GENDER EQUALITY IN EDUCATION

MSc. Thesis

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ABSTRACT

This research adopts Subrahmanian’s (2005) three-dimensional rights-based approach to gender equality in education (GEE), which recognises the right of every boy and girl to find equality between genders in the access to education, as well as within and through it. In her work, Subrahmanian (2005) appoints to the need for adopting a multi-approach to both, the measurement and promotion of GEE, which integrates these three dimensions. Moreover, Subrahmanian (2005) also states how enabling conditions are a fundamental ingredient to fully achieve GEE. Based on these statements, this paper examines (1) the extent to which the four most important pre- and post-2015 international frameworks cover the three dimensions of GEE presented by Subrahmanian’s (2005) in the measurement of GEE; and (2) the extent to which UNGEI’s (2009) proposal to promote GEE integrates Subrahmanian’s (2005) three-dimensional approach and adopts those enabling conditions stated as crucial by the author.

Regarding the first question, the findings show that, while the two pre-2015 frameworks focus on the measurement of the to and within dimensions of GEE, the post-2015 ones integrate more and greater indicator to measure the within and through dimensions. Concretely, the Education 2030 Framework integrates the most accurate indicators to capture gender equality within education, whereas the SDGs Framework appears as the most complete to capture it in the through-dimension. Thus, this paper suggests that a combination of both frameworks, together with the development of indicators capturing the uncovered aspects of subject choice, management of peer relationships, and teachers’ gender parity, would fully measure GEE through all the three dimensions appointed by Subrahmanian (2005).

Regarding the second question, the results of this study show that, interestingly, even if sharing the three-dimensional approach to GEE, UNGEI (2009) and Subrahmanian (2005) still diverge in the consideration of the through-dimension. This is translated in the classification of the interventions suggested by UNGEI (2009) to promote gender equality through education, which could also be considered to promote gender egalitarianism within education, following Subrahmanian’s (2005) narrative. However, this classifying’ divergence is not meaningful since it does not affect the effectivity of such interventions in the promotion of GEE. Thus, these results indicate that UNGEI (2009) does adopt a three-dimensional approach to promote GEE, yet a bit distinct from Subrahmanian’s (2005). Moreover, most of the measures suggested by UNGEI (2009) to promote GEE integrate enabling conditions, such as equal treatment and opportunities in education.
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ABBREVIATIONS

DFA: EFA: Dakar Framework for Action: Education for All
ECE: Early childhood education
Education 2030 Framework: Education 2030 Framework for Action
FGM: Female genital mutilation
GEE: Gender equality in education
GBV: Gender-based violence
MDG(s): Millennium Development Goal(s)
MDGs Framework: Indicators for monitoring the Millennium Development Goals
SDG(s): Sustainable Development Goal(s)
SDGs Framework: Transforming our World: 2030 Agenda for Sustainable Development Goals
UN: United Nations
UNESCO: United Nations Educational, Scientific and Cultural Organisation
UNESCO TAG: UNESCO Technical Advisory Group
UNGEI: United Nations Girls’ Education Initiative
1. INTRODUCTION

1.1. Importance of gender equality in education

The 1948 Universal Declaration of Human Rights recognised the right to education, stating that elementary education should be free and compulsory for everybody, and higher levels of education should be accessible to all (Santosh et al. 2011: 2). On the one hand, education is seen as a human right that is essential in order to fulfil the rest of human rights and the overall world’s development (UNESCO 2016: iii). On the other hand, gender equality was recognised as a fundamental focus in development cooperation towards global progress (KVINFO 2016). Parallel, educational inequality is an obstacle towards social and economic progress (Ibid). Education for girls and women is recognised by many authors to be the most effective investment in development, considering its significant benefits to human society as a whole (Rose 2003; UNESCO 2003, 2012, 2014, 2015 and 2016; DFID 2005; UN Millennium Project 2005; Aikman & Unterhalter 2005 and 2007; Huggins & Randell 2007; UNGEI 2009 and 2010 b/; Santosh et al. 2011; Gachukia 2012; UN 2015; UN General Assembly 2015; Sperandio & Kagoda 2015; and World Bank 2016). Concretely, it contributes towards prosperity in terms of health, safety, socioeconomic improvement, political stability and is recognised as the greatest driver towards eliminating poverty and achieving overall sustainable human development (Ibid).

Hence, gender equality in education (GEE onwards) is crucial to progress towards poverty reduction, since it enables women and girls to become part of the labour market, increasing economic productivity, and empowering them to participate in the decision-making at a community level, as well as to improve family health and well-being by reducing the fertility rates and infant and maternal mortality (Gachukia 2012: 5 and UNGEI 2009: 36). Moreover, education is fundamental to advance towards the achievement of the seven Sustainable Development Goals (SDGs onwards) (UNESCO 2016: 6). Specially, education is described by the UNESCO to be the strongest means to achieve gender equality and overall women empowerment (2016: 7 and 2014: 28). Following, it is essential to measure GEE to monitor progress towards these global objectives (UNESCO 2014: 28). Finally, ensuring access to and improving the quality of education for girls and women, as well as removing all gender stereotyping and further obstacles which impede their active participation, was stated as the biggest priority at the World Conference on Education for All in Jomtien in 1990 (UNGEI 2009: 6).
1.2. Problem formulation

Acknowledging the significance of this topic, this thesis aims to examine three aspects of GEE: its conceptualisation, its measurement, and its promotion. Firstly, this research wants to conceptualise GEE by examining the academic debate about it. Secondly, it seeks to investigate the extent to which GEE can be measured through the four most relevant international frameworks on GEE. Thirdly, it examines how GEE is promoted through UNGEI (2009). These three areas of investigation translate into the following thesis statement, composed by three main questions and its respective sub-questions:

1. **What is gender equality in education?**
   - What does the academic literature understand for GEE?

2. **To what extent do the pre- and post- 2015 international frameworks integrate Subrahmanian’s (2005) perspective on the measurement of GEE?**
   - How do the four international frameworks develop from pre- to post- 2015?
   - To what extent do the pre- and post- 2015 international frameworks integrate the three dimensions stated by Subrahmanian (2005) in the measurement of GEE?
   - Which of the frameworks is the most complete and accurate to measure GEE according to Subrahmanian’s (2005) perspective?

3. **To what extent does the UNGEI’s (2009) proposal to promote GEE integrates Subrahmanian's (2005) perspective?**
   - To what extent does the UNGEI’s (2009) strategy for the promotion of GEE cover the three dimensions of GEE stated by Subrahmanian (2005)?
   - Does UNGEI’s (2009) strategy proposal envisage the enabling conditions appointed by Subrahmanian (2005) as necessary to advance towards GEE?

To understand better the nature of questions (2) and (3), we need to refer to the main author used in this research. Subrahmanian (2005) states that a specific framework is needed to monitor progress towards GEE in the three dimensions of GEE (to, within and through) (396). This research aims to see to what extent can the international frameworks measure GEE along these three dimensions. Moreover, Subrahmanian (2005) also appoints to the need for identifying and including those enabling conditions which will boost the progress towards GEE (406). Taking this into
consideration, this paper also seeks to analyse to what extent does UNGEI (2009) integrate these enabling conditions in its strategy’ proposal to promote GEE. Last, Subrahmanian (2005) refers to the overall relevance of adopting a multi-dimensional approach to GEE, by considering those three dimensions presented above (406). Accordingly, this research aims to see to what extent do the international frameworks, as well as UNGEI (2009), cover these three dimensions in the measurement and promotion of GEE.

1.3. Structure of the thesis

The present and first chapter of this thesis considers the relevance of the topic of the study: GEE, and presents the problem formulation, as well as the structure of this paper. The second chapter is dedicated to explain the methodological procedure adopted to conduct this research. The third chapter contextualises how GEE is framed in the global international agenda. The following chapters (four, five and six), analyse the three main questions of this research stated above. Last, this paper is closed with the final conclusion according to the findings, as well as some further considerations.
2. METHODOLOGY

This chapter wants to present the methodological approach used to conduct this research. A methodological approach is composed by the philosophical worldview, the research design, and the research methods (Creswell 2014). These three aspects are displayed in this chapter to clarify how the topic of this paper was examined. Last, the main sources used to obtain the data for this research are also presented.

At an early stage, this paper was thought to be a more concretely focused on the practical stage of the promotion of GEE, instead of its conceptualisation and measurement, as it finally became. The initial intention was to, first, briefly define what is understood by GEE, and how it is measured, and focus the research on how it can be promoted in practice, by analysing specific projects (strategies and good practices), contexts (different countries) and organisations (NGOs and governmental organisations). In this case, the research design would have adopted a different approach and used other methods, such as interviews. Nonetheless, the focus of the thesis changed after Subrahmanian (2005)’s considerations. The author claims that specific indicators are needed to measure GEE which cover the three-dimensional perspective suggested by her (Subrahmanian 2005: 396). Moreover, she appoints that a multi-dimensional approach, as well as enabling conditions (explained in Chapter 4), need to be considered to completely achieve GEE (Ibid: 406). Taking these points into account, this thesis’ focus changed to, first, analyse to what extent can the four most relevant international frameworks measure GEE as understood by the author; and, second, examine to what extent do these frameworks adopt the multi-dimensional approach suggested by Subrahmanian (2005). Furthermore, this thesis also considers the extent to which UNGEI’s (2009) proposal on how to promote GEE integrates the multi-dimensional approach, as well as the enabled conditions stated by Subrahmanian (2005). Thus, even if the promotion of GEE has finally been included in this research, it has been treated shorter and in less detail than what was initially intended.

2.1. Methodological approach

Guba (1990) states four paradigms which base the ontological, epistemological and methodological approaches of a research: positivism, post-positivism, critical theory, and constructivism. A paradigm is understood as a “basic set of beliefs that guides action” (Guba 1990:
17). The following Table 1 has been created to illustrate these four paradigms stated by Guba (1990).

Table 1: Research paradigms

<table>
<thead>
<tr>
<th></th>
<th>POSITIVISM</th>
<th>POSTPOSITIVISM</th>
<th>CRITICAL THEORY</th>
<th>CONSTRUCTIVISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontology</td>
<td>Realist</td>
<td>Critical realist</td>
<td>Critical realist</td>
<td>Relativist</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Dualist/objectivist</td>
<td>Modified objectivist</td>
<td>Subjectivist</td>
<td>Subjectivist</td>
</tr>
<tr>
<td>Methodology</td>
<td>Empirical experimentalism</td>
<td>Modified experimental/manipulative</td>
<td>Dialogic and transformative</td>
<td>Hermeneutic and dialectic</td>
</tr>
</tbody>
</table>

*Source: Table created from the content found in Guba (1990: 20-27)*

As shown in Table 1, a positivist researcher perceives reality as an objective truth driven by immutable natural laws (Guba 1990: 19). Accordingly, positivism aims to discover and understand these natural laws, as the true nature of reality, adopting an objectivist epistemology (Ibid: 19). This means that the researcher poses questions to reality, and lets her respond back through empirical facts (Ibid: 19). As opposite, a constructivist researcher has a relativist point of view of reality, which is perceived as a social construct, and interpreted by differently people (Ibid: 27). Accordingly, a subjectivist epistemology is adopted, where the findings result from the interaction between the researcher and reality. The methodology is based on the interpretation of the findings, which are dialectically compared and contrasted (Ibid). In between these two paradigms, the post-positivism believes that there are natural causes that explain reality, but it is not possible for humans to fully understand it. Accordingly, objective reality can only be approximated through qualitative research (Ibid: 23). Similarly, the critical theory paradigm also adopts a critical realist worldview, which can be reached through dialogic and transformative methods, and understood through subjective values (Ibid: 25).

Ones adopted a certain paradigm, the researcher needs to define the research approach to conduct the research. Creswell (2014) defines three research approaches: the quantitative, the qualitative and the mixed methods research approach (32). The quantitative approach examines the relation between pre-defined variables through numbered data and statistical procedures; whereas the qualitative approach wants to understand subjective perspectives which explain the meaning of a social problem (Ibid). Likewise, the first one tests objective theories by using a deductive approach; whereas the second one follows a deductive approach (Ibid). Last, a mixed methods
approach combines data from quantitative and qualitative research, to reach a more accurate and complete understanding of the problem investigated (Creswell 2014).

Following, regarding the data collected, Bryman (2008) distinguished two types of data: primary and secondary. While primary data relates to self-collected data, secondary data refers to already collected data which had already been gathered in pre-existing research studies (Ibid: 296). The latter, can have been gathered by other researchers or by diverse institutions working in the field (Ibid: 295). Moreover, the secondary data can be quantitative or qualitative, as previously defined (Ibid: 296). Bryman (2008) also appoints to some advantages and disadvantages from using each type of data for the research (297). Some advantages of using secondary data, compared to primary data, can be the money and time saved to conduct your own research and the higher quality of the data published (Ibid). However, it can also involve a detachment from this data, which does not happen in the case of the primary data collected by the own researcher, who gets more familiarised with it. Accessing data which has been collected by other researchers, can also be presented in a complex way, difficult to understand and control (Ibid: 300).

### 2.2. Methodological approach adopted

This research adopts a post-positivist approach, since it understands that there may be a valid way to perceive, measure and promote GEE, but it is tested against the perspective of Subrahmanian (2005). The first part of this research tries to understand what is the academic debate on GEE, by conducting a literature review on different authors’ perspectives around this concept. The second part, tries to analyse to what extent can the four international frameworks measure GEE, as understood by Subrahmanian (2005). A document-based research was conducted, consulting the main frameworks’ documents to obtain the indicators used by each one to measure education and/or gender equality. These indicators were, then, classified according to Subrahmanian’s (2005) three-dimensional categorisation of GEE, to see the extent to which they can measure it according to the author’s view. The last part, aims to examine to what extent does UNGEI (2009) adopt Subrahmanian’s (2005) perspective in their strategy to promote GEE. Again, a document-based research was carried out to obtain data regarding UNGEI’s (2009) promotional strategy. The actions suggested by UNGEI (2009) to promote GEE were, then, classified as per Subrahmanian’s (2005) categorisation of the dimensions which integrate GEE, to analyse to what extent does UNGEI’s (2009) proposal concur with the author’s perspective. Thus, to examine these aspects stated above, a document-based research based on qualitative secondary data has been
conducted, since the data has been obtained from existing documents and already-published information.

Following, the analysis adopted a mixed approach, combining qualitative and a quantitative analytical perspective. On the first case, it considers how do the different frameworks’ measurements, and UNGEI’s (2009) promotional strategies, qualitatively integrate Subrahmanian’s (2005) perspective on GEE. This qualitative part of the analysis considers the meaning and content of the different indicators and interventions, interpreted against the author’s point of view. On the second case, both measurements and promotional actions are also analysed quantitatively. This quantitative part of the analysis considers how many indicators and interventions are established according to Subrahmanian’s (2005) three-dimensional categorisation of GEE. Concretely, the analysis adopts two angles: the qualitative/quantitative, and the broad/concrete. The following Table 2 has been created to better understand these two analytical angles.

**Table 2: Mixed analytical approach**

<table>
<thead>
<tr>
<th>ANALYTICAL ANGLES</th>
<th>Broad</th>
<th>Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Qualitative</strong></td>
<td>The extent to which the international frameworks cover the three dimensions suggested by Subrahmanian (2005) to measure GEE</td>
<td>The extent to which the international frameworks cover the indicators suggested by Subrahmanian (2005) to measure GEE</td>
</tr>
<tr>
<td></td>
<td><strong>Table 6: Classification of the indicators of the international frameworks according to Subrahmanian’s (2005) three-dimensional categorisation</strong></td>
<td><strong>Table 11: Extent to which the international frameworks capture Subrahmanian’s (2005) indicators</strong></td>
</tr>
<tr>
<td><strong>Quantitative</strong></td>
<td>The number of indicators from the international frameworks covering each dimension suggested by Subrahmanian (2005) to measure GEE</td>
<td>The number of indicators from the international frameworks covering each indicator suggested by Subrahmanian (2005) to measure GEE</td>
</tr>
<tr>
<td></td>
<td><strong>Table 10: Number of indicators of the international frameworks capturing each of the three dimensions of GEE stated by Subrahmanian (2005)</strong></td>
<td><strong>Table 12: Number of indicators stated by Subrahmanian (2005) captured by the international frameworks’ indicators</strong></td>
</tr>
</tbody>
</table>

*Source: Table created as own source*

Firstly, the **broad angle** analyses the extent to which the international frameworks cover the three dimensions of GEE suggested by Subrahmanian (2005), from a qualitative (see Table 6) and quantitative (see Table 10) perspective. Secondly, the **concrete angle** analyses the extent to which the specific indicators suggested by Subrahmanian (2005) to measure GEE are captured by the international frameworks, again, from both: a qualitative (see Table 11) and quantitative (see Table 12) angle.
2.3. Sources used for the data collection

Subrahmanian (2005) is the main author for this paper, since her statements are tested in this research and, consequently, underpin the problem formulation. From there, different sources were chosen to test the author’s claims, such as the four international frameworks and UNGEI’s (2009) strategy proposal. On the one hand, the considered most relevant pre- and post- 2015 frameworks created to advance towards GEE, according to UNESCO (2014), were chosen to investigate Subrahmanian’s (2005) claim about the need for a specific framework which measures all the dimensions of GEE. On the other hand, UNGEI was chosen as the organisation to use regarding the promotion of GEE, because of their main focus on advancing towards girls’ education as a relevant international organisation under the UN. These international frameworks and UNGEI (2009) have been analysed against Subrahmanian’s (2005) perspective, regarding the measurements of GEE and its promotion, and are presented in the following chapter.

Last, as an international organisation working to advance towards education and gender equality, among others, the UN has contributed with meaningful data to this research (UN 2016). All the UN agencies are required to promote gender equality within the framework of their mandates (UNESCO 2014: 12). Concretely, the UNESCO is the UN Specialised agency destined to promote education worldwide, and the UN Women is the one focusing on gender equality and women empowerment (UNESCO 2016 and UN Women 2016). Being both areas relevant to this research, these agencies have served as an important source of information to this paper’s topic. Moreover, UNGEI, as a partnership of organisations embracing the UN system, is specifically committed to advance towards girls’ education, and thus, a crucial source to this research (UNGEI 2016). Accordingly, the data for the four international frameworks analysed in this paper, as well as UNGEI’s (2009) strategy proposal, was obtained from UN-based sources, such as the Indicators for Monitoring the Millennium Development Goals (UN Development Group 2003), the EFA Global Monitoring Report (UNESCO 2015), the Transforming our World: 2030 Agenda for Sustainable Development (UN General Assembly 2015), the Thematic Indicators to Monitor the Education 2030 Agenda. Technical Advisory Group Proposal (UNESCO TAG 2015), and the Towards Gender Equality in Education: Progress and Challenges in the Asia-Pacific Region (UNGEI 2009).
3. INTERNATIONAL AGENDA TOWARDS GENDER EQUALITY IN EDUCATION

This chapter wants to give an overview about the international agenda towards GEE, considering its’ achievements and remaining challenges. Along, the most relevant international agreements, frameworks and organisations for the advancement towards GEE, used in this research, are presented.

Many international treaties and organisms have been developed to promote the right to education and gender equality - the 1960 UNESCO Convention against Discrimination in Education, the 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the 1999 Convention on the Rights of the Child (CRC), the 2000 Dakar Declaration on Education For All, the 2000 UN Millennium Declaration, the 2000 United Nations Girls’ Education Initiative (UNGEI), the 2015 UN Transforming our world: the 2030 Agenda for Sustainable Development, and the 2015 Incheon Declaration for Education 2030. These instruments have constituted a solid international normative framework to achieve education for all, without discrimination or exclusion of any kind (UNESCO 2016: 9). Specially the latter five are of high significance here, since they are used for this research as initiatives focusing on achieving gender equality and/or education, or GEE. These are introduced below, together with the pre- and post- 2015 international agenda on GEE.

3.1. Pre-2015 agenda

In front of the lack of consideration of girls’ education in national policies, the 2000 Dakar Declaration on EFA and the 2000 UN Millennium Declaration, called upon the international community and national governments to achieve GEE (UNGEI 2009: 6). From then onwards, national governments and international organisations, such as the UNGEI, have been taking actions to advance towards gender equality at all levels of education and in all sphere of life (Ibid). The 2000 Dakar Declaration on EFA and the 2000 UN Millennium Declaration and the UNGEI, constitute three of the initiatives that the international community engendered for this purpose. The Dakar Framework for Action: Education For All (DFA: EFA onwards) and the Indicators for monitoring the Millennium Development Goals (MDGs Framework onwards), respectively, are the frameworks which raised from the first two international agreements. By ratifying them, the states politically committed in 2000 to achieve gender parity in primary and secondary education by 2005, and GEE by 2015 (OHCHR 2012).
The 2000 Dakar Framework for Action: Education For All (DFA: EFA)

The 2000 DFA: EFA, was adopted in 2000 at the World Education Forum in Dakar, reaffirming the EFA goals agreed in the 1990 World Declaration on EFA (UNESCO 2000). 164 countries signed it, committing themselves to ensure that, by 2015, everyone would be able to benefit from an education that meets their basic learning needs and promotes their overall human development (Ibid: 2). Concretely, it aimed to reach gender parity in primary and secondary education by 2005, and GEE by 2015 (UNGEI 2009: 8). The six EFA goals specifically focus on the areas of (1) early childhood care and education, (2) universal primary education, (3) youth and adult skills, (4) adult literacy, (5) gender equality, and (6) quality of education, as presented in Chapter 5 (UNESCO 2000).

The 2003 Indicators to monitor the Millennium Development Goals (MDGs Framework)

Parallel, the UN Millennium Declaration was a resolution adopted by the UN General Assembly in 2000 (UN Development Group 2003). 192 UN member states and at least 23 international organisations committed themselves to achieve the eight Millennium Development Goals (MDGs onwards) by 2015, inspired in principles of human dignity, equality and equity at the global level (UN General Assembly 2000: 1). Particularly, the MDGs 2 and 3, adopted from the EFA goals 2 and 5, focus on the achievement of universal primary education, and women empowerment and gender equality respectively (Wilson 2003: 2; and UNESCO 2012 and 2015). To monitor progress towards the eight MDGs agreed at the UN Millennium Declaration, the UN Office of the Secretary General, established forty-eight quantitative indicators collected at the 2003 MDGs Framework (UN 2003: iii).

The 2000 United Nations Girls’ Education Initiative (UNGEI)

The UN Secretary General launched the ‘United Nations Girls’ Education Initiative’ in 2000 to help national governments advance towards GEE (UNGEI 2010 b/) As a multi-stakeholder partnership, UNGEI is committed to increasing girls’ access to education, improving its quality, and to empower girls and women through transformative education (UNGEI 2015: 6). UNGEI is a continuation of the MDGs 2 and 3 and the EFA goals, by aiming to include girls’ education and egalitarianism in schools in the SDGs’ post-2015 international agenda on education, and helping countries progress towards GEE (UNGEI 2015: 8).
3.2. Achievements by 2015 and future challenges for the 2030 agenda

Since 2000, considerable progress has been made worldwide, specially in improving overall school enrolment (UNESCO 2014: 28; UNESCO 2015: I; UN General Assembly 2000: 5; and UN 2015: 2). The primary school net enrolment ratio has increased from 83% in 2000 to 91% in 2015 (UN 2015). The out-of-school number of children has diminished by almost half, from 100 million in 2000, down to 57 million in 2015, as shown in Table 3 (Ibid: 3).

Table 3: Global out-of-school children of primary school age

![Global out-of-school children of primary school age](image)

*Source: UN (2015: 3)*

The adult illiteracy rate has dropped from 18% to 14%. Gender parity has been reached in primary, secondary and tertiary education in the developing countries (UN 2015 and UN 2016). Finally, as shown in Table 4, interest has increased to quality issues in education, and 69% of countries conducted at least one national learning assessment between 2000 and 2013, compared to the 34% in 1990 (UNESCO 2015: 18).

Table 4: Emphasis on learning assessments has increased across countries since 2000

![Emphasis on learning assessments has increased across countries since 2000](image)

*Source: UNESCO (2015: 19)*

However, even if progress has been made and the gender gap in primary education has narrowed, it is uneven and insufficient, particularly for women and girls: the world has not achieved education for all and gender discrimination in education still remains (UNGEI 2009; UN 2015; UNESCO
2015 and 2016; UN 2016; and UN Women 2016). Currently, there are millions of children worldwide, the majority of whom are girls, out of school, high rates of drop outs before the skills of literacy and numeracy have been properly gained, leading to a big percentage of adult illiteracy, and also learning assessments have not yet been translated into practice (UN 2015; UNESCO 2015 and 2016; UN Women 2016; and World Bank 2016). Concretely, 58 million children remain out of primary school, around 100 million children drop out school before completing primary education, 781 million adults are illiterate, gender disparity remains in almost a third of the countries with data available (UNESCO 2015 and World Bank 2016). According to Sperandio and Kagoda (2015), the insufficient political attention and funding invested in it from both, the national governments and the international aid organisms, partly explains most countries’ failure in achieving the 2015 gender parity target. Despite the increased spending in education in many countries, it is still not a priority in many national budgets, and the international aid deliver commitment has been ineffective (UNESCO 2015). Moreover, too much emphasis has been given to the achievement of universal primary education, to the extent that governments and donors accorded to only fund the EFA goals covering primary education, leaving pre-primary education, adult literacy and education quality underfunded (Sperandio & Kagoda 2015: 96; and UNESCO 2015).

### 3.3. Post-2015 agenda

Considering the information presented above, despite notable progress, not even universal primary education has been achieved (UNESCO 2003; Rose 2003: 1; DFID 2005; Aikman & Unterhalter 2005 and 2007; Santosh et al. 2011; Sperandio & Kagoda 2015; and World Bank 2016). This means that further effort is needed in the post-2015 agenda to progress towards GEE (Ibid). As a response, the post-2015 international agenda established the SDGs Framework and the Education 2030 Framework, explained as follows.

#### The 2015 Transforming Our World: the 2030 Agenda for Sustainable Development (SDGs Framework)

The 2015 Transforming Our World: the 2030 Agenda for Sustainable Development (SDGs Framework onwards) was the resolution adopted by the UN General Assembly in September 2015, which encompasses the post-2015 agenda (UN General Assembly 2015). 69 countries have committed to the seventeen SDGs to be achieved by 2030, towards a more prosperous, sustainable
and equitable world free of discrimination at all levels (UN 2015 and UN General Assembly 2015). These emerging SDGs build on those areas which have not been achieved through the MDGs, and the lessons learned (UN General Assembly 2015). They reflect the importance of education and gender equality, covered by the SDGs 4 and 5, targeting universal quality education for all, and gender equality and women empowerment respectively (Ibid: 17-18). Moreover, education for all is perceived as the main driver towards development and achieving the rest of the SDGs (UNESCO 2016: iii).

The 2015 Education 2030 Framework for Action (Education 2030 Framework)

The Incheon Declaration for Education 2030 was formulated in 2015 at the World Education Forum (UNESCO 2016: ii). It constitutes the commitment of the education community, composed by over 1,600 participants from 160 countries, to a new vision for education for the next fifteen years (Ibid). Departing from the lessons learned and progress made towards the EFA goals and the MDGs since 2000, it reaffirms the DFA: EFA and the new SDGs, committing to the SDG4, and builds on the remaining challenges for the 2030 agenda on education (Ibid). Parallel, the 2015 Education 2030 Framework for Action (Education 2030 Framework onwards) was adopted in 2015 in Paris by 184 UNESCO Member States to review and recommend indicators to measure global progress towards the achievement of the SDG4, as well as to provide strategic guidelines to translate into practice the implementation of the post-2015 education agenda (Ibid and UNESCO TAG 2015).
4. DEFINITION OF GENDER EQUALITY IN EDUCATION

It is important to define GEE, to be able to develop accurate ways to measure and promote it (Subrahmanian 2005: 397). Accordingly, this chapter aims to answer the first question of this paper regarding what is gender equality in education. GEE is examined by breaking it down and defining the different concepts that integrate it. The first section breaks down the concept of GEE and clarifies the different concepts related to it. Following, different literature is reviewed to examine the academic debate around the conceptualisation of GEE. Finally, GEE is defined according to Subrahmanian (2005), which is the main author used in this research.

4.1. Definitions

4.1.1. Gender and sex

First of all, the difference between sex and gender needs to be clarified, to move towards the further basic concepts needed to fully understand GEE.

On the one hand, sex is defined as those biological differences between women and men, and it is typically categorised as ‘male’ or ‘female’. On the other hand, gender entails the social meaning related to a determinate sex, and it is also referred to as ‘masculine’ or ‘feminine’ (Nobelius 2004; USAID 2007; UNGEI 2010 b/; American Psychological Association 2011; and UNESCO 2014). Thus, while sex is a biological fact, gender entails those social characteristics which define what it is expected from being a man or a woman (attitudes, feelings, behaviours and roles) based on the social norms and practices (American Psychological Association 2011 and UNESCO 2014). Accordingly, the gender roles expected from being a male or a female may vary cross culturally, since each society has different understandings on the determinate behaviours attributed and expected from each sex, and perceives masculinity and femininity differently (Nobelius 2004).

As stated by Subrahmanian (2005), progress towards gender equality entails understanding the social construction of gender identity based on the ideas about the roles expected from men or women, and how are they socially, economically and culturally valued (398). Moreover, these gender roles can be influenced by factors such as education (USAID 2007). Taking this into consideration, this paper discusses the (un)equal conditions of both genders in the educational sphere.
4.1.2. Gender discrimination, gender-sensitivity, gender equity, gender parity and gender equality

As stated above, the following concepts need to be defined, since they are part of the overall idea of GEE. Moreover, these concepts are used along the research and, thus, it is important to clarify their meaning.

- **Gender discrimination** refers to any kind of exclusion or restriction on the basis of sex (UNESCO 2014: 60). Thus, gender discrimination in education envisages all those values, practices and dynamics within education which privilege one gender and disfavour the other (Subrahmanian 2005 and UNGEI 2010).

- **Gender-sensitivity** is the acknowledgement of the differences and inequalities between women and men which need to be addressed (UNESCO 2014: 61). Gender-sensitivity in education, hence, is the recognition of those unequal or discriminatory dynamics between boys and girls which require attention and action to be diminished (Ibid).

- **Gender dynamics** refer to those interactions and relationships between males and females, as well as those within the same sex, resulting from, and influencing, socially expected, gender-based norms and behaviours. Thus, while these dynamics are developed upon notions of masculinity and femininity, they can also either reinforce or challenge the gender roles associated to each gender, and modify the relationships between men and women (USAID 2007: 11).

- **Gender equity** constitutes those measures directed to redress prior inequalities that impede women’s access to and utilisation of resources on an equal basis with men (Subrahmanian 2005: 406). These measures may involve different treatment of women and men in order to reach their equality of outcomes (UNESCO 2014: 60). Thus, gender equity in education are those strategies or processes which provide equal chances for boys and girls to pursue and benefit from educational opportunities, such as scholarships, gender-sensitive teacher trainings, curriculum reviews, facilities adapted to both sexes, etc (USAID 2007: 11).

- **Gender parity** is the numerical representation and participation of males and females in a determinate context. Thus, gender parity in education refers to the proportion of boys and girls participating in an education system relative to the population per age group at a particular moment of time (Subrahmanian 2005; USAID 2007 and 2008).

- **Gender equality** is the situation where men and women have equal rights, freedoms, conditions and opportunities for realising their full potential and for contributing to and benefiting from
social, cultural, economical and political development. It also entails men and women, with their similarities and differences, are being equally valued by society (OECD 1998, in USAID 2007: 11; and UNESCO 2014: 60). Following, GEE is described in the next section. USAID (2008) translates it as the situation where “females and males have equal rights, freedoms, conditions and opportunities for realising their full potential in society” (2).

4.1.3. Gender equality in education

In the area of education, gender equity and gender parity are perceived as a necessary but insufficient precondition to achieve the more complex gender equality (Wilson 2003; Aikmann & Unterhalter 2007; and UNGEI 2010 b/). Many authors emphasise that gender parity (or informal equality) is a first step towards gender equality (or substantive equality) in education (Ibid; Subrahmanian 2005; Unterhalter 2006; USAID 2007; UNGEI 2010 b/; Santosh et al. 2011; and UNESCO 2014). Gender parity in education is a quantitative measure that aims to capture the number of girls and boys in a specific schooling age whom have access to education and participate in it. Whereas GEE is a qualitative measure that aims to capture the extent to which gender egalitarianism is embraced within and through education, by reinforcing or withstanding discriminatory dynamics inside of the education system, and influencing on the long-term girls’ and women’s overall future outside school.

Even if attention has often been given to gender parity (reporting the progress mainly based on the number of girls and boys enrolled to education), a shift of focus from merely ensuring the access to education for all girls and boys, to also considering the quality of this education and its impact in broader society, has taken place over the last decade (UNGEI 2010 b/ and USAID 2008). The amount of boys and girls enrolled to education does not reflect the still remaining social discriminatory dynamics that may reinforce gender inequalities inside and outside of it (Wilson 2003: 3). Hence, the authors consulted appoint to the necessity to also focus on the quality of education and its impact on the overall girls’ and women’s everyday lives (Wilson 2003; Herz & Gene 2004, in UNGEI 2009; Subrahmanian 2005; Unterhalter 2006; Aikamn & Unterhalter 2007; USAID 2007; UNGEI 2010 b/; Santosh et al. 2011; and UNESCO 2014). This involves an education which promotes equal roles, treatment and opportunities for girls and boys, within and through it. To reach this gender-sensitive quality education, aspects such as the curricula, the learning content, methods and materials, as well as the school environment and the educational system’ governance need to be free from gender stereotypes and discriminatory practices (UNGEI
Aikman and Unterhalter (2007) understand that the equality of genders in education entails boys’ and girls’ freedom to attend school, to learn and participate in a safe non-discriminatory space, to develop gender-sensitive and democratic values, and to enjoy a range of economic, political, and cultural opportunities and valued outcomes (Aikman & Unterhalter 2007: 4). Likewise, the UNESCO states that GEE is to be fully reached when girls and boys are offered the same opportunities to go to school, with a teaching method and curricula free of stereotypes, enjoy counselling free of gender discrimination, equality of outcomes, learning achievement and academic qualifications, and overall equal job opportunities based on having the same conditions for similar qualifications and experience, regardless of the gender (2003: 5).

This perspective on GEE is adopted by the majority of the authors consulted (Wilson 2003; Herz & Gene 2004, in UNGEI 2009; Subrahmanian 2005; Unterhalter 2006; Aikamn & Unterhalter 2007; USAID 2007; UNGEI 2010 b/; Santosh et al. 2011; and UNESCO 2014), and it was compelled by Wilson (2003) in this following three-dimensioned rights-based approach to GEE:

- The right to education, which aims for the equality of opportunities, where girls and boys are offered the same chances to access school.
- The right in education, which envisages the equality of pedagogy, where girls and boys receive the same treatment and attention, follow the same curricula, and enjoy teaching methods and tools free of stereotypes and gender bias.
- The right through education, aiming for the equality of outcomes as a result of education and beyond, in society more generally.

However, USAID (2008) suggested a fourth-dimensional approach to GEE, composed by: the equality of access, the equality in the learning process, the equality of educational outcomes, and the equality of external results (5-6). The first two categories coincide with the to and within dimensions from Wilson’s (2003) classification, and the last one with the through-dimension. Nonetheless, USAID (2008) detaches the educational outcomes from the within-dimension, considering it in a separate category. Thus, the equality of educational outcomes, referring to the equality between boys’ and girls’ individual achievements; are distinguished from the equality of external results, referring to the egalitarianism between genders in broader structures outside of education. A similar case can be noted in UNGEI’s (2009) categorisation of the learning outcomes, as an aspect under the through-dimension, instead of the within-dimension, as understood by Wilson (2003).
4.2. Gender equality in education by Subrahmanian (2005)

This section defines how the main author used in this research perceives GEE. Subrahmanian (2005) aims to conceptualise GEE in its holistic complexity, viewing it as a relational process inside and outside education, and identifying the best mechanisms to monitor progress towards it (396-399). As mentioned, the author draws on Wilson’s (2003) three-fold characterisation of human rights in education, explained above (Subrahmanian 2005: 399). Accordingly, Subrahmanian (2005) understands GEE as:

“[…] the right to education [access and participation], as well as rights within education [gender-aware educational environments, processes, and outcomes], and rights through education [meaningful education outcomes that link education equality with wider processes of gender justice]” (395).

Taking into account this integrated view of GEE, the author manifests the need to adopt a multidimensional approach to addresses these to, within and through dimensions (Ibid: 406).

In opposition to the assumption that gender equality is the same as gender parity, Subrahmanian (2005) emphasises how this latter only measures numerical gaps between genders regarding the access to and participation in education; whereas gender equality goes beyond and recognises how gender discriminatory dynamics, which lead to gender inequalities, are reinforced or diminished within (curriculum, opportunities, treatment, mechanisms, relationships, teachers, methods, outcomes, etc) and through the education system (employment prospects, economic and political participation, health, etc) (396-398). Thus, while gender parity only envisages the participation and access to education, gender equality considers how egalitarianism between genders is promoted or ceased within and through it (Ibid). On the one hand, Subrahmanian (2005) understands gender equality within education as an educational space free of discriminative treatment and opportunities, which contemplates the variables that shape the learner’s interaction with the learning process, its quality and outcomes, such as the educational environment, the family context, social factors, the curriculum content, etc (401). On the other hand, gender equality through education, examines how education affects the equality between genders in wider spheres of life and society, such as employment and political representation (401). Likewise, focusing on the influence of education on wider social structures, can explain the existence of many gender inequalities in these other spheres (such as the girls’ undervalued educational attainments and its negative effect in entering the public
arena). Hence, the importance to, first, understand gender inequalities to, then, be able to promote equality between genders (Ibid).

**Gender inequalities**

Subrahmanian (2005) appoints the need to recognise those gender inequalities in different life dimensions, which constrain the existence of egalitarianism in the educational sphere. The author emphasises the reciprocal effect between the gender inequalities inside and outside the education system (Ibid). Subrahmanian (2005) explains how the socially constructed gender inequalities can be both, reproduced or challenged, within and through educational institutions. Inequality between genders arises from historically accepted and socially constructed differences between men and women, which legitimise their differential (and discriminatory) treatment (Ibid: 398). These gender inequalities are present in all areas of life (society, economy, politics, education, health, labour market, private sphere, etc) and mutually influence each other (Ibid). Subrahmanian (2005) states that gender inequalities in education create, and are created, by inequalities between both genders in other areas of life that intersect with education (401). This means that gender inequalities operating outside the educational sphere can constrain gender equality inside of it, and vice versa: inequalities between boys and girls inside of the educational system can reinforce gender inequality outside of it. Accordingly, changes in any sphere will have an effect on other spheres (Ibid).

Concretely, Subrahmanian (2005) explains that the socially dominant perception that privileges male in the different dimensions of life are reflected in the education institutions, through the content of the textbooks, curricula, teachers’ attitudes, treatment and opportunities, etc. This, in turn, may reinforce social norms outside of education that associate girls with household and carers roles, urging them to stay home instead of pursuing an education (399-403). Moreover, even if gender equality is achieved in terms of access to and equality within the school system, there are still gender inequalities outside of education (such as family dynamics, socially gendered expectations and roles, and cultural informal norms) that may have an impact in education (Ibid: 397). The author states that the existing gender inequalities operating outside the educational sphere determine different positions of advantage for boys and girls (such as girls’ choice and access to education) (Ibid). Accordingly, girls’ and women’s chances to pursue an education, is extremely constrained by the devaluation of their socially constructed role as carers, and their unrecognised higher academic achievement and valuable contribution in the broad economy (Subrahmanian 2005: 398).
Promotion of gender equality in education

Considering that gender inequalities are created both through formal (legislation) and informal social norms (attitudes and perceptions), progress towards gender equality needs to cover both spaces, changing the formal laws and institutional practices, as well as the informal social values and understandings within society, that determine the life opportunities of men and women (Subrahmanian 2005: 401). Following, in order to achieve GEE, it needs to be acknowledged that educational institutions often reflect prevailing gender discriminating social norms, but they can also offer spaces in which these are challenged and reshaped (Ibid: 403). Hence, enabling conditions which ensure equality of treatment and opportunity for men and women must be put in place to achieve overall GEE (Ibid: 397 and 406).

5. MEASUREMENT OF GENDER EQUALITY IN EDUCATION

As mentioned in Chapter 1, Subrahmanian (2005) states the need to develop specific indicators which adopt a multi-dimensional approach capturing the three aspects of GEE: to, within and through (2005: 396 and 406). Taking this statement into consideration, this chapter aims to answer to the second question of this thesis: to what extent do the pre- and post- 2015 international frameworks integrate Subrahmanian’s (2005) perspective on the measurement of GEE?

Before the frameworks are presented, it is important to clarify what an indicator is, and why is it relevant to establish indicators to measure GEE. On the one hand, an indicator is described as a measure which is developed based on data, and it “shows information about an associated or related feature using a specific measurement or observable procedure” (Gallopín, 1997; from UNGEI 2010: 16). Indicators can be quantitative, usually based on numbers, percentages and ratios; or qualitative, including more descriptive data based on observations, focus groups, etc. Indicators are necessary to monitor and evaluate progress in certain processes (UNGEI 2010: 17). Particularly, gender-sensitive indicators are critical to ensure an effective monitoring and implementing of programs to advance towards GEE (Moser 2007: 6). A gender-sensitive indicator measures gender-related changes in society over time and incorporates sex-disaggregated data (Moser 2007: 12, from UNGEI 2010: 16). Following, the indicators presented by the international frameworks which specifically measure education’ goals, are not necessarily gender-sensitive, since they do not focus on the gendered dimension related to them. Hence, it is required that these indicators are sex-disaggregated in order to tell us about the egalitarian situation of boys and girls in education.
Finally, this chapter firstly presents the measurements suggested by Subrahmanian (2005) to monitor GEE. Following, the indicators of the international frameworks are presented, classified and analysed against Subrahmanian's (2005) perspective. Last, the chapter is closed with the conclusions from this analytical discussion.

### 5.1. Measurements by Subrahmanian (2005)

As discussed in the previous section, Subrahmanian (2005) understands that GEE entails not only the equal access of boys and girls to education, but also the gender egalitarianism within and through it. With a clarified understanding of what GEE means, a set of indicators are suggested by the author to measure its progress in all these three dimensions (to, within and through), as shown in Table 5, created to capture the measurements of GEE suggested by Subrahmanian (2005: 400-404). To facilitate the visual reading, the table shows the indicators along the three dimensions of GEE suggested by Subrahmanian (2005), distinguished by colours: the to-dimension is coloured in blue, the within in beige, and the through in green. Likewise, there are some indicators which are discussed to belong to more than one dimension, and appear in purple in the table.
Gender egalitarian access to education (or gender parity) is easily quantifiable since it measures the proportion of boys and girls, relative to their respective age groups, whom access and participate in different education cycles at a particular moment of time (Subrahmanian 2005: 400). The gender parity measures tell us about the extent to which girls and boys are represented in equal numbers regarding their right to education, which is measured in terms of access, attendance, survival, retention, completion, repetition and transition between levels, as shown in the blue box in Table 5 (Subrahmanian 2005: 400). Concretely, the measurement of enrolment included by Subrahmanian calculates the amount of girls and boys at the school-age enrolled in each of the different levels of education, through the NER and the net intake rate (NIR). Secondly, the survival and completion measurements are curiously stated as separate indicators, besides their similarity: they both capture the amount of girls and boys whom complete education and thus, survive, up to grade 5, and, consequently, the drops out. Thirdly, the regularity of attendance measures the levels of
participation of children in school through the Net Attendance Rate (NAR). Fourthly, the repetition measurement calculates the amount of girls and boys who repeat years of schooling. Last, even though they are not explained in detail, Subrahmanian also considers the following indicators to measure equal access and participation in education: the average years of schooling attained for boys and girls; the transitions of boys and girls between levels of education; the number of female and male teachers; and the literacy levels of boys and girls, men and women (400).

Further, Subrahmanian (2005) explains how the gender parity indicators measuring the gender egalitarianism in the access to education can cover two scenarios: the increase (positive scenario), or the decrease (negative scenario), of one of the genders’ enrolment, to reach parity with the other gender (Subrahmanian 2005: 401). The first scenario, signals external structural changes that diminish the influence of the social, economical and political forces that prevented gender parity on the first place, by providing greater opportunities and freedom to the minority gender (Subrahmanian 2005: 401). While the second scenario may reflect unintended benefits to one gender, as a result of constraints experienced by the other (Subrahmanian 2005: 401). Hence, gender parity indicators alone may reflect apparent progress, or hide real discriminatory patterns and disadvantages (Subrahmanian 2005: 401). Moreover, the gender parity indicators can be static (a given moment in time), but they can also serve as dynamic indicators of change (trends over time) (Subrahmanian 2005: 397-401). Nonetheless, they cannot explain the factors that cause these changes, or their impact in the educational system and in the broader society (Subrahmanian 2005: 397-401). Therefore, Subrahmanian (2005) appoints that these indicators fail in providing a holistic measurement of all the aspects that conform substantive GEE, since they only envisage one aspect of it: the access to education (401). They serve as a starting-point, providing us with quantitative values from two separate categories (number of boys and girls), but cannot measure their qualitative interaction (relations between genders as social groups within and outside the education system) (Subrahmanian 2005: 401). Thus, it is important to also consider the dimensions of gender equality within and through education, to capture how the gender dynamics operate within the education system, and how do these affect other dimensions of life outside of it (Subrahmanian 2005: 401). Accordingly, Subrahmanian (2005) suggests some indicators to measure gender egalitarianism within and through education, as shown in the beige and green boxes respectively in Table 5.

On the one hand, Subrahmanian (2005) identifies an assortment of key markers to measure gender equality within education. This dimension captures those factors which influence the gender dynamics within the learning process in school, such as the learning environment, the teachers’
behaviour and methodology, the family and social context (Subrahmanian 2005: 404). Firstly, the subject choice signals the extent to which girls and boys are poured into determinate subjects, imposed through the way they are offered; as well as the egalitarian representation of boys and girls along the different specialisations (Subrahmanian 2005: 403). Further, the learning outcomes [performance in examinations], signal the extent to which girls and boys can develop educational capital by participating in the education system (Subrahmanian 2005: 403). Concretely, Subrahmanian (2005) explains how these two indicators can signal the gender inequalities within education, since the subject choice can indicate whether boys and girls are dragged into certain subjects which may be associated with a determinate gender, and the performance in examinations can signal whether there are unaddressed inequalities within schooling processes (Subrahmanian 2005: 403). Following, Subrahmanian (2005) points out the importance of considering the external variables (further social structures such as the family) that may cause or/and affect these two in-school indicators (Subrahmanian 2005: 403). Thus, contextualisation is needed to clarify whether the subject specialisation choice can be explicitly or implicitly imposed by the way it is institutionally and socially offered (Subrahmanian 2005: 403). Indeed, family context and social factors, as well as the curriculum content and the learning environment, can influence the quality of learning and performance of the student within school (403). Taking this into account, broader concern towards the learner’s environment, his/her learning process and interaction with it needs to be considered (Subrahmanian 2005: 404). Hence, Subrahmanian (2005) also suggests as indicators for the within-dimension some factors which can shape the students’ performance, such as the health and nutritional status of students; the child’s involvement in family work; and the social discrimination within the classroom/society (Subrahmanian 2005: 403). Moreover, the learning content identifies the extent to which gender equality is promoted or constrained through the content taught and the values reflected in the learning material (Subrahmanian 2005: 403-405). Likewise, the teaching method and process measure the extent to which gender egalitarian awareness is present along the learning processes of teaching (Subrahmanian 2005: 403-405). Along, the assessment modes indicate the extent to which assessment in the educational system is provided equally to boys and girls (Subrahmanian 2005: 403-405). Further, the management of peer relationships signals the extent to which interactions between boys and girls within the educational system are egalitarian and free of discrimination between genders (Subrahmanian 2005: 403-405). Withal, the teacher-learner ratio calculates the number of students compared to the number of teachers in a determinate level of education, which influences the teaching quality in education (Subrahmanian 2005: 403-405). Last, Subrahmanian (2005) also considers the level of training of
teachers and the gender balance within the classroom as indicators to measure equality between genders within education (Subrahmanian 2005: 403).

On the other hand, as stated by Subrahmanian, the extent to which education strengthens gender equality in wider society, is to be considered as well (Subrahmanian 2005: 401). The measurement of gender equality through education envisages circumstances observable outside the educational sphere, such as changes in formal laws, institutional and social practices, as well as the informal shared understandings among societies of the value and opportunities to be enjoyed by men and women, which reflect the impact of education (Subrahmanian 2005: 404). Hence, as shown in the green box in Table 5, Subrahmanian (2005) suggests the following indicators to measure gender equality through education, in the employment and political participation areas: the male/female employment across different levels of education by gender; the gender differentials in wages across different levels of employment/education; and the political participation (2005: 404). Thus, gender equality through education considers variables that notice the strong influential relation between education and the gender egalitarianism situation in wider socio-structural institutions and processes beyond the education system (Subrahmanian 2005: 405).

However, Subrahmanian (2005) explains the inter-connection of the three dimensions, and how can they influence each other (2005: 401). Following this rationale, there are seven of these nine indicators to measure the access to education which could also be considered as measurements of the quality within education. It is the case of indicators such as the survival and completion rates; the regularity of attendance; the repetition rates; the average years of schooling attained; the transitions of boys and girls between levels of education; the number of female and male teachers; and the literacy levels of boys and girls, men and women, shown highlighted in purple in Table 5. These indicators can also serve as measurements of those aspects within the education system which stop children from pursuing an education and prompt their drop out before completing primary education, such as the quality of education or other environmental conditions (family, society, health, discrimination). Hence, they can signal the extent to which aspects within education influence boys’ and girls’ participation levels, and keep them (or not) in school. Accordingly, rates indicating low completion of girls in school may appoint to the lack of gender-sensitivity in the quality of education and the school environment. Concretely, these indicators can tell us about the amount of children whom are dragged to leave school to rather work and help their family. It can also be that their health and/or nutritional status impedes them to attend school, or because they are experiencing some type of social discrimination within the classroom. Likewise, the literacy levels
can tell us about the learning outcomes and quality of education, in terms of the extent to which they have successfully developed literacy skills, and how good the learning process and teaching methodology were in their educational system to reach those skills. Similarly, the indicator measuring the number of female and male teachers is curiously considered by Subrahmanian (2005) as a measurement for the gender equal access to education, even though it can have an important impact in the within-dimension. On the one hand, it is hard to see how the amount of female/male teachers can affect the conditions of boys and girls to access education and participate in it. On the other hand, the proportion of female/male teachers seems to be more linked to the quality within education, in terms of the balance of male and female teachers. Thus, these mentioned indicators could also be measurements for these aspects considered by Subrahmanian (2005) under the within-dimension. This narrative will be applied to discuss the indicators from the international frameworks analysed from the following section.

Finally, considering the need to develop a multi-dimensional framework which measures the complexity of gender equality to, within and through education, stated by Subrahmanian (2005), the next sections analyse to what extent can the pre- and post-2015 international frameworks measure GEE along these three dimensions (396 and 406). In order to do so, the indicators of these international frameworks are presented and classified according to Subrahmanian’s (2005) three-dimensional categorisation, as shown in Table 6. This latter table is attached as Annex 1, and has been created to get a visual understanding of how the indicators of the four international frameworks are classified along the three dimensions of GEE, and to facilitate the posterior analysis. These three dimensions are marked in the table, to indicate that the measurements in the blue cells belong to the to-dimension; the ones in the beige cells, to the within-dimension; and the ones in the green cells, to the through-dimension. Likewise, the indicators which appear highlighted in purple in the table, are the ones which can be classified in more than one dimension, as further discussed in the analysis. This is because some indicators are clearly related to the ones stated by Subrahmanian, whereas some others (in purple in Table 6) are difficult to classify in a single determinate category. In the first case, those indicators are stated in the analysis as measurements which can capture GEE, since they clearly relate to the measurements stated by Subrahmanian (2005). Whereas, in the second case, those indicators which do not clearly relate to a concrete category, but rather more than one, are presented as indicators that could measure GEE based on the author’s narrative.
### Table 6: Classification of the indicators of the international frameworks according to Subrahmanian’s (2005) three-dimensional categorisation

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<tbody>
<tr>
<td>EQUAL ACCESS TO EDUCATION Access to and participation in education</td>
<td>Enrolment</td>
<td>EFA1: Total enrolment</td>
<td>MDG2: Net primary enrolment ratio</td>
<td>SDG4: Percentage of children (36-59 months) receiving at least one year of quality pre-primary education program</td>
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<td></td>
<td>Survival (within)</td>
<td>EFA1: Gross enrolment ratio</td>
<td>MDG2: Proportion of pupils starting grade 1 who reach grade 5 (within)</td>
<td>SDG4: Primary completion rates for girls and boys (within)</td>
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<td></td>
<td>Completion (within)</td>
<td>EFA1: Gender parity index (within)</td>
<td>MDG2: Primary completion rate (within)</td>
<td>SDG4: Secondary completion rates for girls and boys (within)</td>
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<td>Regularity of attendance (within)</td>
<td>EFA2: Total primary enrolment</td>
<td>MDG2: Literacy rate of 15-24 year-olds (within)</td>
<td>SDG4: Tertiary enrolment rates for women and men</td>
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<td>Repetition (within)</td>
<td>EFA2: Primary adjusted net enrolment ratio</td>
<td>MDG3: Ratio of girls to boys in primary, secondary and tertiary education (within)</td>
<td>SDG4: Number of children out-of-school (within)</td>
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<td></td>
<td>The average years of schooling attained (within)</td>
<td>EFA2: Out-of-school children (within)</td>
<td>SDG4: Percentage of adolescents (13-19 years) with access to school-to-work programs</td>
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<td>The transitions of boys and girls between levels of education (within)</td>
<td>EFA2: Survival rate to last grade of primary education (within)</td>
<td>SDG4: Literacy rate of 15-24 year-olds, women and men (within)</td>
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<td>The number of female and male teachers (within)</td>
<td>EFA3: Total secondary enrolment</td>
<td>SDG4: Percentage of young adults (18-24 years) with access to a learning program</td>
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<td>Literacy levels of boys and girls, men and women (within)</td>
<td>EFA3: Lower secondary gross enrolment ratio</td>
<td>SDG4: Scholarships for students from developing countries</td>
<td>4.3. Gross enrolment ratio for tertiary education</td>
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<td>EFA3: Upper secondary gross enrolment ratio</td>
<td>EFA3: Technical and vocational education as a share of secondary enrolment</td>
<td>SDG4: Presence of legal frameworks that guarantee the right to education for all children for early childhood and basic education, and that guarantee a minimum age of entry to employment not below the years of basic education (through)</td>
<td>4.3. Participation rate in technical-vocational education programmes (15-to-24-year-olds)</td>
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<td>EFA3: Out-of-school adolescents of lower secondary school age (within)</td>
<td>EFA4: Illiterate adults (within)</td>
<td>SDG5: Percentage of women aged 20-24 who were married or in a union before age 18 (all)</td>
<td>4.3. Percentage of youths/adults participating in education and training in the last 12 months, by type of programme (formal and non-formal) and by age group</td>
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<td>MDG3: Ratio of literate women to men 15-24 year olds (within)</td>
<td>EFA4: Adult illiteracy rates (within)</td>
<td>SDG5: Met demand for family planning (all)</td>
<td>4.5. Percentage of students in primary education whose first or home language is the language of instruction (within)</td>
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<td>EFA4: Youth literacy rates (within)</td>
<td>EFA5: Gender parity in primary education (within)</td>
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<td>4.5. Extent to which explicit formula-based policies reallocate education resources to disadvantaged populations</td>
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<td>4.5. Percentage of total aid to education allocated to low income countries</td>
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<td>4.5 Education expenditure per student by level of education and source of funding</td>
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<td>4.6. Percentage of the population by age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills (within)</td>
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<tr>
<td>GENDER EQUALITY WITHIN EDUCATION</td>
<td>EFA5: Gender parity in primary and secondary education (within)</td>
<td>SDG5: Adolescent birth rate (all)</td>
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<tr>
<td>Educational space free of discriminative treatment and opportunities</td>
<td>EFA5: Gender parity in secondary education (within)</td>
<td>4.6. Participation rate of youth/adults in literacy programmes</td>
<td></td>
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<tr>
<td>Subject choice</td>
<td>EFA1: Under-5 year-old mortality rate</td>
<td>4.6. Youth/adult literacy rate (within)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Outcomes [performance in examinations]</td>
<td>EFA1: Moderate or severe stunting of children under-5 year-old</td>
<td>4.7. Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per UNGA Resolution 59/113) (all)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and nutritional status of students</td>
<td>EFA6: Teaching staff in pre-primary education</td>
<td>4.b. Number of higher education scholarships awarded by beneficiary country</td>
<td></td>
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<td></td>
<td></td>
<td>4.b. Volume of official development assistance (ODA) flows for scholarships by sector and type of study</td>
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<td></td>
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<td>4.1. Percentage of children/young people (i) at the end of primary and (ii) at end of lower secondary achieving at least a minimum proficiency level in (a) reading and (b) mathematics</td>
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<td></td>
<td>4.1. Administration of a nationally representative learning assessment (i) during primary (ii) at the end of primary and (iii) at the end of lower secondary education</td>
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<td></td>
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<td>4.2. Percentage of children of school entrance age who are developmentally on track in health, learning and psychosocial well-being (to)</td>
<td></td>
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<tr>
<td>Child’s involvement in family work</td>
<td>EFA6: Teaching staff in primary education</td>
<td>SDG4: Percentage of girls and boys who acquire skills and values needed for global citizenship and sustainable development by the end of lower secondary</td>
<td>4.2. Percentage of children under 5 years of age experiencing positive and stimulating home learning environments</td>
<td></td>
</tr>
<tr>
<td>Social discrimination within the classroom/society [context-specific indicators would be necessary]</td>
<td>EFA6: Teaching staff in secondary education</td>
<td>SDG4: Percentage of children under 5 experiencing responsive, stimulating parenting in safe environments</td>
<td>4.4. Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills</td>
<td></td>
</tr>
<tr>
<td>Learning content</td>
<td>EFA6: Pupil/teacher ratio in pre-primary education</td>
<td>SDG4: Share of education facilities that provide an effective learning environment</td>
<td>4.4. Youth/adult educational attainment rates by age group, economic activity status, levels of education and programme orientation</td>
<td></td>
</tr>
<tr>
<td>Teaching method and process</td>
<td>EFA6: Pupil/teacher ratio in primary education</td>
<td>SDG4: Pupil to computer ratio in primary and secondary education</td>
<td>4.4. Youth/adult educational attainment rates by age group, economic activity status, levels of education and programme orientation</td>
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<tr>
<td>Assessment modes</td>
<td></td>
<td>SDG4: Supply of qualified teachers</td>
<td>4a. Percentage of schools with adapted infrastructure and materials for students with disabilities</td>
<td></td>
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<tr>
<td>Management of peer relationships</td>
<td></td>
<td>SDG5: Percentage of young people receiving comprehensive sexuality education</td>
<td>4a. Percentage of schools with access to (i) basic drinking water; (ii) basic sanitation facilities; and (iii) basic hand-washing facilities</td>
<td></td>
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<tr>
<td>Teacher-learner ratio</td>
<td></td>
<td>SDG5: Prevalence of girls and women, aged 15-49 years, who have experienced physical or sexual violence (by an intimate partner) in the last 12 months (through)</td>
<td>4a. Percentage of schools with access to (i) electricity (ii) Internet access for pedagogical purposes and (iii) computers for pedagogical purposes</td>
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<tr>
<td>SDG5: Percentage of girls aged 15-49 years who have undergone female genital mutilation (FGM) (through)</td>
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<tr>
<td>4.7. Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies (b) curricula (c) teacher education and (d) student assessment (through)</td>
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<td>4.6. Pupil/teacher ratio in secondary education</td>
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<tr>
<td>EF A6: Pupil/teacher ratio in secondary education</td>
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<td>Qualifications and level of training of teachers</td>
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<tr>
<td>4.c. Percentage of teachers qualified according to national standards by education level and type of institution</td>
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<tr>
<td>4.c. Pupil/qualified teacher ratio by education level</td>
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<tr>
<td>Gender balance within the classroom</td>
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<td>Gender balance within the classroom</td>
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<td>SDG5: Percentage of referred cases of sexual and gender-based violence against women and children that are investigated and sentence (through)</td>
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<td>4.7. Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability</td>
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<td>4.7. Percentage of 15-year-old students showing proficiency in knowledge of environmental science and governance</td>
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<td>4.7. Percentage of schools that provide life skills-based HIV and sexuality education</td>
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<tr>
<td>4.a. Percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse</td>
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<tr>
<td>4.a. Number of attacks on students, personnel and institutions</td>
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<td>4.c. Percentage of teachers qualified according to national standards by education level and type of institution</td>
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<tr>
<td>4.a. Percentage of teachers qualified according to national standards by education level and type of institution</td>
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<tr>
<td><strong>GENDER EQUALITY THROUGH EDUCATION</strong></td>
<td><strong>Impact on wider dimensions of life</strong></td>
<td><strong>MDG3: Share of women in wage employment in the non-agricultural sector</strong></td>
<td><strong>SDG5: Average number of hours spent on paid and unpaid work combined (total work burden), by sex</strong></td>
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<tr>
<td>Male/female employment across different levels of education by gender</td>
<td>Gender differentials in wages across different levels of employment/education</td>
<td>MDG3: Proportion of seats held by women in national parliaments</td>
<td>SDG5: Percentage of seats held by women and minorities in national parliament and/or sub-national elected office according to their respective share of the population</td>
<td></td>
</tr>
<tr>
<td>4.c. Percentage of teachers in (i) pre-primary (ii) primary (iii) lower secondary and (iv) upper secondary who have received at least the minimum organised and recognised teacher (i.e. pedagogical) training pre-service and in-service required for teaching at the relevant level in a given country, by type of institution</td>
<td>4.c. Pupil/trained teacher ratio by education level</td>
<td>4.c. Average teacher salary relative to other professions requiring a comparable level of education qualification (through)</td>
<td>4.c. Teacher attrition rate by education level</td>
<td></td>
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<tr>
<td>4.c. Percentage of teachers who received in-service training in the last 12 months by type of training</td>
<td></td>
<td>4.c. Percentage of teachers who received in-service training in the last 12 months by type of training</td>
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</tbody>
</table>
5.2. Measurement of GEE by the pre- and post-2015 international frameworks

5.2.1. Measurements by the DFA: EFA

The DFA: EFA, introduced in Chapter 3, comprehends twenty-six indicators to measure progress towards the six EFA goals (UNESCO 2015: 2). These latter goals are shown in Table 7, while the indicators established to measure them are presented below and classified according to Subrahmanian’s (2005) three-dimensional categorisation, as can be seen in Table 6.

| SDG5: Share of women on corporate boards of national/multinational corporations (MNCs) |
| SDG5: Percentage of women without incomes of their own |

**Table 7: The 6 EFA Goals**

Source: UNESCO (2015: 2)

*EFA1 - Early childhood care and education*

UNESCO defined five indicators to measure early childhood care and education. On the one hand, childhood care is measured through the mortality rate and the moderate or severe stunting of children under-5 year-old (UNESCO 2015: 4). These two indicators can measure gender equality within education, since they capture aspects regarding the health of students, which affect their performance in school. On the other hand, childhood education is measured through the total enrolment; the gross enrolment ratio; and the gender parity index (UNESCO 2015: 4), which are indicators to measure egalitarian access to education. However, the gender parity index could also tell us about the gender balance within the classroom, as suggested by Subrahmanian (2005) to measure gender equality within education (2005: 403-404). Thus, EFA1 has five indicators,
from which two are clearly measurements of egalitarianism in the access to education, two measure egalitarianism in the within education category, and the last one could tell us about both categories.

**EFA2 - Universal primary education**

Four indicators were established to measure universal primary education: the total primary enrolment; the primary adjusted net enrolment ratio; the out-of-school children, and the survival rate to last grade of primary education (UNESCO 2015: 6). While the first two indicators are clearly measures of access to education, the second two could serve as indicators for both: gender egalitarianism in access to and within education, for the same reasons explained in section 5.1. The number of out-of-school children signals how many children are not accessing and participating in the education system, and the survival rates indicate how many boys and girls have been participating throughout the primary education levels. However, as discussed earlier (see 5.1), they could also indicate the levels of gender egalitarianism within education. Hence, EFA2 has four indicators, from which two of them can clearly measure gender equality in the access to education, and two could be measurements of both: egalitarianism in the access to and within education.

**EFA3 - Youth and adult skills**

Youth and adult skills are measured through five indicators: total secondary enrolment; lower secondary gross enrolment ratio; upper secondary gross enrolment ratio; technical and vocational education as a share of secondary enrolment; and out-of-school adolescents of lower secondary school age (UNESCO 2015: 10). All of them indicate the gender egalitarian situation regarding the access to education. However, the last one regarding the out-of-school adolescents, could also tell us about the gender equality situation within education, for the same reasons stated in section 5.1. Thus, EFA3 has five indicators, from which four of them are clearly classified in the access to education category, while the last one could belong to both: the access to and within education categories.

**EFA4 – Adult literacy**

Three indicators were established to measure progress towards adult literacy: illiterate adults, adult illiteracy rates, and youth literacy rates. These indicators can measure how many adults accessed and participated (or not) in education regarding the extent to which they have (or not) developed literacy skills. However, they could also tell us about the within-dimension, for the same reasons stated in section 5.1. Hence, EFA4 is measured through three indicators which could serve
as measurements for the two categories suggested by Subrahmanian (2005): gender equality in access to, and within education.

**EFA5 – Gender equality**

Gender parity is measured through three indicators measuring the gender parity index in primary and secondary education (UNESCO 2015: 15). These indicators measure the amount of girls and boys with access to education, and could also tell us about the gender egalitarianism within education, since they signal the gender balance within the classroom. Thus, EFA5 is measured through three indicators which could serve as measurements for both categories: the egalitarianism in the access to and within education.

**EFA6 – Quality of education**

Six indicators were developed to measure quality education in pre-primary, primary and secondary education through the teaching staff and pupil/teacher ratio (UNESCO 2015: 18). These six indicators measure gender equality within education, since they envisage the quality of teaching. Thus, EFA6 is measured through six indicators measuring the egalitarianism within education.

Concluding, as shown in Table 10 below, from the twenty-six indicators established by the UNESCO to track progress towards the six EFA goals, eight of them clearly measure gender equality in access to education, in terms of enrolment; and eight measure gender equality within education, in terms of child health, qualification of teachers, and teacher-learner ratio. The ten left could measure aspects of both, gender equality in the access to and within education, in terms of gender parity, out-of-school children, survival rates and literacy rates. Therefore, the DFA: EFA shows a clear focus on measuring the two first categories of egalitarianism in the access to and within education, and does not consider any aspect of the through-dimension.

### 5.2.2. Measurements by the MDGs Framework

The MDGs Framework, presented in Chapter 3, establishes a set of indicators to measure progress towards the MDGs 2 and 3, towards the achievement of universal primary education, and the promotion of gender equality and women empowerment, as shown in Table 8 (UN 2003 a): 35). Concretely, the MDGs 2 and 3 comprise a total of eight indicators: four for the MDG2 and four for the MDG3. These indicators are presented below and classified according to Subrahmanian’s (2005) three-dimensional categorisation, as can be seen in Table 6.
Table 8: The MDGs 2 and 3

<table>
<thead>
<tr>
<th>MDG2</th>
<th>MDG3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal:</strong> Achieve universal primary education</td>
<td><strong>Goal:</strong> Promote gender equality and empower women</td>
</tr>
<tr>
<td><strong>Target:</strong> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</td>
<td><strong>Target:</strong> Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015</td>
</tr>
</tbody>
</table>

*Source: Table created from the content found in UN (2003: 17-19)*

**MDG2 - Universal primary education**

The achievement of universal primary education is measured through the net primary enrolment ratio; the proportion of pupils starting grade 1 who reach grade 5; the primary completion rate; and the literacy rate of 15-24 year-olds (UN 2003). The first indicator is a clear measure of gender equality in access to education, whereas the latter three indicators could note track on aspects of both: gender equality in the access to and within education for the same reasons stated above (see 5.1 and 5.2.1.).

**MDG3 - Gender equality and women empowerment**

To measure the promotion of gender equality and women’ empowerment, the UN established the following four indicators: the ratio of girls to boys in primary, secondary and tertiary education; the ratio of literate women to men 15-24 year olds; the share of women in wage employment in the non-agricultural sector; and the proportion of seats held by women in national parliaments (UN 2003). For the same reasons stated above (see 5.2.1 as per EFA5), the first indicator could measure both: the access of boys and girls to education, and also the gender balance within school. Likewise, the second indicator, could also tell us about the two categories of gender equality in education: access to and within, for the same reasons stated above (see 5.2.1 as per EFA4). Finally, the two last indicators are clearly measurements of gender equality through education, since they signal how education can influence the egalitarian situation regarding the employment and political participation of women.

Thus, as seen in Table 10, out of the eight indicators set to measure the MDGs 2 and 3, only one is a clear measure of access to education, in terms of enrolment, while five of them could be classified in both, the access to and within education categories, in terms of survival, completion, gender parity and literacy rates. Finally, the last two indicators measure gender equality through education. Therefore, even if the DFA: EFA and the MDGs Framework both measure egalitarianism in education, in terms of the access to and within it, the latter shows more emphasis in the through-
dimension. This can be explained because of the differing goals: the MDG2 and the EFA goals specifically focus on achieving universal education, while the MDG3 particularly focuses on gender equality and women’s empowerment, and thus, considers their status in the wider society.

5.2.3. Measurements by the SDGs Framework

As introduced in Chapter 3, the SDGs Framework was created to monitor progress towards the SDGs 4 and 5, shown in Table 9 (UN General Assembly 2015). The UN General Assembly (2015) established twenty-seven indicators to measure both SDGs. These indicators are presented and classified according to Subrahmanian’s (2005) three-dimensional categorisation, as can be seen in Table 6.

Table 9: The SDGs 4 and 5

<table>
<thead>
<tr>
<th>SDG4</th>
<th>SDG5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</td>
<td>Achieve gender equality and empower all women and girls</td>
</tr>
</tbody>
</table>

*Source: Table created from the content found in UN General Assembly (2015: 19-20)*

**SDG4 - Inclusive and equitable quality education, and life-long learning opportunities for all**

The following indicators were established to monitor the progress towards the SDG4: percentage of children (36-59 months) receiving at least one year of a quality pre-primary education program; tertiary enrolment rates for women and men; early child development index (ECDI); primary completion rates for girls and boys; secondary completion rates for girls and boys; the percentage of girls and boys who master a broad range of foundational skills, including in literacy and mathematics, by the end of the primary school cycle; the percentage of girls and boys who achieve proficiency across a broad range of learning outcomes, including in reading and in mathematics by end of the lower secondary schooling cycle; the percentage of girls and boys who acquire skills and values needed for global citizenship and sustainable development by the end of lower secondary; the percentage of children under 5 experiencing responsive, stimulating parenting in safe environments; the number of children out-of-school; the percentage of adolescents (15-19 years) with access to school-to-work programs; the literacy rate of 15-24 year-olds, women and men; the percentage of young adults (18-24 years) with access to a learning program; the share of education facilities that provide an effective learning environment; the pupil to computer ratio in primary and secondary education; the scholarships for students from developing countries; the supply of
qualified teachers; and the presence of legal frameworks that guarantee the right to education for all children for early childhood and basic education, and that guarantee a minimum age of entry to employment not below the years of basic education (UN General Assembly 2015: 137-142).

The first indicator captures how many children have access to pre-primary education, and the second one, the number of women and men accessing tertiary education. Hence, they both can be classified as measurements of the access to education category. The indicator considering the overall development of the early childhood stage, tells us about the child’s health’ status, and hence, can be considered as a measurement under the within-dimension. Following, the two indicators concerning completion rates, could signal both: the egalitarianism in education in terms of the access to it, and the learning quality within it, as stated above (see 5.1). Moreover, the indicators referring to the skills and proficiency levels acquired can serve as measures of equality between genders within education since they capture the learning outcomes of the students, as well as the quality of education. Furthermore, the indicator regarding the scholarships for students from developing countries, can measure the access to education in terms of how many girls and boys are given scholarships to access education. Likewise, the percentage of young adults with access to a learning program; the percentage of adolescents with access to school-to-work programs; as well as the presence of legal frameworks that guarantee the right to education for all and a minimum age of entry to employment not below the years of basic education, can notice the equality between genders in the access to education. Moreover, the latter indicator could also tell us about the through-dimension, since it envisages the impact in the employment sphere, by changing the minimum age of entry in favour of education for all boys and girls. Furthermore, the number of children out-of-school and the adult literacy rates could be categorised as measures for both categories: access to and within, for the same reasons stated above (see 5.1 and 5.2.1). Last, the indicators left, capturing aspects of the quality of education, the learning outcomes and skills’ achievement, as well as the students’ environment, can measure gender egalitarianism within education.

**SDG 5 - Gender equality and women empowerment**

The following indicators were defined to measure the progress towards the SDG5: prevalence of girls and women, aged 15-49 years, who have experienced physical or sexual violence (by an intimate partner) in the last 12 months; percentage of referred cases of sexual and gender-based violence against women and children that are investigated and sentenced; percentage of women aged 20-24 who were married or in a union before age 18; percentage of girls and women aged
15-49 years who have undergone female genital mutilation (FGM); met demand for family planning; adolescent birth rate; percentage of young people receiving comprehensive sexuality education; gender gap in wages, by sector of economic activity; share of women on corporate boards of national/multinational corporations; percentage of women without incomes of their own; average number of hours spent on paid and unpaid work combined (total work burden), by sex; and percentage of seats held by women and minorities in national parliament and/or sub-national elected office according to their respective share of the population (UN General Assembly 2015: 144-149).

The first six indicators measuring GBV, domestic violence, early marriages, FGM, family planning, and adolescent birth rate, can measure gender egalitarianism through education, since they all signal the specific situation of girls and women outside of it. According to Subrahmanian (2005), these discriminative practices are a reflection of the impact of the unequal gender values transmitted through education, which become those socially and traditionally accepted norms that reinforce such practices (398-401). Accordingly, the more egalitarian values and attitudes being promoted within education, the less discriminatory practices and patterns might develop in wider society through it (Subrahmanian 2005: 398-401). Following this narrative, thus, these indicators could also measure the within-dimension since these practices are created and nourished from the gender perspectives and values transmitted within education (Subrahmanian 2005: 398-401). Moreover, the indicators measuring early marriage, adolescent birth rate and family planning could also tell us about how many girls do not have access to education or cannot participate further in it, because they got married, are pregnant, or need to take care of their family. Further, the indicator referring to the provision of sexuality education, can measure the within-dimension since it signals the quality of education and the learning content transmitted within it. Finally, the last five indicators can measure gender equality through education, since they indicate the egalitarian situation between genders in the economic, political and employment spheres. The presence of women in the labour market, their economic situation, their working conditions, and their level of representation in politics, indicates to which extent education influences (or not) the gender egalitarian scenario in these dimensions of life, outside of education.

Therefore, in contrast with the previous frameworks, the SDGs Framework includes more indicators to measure gender equality within and through education. Concretely, it shows a broader perspective of GEE, by considering aspects related to the egalitarian or discriminatory gender dynamics affecting the boys’ and girls’ performance, how can these be reinforced or diminished
through the educational quality inside school, and how can they impact the overall further spheres outside of it.

5.2.4. Measurements by the Education 2030 Framework

As presented in Chapter 3, the overall aim of the Education 2030 Framework is to achieve the SDG4, by ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all (UNESCO TAG 2015). It contains forty-five indicators to measure the achievement of the “7+3 education targets”, composed by seven goals and three means of implementation (MoI onwards) (UNESCO TAG 2015). These seven goals aim to ensure universal, equitable and free pre-primary, primary and secondary education, ensure equal access to all levels of education, as well as increase the level of employability of boys and girls through the acquisition of skills and competences needed to join the labour market (UNESCO TAG 2015). Further, the three MoI cover the promotion of gender-sensitive learning environments, the supply of qualified teachers, and the provision of scholarships to increase access to education, specially in developing countries. The indicators established to measure these goals and MoI are presented below and classified as can be seen in Table 5, according to Subrahmanian’s (2005) three-dimensional categorisation.

Goal 4.1 - Completion of free, equitable and quality primary and secondary education

The UNESCO TAG (2015) establishes seven indicators to measure goal 4.1 (6-13). Of these seven indicators, the ones capturing the number of years of (i) free and (ii) compulsory primary and secondary education guaranteed in legal frameworks; and the percentage of children over-age for grade (primary, lower secondary) can measure the access to education of all boys and girls (UNESCO TAG 2015: 6-13). The latter, though, could also serve as an indicator of the within-dimension, since it tells us about the quality of education and the factors that shape students’ performance, as discussed in section 5.1. Likewise, the indicator measuring the administration of a nationally representative learning assessment (i) during primary (ii) at the end of primary and (iii) at the end of lower secondary education, can indicate the quality of the assessment within education (UNESCO TAG 2015: 6-13). Following, the three indicators left: gross intake ratio to the last grade (primary, lower secondary); completion rate (primary, lower secondary, upper secondary); out-of-school rate (primary, lower secondary, upper secondary), could measure both aspects of gender equality in education, being the access to and the quality within education, for the same reasons given in section 5.1 (UNESCO TAG 2015: 6-13). Last, the indicator measuring the percentage of children/young people (i) at the end of primary and (ii) at end of lower secondary achieving at least
a minimum proficiency level in (a) reading and (b) mathematics, captures the learning achievements and, hence, measures gender equality within education (UNESCO TAG 2015: 6-13).

**Goal 4.2 - Access to early childhood development, care and pre-primary education**

The goal 4.2 is measured through five indicators (UNESCO TAG 2015: 6-13). Three of them measure the egalitarian access to education through the participation rate in early childhood care and education in a given period prior to entry into primary education; the gross pre-primary enrolment ratio; and the number of years of (i) free and (ii) compulsory pre-primary education guaranteed in legal frameworks. The two indicators left, capture the percentage of children of school entrance age who are developmentally on track in health, learning and psychosocial well-being; and the percentage of children under 5 years of age experiencing positive and stimulating home learning environments (UNESCO TAG 2015: 6-13). These can measure gender equality within education since they consider the developmental state of the child (health, learning and psychosocial well-being), and his/her learning environment. Moreover, the level of well-being and learning development of children, could also indicate those students who are prepared to access primary education, and thus, measure egalitarianism in the access to education.

**Goal 4.3 - Access to technical, vocational and tertiary education**

The goal 4.3, is measured through the following three indicators (UNESCO TAG 2015: 6-13): the gross enrolment ratio for tertiary education; the participation rate in technical- vocational education programmes (15- to 24-year- olds); and the percentage of youth/ adults participating in education and training in the last 12 months, by type of programme (formal and non- formal) and by age group (UNESCO TAG 2015: 6-13). These are measures of egalitarianism between genders in the access to education, since they capture the enrolment ratio and participation rates of youth and adults.

**Goal 4.4 - Increase the acquisition of relevant skills for employment**

The goal 4.4 is measured through the following three indicators presented as follows (UNESCO TAG 2015: 6-13): the percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills; the percentage of individuals with ICT skills by type of skills; and the youth/adult educational attainment rates by age group, economic activity status, levels of education and programme orientation (UNESCO TAG 2015: 6-13). They can all be considered measures of gender equality within education, since they tell us about the students’ learning outcomes, levels of proficiency and educational attainment.
**Goal 4.5 - Eliminate gender disparities and ensure equal access to education**

Goal 4.5 is measured through four indicators presented as follows (UNESCO TAG 2015: 6-13). Firstly, the percentage of students in primary education whose first or home language is the language of instruction indicates to which extent the ethnic minorities can participate in the education system and, thus, signals gender equality in the access to education. Moreover, it could also tell us about the gender egalitarianism within education, since adapting the teaching language to reach all the students in the classroom, adds quality to education. Secondly, the indicators capturing the extent to which explicit formula-based policies reallocate education resources to disadvantaged populations; the education expenditure per student by level of education and source of funding; and the percentage of total aid to education allocated to low income countries, measure the extent to which resources are allocated in order to ensure access to education. Finally, the UNESCO TAG (2015) set the following indicator: parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status and conflict-affected as data become available) for all indicators on this list that can be disaggregated, which adds meaningful value to the overall framework, since its indicators are to be sex-disaggregated and, thus, relevant to gender (UNESCO TAG 2015: 6-13).

**Goal 4.6 - Literacy and numeracy skills**

The goal 4.6 measures the literacy status of the population by capturing its proficiency levels, as well as the literacy and participation rates (UNESCO TAG 2015: 6-13). The measurement of the participation rate of youth/ adults in literacy programmes, indicates the egalitarianism between genders in the access to education, since it signals how many boys and girls, men and women, participate in literacy programmes. The two left, regarding the percentage of the population by age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills and the youth/adult literacy rate, measure the egalitarian access to education as well, but could also tell us about the quality within education, for the same reasons stated in section 5.1 regarding the completion rates and literacy rates (UNESCO TAG 2015: 6-13).

**Goal 4.7 - Acquisition of knowledge and skills needed to promote sustainable development, including, among others gender equality**

The goal 4.7 is measured through five indicators (UNESCO TAG 2015: 6-13). Firstly, the indicator considering the extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies (b) curricula (c)
teacher education and (d) student assessment could be categorised as an indicator for gender egalitarianism in both, the within and through education categories, since it can tell us about how gender equality is mainstreamed within (curricula and teacher education) and through (national education policies) education (UNESCO TAG 2015: 6-13). Secondly, the following three indicators measure gender equality within education, since they tell us about the learning content and the students’ learning outcomes: the percentage of schools that provide life skills-based HIV and sexuality education; the percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability; and the percentage of 15-year-old students showing proficiency in knowledge of environmental science and geoscience (UNESCO TAG 2015: 6-13). Last, the indicator referring to the extent to which the framework on the World Programme on Human Rights Education is implemented nationally, can serve as a measure of all the dimensions of GEE, since it envisages the extent to which this framework, promoting egalitarian access to, within and through education, is implemented (UN 2012 and UNESCO TAG 2015: 6-13).

Means of implementation (MoI)

MoI 4.a - Gender-sensitive education facilities and school environment

The MoI 4.a, is measured through five indicators (UNESCO TAG 2015: 6-13). The first three, measure aspects regarding the environment and infrastructures of the schooling setting: the percentage of schools with access to (i) basic drinking water, (ii) basic sanitation facilities, and (iii) basic hand- washing facilities; the percentage of schools with adapted infrastructure and materials for students with disabilities; and the percentage of schools with access to (i) electricity (ii) Internet access for pedagogical purposes and (iii) computers for pedagogical purposes. Thus, these indicators can capture the gender egalitarianism within education, in terms of the extent to which the school’ facilities and resources are adapted to boys and girls. Likewise, the further two indicators capturing the percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse; and the number of attacks on students, personnel and institutions, can also measure gender equality within education, since they reflect those discriminatory practices taking place within the school system (UNESCO TAG 2015: 6-13).

MoI 4.b - Expand the number of scholarships available to increase the enrolment in education

There are two indicators to measure the MoI 4.b: the number of higher education scholarships awarded by beneficiary country; and the volume of official development assistance (ODA) flows
for scholarships by sector and type of study (UNESCO TAG 2015: 6-13). These indicators can tell us about the gender egalitarianism in the access to education, since they measure the extent to which these scholarships enable more boys and girls to enrol to education.

**MoI 4.c - Increase the supply of qualified teachers**

There are seven indicators developed to measure the MoI 4.c, regarding the provision of qualified teachers: the percentage of teachers qualified according to national standards by education level and type of institution; the pupil/qualified teacher ratio by education level; the percentage of teachers in (i) pre-primary (ii) primary (ii) lower secondary and (iv) upper secondary who have received at least the minimum organised and recognised teacher (i.e. pedagogical) training pre-service and in-service required for teaching at the relevant level in a given country, by type of institution; the pupil/qualified teacher ratio by education level; the average teacher salary relative to other professions requiring a comparable level of education qualification; the teacher attrition rate by education level; and the percentage of teachers who received in-service training in the last 12 months by type of training (UNESCO TAG 2015: 6-13). All of these indicators can capture aspects of gender egalitarianism within education, since they capture aspects related to the teacher’s education and conditions, and the quality of education within the schooling system. However, the indicator measuring the teachers’ salary, could also measure the through-dimension, since it envisages the situation of male and female teachers in the employment arena.

Therefore, the Education 2030 Framework is the framework offering most and greatest indicators to measure the gender equality in the within-dimension, since it incorporates the measurements from the SDGs Framework to progress towards the SDG4, and develops new ones more concrete. However, it does only envisage three indicators which could also measure gender egalitarianism through education. This could be explained because of the main goal on education this framework, not that much focused on gender. Nonetheless, it is the only one which specifically requires sex-disaggregated data for all the indicators.

**5.3. Analysis**

This chapter aimed to examine the extent to which the four most relevant international frameworks can measure GEE integrating the three-dimensions stated by Subrahmanian (2005): to, within and through. In the coming paragraphs, the findings are analysed through two angles, as mentioned in Chapter 2: broad/concrete and qualitative/quantitative (see Table 2). Firstly, the broad-
qualitative angle analyses the extent to which the international frameworks cover the three dimensions suggested by Subrahmanian (2005) to measure GEE, using the findings collected in Table 6. Secondly, the broad-quantitative angle wants to see how many indicators from the international frameworks cover each dimension suggested by Subrahmanian (2005) to measure GEE. Table 10 has been created to collect the findings relevant to this purpose. Thirdly, the concrete-qualitative angle of this analysis, aims to examine the extent to which the international frameworks cover the specific indicators suggested by Subrahmanian (2005) to measure GEE. Table 11 has been created to collect this specific data. Fourthly, the concrete-quantitative angle, aims to see how many indicators from the international frameworks cover each specific indicator suggested by Subrahmanian (2005) to measure GEE. Table 12 has also been created to collect the data relevant to this purpose. Finally, the analysis closes with some recommendations on how to combine the frameworks to obtain a complete measurement of GEE according to Subrahmanian’s (2005) perspective.

On the one hand, the first part of this analysis, adopts a broad angle to analyse the extent to which the international frameworks cover the three dimensions suggested by Subrahmanian (2005) to measure GEE through a qualitative and quantitative analysis. Tables 6 and 10, collect the findings related to this matter.

Table 10: Number of indicators of the international frameworks capturing each of the three dimensions of GEE stated by Subrahmanian (2005)

<table>
<thead>
<tr>
<th>FRAMEWORK/DIMENSION</th>
<th>ACCESS TO</th>
<th>WITHIN</th>
<th>THROUGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFA: EFA</td>
<td>Out of 26 indicators: - 8 can measure to - 10 could measure to &amp; within</td>
<td>Out of 26 indicators: - 8 can measure within - 10 could measure to &amp; within</td>
<td>None</td>
</tr>
<tr>
<td>MDGs Framework</td>
<td>Out of 8 indicators: - 1 can measure to - 5 could measure to &amp; within</td>
<td>Out of 8 indicators: - 5 could measure to &amp; within</td>
<td>Out of 8 indicators: - 2 can measure through</td>
</tr>
<tr>
<td>SDGs Framework</td>
<td>Out of 30 indicators: - 5 can measure to - 4 could measure to &amp; within - 1 could measure to &amp; through - 3 could measure all</td>
<td>Out of 30 indicators: - 9 can measure within - 3 could measure within &amp; through</td>
<td>Out of 30 indicators: - 5 can measure through</td>
</tr>
</tbody>
</table>
As shown in Table 6, the classification of the indicators established by these frameworks according to Subrahmanian’s (2005) three-dimensional categorisation (to, within and through), reveals the extent to which they integrate each of these categories in their measurement of GEE. Considering the pre-2015 frameworks, the findings in Table 6 and 10 show that the DFA: EFA and the MDGs Framework are build upon indicators which focus more on the egalitarianism in the access to and within education, while the through-dimension is only considered by the latter framework. Concretely, as shown in Table 10, the DFA: EFA, has eight out of twenty-six indicators which can measure gender equality as per access to education, eight which can measure it within, ten which could measure both dimensions, and none to measure the gender egalitarian impact through education. Likewise, the MDGs Framework, has one out of eight indicators which can measure gender egalitarianism in the access to education, and five which could measure it to and within. Moreover, unlike the DFA: EFA, this latter framework does consider the gender egalitarian aspects emerging through education, by offering two measurements regarding women’s wage employment and political participation. Thus, these two pre-2015 frameworks are mainly covering the measurement of gender equality in the access to and within education, while aspects to measure the through-dimension is only shortly considered by the MDGs’ Framework.

Nonetheless, the post-2015 frameworks seem to have incorporated new and greater indicators to measure the gender egalitarian situation in the within and through dimensions of education. While they have kept most of the previous indicators considered in the pre-2015 frameworks in terms of access to education (such as enrolment, completion, survival, gender parity and literacy rates, and teacher-to-pupil’ ratios), they have developed new indicators which focus more on the student, the environment and the quality of education, in terms of the learning content, the resources available, the school context, the teaching methods and qualifications, and the learning outcomes (see Table 6). Concretely, as shown in Table 10, the SDGs Framework contains five out of thirty indicators to measure the egalitarian access to education, nine to measure the within-dimension, four which could
measure both: the \textit{to} and \textit{within} dimensions, one which could measure the \textit{to} and \textit{through}-
dimensions three which could measure the \textit{within} and \textit{through}, five to measure the \textit{through}-
dimension, and three which could measure all of them. As opposed to the previous frameworks,
thus, the SDGs Framework adopts a greater focus on the \textit{within} and \textit{through} dimensions of GEE.
Regarding the \textit{within}-dimension, as a new feature compared to the previous frameworks, it develops
more accurate indicators to better capture the quality of the learning content, in terms of how global
citizenship and sustainable development values, and sexuality education are incorporated in the
learning curricula; the proficiency levels and skills acquisition; as well as the extent to what the
learning environment is responsive, stimulating, and safe. Last, regarding the \textit{through}-dimension, it
offers new indicators to measure the impact of education in gender equality in other life spheres. As
opposed to all the other frameworks, it offers a set of indicators considering gender discriminatory
practices, such as GBV, domestic violence, early marriages, FGM, family planning, and adolescent
birth rate. Moreover, it also covers new indicators to capture the presence of women in corporate
boards and women without self-incomes. This adds quality to the measurement of the \textit{through}-
dimension suggested by Subrahmanian (2005), since it covers the aspects mentioned above not
considered by the author. Following, as an instrument to specifically advance towards the SDG4 in
education, the Education 2030 Framework goes more in detail in the measurement of the \textit{within}-
dimension. Drawing on the indicators established by the SDGs Framework to measure the SDG4,
the Education 2030 Framework incorporates more defined indicators to better capture those aspects.
Moreover, contrary to the previous frameworks, Table 6 shows how the Education 2030 Framework
incorporates an indicator to measure the assessment methods, which is appointed by Subrahmanian
(2005) under the measurement of gender egalitarianism \textit{within} education, as shown in Table 5.
Concretely, as per Table 10, it contains thirteen out of forty-four indicators which can measure
gender equality in access \textit{to} education, twenty for the \textit{within}-dimension, eight which could measure
both: the \textit{to} and \textit{within} dimensions, two which could measure the \textit{to} and \textit{through} dimensions, and
one which could measure all of them. Thus, most of the indicators included in the Education 2030
Framework can measure gender equality in the \textit{within}-dimension of education, a few can measure
the access \textit{to} education dimension, and only one which envisages all of them.

On the other hand, the second part of this analysis, adopts a concrete angle aiming to examine
the extent to which these indicators capture the concrete aspects suggested by Subrahmanian (2005)
as measurements for GEE, through a qualitative and quantitative analysis. The following Tables 11
and 12 collect the findings related to this matter.
Table 11: Extent to which the international frameworks capture Subrahmanian’s (2005) indicators

<table>
<thead>
<tr>
<th>INDICATORS BY SUBRAHMANIAN (2005)/FRAMEWORKS</th>
<th>DFA: EFA</th>
<th>MDGs Framework</th>
<th>SDGs Framework</th>
<th>Education 2030 Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EQUAL ACCESS TO EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survival</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Completion</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Regularity of attendance</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Repetition</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>The average years of schooling attained</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The transitions of boys and girls between levels of education</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The number of female and male teacher</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Literacy levels of boys and girls, men and women</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>GENDER EQUALITY WITHIN EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject choice</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Learning outcomes [performance in examinations]</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Learning content</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Teaching method and process</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Assessment modes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Teacher-learner ratio</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Qualifications and level of training of teachers</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Management of peer relationships</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Gender balance within the classroom</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Health and nutritional status of students</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Child’s involvement in family work</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Social discrimination within the classroom/society [context-specific indicators would be necessary]</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>GENDER EQUALITY THROUGH EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male/female employment across different levels of education by gender</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Gender differentials in wages across different levels of employment/education</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Women’s political participation</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
As shown in Tables 11 and 12, the post-2015 frameworks seem to integrate most of the indicators suggested by Subrahmanian (2005) to measure GEE. This can also be explained because they contain a bigger number of indicators, since they kept most of the pre-2015 ones and developed new ones. As per table 12, out of the twenty-four indicators established by Subrahmanian (2005), the mostly all of the frameworks cover the same amount of aspects of the to-dimension, besides the Education 2030 Framework, offering two more out of ten, compared to the six out of ten from the other frameworks. Considering the within-dimension, this latter framework is, again, the one covering most of the aspects stated by Subrahmanian (2005) under this dimension - nine out of ten. Finally, the SDGs Framework is the one capturing most aspects of the through-dimension.

These findings indicate, again, how the pre-2015 frameworks envisage aspects of GEE, mainly focusing in the access to and within it; while the post-2015 frameworks develop more and qualitatively better indicators to measure the within and through dimensions. Certainly, it is mainly the indicators established to measure the MDG3 and SDG5 that envisage the gender egalitarianism through education, since they specifically focus on the promotion of gender equality and women empowerment and, thus, consider the situation of women in further areas of life. Contrarily, the DFA: EFA and Education 2030 Framework do not envisage any indicator in the through-dimension, since they mainly focus on gender egalitarianism inside education. As shown in Tables 6 and 10, the SDGs Framework contains the most indicators to measure the through-dimension (five out of

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**Table 12: Number of indicators stated by Subrahmanian (2005) captured by the international frameworks’ indicators**

<table>
<thead>
<tr>
<th>FRAMEWORK/DIMENSION</th>
<th>EQUALITY IN ACCESS TO EDUCATION</th>
<th>GENDER EQUALITY WITHIN EDUCATION</th>
<th>GENDER EQUALITY THROUGH EDUCATION</th>
<th>TOTAL of indicators captured per framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFA: EFA</td>
<td>6/10</td>
<td>5/12</td>
<td>0/3</td>
<td>11/24</td>
</tr>
<tr>
<td>MDGs Framework</td>
<td>6/10</td>
<td>3/12</td>
<td>2/3</td>
<td>11/24</td>
</tr>
<tr>
<td>SDGs Framework</td>
<td>6/10</td>
<td>8/12</td>
<td>3/3</td>
<td>14/24</td>
</tr>
<tr>
<td>Education 2030 Framework</td>
<td>9/10</td>
<td>9/12</td>
<td>0/3</td>
<td>17/24</td>
</tr>
</tbody>
</table>
thirty), besides being qualitatively more accurate. Hence, this latter framework appears to be the most complete and rigorous one to measure the egalitarian situation between men and women outside of the educational sphere. Likewise, the Education 2030 Framework seems to be the most concrete one to best measure gender equality within education, as well as the one reflecting most of the indicators suggested by Subrahmanian (2005). Nonetheless, this can be, again, due to the higher amount of indicators offered by this latter framework, compared to the others. Yet, the Education 2030 Framework is finally the most outright one, reflecting seventeen out of of the twenty-four indicators suggested by Subrahmanian, as well as greater accuracy in these measurements. Moreover, the Education 2030 Framework, as opposed to the other frameworks, adds quality to the measurement of GEE by integrating an indicator under goal 4.5, which requires gender parity indices for all the indicators stated in the framework which can be disaggregated by sex (UNESCO 2016). This deals with the initial requirement for all the indicators, especially the ones measuring education, to provide separate measures for men and women, to reveal gender-relevant data (Moser 2007: 12, in UNGEI 2010 a/: 16; and UNGEI 2009: 33).

However, none of the frameworks consider the number of female and male teacher; nor the subject choice; nor the management of peer relationships. Therefore, a combination of both post-2015 frameworks adopting these latter uncovered indicators, could measure all the aspects of GEE stated by Subrahmanian. Considering that the Education 2030 Framework is the most complete in measuring the within-dimension, if it adopted the measurements established by the SDGs Framework regarding the through-dimension, as well as those three indicators by Subrahmanian (2005) still uncovered, such combination would integrate all the indicators suggested by the author to measure GEE. Thus, as a response to Subrahmanian’s (2005) call for a specific framework which integrates the three-dimensional perspective of GEE, the results of this research show that, if all the indicators are sex-disaggregated, the SDGs and Education 2030 frameworks combined could effectively measure GEE according to Subrahmanian’s (2005) perspective, leaving out those three indicators. Following, if indicators regarding the measurement of the subject choice, the management of peer relationships, and the teachers’ gender parity were developed and integrated as well, all the aspects suggested by Subrahmanian (2005) would be considered and GEE completely measured.
6. PROMOTION OF GENDER EQUALITY IN EDUCATION

This chapter wants to answer to the third question of this research: to what extent does the UNGEI's (2009) proposal to promote GEE integrates Subrahmanian's (2005) perspective?

As mentioned in Chapter 1, Subrahmanian (2005) points out two fundamental aspects to enhance GEE: “one that a multi-dimensional approach is necessary for addressing gender equality in education, and two, that for formal education to translate into gender equality, enabling conditions need to be identified.” (406). Enabling conditions are identified by Subrahmanian (2005) as those circumstances which promote equality of treatment and opportunity, reinforcing substantive freedoms and individual choices (Ibid). Taking this into consideration, this chapter aims to investigate the extent to which the UNGEI’s (2009) strategy proposal to promote GEE integrates a multi-dimensional approach and includes enabling conditions, as appointed by the author.

Firstly, UNGEI's (2009) understanding of GEE is analysed against Subrahmanian's (2005) rights-based approach. Secondly, UNGEI's (2009) recommendations on how to promote GEE are classified and analysed according to the extent to which they integrate the three dimensions of GEE, as well as the enabling conditions appointed by Subrahmanian (2005). Last, the findings are analysed to conclude the extent to which UNGEI reflects Subrahmanian's (2005) perspective on the promotion of GEE.


UNGEI (2009) understands GEE as a complex concept, integrated by three dimensions: to, within and through. The first one encompasses the quantitative gender parity, in terms of access to, participation and retention of boys and girls in education. The second one envisages the gender egalitarianism in the quality of education and the teaching-learning process within it. Specially, UNGEI (2009) points out how the quality in education (curricula, treatment and opportunities, context, facilities, incentives, etc) can increase girls’ enrolment and participation in education, or reduce their levels of drop-out (15). Last, the third dimension considers the gender egalitarianism in the transition from school to the labour market and workforce, concerning the learning outcomes and their impact in wider social structures (UNGEI 2009: 6).

Thus, UNGEI (2009) concurs with Subrahmanian’s (2005) three-dimensioned perspective of GEE. However, they present some differences regarding the classification of the learning outcomes’ aspect. While Subrahmanian (2005) perceives the learning outcomes under the within-dimension, as
per educational capital developed inside of school; UNGEI (2009) includes them under the *through*-dimension, as per educational capital which influences the students’ future impact in the spheres outside education.

6.2. Promotion of gender equality in education by UNGEI (2009)

UNGEI (2009) presents some persistent challenges as critical priorities for action and makes recommendations based in successful good practices regarding how to promote GEE in its three dimensions stated above: access and retention (*to*), equality of learning (*within*) and learning outcomes (*through*) (6 and 33). It points out the urgent need to move from ensuring gender parity to promoting gender equality, which ensures that boys and girls enjoy an equal quality of education without any type of gender discrimination (UNGEI 2009: 6).

The measures recommended by UNGEI (2009) presented below are classified in Table 13 under the different categories composing GEE defined by Subrahmanian (2005). Those interventions which can be considered to promote GEE in more than one dimension, appear in the table in purple and the further dimension(s) where the intervention can also belong to, stated in brackets.

Table 13: UNGEI’s (2009) promotion of GEE within the three-dimensions presented by Subrahmanian (2005)

<table>
<thead>
<tr>
<th>THREE-DIMENSIONS OF GEE by Subrahmanian (2005)</th>
<th>UNGEI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EQUAL ACCESS TO EDUCATION - participation and access to education</strong></td>
<td></td>
</tr>
<tr>
<td>Enrolment</td>
<td>Enhance access and participation of marginalised groups</td>
</tr>
<tr>
<td>Survival</td>
<td>Build schools at a safe walking distance</td>
</tr>
<tr>
<td>Completion</td>
<td>Design bridge programmes to mainstream out-of-school children</td>
</tr>
<tr>
<td>Regularity of attendance</td>
<td>Place the community at the centre of action</td>
</tr>
<tr>
<td>Repetition</td>
<td>Expand outreach through alternate modes of schooling</td>
</tr>
<tr>
<td>The average years of schooling attained</td>
<td>Reduce the cost burden</td>
</tr>
<tr>
<td>The transitions of boys and girls between levels of education</td>
<td>Expand opportunities for secondary schooling</td>
</tr>
<tr>
<td>The number of female and male teacher</td>
<td>Integrate gender equality in the educational policy (all)</td>
</tr>
<tr>
<td>Literacy levels of boys and girls, men and women</td>
<td></td>
</tr>
<tr>
<td><strong>THREE-DIMENSIONS OF GEE by Subrahmanian (2005)</strong></td>
<td><strong>UNGEI</strong></td>
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<td><strong>GE WITHIN EDUCATION - educational space free of discriminative treatment and opportunities (environment, processes and outcomes)</strong></td>
<td><strong>Reform the curriculum and textbooks from a gender perspective</strong></td>
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<tr>
<td>Subject choice</td>
<td><strong>Enhance the number and quality of teachers: The pupil/teacher ratio and teacher training</strong></td>
</tr>
<tr>
<td>Learning outcomes [performance in examinations]</td>
<td><strong>School environments to become girl-friendly</strong></td>
</tr>
<tr>
<td>Learning content</td>
<td><strong>Adopt programmes and strategies that address the inequitable practices within schools</strong></td>
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<tr>
<td>Teaching method and process</td>
<td><strong>Overcome systemic biases in the teaching-learning process</strong></td>
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<tr>
<td>Assessment modes</td>
<td><strong>Integrate gender equality in the educational policy (all)</strong></td>
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<tr>
<td>Teacher-learner ratio</td>
<td><strong>Increase the hours of instruction and investment in education (within)</strong></td>
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<tr>
<td>Qualifications and level of training of teachers</td>
<td><strong>Ensure Early Childhood Education (ECE) (to)</strong></td>
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<tr>
<td>Management of peer relationships</td>
<td><strong>Eliminate the gender differences in learning outcomes, and in testing and assessment methodologies (within)</strong></td>
</tr>
<tr>
<td>Gender balance within the classroom</td>
<td><strong>Fight the 'reverse disparity' problem (to)</strong></td>
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<tr>
<td>Health and nutritional status of students</td>
<td><strong>Confront child-labour (all)</strong></td>
</tr>
<tr>
<td>Child’s involvement in family work</td>
<td><strong>Promote gender equality in the transition from school to work</strong></td>
</tr>
<tr>
<td>Social discrimination within the classroom/society [context-specific indicators would be necessary]</td>
<td><strong>Promote women’s political participation through education</strong></td>
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<tr>
<td><strong>GE THROUGH EDUCATION - impact on the other dimensions of life (overall socioeconomic structure and wider processes of gender justice)</strong></td>
<td><strong>Integrate gender equality in the educational policy (all)</strong></td>
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<td>Male/female employment across different levels of education by gender</td>
<td><strong>Increase the hours of instruction and investment in education (within)</strong></td>
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<tr>
<td>Gender differentials in wages across different levels of employment/education</td>
<td><strong>Ensure Early Childhood Education (ECE) (to)</strong></td>
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<tr>
<td>Women’s political participation</td>
<td><strong>Eliminate the gender differences in learning outcomes, and in testing and assessment methodologies (within)</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>Fight the 'reverse disparity' problem (to)</strong></td>
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<td><strong>Confront child-labour (all)</strong></td>
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<td><strong>Promote gender equality in the transition from school to work</strong></td>
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<td><strong>Promote women’s political participation through education</strong></td>
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<td><strong>Integrate gender equality in the educational policy (all)</strong></td>
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*Source: Table created from the content found in Subrahmanian (2005) and UNGEI (2009)*
General recommendations

- *Integrate gender equality in the educational policy*

  This measure covers the promotion of GEE in all the dimensions: *to, within* and *through*, since it aims to integrate a gender-sensitive perspective to all the education programmes and policies, which will ensure that quality education is provided free of discrimination to all boys and girls (UNGEI 2009: 33).

  **Measures to promote gender equality in the access to education**

  The following measures are suggested by UNGEI (2009) as interventions to address gender equality in the access to education, as discussed below:

  - *Enhance access and participation of marginalised groups*

    The development of proactive policies and actions is needed to expand education and reach those marginalised groups (specially girls), ensuring their participation and completion in schooling (UNGEI 2009: 34).

    - **Build schools at a safe walking distance**

      Girls’ enrolment and participation in education has been proved to increase as schools are built closer to habitations and in safe walking distances (UNGEI 2009: 34).

    - **Design bridge programmes to mainstream out-of-school children**

      Bridge programmes have shown to be effective in re-engaging out-of-school girls in education, by providing them with cognitive competencies to re-enter school, besides further meaningful life skills (UNGEI 2009: 34).

    - **Place the community at the centre of action**

      The parents develop a sense of ownership and accountability being considered and involved in the planning and implementing stages, which increments their engagement with the school, their sense of safety in it, and, consequently, their children’s enrolment (UNGEI 2009: 35).

    - **Expand outreach through alternate modes of schooling**

      Emerging alternative educational structures have been proved to enhance the participation of out-of-school girls, specially coming from marginalised and unreached groups (UNGEI 2009: 35).
• Reduce the cost burden

School fees exclude the poor and rural girls from pursuing an education, since their parents cannot afford it. Moreover, girls are the ones left outside of school in those situations where their families can only pay for one child, which is normally the boy (UNGEI 2009: 36). Nevertheless, there are other financial costs that poor families have to face (such as textbooks, material, uniforms and transportation), which costs more than the income lost from paid child labour (Ibid). Hence, strategies of cash transfers, scholarship programmes and free food/textbooks have shown to have a direct impact in terms of the increase of girls’ enrolment and participation in education (Ibid).

• Expand opportunities for secondary schooling

Stipends offered to girls to enter school has shown to be an effective incentive for them, not only to enrol, but also to complete primary education. From here, similar incentive schemes are to be developed to get more girls enrolled in secondary school and higher education, as it has been proved to provide significant benefits to the overall society’s development (UNGEI 2009: 36).

Measures to promote gender equality within education

UNGEI (2009) suggests the a set of measures to promote gender equality within education, discussed below:

• Reform the curriculum and textbooks from a gender perspective

Since the school curriculum can reinforce or diminish gender ideas, it is crucial to ensure that the content taught in school is gender-sensitive and free of stereotypes, and advocates egalitarian values among the students (UNGEI 2009: 16).

• Enhance the number and quality of teachers: the pupil/teacher ratio and teachers’ training

UNGEI considers three dimensions to promote gender egalitarianism within the teaching-process. Firstly, adapt a pupil/teacher ratio that allows a qualitative learning process where teachers can focus and provide equal attention to all the students (UNGEI 2009: 18). Secondly, teachers need to be properly trained as such to ensure an effective gender-sensitive teaching-learning process, which breaks with gender discrimination (UNGEI 2009: 24). Last, the incorporation of more female teachers serves as good female-role models, and sense a more safe educational environment for girls (UNGEI 2009: 22).
• **School environments to become girl-friendly**

Considering that a lot of boys and girls leave education because of uncongenial conditions within the school, a gendered perspective needs to be adopted to transform these inharmonious classroom processes. Moreover, the environment influences girls’ performance, and increases girls’ enrolment and participation in school (UNGEI 2009: 10). Hence, UNGEI appoints the need to promote girl-friendly educational contexts (Ibid). Girl-friendly environments involve providing infrastructure and facilities for both genders, paying attention to gender-based violence cases, and adapting the language of instruction to reach all the students (UNGEI 2009: 22). Modifying the school governance to use the teachers’ agency (attitude, dealing with students, steering of classes), has proved to improve these congenial dynamics within school (UNGEI 2009: 37). The teachers’ quality of understanding the relevance of adopting a child/girl-friendly perspective, and applying it within the school’ practices, has been proved to increase after participating in workshops and trainings with this goal (Ibid).

• **Adopt programmes and strategies that address the inequitable practices within schools**

Factors such as the teachers’ expectations, valuing, differential treatment and attention among the students, as well as the access to school resources and facilities, can be gender discriminative. Hence, it is important to impulse measures and strategies which ensure gender egalitarian practices within the classroom, and equal access to the school spaces and utilities (UNGEI 2009: 37).

• **Overcome systemic biases in the teaching-learning process**

The school entity needs to become the propeller for eliminating gender unequal perceptions which are systematically and inter-generationally perpetuated within it. Hence, teaching-learning processes and interactions within the school need to adopt a gender egalitarian perspective which breaks with the reinforcement of such gender biases. There are many educational programs for teachers that have shown to advance towards the adoption of more egalitarian teaching-learning approaches. These trainings help teachers think about their own practice, and adopt a gender-sensitive perspective by acknowledging the importance of understanding the student, diminishing gender stereotyping, encouraging girls to choose less-traditional subjects, understanding violence abuse and harassment, promoting extracurricular activities interesting to girls, and making the school a more child/girl-friendly context (UNGEI 2009: 38).
Measures to promote gender equality through education

UNGEI (2009) suggests the further interventions to promote gender equality through education, discussed as follows:

- *Increase the hours of instruction and investment in education*

  Adapt the amount of instructing hours and the expenditure on education according to the EFA indicative framework’ suggestion of 850 hours of instruction per year and an education budget at 4.7% of GNP for all developing countries (UNGEI 2009: 25). This measure is considered by UNGEI (2009) to advance towards gender egalitarianism through education, since it envisages changes at a policy level, outside of education. However, this measure can also influence the within-dimension, since it affects the quality of education, in terms the budget available to improve it and the hours of instruction.

- *Ensure Early Childhood Education (ECE)*

  ECE has been proved to stop those types of exclusion that prevent children at school age from pursuing an education (UNGEI 2009: 26). Also, early cognitive stimulation is crucial for long-term skill development outcomes. Moreover, this measure may have a relevant positive impact on girls, since “providing preschool or childcare programmes may promote girls enrolment and learning by reducing the need for girls to care for siblings” (Ibid). Thus, considering that childhood education prepares children to start school and allows girls or women to re-engage in education, instead of taking care of their children, this measure can also promote gender egalitarian in the access to education.

- *Eliminate the gender differences in learning outcomes, and in testing and assessment methodologies*

  The assessment that students receive will affect their learning outcomes. This assessment considers the learning process of a certain student, based on his/her experience to reach those outcomes. The assessment methods have different effects on boys and girls, the latter ones responding better to more collaborative and participatory pedagogies. Considering how powerful assessment can be to improve the quality of education outcomes, it is important to ensure that the assessment received is gender-sensitive, and equally provided and adapted to boys and girls (UNGEI 2009: 26). Interestingly, this measure is considered by UNGEI (2009) to promote gender egalitarianism through education, whereas, according to Subrahmanian (2005), it would affect the within-dimension, since the author classifies the learning outcomes under this latter category.
• **Fight the ‘reverse disparity’ problem**

Many boys drop out school to work and contribute to the household incomes, provoking what is called as ‘reverse disparity’, which consists in having more girls than boys in school. Hence, it is necessary to make them realise the importance of education to their future employment opportunities. Programmes which, enable teachers to connect education to the students’ realities, and encourage them to pursue an education to enriched their future opportunities, have been shown to be effective initiatives (USAID, 2008, in UNGEI 2009: 39). For these same reasons, this measure can also promote the gender egalitarian access to education, since it incentivises boys to complete their education as a relevant input for a successful future, instead of dropping out.

• **Confront child-labour**

Advocacy for banning child labour needs to be complemented with concrete programmes of alternative education which free those children from pernicious work. Back-to-school programs have been proved to have positive effects in encouraging parents to send their children to school, instead of pouring them into the child paid labour. These campaigns aim to spread the message among families that education will have better long-term benefits regarding their children’s future employability (UNGEI 2009: 39). For these same reasons, this measure can also promote gender egalitarianism in the to and within dimensions, since the elimination of child labour would reduce these children’s level of involvement with family work, and consequently, increase their participation in education.

• **Promote gender equality in the transition from school to work**

Even with similar educational backgrounds, women’s employment prospects can be limited by different patterns of gender segregation present in the labour market. Hence, policy initiatives and programmes need to be put in place to eliminate these gender inequalities which weaken the link between girls’ education and women’s employment (UNGEI 2009: 29). Programmes focusing on providing girls with meaningful and empowering competences which will prepare them to transit towards the labour market in the same conditions as males have proved to be helpful (UNGEI 2009: 38). Likewise, gender egalitarian laws to address the discrimination of women in the labour market have shown to be an effective strategy to fight the low representation and recognition of women in the labour market (UNGEI 2009: 39).
• Promote women’s political participation through education

Extended educational opportunities for girls and women is associated with higher levels of political participation and democracy, which in turn leads to the promotion of girl’s education (UNGEI 2009: 29). The adoption of quotas for women in elected government bodies have shown to increase the presence of women in the political sphere (UNGEI 2009: 39).

6.3. Analysis

These findings show that UNGEI (2009) coincides with Subrahmanian’s (2005) three-dimensional rights-based approach on gender equality to, within and through education, with a slight divergence on the last dimension. Consequently, this is reflected on the twenty measures suggested by UNGEI (2009) to promote GEE along these three dimensions. Concretely, as can be seen in Table 13, seven measures are suggested by UNGEI (2009) to advance towards gender equality in the access to education, five to promote it within, seven through, and one which promotes GEE in all the dimensions. Thus, in accordance to Subrahmanian (2005), UNGEI’s (2009) suggested interventions seem to capture a great portion of the aspects considered under the three dimensions, with greater focus on the to and through dimensions, and less attention to the within-dimension.

However, there are some elements appointed by Subrahmanian (2005) which are not envisaged by UNGEI’s (2009) proposal. This is the case of the management of peer relationships, the students’ health and nutritional status, and the women’s situation in the labour market. Even though UNGEI (2009) suggests relevant interventions to advance towards equality between genders inside education, it lacks the consideration of aspects such as the boys’ and girls’ interactions and their overall well-being conditions. Similarly, besides the proposal of a great diversity of measures to address the egalitarianism between genders outside education, UNGEI (2009) still oversees the promotion of gender equality in some other spheres of life, such as employment, as contemplated by Subrahmanian (2009).

Moreover, as mentioned, Subrahmanian (2005) and UNGEI (2009) differ in the classification of the learning outcomes. The first understands the learning outcomes as an element under the within-dimension, while the second includes it under the through-dimension. This controversy is translated in the consideration of the measures suggested by UNGEI (2009) regarding the elimination of gender discrimination in the learning outcomes. While this action is considered by UNGEI (2009)
to promote gender equality through education, it can also serve as an intervention towards gender egalitarianism within education, following Subrahmanian’s (2005) narrative. Likewise, there are some more measures which are considered by UNGEI (2009) to contribute to the advancement of gender egalitarianism through education, which could promote it in other dimensions, according to Subrahmanian’s (2005) perspective, as shown in Table 13. This is the case of the interventions regarding the provision of ECE and the eradication of reverse parity, which can also boost boys’ and girls’ access to education. Likewise, the measure related to the educational budget and hours of instruction can also influence the learning process’ quality within education. Finally, the elimination of child-labour, can contribute to all the dimensions.

Last, the findings show that most of the actions suggested by UNGEI (2009) integrate enabling conditions towards GEE, since they enhance equal treatment and opportunities between boys and girls in the educational system. Concretely, this can be noted with measures which enable equality of treatment and opportunities along the different dimensions of education, such as enhancing and facilitating the access and participation of all boys and girls to education, providing alternative programmes to reach out-of-school children, making the content more gender-sensitive, eliminating gender discriminating practices inside and outside the teaching-learning process and gender differences in the learning outcomes and assessment modes.

Therefore, these findings show that, interestingly, even sharing a similar rights-based perspective on GEE, there are still some discordancies on the understanding of the through-dimension, as well as the way UNGEI (2009) promotes GEE in this area. Mainly, some of the measures which UNGEI (2009) considers to promote gender equality through education, can also be considered to contribute to gender egalitarianism in the other dimensions: to and within, as per Subrahmanian’s (2005) narrative. However, this is only a matter of under which dimension these interventions are classified, but it does not suppose a meaningful change when it comes to the promotion effect of the action. Actually, it is a positive fact, since it means that these measures suggested by UNGEI (2009) to only promote gender equality in the through-dimension, can also contribute to other dimensions according to Subrahmanian (2005). Moreover, as discussed, most of the measurements suggested by UNGEI (2009) adopt enabling conditions which promote equal treatment and opportunities to boys and girls in all the dimensions of education.
7. CONCLUSION

This chapter aims to conclude this research by answering to the initial problem formulation. To do so, the three main questions which were presented at the beginning of this paper are rescued and answered in this chapter. Last, this paper is closed by considering some further areas of research which could qualitatively evolve this study.

7.1. Answering the problem formulation

Following, the three main questions which compose the problem formulation of this research, are rescued here and answered based on the findings of this study.

1. **What is gender equality in education?**

This question is answered in Chapter 4. The literature review shows that the general academic debate around the understanding of GEE coincides with Subrahmanian's (2005) perspective, based on Wilson’s (2003) three-dimensioned rights-based approach. This approach recognises the right of every boy and girl, man and woman, to access and participate in a qualitative education, free of gender stereotypes and discrimination, which also translates into better gender egalitarianism in wider spheres outside of education. Hence, this contemplates equality between genders in the access to education, within and through education. Concretely, it entails that, firstly, every boy and girl, should enjoy access to education, and participate in it. Secondly, it aims for an educational environment free of gender discrimination in terms of treatment and opportunities, learning content, teaching methodology, learning processes, subject choices, assessment modes, management of peer relationships, and learning outcomes. Thirdly, it considers the strong influence that education can have in promoting gender egalitarianism outside of the educational sphere (Subrahmanian 2005).

2. **To what extent do the pre- and post- 2015 international frameworks integrate Subrahmanian’s (2005) perspective on the measurement of GEE?**

This question is answered in Chapter 5. The findings show that all the frameworks can measure the GEE in the to-dimension. However, while the pre-2015 frameworks poorly cover the within and through dimensions of GEE stated by Subrahmanian (2005), the post-2015 ones provide more and better indicators to capture them. Concretely, the SDGs Framework appears to be the most complete in terms of indicators to measure the through-dimension; and the Education 2030 Framework, for the within-dimension. This latter one, is considered to be the most noteworthy since it captures most
of the indicators suggested by Subrahmanian (2005), offers the most accurate measures for the within-dimension, as well as the provision of sex-disaggregated data for all of them. Thus, as a response to Subrahmanian’s (2005) call for a specific framework which adopts a multi-dimensional approach to measure the three dimensions of GEE, these findings show how the two post-2015 international frameworks combined could measure most of the dimensions of GEE. Nonetheless, to fully cover all the aspects under the dimensions appointed by Subrahmanian (2005), these latter frameworks should also develop indicators to measure the subject choice, the management of peer relationships, and the teachers’ gender parity, which do not seem to be covered by any of the frameworks. Hence, if the Education 2030 Framework adopted the indicators from the SDGs Framework to measure the through-dimension, and developed measures to capture these last three aspects, all the aspects of GEE stated by Subrahmanian (2005) would be covered.

3. To what extent does the UNGEI's (2009) proposal to promote GEE integrates Subrahmanian's (2005) perspective?

This question is answered in Chapter 6. The findings show how UNGEI (2009) and Subrahmanian (2005) show a very coincidental perspective on GEE, adopting a similar three-dimensional rights-based approach, as per gender equality to, within and through education. However, they seem to diverge in the consideration of the through-dimension. UNGEI (2009) envisages the learning outcomes under this latter dimension, while Subrahmanian (2005) understands it as an aspect of gender equality within education. Consequently, this understanding is translated in the way UNGEI (2009) classifies its measures to promote GEE. Interestingly, the measures classified under this dimension by UNGEI (2009), could also be classified in others following Subrahmanian’s (2005) narrative. However, this is only a question of classifying the interventions, which does not affect the promotional impact of those specific actions. A relevant aspect of the results, though, is that most of the interventions suggested by UNGEI (2009) integrate enabling conditions, appointed by Subrahmanian (2005) as crucial aspects to advance towards GEE. Thus, considering Subrahmanian’s (2005) claim, these findings show that, UNGEI (2009) adopts a three-dimensional approach to the promotion of GEE, besides the small divergences with the author regarding the last dimension. Moreover, UNGEI’s (2009) proposal to promote GEE seems to integrate the enabling conditions that Subrahmanian (2005) appoints as fundamental to progress towards gender egalitarianism in education.
7.2. Further considerations

This last section is dedicated to elaborate on aspects which appear as interesting challenges after this research. There are many directions in which this research could further develop. Firstly, the prospection of how a possible combination of both post-2015 frameworks would look like, could be a good way to evolve this paper. Moreover, it would be interesting to link Chapters 5 and 6, by examining how could the suggested combination of the post-2015 frameworks measure the interventions proposed by UNGEI (2009) to advance towards GEE. Furthermore, as mentioned in Chapter 2, this research had the initial aim to indagate on the promotion of GEE, examining a concrete strategy in a determinate context. Hence, a further area of investigation could consider the more practical challenges of how to advance towards GEE, by analysing how UNGEI promotes GEE in a specific country, through a particular program. Last, another intriguing aspect to investigate is the ‘reverse parity’ phenomenon, where the participation of girls in education is higher than boys. Yet, there are many reasons underpinning such situation, which makes the research more interesting. However, time constraints, as well as the limit of pages for this paper, have not allowed to treat these aspects.
8. BIBLIOGRAPHY


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