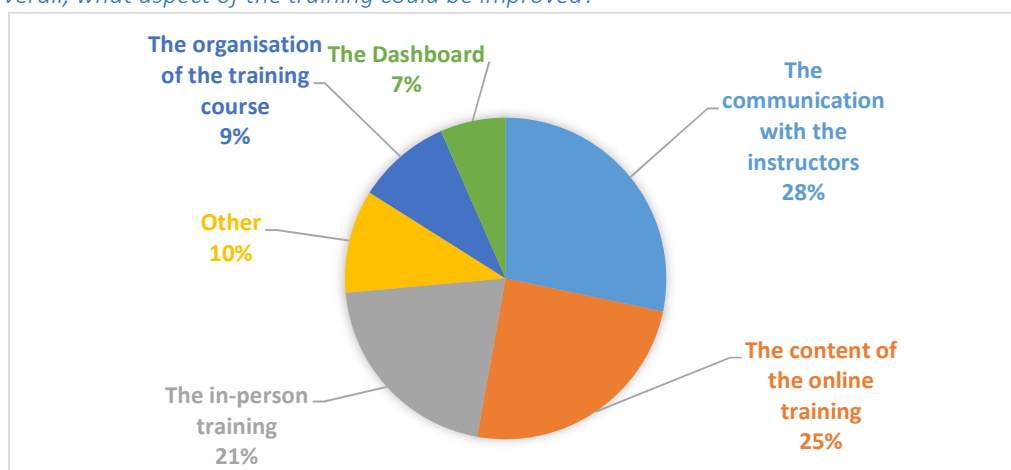
Figure 4.12 Aspects of the training to be improved

How could the organisation of the training course be improved?
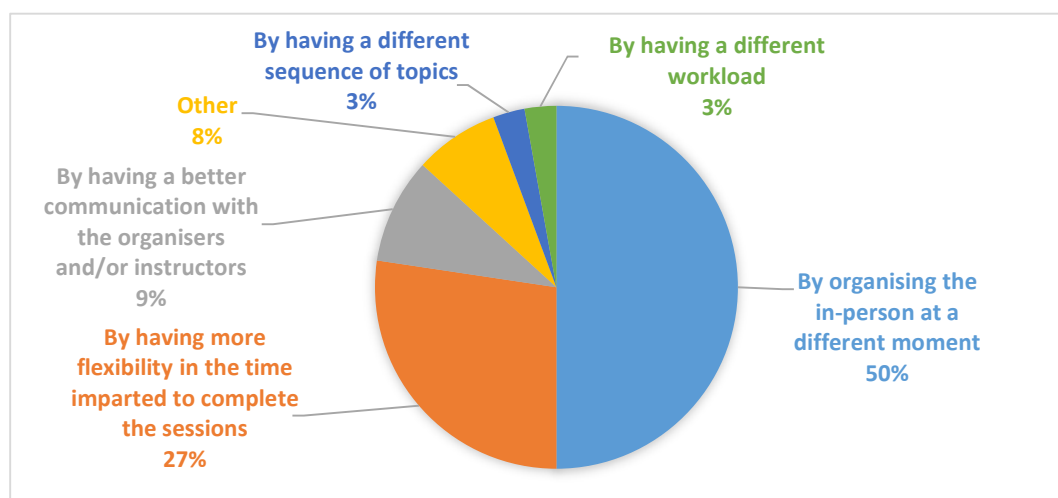
Figure 4.13 How could the organisation of the training course be improved

REGION	MIDDLE EAST	AFRICA	ASIA	LAC	TOTAL
BY ORGANISING THE IN-PERSON AT A DIFFERENT MOMENT OF THE TRAINING	55%	45%	46%	56%	**50%**
BY HAVING MORE FLEXIBILITY IN THE TIME IMPARTED TO COMPLETE THE SESSIONS	23%	31%	29%	25%	**27%**
BY HAVING A BETTER COMMUNICATION WITH THE ORGANISERS AND/OR INSTRUCTORS	14%	7%	8%	9%	**9%**
OTHER	9%	10%	4%	6%	**7%**
BY HAVING A DIFFERENT SEQUENCE OF TOPICS	0%	3%	4%	3%	**3%**
BY HAVING A DIFFERENT WORKLOAD	0%	3%	8%	0%	**3%**
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**

Table 4.6 How could the organisation of the training course be improved[1]

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[1] The in-person session was held in the second week of the course for the Middle East, Africa and Asia regions, for Latin America it was postponed to the fifth week for logistical reasons.
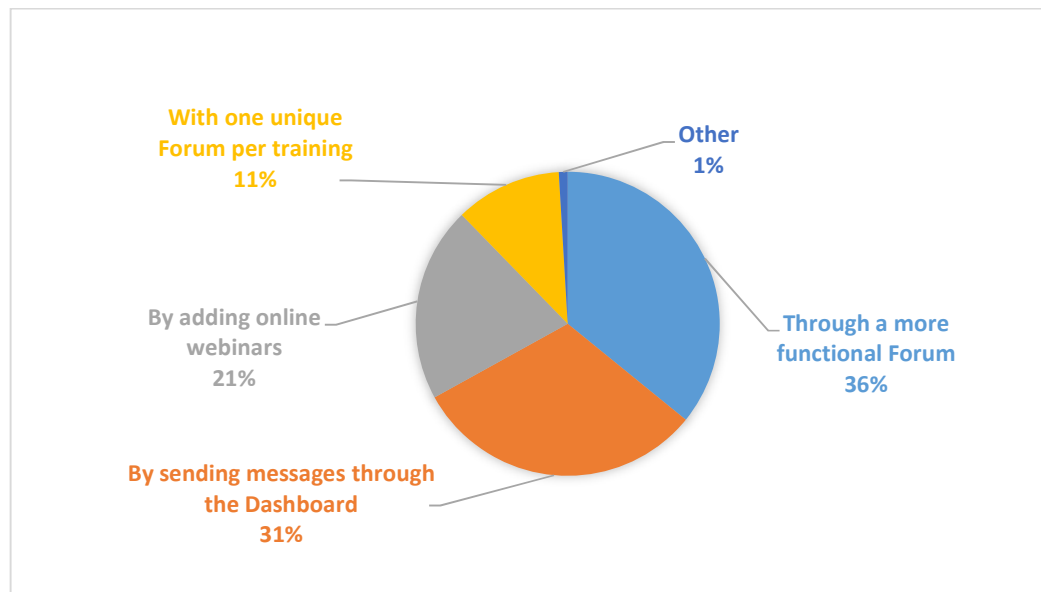
Figure 4.14 How the can the communication with the instructor be improved

Conclusion on Reaction

For all the analysed statements, the feedback is positive for more than 89% of respondents. Overall the satisfaction level on the training courses is positive with no significant variance among the four regions. Regarding how the organisation of the training course could be improved 50% of the respondents indicated the organisation of the in-person component in a different moment among the factors.

It could be therefore concluded that the reaction of participants to the programme was constructive. According to the proposed methodology the analysis proceeds onto the next stage on the scale, namely Learning.

Level 2. Learning:

The second stage of the analysis aims at evaluating if knowledge and skills have been acquired by the participants during the training. Indicators used to assess the learning include: the completion rate, namely how many participants completed at least 80% of the modules in course; the average grade of the participants who completed the course (calculated computing the arithmetical average of the grades of all the final exams); the success rate (namely the percentage of participants who reached an average grade of 80% out of 100% on the module final examinations).

These indicators have been calculated based on the data recorded on the online learning platform. Furthermore, as part of the final evaluation survey the participants were asked to

express their level of agreement regarding their satisfaction on the topics covered, to identify their favourite topic and to comment on the two learning modalities offered (in-person and online).

Completion rate

86%

of participants completed the course

Average grade

91%

Average grade of participants who completed the course
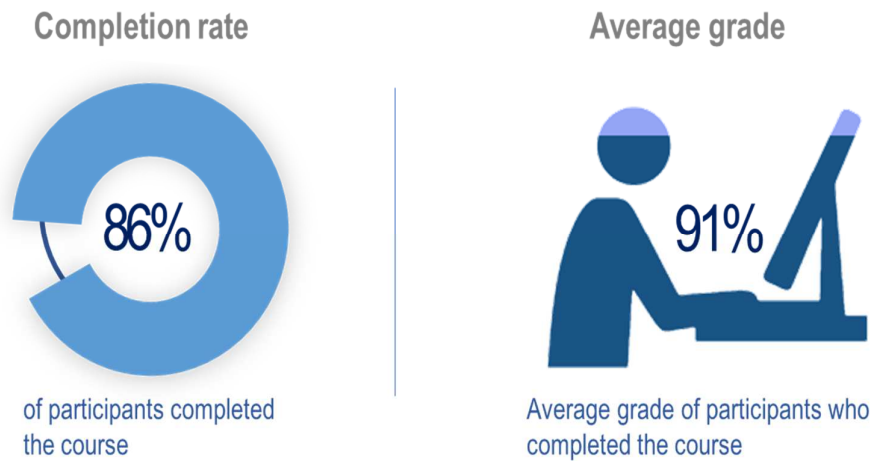
Figure 4.15 Completion rate and average grade of participants

Success rate and drop-out rate per region
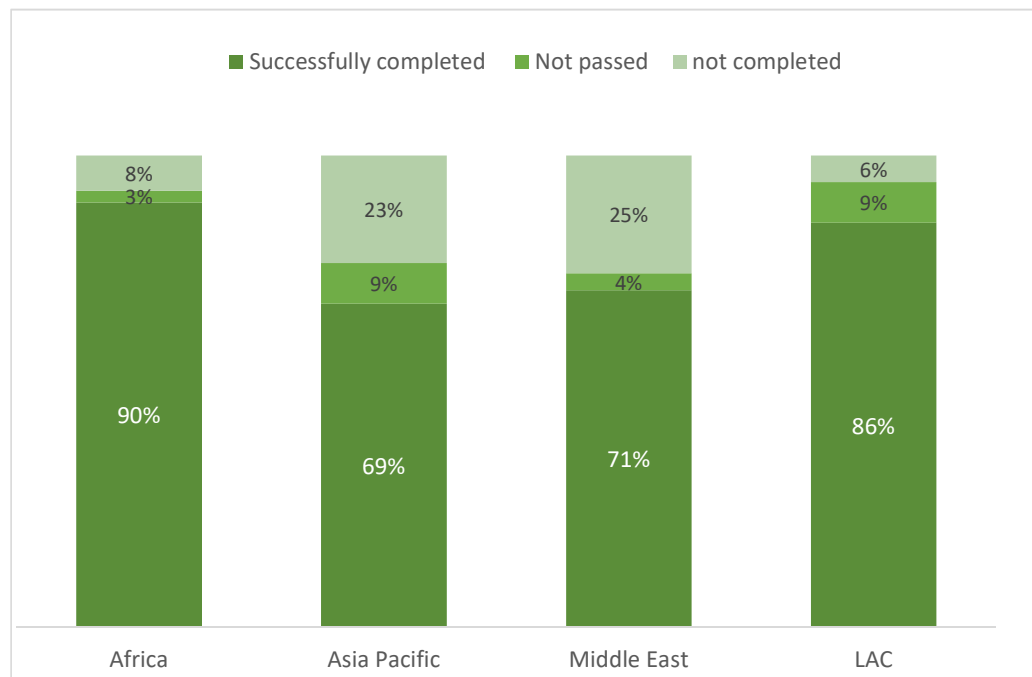
Figure 4.16 Success and drop-out rate per region

Figure 4.17 The contents of the Training Course covered all the aspects of I was interested in

The majority of alumni responses provided a positive feedback regarding the relevance of the substantive contents acquired through the participation in the initiatives. Topics rated as most relevant were Gender Issues followed by Disarmament and Development.

Which topic covered by the online training course was the most interesting
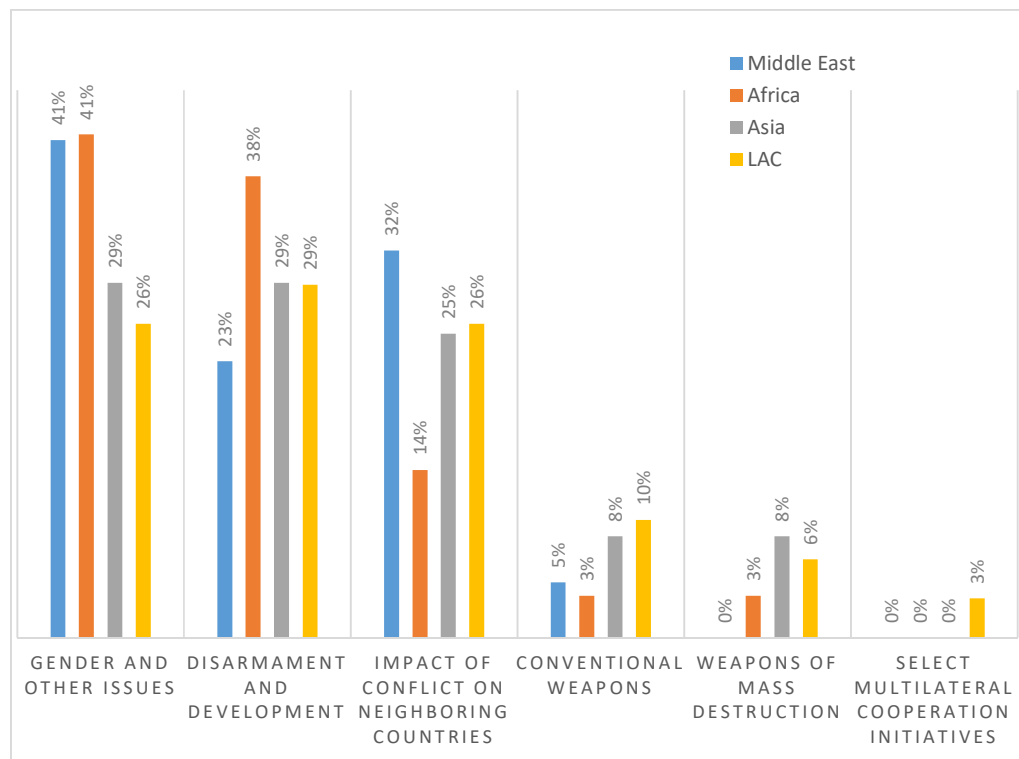
Figure 4.18 Preferred topic covered in the course
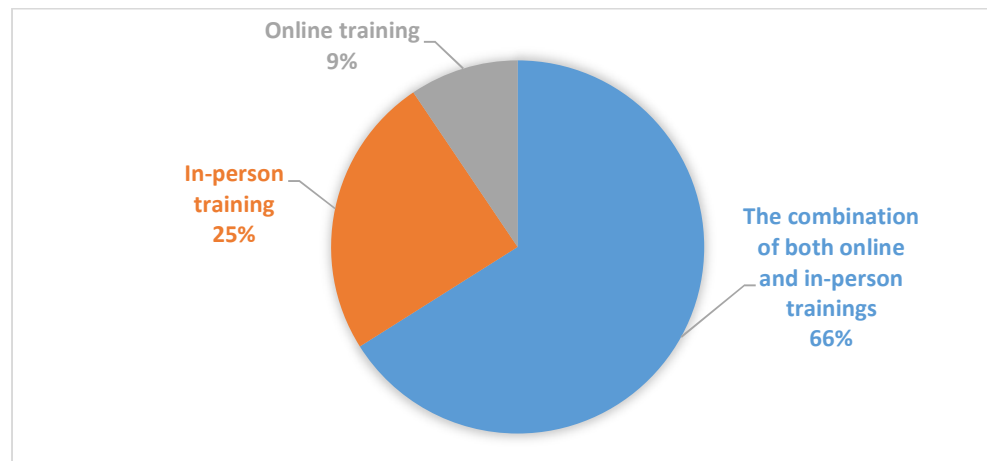
Figure 4.19 Most instructive modality according to participants

Conclusion on Learning

Overall all four training courses scored positively for the learning stage. The analysis of the indicators showed that the majority of the participants completed the course (86%). Jordan's (2015) study on 221 massive open online course provides a benchmark for online training courses competition rates, according to her findings completion rates vary from 0.7% to 52.1% of enrolled students. Among the factors analysed by Jordan, the length of the course resulted to be negatively correlated with the completion rate. We can therefore conclude that with its 86% completion rate, the WSP showed a positive response in terms of learning, especially in consideration of online component length. The course was considered generally complete in terms of topic covered. Gender was indicated as the most interesting topic of the course in all the four regions. Ranking of the other preferred topics varies across the courses. The combination of the online and in-person learning modalities appear to be a key for the success of this training programme. The high average grade obtained in the different exams shows that the knowledge was transferred successfully.

The above argument lead to conclude that the immersive and interactive experience of the dual modality WSP course demonstrated to be positive and effective in delivering the intended knowledge on disarmament and related issues to the participants, who also appreciated the mix of contents offered in the programme. Based on the analysis conducted in level one and two the WSP initiative proved to be implemented in an efficient manner, and demonstrated that participants acquired the expected knowledge on disarmament. According to the Kirkpatrick model, once the effectiveness of the training in delivery skills and knowledge has been assessed

it is possible to continue the evaluation into the following level which focus on understand the relevance of the acquired knowledge.

Level 3. Behaviour:

This section will illustrate the extent to which the programme was able to create the adequate conditions for a change, in particular how the WSP initiative has contributed to the capacity development of direct beneficiaries to participate in disarmament and non-proliferation activities. In particular, this level aims at researching if the knowledge and skills acquired through the programme have an impact back at work.

The data used to analyse this level includes questions referring to the relevance of the knowledge acquired. The first set of questions investigate the transferability of the knowledge to the working environment. These questions were asked both in general terms as well as in reference to each specific topic. The second part focuses on wheather the participants perceive their capacity to address DNP related issues improved after having completed the course. Replies to this question are also provided for the control group in reference to the last year. The comparative analysis shows that the non-selected applicants improved their knowledge in the field. However, an advantage for the alumni is evident.

I am regularly applying the knowledge gained with the scholarship in my professional life

Average positive feedback 93%
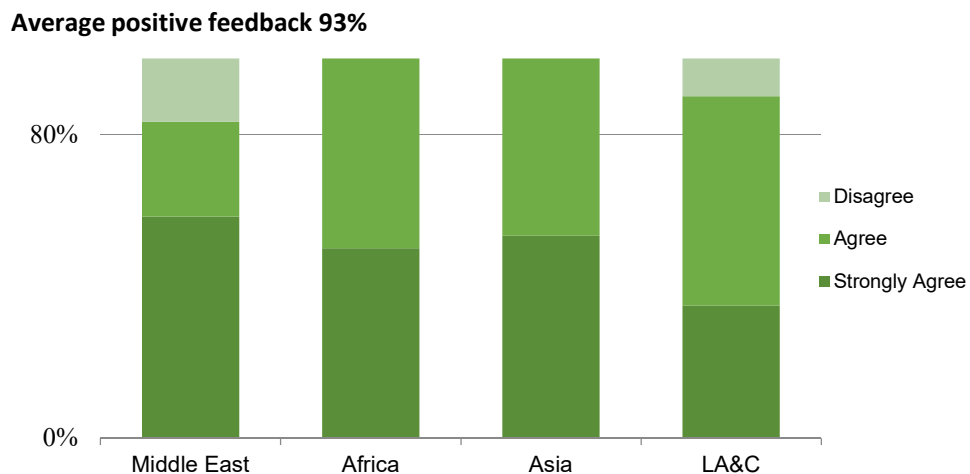
Figure 4.20: Alumni level of agreement with the statement I am regularly applying the knowledge gained with the scholarship during my professional life

Figure 4.21: "Alumni grade of relevance per topic covered during the course"

Overall, the majority of scholarship recipients in the four regions agreed that participating in the course was useful to enhance their capacity to address DNP related issues. In 97% of the cases the scholarship enhanced the capability of recipients to address DNP related issues.

The scholarship experience enhanced my capacity to address DNP issues

Average positive feedback 97%
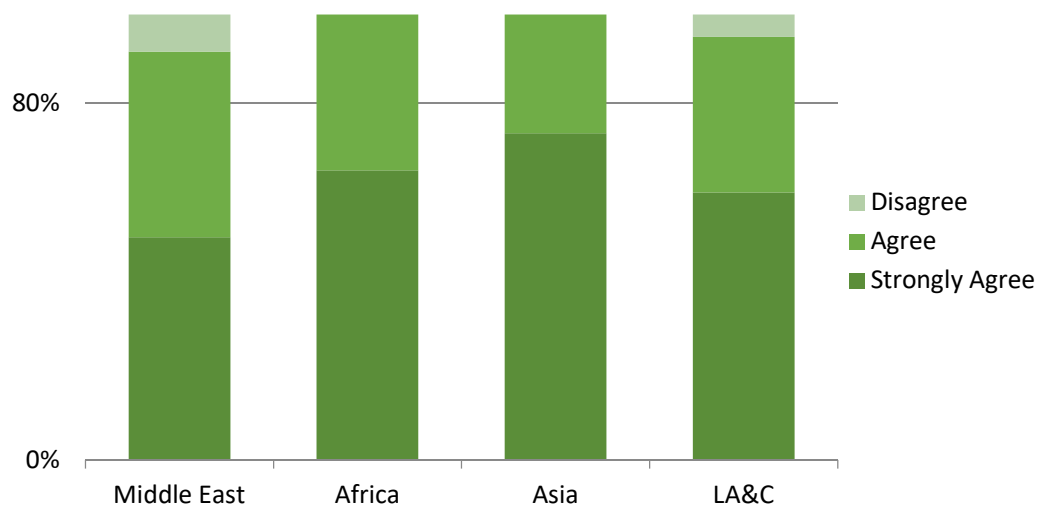
Figure 4.22 Alumni opinion on improvement in addressing DNP issues gained from the scholarship experience

To better understand the contribution of the WSP in improving the capacity of participants in addressing disarmament issues, the last analysis of this stage compares the result presented in Figure 22 on the progress in addressing disarmament for the alumni with those of the group of non-selected participants, who in the context of this study constitutes the control group. For the alumni group the question was asked in reference of the knowledge gained participating in the scholarship, for the non-selected applicants the question was asked in reference to the last year.

Figure 23 presents the result comparison between the two groups regarding their self-perception of the progress in their capacity in addressing disarmament issues achieved during the survey period.

The comparison between the two groups shows that 97% of participants agreed with the statement while for group of non-selected applicants the percentage of respondents agreeing is 74%. This leads to the conclusion that the perception of having improved their ability of addressing disarmament issues is 23% higher for the WSP alumni. The better performance of the alumni group is confirmed by difference between the mean value of the two groups.
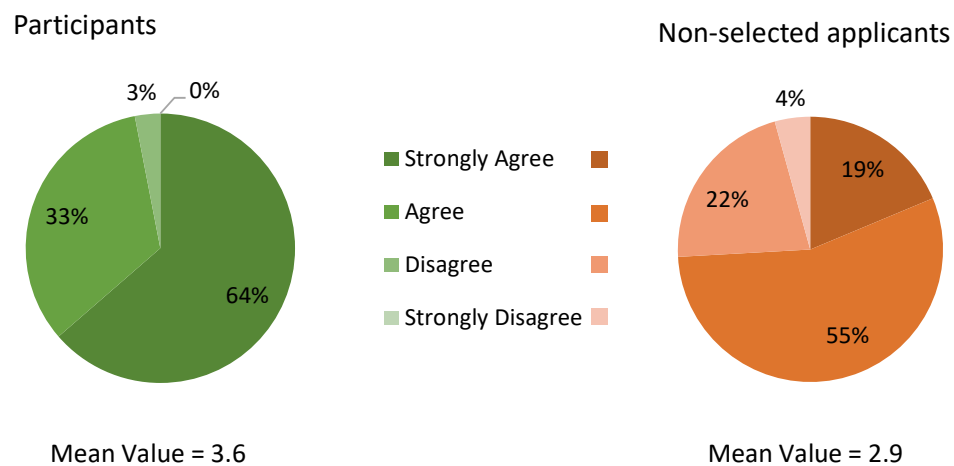
Figure 4.23 Comparison between participants and non-selected applicants on progress in addressing disarmament issues achieved during the survey period"

The Mann-Whitney Test for Two Independent Samples provided evidence of a statistically significant difference in the two groups. The final p-level < 0.05 lead to the decision to reject the null hypothesis that there is no difference between the ranks of the two samples (see Appendix D for details)

The previous level of the analysis showed that the WPS courses were successful in delivering knowledge and skill to the participants, the conclusion of this third level is that the acquired knowledge was considered relevant by the alumni and as argued by Kirkpatrick (1994) this level of evaluation is key to understand the effectiveness of a program. The immersive and interactive experience of the WSP course provided opportunities for participants to apply what they learn, ensuring a high-impact back at work with all topics considered having some degree of relevance for the majority of participants.

Particularly interesting is the comparison with the control group of non-selected applicants from which a statistically significant advantage emerges for those who took part in the course in their capacity of addressing disarmament issues. It could be therefore concluded that the programme was successful in reaching the intended objective of widening the skills of the scholarship recipients. The final level of analysis will explore if and how these skills could create conditions to facilitate progress toward a more gender balance disarmament.

Level 4. Result

The final stage of this evaluation aims at analysing if the WSP played any role in supporting women's empowerment in the field of disarmament by facilitating career progress for the young professional women who participated in the initiative. To improve understanding the impacts on participants which might be attributed to the training, data in this level of evaluation are presented comparing responses of the alumni and those on non-selected applicants. The difference between the performance of the two groups is considered in this study as an indicator of how successful the programme was in creating an added value for the participants.

First of all, the participation in the scholarship had a strong effect in enhancing the motivation and opportunity of the young professional women to connect to other professionals in similar fields and to become more active agents in the DNP field. Figure 24 shows the level of motivation of respondents to remain involved in the area of disarmament, the highest motivation of the alumni group is confirmed by difference between the mean value of the two groups.

Mean Value = 3.63   Mean Value = 3.04
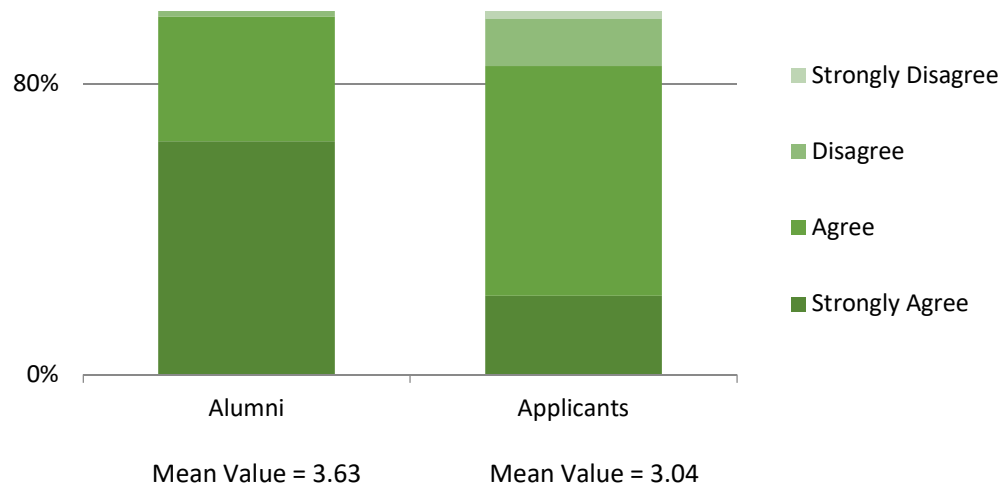
Figure 4.24 Comparison between alumni and applicants on motivation in remain involved in DNP issues during the survey period

The motivation of the young female professionals to be involved in the area of DNP is confirmed by the fact that a relevant share of the respondents in both the alumni and the applicant's group have taken follow-up actions in the DNP field during the evaluation period, although differences are evident in the specific actions taken. Also for this variable, the Mann-Whitney Test for Two Independent Samples provided evidence of a statistically significant difference in the two groups. In particular referring to the alumni group, the percentage of those who showed concrete interest and involvement in the field of disarmament and non-proliferation by having taken a concrete action to engage is 90%. Figure 25 shows the different in term of engagement between the two groups in the survey period. It provides an overview on which percentage of the sample indicated to have taken concrete action to stay involved in in the field.

The chart in figure 26 presents the details of the actions taken by the scholarship recipients after having completed the training course. The majority of them (60%) have kept contacts with their fellow alumni, thus confirming the effectiveness of the initiatives to facilitate the creation of a network of young professional women interested in DNP and development. Having personal relations appears to be relevant for the majority of the alumni.
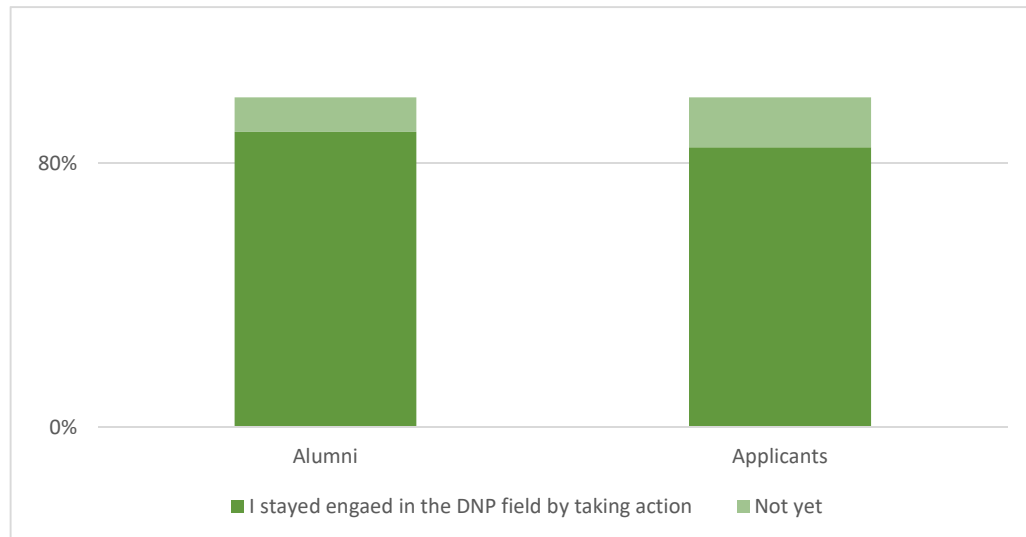
Figure 4.25 Engagement in the DNP field in the survey period taking concrete action
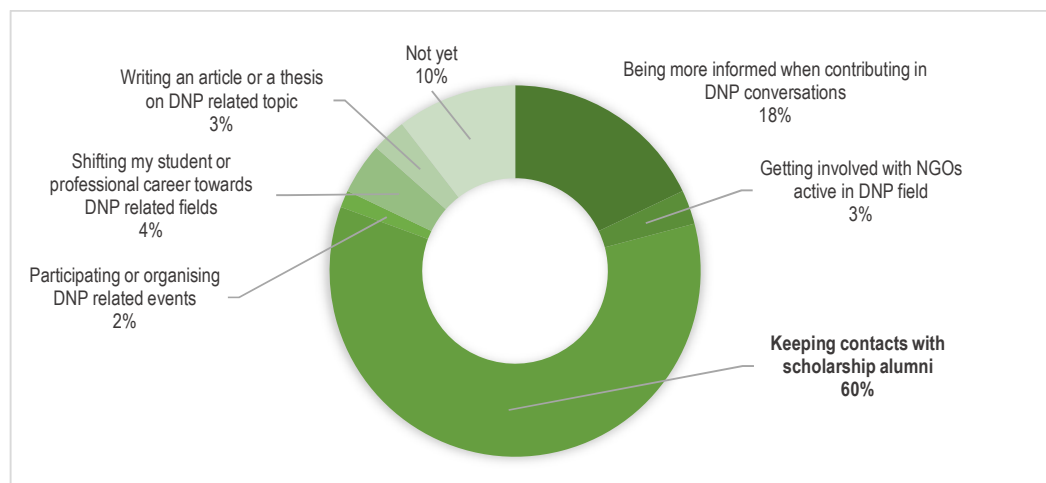
Figure 4.26 Follow-up actions in DNP field taken by the alumni as a percentage of total responses

With regards to the expansion of the network of contacts in the DNP fields, the alumni could benefit from their participation in the training course as shown by the below comparison. By comparing the mean value of the two groups evidence that the participating in the WSP created added value in terms to networking for those who were part of the programme. The Mann-Whitney Test for Two Independent Samples confirmed a statistically significant difference in the between alumni and applicants for this variable.

I expanded my network within the field of disarmament and non-proliferation in the survey period:

Alumni

11% — 0%

42%

47%

Mean Value = 2.31

- ■ Strongly Agree
- ■ Agree
- ■ Disagree
- ■ Strongly Disagree

Applicants

8% 14%

43% 35%

Mean Value = 2.56
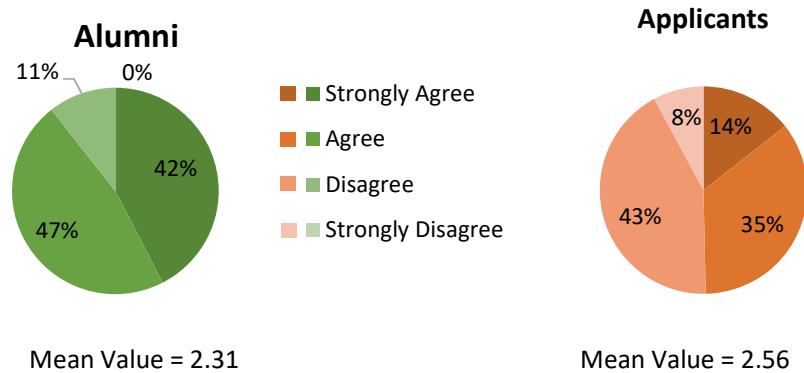
Figure 27 Comparison between alumni and applicants on the extension of their network of contacts in in DNP field during the survey period

The survey also addressed the effect of attending one of the training courses on career development. Respondents have been asked to indicate their current occupational status choosing between a set of given options including: employed, student, intern, searching, and other. Comparing replies from the two groups, highlighted that in all four regions the percentage of individuals employed is higher amongst alumni's.
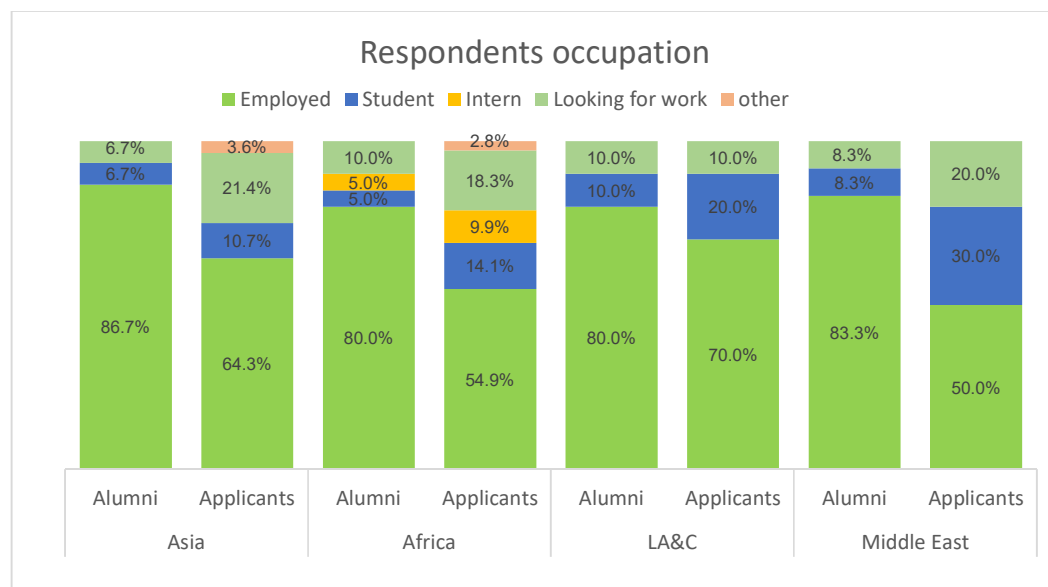
Figure 4.28 Occupational status of respondents per region

The chart in figure 29 provides details regarding the area of work of the respondents. More than 70% of the alumni indicated that their occupation is either strongly related or related to DNP. This percentage is 18% lower for the control group, for which the percentage of professionals

working in DNP related fields is 53%. The comparison of the mean value between the two groups confirms this finding.

Occupation in DNP related field

Figure 4.29 Relationship with the DNP field of the respondent occupation, per group

Mean Value = 2.97   Mean Value = 2.51
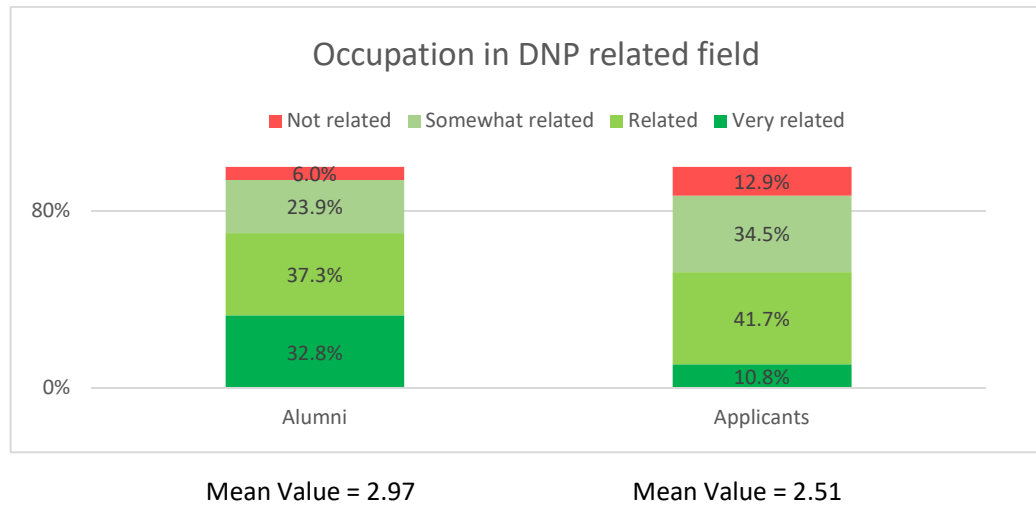
Figure 4.29 Relationship with the DNP field of the respondent occupation, per group

Further, based on the replies of the two groups it might be concluded that the participation in the training courses played a role in increasing the access to career opportunities in the DNP field for participants.

I gain access to career opportunities within the DNP field in the survey period

Mean Value = 3.60   Mean Value = 2.88
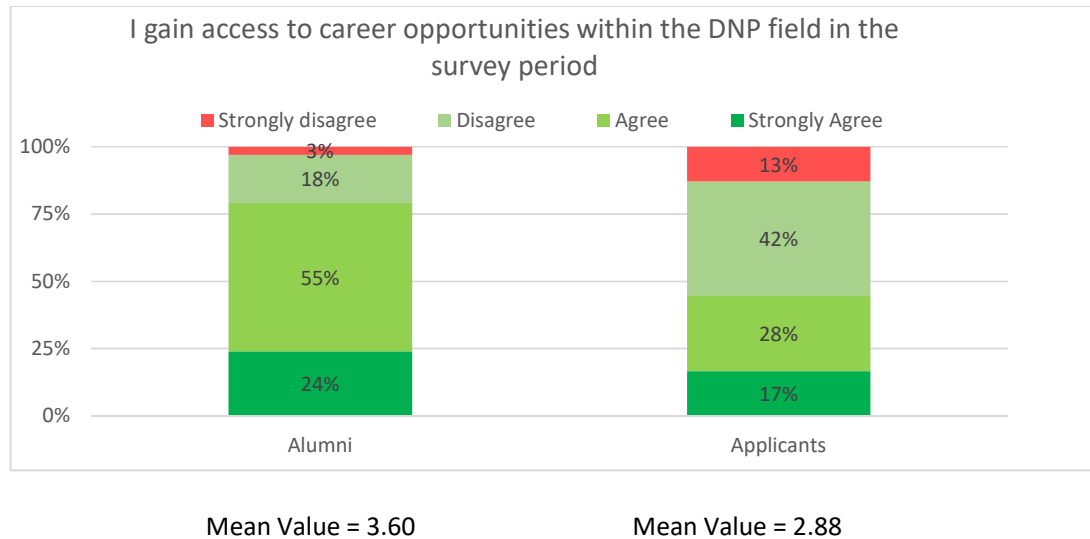
Figure 4.30 Progress in accessing to career opportunity in DNP field of the respondent during the survey period per group

For data in figure 4.29 and 4.30 the Mann-Whitney Test for Two Independent Samples provided evidence of a statistically significant difference in the two samples.

The final section of the analysis provides an insight into the applicants' plans for future involvement within the field of disarmament and non-proliferation.

It was asked of the applicants to choose from a set of options how they intend to stay involved in the field of disarmament and non-proliferation in the future. Respondents could select more than one answer.

Based on the survey:

- 96,4% of respondents would be interested in applying again for the Women Scholarship for Peace or similar programs if available
- 99,3% of them plan to stay informed about latest developments in the field
- 91,4% expressed desire to pursue a professional career in DNP
- 85,5% consider raising attention for the field with the help of media or activism
- 82% want to dedicate their career to academic research on the topic

Conclusion on Stage 4 Results

The results of the impact assessment lead to conclude that the young professional women from the Global South who have participated in the WSP initiative are professionally more involved in the field of disarmament and non-proliferation than their equals who were not selected for the program.

Summary key findings on the case study

A four stage analysis based on the Kirchpatrick model for training course evaluation was conducted on the WSP also comparing participants achievements with a control group. The results of the evaluation were positive for all the four levels.

- Almost all alumni taking part in the survey (97%) agreed that their substantive knowledge on DNP issues increased after participating in the training course
- 90% of the alumni in the sample have expanded their network in the DNP field since completing the scholarship
- The scholarship was rated as useful to access career opportunities within the DNP field by 79% of respondents

The analysis of the data showed that young professionals who participated to the initiative currently have a higher employment rate (82%) than the women who applied for the program but did not had the chance to take part in it (54%). Concerning their field of employment, 69% of the women who participated in the WSP indicated that their current

occupation is related to the field of disarmament and non-proliferation, while this percentage is only 51% of the women who were not selected.

Figure 31 provides a summary overview on three key indicators: knowledge transferred (capacity), networking and career progress. Detailed data on these indicators have been previously presented in figures 23, 27 and 30.
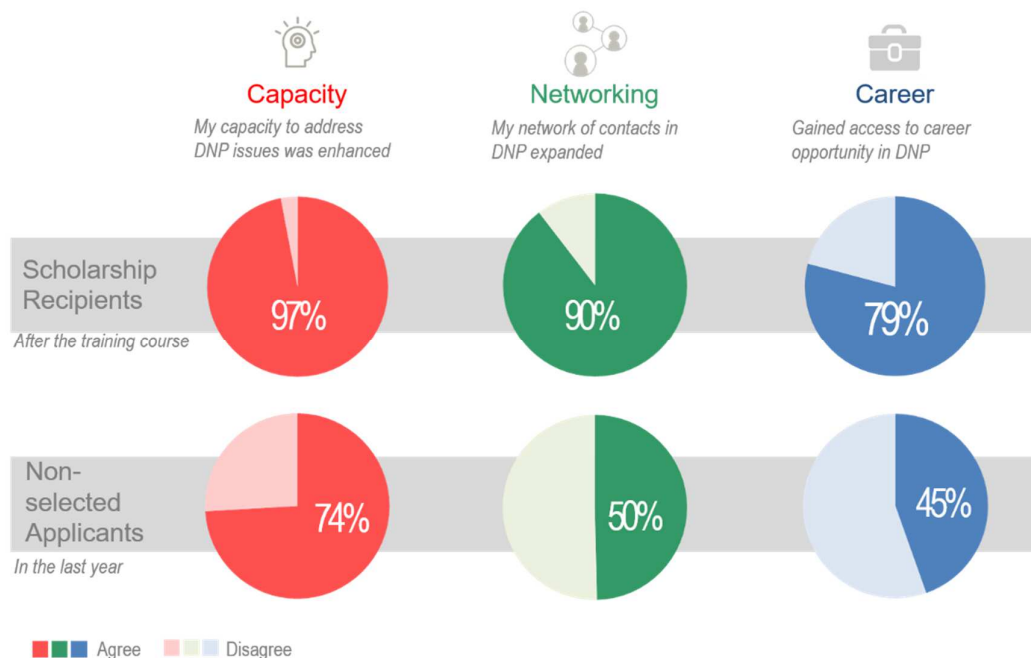
Figure 4.31 Key findings and group comparison

Comparing the summary statistics for the two groups, the most significant advantages gained by the alumni in comparison to the applicants group are related to:

- the expansion of their network of contacts within the field, with positive replies 40% being higher in the alumni group
- the increase in the level of knowledge and skills gained, with positive replies being 23% higher in the alumni group
- the boost in career opportunities, with positive replies been 34% higher in the alumni group

The Mann-Whitney Test for Two Independent Samples provided evidence of a statistically significant difference in the two groups. The final p-level < 0.05 lead to the decision to reject the null hypothesis that there is no difference between the ranks of the two samples (see annex D for details).

Clearly, there is the high level of motivation to remain involved in the DNP field shared by the significant majority of respondents in both groups:

- 99% of the alumni stated that the scholarship experience motivated them to become more involved in the field in the future
- Over 80% of the non-selected women replied positively about the intention to take a number of actions to stay involved in the field, including the interest in applying again for a similar scholarship opportunity when available.

This last finding confirms the relevance of the initiative in creating adequate conditions for a change, in addition the high rate of demand for training programme on disarmament and non-proliferation proves the interest for this kind of capacity building projects.

Participants gain relevant knowledge about the disarmament process, the international discourse, normative framework and analytical thinking for meaningful engagement in the field.

Investing resources and efforts into capacity building initiatives is likely to generate a direct impact on participants as well as a far-reaching change in the male dominated fields such as the disarmament and non-proliferation one.

5. Conclusions

This final chapter consists of a conclusion of overall results, general limitations of this study and suggestions for further research.

5.1. Summary

There is wide recognition that the equal full and effective participation of both men and women is not only a matter of human rights but also a crucial driver to foster sustainable development.

The adoption of the Sustainable Development Goals (SDGs) in 2015 was a landmark accomplishment for the international community. The 17 SDGs present a roadmap to address the emerging global challenges to humanity and raise social and economic development. Furthermore, they emphasise the interlinked nature across these challenges. It is not possible to achieve concrete progress under one goal without a coordinated action on other goals (Leal Filho et al., 2018). While important in many respects, the SDGs provide a point of entry for the gender and development linkage. Achieving gender equality and women's empowerment is integral to progress in all 17 goals. More generally, empowering women, thus providing equal opportunities to participate in the private and public sphere, would contribute to foster sustainable development and benefits for current and future generation. (Klasen, 1999, Woetzel, 2015 and Duflo, 2012)

In addition, women's participation and empowerment are crucial components also for the maintenance of international peace and security. Women have an important role to play around decision-making tables bringing a different perspective into the discussion. Promotion of the role of women in international peace and security, especially in political decision-making and peace processes, has been embedded in Security Council resolution 1325 (UN, 2000). The women peace and security (WSP) agenda has supported the whole of the UN system to undertake efforts to better integrate women as 'agents of change' in all peace and security processes.

The broader issue of disarmament and development is also significant in this context. Disarmament can create an environment conducive to development and vice versa. Progress in the disarmament agenda contributes to maintain peace, promote social progress and development and as consequence to the attainment of full equality between men and women. Concluding, women empowerment, sustainable development and peace are linked by a powerful synergic relationship.

Unfortunately, despite progress achieved in the last decades, gender equality in far from been reached and disparities between men and women remain significant across several dimensions (Kilgour, 2007). In particular, many obstacles and challenges still persist in the full implementation of the WPS agenda. Data shows that women participation in peace negotiations and international discussions is still very low (UN Women, 2012). Disarmament is still a male dominated field.

Several interacting factors contribute to perpetuate gender gap in the disarmament field. Most relevant ones being the general women underrepresentation in the public sphere, and strong widespread gender stereotypes on women and weapons (Williams, 2015). The combination on these factors sustain the resistance of government and international bodies in considering women adequate to take decisions in this field.

In the effort of improving gender equality in the field the Office for Disarmament Affairs of the United Nations launched the Woman Scholarship for Peace (WSP). The WSP was capacity building programme targeting young professional women from global south. It aimed at providing skills and knowledge through blended online and in-person education. WSP dual objectives included women empowerment (to be achieved by increasing participant knowledge) and a participation boosting (by facilitating access to career opportunities in the field).

The main objective of this essay has been to examine how the WSP was effective in achieving its intended goals. Specifically, this study attempted to answer the following research questions:

1   How successful was the Women Scholarship for Peace initiative, analysed as a case study, in delivering relevant knowledge and skills to the women participating in the training courses thus enhancing their capacity to address disarmament issues?

2   Is there a correlation between attending the training courses offered under the Women Scholarship for Peace initiative and gaining access to career opportunities in the field?

Overall, the analysis suggested that the four regional WSP courses delivered knowledge on disarmament to the participants which was considered relevant by the learners who are applying it in the professional context on regular basis. Participating in the WSP program positively affected participants capacity to address the subject matter issues.

Regarding the second research question, the results uncovered statistically significant differences in the career progress between WSP participants and non-selected applicants. The course facilitated the creation of a network of young professional women engaged in DNP and improved access to career opportunities in the field.

The Mann-Whitney Test for Two Independent Samples provided evidence of a statistically significant difference in the two groups. For all the tests conducted the final p-level < 0.05 lead to the decision to reject the null hypothesis that there is no difference between the ranks of the two samples (see annex D for details). Although, the limitations of the study, explained in the next section, prevent to identify a direct correlation among the variables.

Limitations of the study

The most obvious limitation of the present study is the reliance on quantitative methodology of data collection. In addition, the sample for the control group comprised only 139 respondents. The proportion of the population represented by the sample is small, a larger sample size would be more appropriate to guarantee a meaningful generalization of the findings.

Furthermore, qualitative data should be used to enlarge quantitative data to understand how different variables interacted with the participation in WSP and affected the sample. Qualitative methods would provide in-depth and detailed information of participants' background, perceptions, motivations, experiences, behaviours and responses. The use of mixed methodology would maximise the strength of results. Most commonly used qualitative research methods includes interview, group interview and focus group. However individual interview allows participants to express their point of view with less restrictions and without the influence of other participants that may shape a person's responses (Baxter & Babbie, 2004). The individual interviews also tend to be more culturally sensitive. Given the context of this study therefore, individual phone interview would be the most suitable survey tool recommend as qualitative methodology of data collection to provide wider perspective to the analysis.

In addition, though the Kirpatrick methodology (1994) adopted for evaluating the WSP showed validity, additional stages of analysis would be required for a deeper evaluation of programmes aimed at creating condition for change in gender parity. As described by Schmidt and Cacace's (2017), in this context it would be relevant to analyse the specific impact areas reached to actually facilitate a change, such as how women's leadership was strengthened or how a women-friendly environment was encouraged. Additional qualitative data would be necessary to conduct this level of analysis. Lastly, future research should try to further establish the potential impacts in term of transferability of the programme, analysing conditions to successfully implement the programme in different settings (Schmidt and Cacace's, 2017).

5.2. Contribution to knowledge

To improve gender equality in disarmament we need policies and measures that address reasons behind women under representation in this field, namely participation of women in the public sphere and gender stereotypes on women capacity to address DNP issues.

Based on the evaluation conducted in this study, the WSP was effective to impart knowledge and skills to young women participants. The delivered education equipped them to make their contribution in disarmament and non-proliferation, as it empowered them to actively engage in informed discussions and disarmament activities.

In addition, the WSP opened people-to-people channels and partnerships. A relevant finding from this study is that the most common follow up action taken by the participants in the WSP was to remain in contact with other women from the training course.

In "The Power of Informal Mentoring" Bynum (2015) describes the numerous benefits of mentoring. She emphasizes how this support can be particularly relevant for women, as the lack of mentoring has been identified as one of the main factors preventing women to achieve advancement in leadership positions.

Bynum (2015) defines peer mentoring as a mentoring relationship where the two parts have similar seniority and age characteristics. Interactions and connections between peer colleagues contribute to build mutual mentoring relationships in which the parts provide each other emotional support and professional advices. According to Bynum (2015) mentoring relationships increase chances for women to achieve career progress thus contributing to improving the gender gap.

The informal network formed among WSP participants has the potential to evolve into a peer mentoring relationship. Therefore it might play a role in promoting women's full and effective participation in the field of disarmament and development.

The major recommendation from this study is that investing in training courses and scholarship opportunities targeted to women in peace and security have the potential to improve gender equality in two directions. First contributing to women's education, providing tools and direction to building women's capacities in male-dominated positions. Second facilitating the creating of peer mentoring relationship to developing women as leaders in arms control and disarmament.

By fostering women empowerment and partcipation this measures will increase disarmament effectiveness and productivity. More women will bring different perspectives and solutions and unlock new resources to strengthen peace efforts and sustainable development.

Appendix

Appendix A: Final Evaluation Questionnaire

1. The training course fulfilled my expectations:
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

2. The Dashboard is user friendly and I found my way easily:
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

3. The training course was solution and practice oriented:
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

4. I used the UNODA Resources for Learning:
   - ☐ Yes, often
   - ☐ Yes, a few times
   - ☐ No

5. I would recommend this training course to other early career women:
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

6. I used the Disarmament Basic Guide:
   - ☐ Yes, often
   - ☐ Yes, a few times
   - ☐ No

7. The workload of the online sessions was adapted to the time imparted.
   - ☐ Yes
   - ☐ No, there was too much work
   - ☐ No, there was not enough work
   - ☐ It depends on the session

8. I used the Yearbook 2015 Resolutions:
   - ☐ Yes, often
   - ☐ Yes, a few times
   - ☐ No

9. The training course inspired me and gave me the tools to become more involved in Disarmament and Non-Proliferation and development-related fields:
   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

10. I used the Yearbook 2015 Multilateral Issues:
- ☐ Yes, often
- ☐ Yes, a few times
- ☐ No

11. I used the Disarmament Treaties Book:
- ☐ Yes, often
- ☐ Yes, a few times
- ☐ No

12. Which modality of training course was most instructive?
- ☐ Online training
- ☐ In-person training
- ☐ The combination of both online and in-person training

13. Overall, what aspects of the training could be improved?
- ☐ The content of the online training
- ☐ The Dashboard
- ☐ The in-person training
- ☐ The communication with the instructors
- ☐ The organisation of the course
- ☐ Other

14. I used the Disarmament Reference Library:
- ☐ Yes, often
- ☐ Yes, a few times
- ☐ No

15. Which topic covered by the training course was the most interesting?
- ☐ Select multilateral Cooperation initiatives
- ☐ Impact of conflict on neighbouring countries
- ☐ Conventional weapons
- ☐ Weapons of mass destruction
- ☐ Gender and other issues impacting security
- ☐ Disarmament and development

16. The curriculum was useful and clear:
- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly disagree

17. How did you hear about this scholarship opportunity?
- ☐ UN newsletter or website
- ☐ Other newsletter
- ☐ Friend referral
- ☐ Social media
- ☐ Other

18. The number of modules per week was adequate:
- ☐ Yes
- ☐ No, there was too many modules
- ☐ No, there was not enough modules
- ☐ It depends on the session

19. The content of the training course:
- ☐ Covered all the aspects of DNP and development-related issues I was interested in
- ☐ Did not cover enough topics ; some topics I expected to learn were missing

☐ Was too detailed compared to my interests
☐ It depends on the topic

20. The language used in the training course:
    ☐ Was clear and understandable
    ☐ Was too technical
    ☐ Was not adapted to my overall level of English
    ☐ Other

21. The online instructor had an adequate level of knowledge on the topics:
    ☐ Strongly agree
    ☐ Agree
    ☐ Disagree
    ☐ Strongly disagree

22. How could the organisation of the training course be improved?
    ☐ By organising the in-person at a different moment of the training (at the beginning, right in the middle or the end)
    ☐ By having more flexibility in the time imparted to complete the sessions
    ☐ By having a different sequence of topics
    ☐ By having a different workload
    ☐ By having a better communication with the organisers and/or instructors
    ☐ Other

23. The CV of instructors were useful and clear:
    ☐ Strongly agree
    ☐ Agree
    ☐ Disagree
    ☐ Strongly disagree

24. I would like to stay informed about upcoming opportunities and training courses:
    ☐ Yes, by email
    ☐ Yes, through social media
    ☐ Yes, through the DNP Education website
    ☐ No

25. The online instructors were available and active throughout the training course:
    ☐ Strongly agree
    ☐ Agree
    ☐ Disagree
    ☐ Strongly disagree

26. The training course guidelines were useful and clear:
    ☐ Strongly agree
    ☐ Agree
    ☐ Disagree
    ☐ Strongly disagree

27. The syllabuses were useful and clear:
    ☐ Strongly agree
    ☐ Agree
    ☐ Disagree
    ☐ Strongly disagree

28. In which way could the communication between instructors and participants be improved?
    ☐ Through a more functional Forum
    ☐ By sending emails/private messages through the Dashboard directly
    ☐ With one unique Forum per training course, instead of one by topic

☐ By adding online webinars to the course
☐ Other

29. The in-person instructor had an adequate level of knowledge on the topics:
☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree

30. How can the layout of the Dashboard be improved?
☐ With different colours
☐ With different pictures
☐ With a different structure/logic
☐ With a different font
☐ There is no need to improve the layout of the Dashboard
☐ Other

1. Birth date
   Month Day Year

2. Country or territory of current nationality

3. I participated in
   Women Scholarship for Peace Training course
   Women Higher Education for Peace: Vienna Forum
   Both

4. What is your current occupation?
   Student
   Intern
   Employed
   Looking for work
   Other _____ please specify

5. My current occupation is in a DNP related field
   Strongly agree
   Agree
   Disagree
   Strongly disagree

6. The scholarship was helpful in accessing career opportunities within the DNP field
   Strongly agree
   Agree
   Disagree
   Strongly disagree

7. I am regularly applying the knowledge gained with the scholarship in my professional/student life
   Strongly agree
   Agree
   Disagree
   Strongly disagree

8. The scholarship experience enhanced my capacity to address disarmament and non-proliferation issues
   Strongly agree
   Agree
   Disagree
   Strongly disagree

9. Please rate the relevance of each topic to your professional life or study

	Not relevant	somehow relevant	relevant	very relevant
Disarmament and development				

Weapons of mass destruction				
Gender and other issues				
Impact of conflict on neighbouring countries				
Select multilateral cooperation initiatives				
Conventional weapons				

10. The scholarship was useful to expand my network of contacts within the field of Disarmament and Non-Proliferation
    Strongly agree
    Agree
    Disagree
    Strongly disagree

11. The scholarship experience motivated me to become more involved in DNP issues
    Strongly agree
    Agree
    Disagree
    Strongly disagree

12. Since completing the scholarship, I have taken action in the DNP field: (more than one reply possible)
    Shifting my student or professional career towards DNP related fields
    Writing an article or a thesis on DNP related topic
    Participating or organising DNP related events
    Getting involved with NGOs active in DNP field
    Being more informed when contributing in DNP conversations
    Keeping contacts with scholarship alumni
    Yet to be decided
    Other _____ please specify

13. Please provide more details on the actions you took (title of the article or thesis, details on the events… etc)

14. Do you have any recommendation or other comments you would like to share?

Appendix C: Impact Survey Questionnaire Non selected Applicants

Motivation and Expectations

1. **What was your motivation to apply for the Women Scholarship for Peace (WSP)? 1= least important, 5= most important ***

	1	2	3	4	5
Affordability of the program					
Interest in the field of disarmament and non-proliferation					
Future prospects in your career in the field of disarmament and non-proliferation					
Increasing career opportunities in general					
Participating in a program that aims to empower women					

2. **What were your expectations from the program? 1= least important, 5= most important ***

	1	2	3	4	5
To increase my knowledge in the field of disarmament and non-proliferation					
To improve my skills to address disarmament and non-proliferation issues					
To expand my network of contacts within the field of disarmament and non-proliferation					
To gain access to career opportunities within the field of disarmament and non-proliferation					

Occupation

3. **What is your current occupation? ***

	Student
	Intern
	Employed
	Looking for a job
	Other:

4. **My current occupation is in a field related to disarmament and non-proliferation: ***

	Strongly agree
	Agree
	Disagree
	Strongly disagree

Continued involvement

5. **In the past year I continued to: ***

	Strongly agree	Agree	Disagree	Strongly disagree
Increase my knowledge on issues related to disarmament and non-proliferation				
Improve my capacity to address disarmament and non-proliferation issues				

Expand my network of contacts within the field of disarmament and non-proliferation				
Gain access to career opportunities within the field of disarmament and non-proliferation				
Participate in other educational initiatives related to disarmament and non-proliferation				

6. **In the past year I have taken following actions in the field of disarmament and non-proliferation: ***

	Pursuing my student or professional career in fields related to disarmament and non-proliferation
	Writing an article or a thesis on a topic related to disarmament and non-proliferation
	Improved my capacity to address disarmament and non-proliferation issues:
	Participating or organising disarmament and non-proliferation related events
	Getting involved with NGOs active in the field of disarmament and non-proliferation
	Being more informed when contributing in conversations concerning disarmament and non-proliferation
	Keep following the Disarmament and Non-proliferation Education Partnership via social media and/or visiting their website
	Yet to be decided
	Other:

7. **Please provide more details on the actions you have taken (title of the article or thesis, details on the events… etc.) ***

8. **Are you currently involved in any activities related to the field of disarmament and non-proliferation? ***

	Yes, on full-time basis
	Yes, on part-time/project basis
	Yes, on occasional basis
	No

Future involvement and sociodemographic information

9. **In order to stay involved with the field of disarmament and non-proliferation in the future, I intend to: ***

	Strongly agree	Agree	Disagree	Strongly disagree
Apply again for the Women Scholarship for Peace or similar programs				
Get involved in the field of disarmament and non-proliferation professionally				
Do research in the field of disarmament and non-proliferation				

Stay informed about developments and news in the field				
Try to raise attention for the field and related issues (f.e. by publishing an article or activism)				

10. Date of Birth *

11. Country or territory of your current nationality *

12. Please indicate your marital status *

	Married
	Widowed
	Single
	Divorced
	Other:

Appendix D: Summary statistics tables and sample tests

I accessed career opportunities within the DNP field in the survey period

SUMMARY			Hyp Mean Diff	0
Groups	*Count*	***Mean***	*Variance*	*Cohen d*
Alumni	67	**3**	0.545454545	
Applicants	139	**2.482014388**	0.845688666	
Pooled			0.748554098	0.598695646

T TEST: Equal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.128677	4.025476	204	4.01E-05	1.652357			yes	0.271272
Two Tail	0.128677	4.025476	204	8.01E-05	1.971661	0.264279	0.771693	yes	0.271272

T TEST: Unequal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.119269	4.342986	159.03012	1.25E-05	1.654492			yes	0.32562
Two Tail	0.119269	4.342986	159.03012	2.49E-05	1.974993	0.282429	0.753542	yes	0.32562

Mann-Whitney Test for Two Independent Samples

	Alumni	Applicants
count	67	139
median	3	2
rank sum	8476.5	12844.5
U	3114.5	6198.5

	one tail		**two tail**
U	3114.5		
mean	4656.5		
std dev	380.4879	ties	
z-score	4.051377	yates	
effect r	0.282273		
p-norm	2.55E-05		5.09E-05
p-exact	5.04E-05		**0.000101**
p-simul	N/A	N/A	

My capacity to address DNP issues improved in the survey period

SUMMARY			Hyp Mean Diff		0	
Groups	*Count*	***Mean***	*Variance*		*Cohen d*	
Alumni	67	**3.597015**	0.304839439			
Applicants	139	**2.884892**	0.5663643			
Pooled			0.481753316		1.025988655	

T TEST: Equal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.103229	6.8984854	204	3.23782E-11	1.652357			yes	0.434918
Two Tail	0.103229	6.8984854	204	6.47564E-11	1.971661	0.508591	0.915655	yes	0.434918

T TEST: Unequal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.092868	7.66814517	171.4001978	6.23501E-13	1.653792			yes	0.505402
Two Tail	0.092868	7.66814517	171.4001978	1.247E-12	1.973901	0.528811	0.895434	yes	0.505402

Mann-Whitney Test for Two Independent Samples

	Alumni	Applicants
count	67	139
median	4	3
rank sum	9325.5	11995.5
U	2265.5	7047.5

	one tail	**two tail**
U	2265.5	
mean	4656.5	
std dev	368.6337615	ties
z-score	6.484756009	yates
effect r	0.45181436	
p-norm	4.44378E-11	8.88756E-11
p-exact	3.72248E-10	**7.44495E-10**
p-simul	N/A	N/A

My network of contacts within the field of DNP expanded in the survey period

SUMMARY			Hyp Mean Diff		0
Groups	*Count*	***Mean***	*Variance*	*Cohen d*	
Alumni	67	**3.31343284**	0.430574401		
Applicants	139	**2.56115108**	0.697320405		
Pooled			0.611020227	0.962393623	

T TEST: Equal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.116256	6.47088867	204	3.54898E-10	1.652357			yes	0.412676
Two Tail	0.116256	6.47088867	204	7.09795E-10	1.971661	0.523064	0.9815	yes	0.412676

T TEST: Unequal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.106973	7.03245917	162.037386	2.69406E-11	1.654312			yes	0.48357
Two Tail	0.106973	7.03245917	162.037386	5.38811E-11	1.974712	0.541041	0.963522	yes	0.48357

Mann-Whitney Test for Two Independent Samples

	Alumni	Applicants
count	67	139
median	3	2
rank sum	9197.5	12123.5
U	2393.5	6919.5

	one tail	two tail
U	2393.5	
mean	4656.5	
std dev	378.8748116	ties
z-score	5.971629495	yates
effect r	0.416063142	
p-norm	1.17448E-09	2.34896E-09
p-exact	3.24012E-09	**6.48024E-09**
p-simul	N/A	N/A

I was motivated to become more involved in DNP issues in the survey period

SUMMARY			Hyp Mean Diff		0	
Groups	*Count*	**Mean**	*Variance*		*Cohen d*	
Alumni	67	**3.62686567**	0.267752148			
Applicants	139	**3.04316547**	0.432905849			
Pooled			0.37947377		0.94754308	

T TEST: Equal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.091618	6.37103742	204	6.12434E-10	1.652357			yes	0.407372
Two Tail	0.091618	6.37103742	204	1.22487E-09	1.971661	0.403061	0.764339	yes	0.407372

T TEST: Unequal Variances				Alpha	0.05				
	std err	*t-stat*	*df*	*p-value*	*t-crit*	*lower*	*upper*	*sig*	*effect r*
One Tail	0.084325	6.92201779	161.9225038	4.93836E-11	1.654319			yes	0.47785
Two Tail	0.084325	6.92201779	161.9225038	9.87671E-11	1.974723	0.417181	0.750219	yes	0.47785

Mann-Whitney Test for Two Independent Samples

	Alumni	Applicants
count	67	139
median	4	3
rank sum	9117	12204
U	2474	6839

	one tail	**two tail**
U	2474	
mean	4656.5	
std dev	358.1111932	ties
z-score	6.093079584	yates
effect r	0.42452497	
p-norm	5.53795E-10	1.10759E-09
p-exact	1.18128E-08	**2.36256E-08**
p-simul	N/A	N/A

My current occupation is in a DNP related field

SUMMARY			Hyp Mean Diff		0	
Groups	*Count*	**Mean**	*Variance*		*Cohen d*	
Alumni	67	**2.97014925**	0.81727725			
2	138	**2.50724638**	0.733523749			
Pooled			0.760753951		0.530722832	

T TEST: Equal Variances — Alpha 0.05

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.129874	3.56424694	203	0.000227448	1.652394			yes	0.242683
Two Tail	0.129874	3.56424694	203	0.000454896	1.971719	0.206828	0.718978	yes	0.242683

T TEST: Unequal Variances — Alpha 0.05

	std err	t-stat	df	p-value	t-crit	lower	upper	sig	effect r
One Tail	0.132339	3.49786219	124.6492034	0.000325387	1.65717			yes	0.298969
Two Tail	0.132339	3.49786219	124.6492034	0.000650774	1.979179	0.200981	0.724825	yes	0.298969

Mann-Whitney Test for Two Independent Samples

	Alumni	2
count	67	138
median	3	3
rank sum	8199	12916
U	3325	5921

	one tail	**two tail**
U	3325	
mean	4623	
std dev	377.4330696	ties
z-score	3.437695593	yates
effect r	0.240099075	
p-norm	0.000293343	0.000586687
p-exact	0.000520869	**0.001041739**
p-simul	N/A	N/A

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