

## Impact Story Integrating the gender dimension in tertiary education

### Impact Story

#### Gender Dimension in Tertiary Education

##### Intervention Definition

In many scientific disciplines, the gender dimension has not yet been taken into account in teaching. However, in order to be able to generate scientific results that are relevant to all parts of society, the gender dimension must be considered. In order to take the gender dimension into account in research, researchers must first learn how to do this.

Integrating the gender dimension in education refers to fostering gender knowledge in all areas. It includes measures to mainstream gender issues in higher education curricula to enhance awareness and sensitivity as well as initiatives to foster specific gender programmes for researcher training, e.g. by creating collaborative alliance between different actors to establish new content and teaching/learning methods. It therefore has two main elements – it covers the content of the curriculum as well as class conduct (Palmén and Caprile, 2018). Introducing a gender sensitive approach in tertiary education makes research and teaching of a higher quality by being more inclusive and stimulating critical thinking (EU 2005; Mihajlovic Trbovc and Hofman 2015). Including the gender dimension in tertiary education is critical for developing a solid skills base and competence for the future integration of the gender dimension in research and other professional tasks.

Becker et al. (2006) describe four archetypical ways to integrate gender aspects into university education, that can be observed to a different degree in several university systems:

Transdisciplinary approach: provision of single gender modules open for a variety of study programmes

Integrative approach: implementation of theory, methods and basic research results as basis of teaching and research

Particular-explicit approach: provision of programme specific gender modules

Explicit approach: provision of specific gender study programmes at all levels of tertiary education

Those universities and higher education institutes with greater experience in integrating the gender dimension in tertiary education aim for the more integrative approach where the gender dimension in tertiary education is compulsory for all studies. This approach can be seen through two good practice examples in the EFFORTI case studies on fostering the integration of the gender dimension in tertiary teaching. The first case study through performance agreements at the national level as the ministry recognizes the benefits of the transdisciplinary and integrative approaches compared to the explicit educational programmes. This approach is also taken in the second EFFORTI best practice example the Case Study: Integrating the Gender Dimension in Teaching and Research Contents in a RPO, a university – which has included the gender dimension as one of the five basic university competencies. This means that all study areas must consider it. Activities include the provision of courses, programmes and modules, the appointment of respective professorships, the promotion of respective research activities that serve as the basis for the principle of "research-led education", training for lecturers and the production of guidelines in how to integrate the gender dimension into different disciplines.

One example of a cross between the integrative and explicit approach is the Gendered Innovation Alliance at the Karolinska Institute (KI) in Sweden which aims to develop a platform for training, knowledge and experience exchange for mainstreaming concepts of sex, gender and diversity as biological and social variables in biomedical research and education to maximize individualized/personalized patient care and endorse the development of gendered innovations. The initiative is linked to the Doctoral Programme of Development and Regeneration. Activities include organising training sessions, workshops and scientific meetings, including

innovation hubs and sharing best practices. (<https://ki.se/en/staff/gendered-innovation-alliance>).

Within Europe – the majority of universities have opted for the third approach to integrating the gender dimension into teaching –i.e. by introducing programme specific gender modules (Kortendiek 2011). These modules may offer quality training regarding the content, approach and methodologies of gender studies. Activities may include monitoring and evaluating the implementation of competences related to gender equality in undergraduate and postgraduate studies; making explicit the gender perspective in the elaboration of the educational guides and the programs of the subjects; favouring the publication of materials for teaching that take into account the gender perspective; etc.

#### **Intervention Definition Short**

Including the gender dimension in tertiary education includes two main elements – it covers the content of the curriculum as well as class conduct. Including the gender dimension in tertiary education is critical for developing a solid skills base and competences for future researchers and professionals in other sectors. Becker et al. (2006) describe four archetypical ways to integrate gender aspects into university education that can be observed to a different degree in several university systems: the transdisciplinary approach, the integrative approach, the particular-explicit approach and the explicit approach.

#### **Objectives**

(5) Integrate the gender dimension in research and teaching

#### **Output**

Direct outputs of an intervention focusing on integrating the gender dimension in tertiary education may focus on the proportion of courses offered by the institution that offer a) obligatory b) optional gender modules at graduate/post-graduate/ PhD levels. This might go hand in hand with the establishment of respective gender focused organisational entities at higher education institutions (institute, department etc.) and the appointment of professorships and teaching staff, as the case study on fostering the integration of the gender dimension in tertiary teaching through performance agreements shows.

The relevant output dimension that provides the basis for further outcomes and potential impact in the EFFORTI case study on fostering the integration of the gender dimension in tertiary teaching through performance agreements is the number of students who have undertaken gender modules (optional/ obligatory) at graduate/ post-graduate/ masters levels and PhDs that a) focus on gender or have gender as a component, the number of dedicated professorships and the number of programmes. For the EFFORTI Case Study Integrating the Gender Dimension in Teaching and Research Contents in a RPO outputs also include training for teachers/ researchers on integrating the gender perspective in research; guidelines on incorporating the gender perspective, and publications. Some other outputs are identified in the Xarxa Vives report on integrating the gender dimension in universities in Catalonia (Verge Mestre and Cabruja Ubach 2017). These include: a resource bank (website with guidelines/ tools on how to incorporate the gender dimension in different disciplines); an obligatory course for new teaching staff on the gender perspective; map of mainstreaming competences by course; awards for integrating the gender dimension; conducted trainings for academic and non-academic staff; the inclusion of integrating the gender dimension as a criteria in the evaluation of teaching activities; revised text-books and curricular and teaching staff; study programmes; specific professorships; invitation of female speakers.

#### **Output short**

Direct outputs of an intervention focusing on integrating the gender dimension in tertiary education focuses on the proportion of courses offered by the institution that offer a) obligatory b) optional gender modules at graduate/post-graduate/ PhD levels as well as the number of students and academic staff that have participated in training. Gender study programmes, a resource bank, an obligatory course for new teaching staff, awards for integrating the gender dimension, revised textbooks and curricular and professorships may also be outputs.

**Output indicators**

3.2.2 Invitation of female speakers

4.3 Gender in Research Content unit/ committee in place

**New indicators:**

Number of gender related study programs

Number of gender related professorships

Proportion of graduate degrees/post-graduate degrees and Masters that incorporate a specific module on gender

Proportion of gender modules that are optional. Proportion of gender modules that are obligatory (graduate degrees/post-graduate degrees and Masters).

Number of/ proportion of students undertaken gender modules (Optional/ Obligatory: graduate/post-graduate)

Number of / proportion of PhDs read that a) focus on gender b) have a gender dimension

Existence of annually up-dated resource bank/ awards scheme/ database on gender related course

Number of male and female participants in training sessions

**Outcome**

Intended outcomes can be identified at the institutional and societal level. Regarding the former, the main outcome is a greater institutional competence in how to integrate the gender dimension in various different disciplines. An increased awareness of the importance of integrating the gender dimension into teaching and research content is also an outcome of this type of intervention. Integrating the gender dimension in tertiary educational also increases the visibility of research that considers the gender dimension. An unintended outcome that is mentioned in the EFFORTI case study on fostering the integration of the gender dimension in tertiary teaching through performance agreements might be an increased awareness of gender aspects at all levels of the university's hierarchies ranging from explicit non-discrimination policies, to providing support for female students – which may indirectly bolster institutional change processes. This confirms research that has been carried out on how establishing gender studies programmes builds awareness about gender issues and can trigger institutional change processes (Holzinger and Schmidmayer 2010). Requiring academic staff to teach integrating the gender dimension may also mean a greater inter-disciplinarity in their research projects and those of students i.e. future researchers - especially when gender topics are taught in interdisciplinary courses. It may also impact on the promotion of gender sensitive, use-inspired R&D-projects and innovations. For example the Centre for Gender Medicine in the Karolinska Institute which supports research and education towards innovation in health care via promotion and implementation of sex and gender analysis describes the outcome of their approach as "strengthening the quality and competitiveness of scientific innovation leading to the optimal exploitation of knowledge and expertise to improve health care for both women, men and gender diverse people".

**Outcome Short**

Intended outcomes can be identified at the institutional and societal level. Regarding the former, the main outcome is a greater institutional competence in integrating the gender dimension in various disciplines. Increased awareness of the importance of integrating the gender dimension into teaching and research content is also an outcome of this type of intervention. Another is an increased visibility of research that takes into consideration the gender dimension.

**Outcome indicators**

4.2.1 Capacity building as to GE (e.g. career development centre)

4.2.1 General organisational consciousness and messages with symbolic value

<p>5.1.1 Publication's interdisciplinarity</p> <p>5.1.3 Researchers trained (inc. PhD, post-docs, gender balanced)</p> <p>5.4.3 Inclusion of the gender dimension in research contents</p> <p>5.4.2 Share of research projects with gender dimension in content</p> <p>New Indicator:</p> <p>Promotion/ visibility of research that takes into consideration the gender dimension</p>
<p><b>Impact</b></p> <p>As mentioned in the EFFORTI case study on fostering the integration of the gender dimension in tertiary teaching through performance agreements a more inclusive curriculum can mean that the knowledge base of future researchers and institutional/ societal leaders will be more gender-sensitive. Regarding RTDI processes the increased awareness and competence of students from the early stage of their academic and/or professional careers may result in visible outcomes such as more interdisciplinary projects, higher quality research and increased awareness of gender fair processes and outcomes -that they might use in their future professional lives. The same holds true for the private sector, which may absorb respectively more highly skilled people and lead to the development of more innovative products that include the gender dimension (Von Schomberg 2013, Kristensson et al. 2004, Lüthje 2003). As EIGE (2016) points out regarding the impacts of GEPs, "bringing a gender dimension in research and innovation content improves the overall quality of research design, hypotheses, protocols and outputs in an ample variety of fields". In this instance, a key indicator is existence / absence of knowledge on sex and gender in research field. Better research is therefore an expected impact of integrating the gender dimension into tertiary education. Impact also occurs by creating a more inclusive knowledge base, i.e. an 'inclusive excellence' which better reflects and serves the diverse make up of society and therefore more effectively tackles societal challenges by increasing the societal relevance of the knowledge produced as well as technologies and innovations (Position Paper: Advisory Group for Gender, 2016). Inclusive excellence was cited as an impact of integrating the gender dimension into tertiary education in the EFFORTI Case Study Integrating the Gender Dimension in Teaching and Research Contents in a RPO – this has four main elements a) access to equality, b) diversity in content c) campus climate d) student learning r.e diverse groups and cognitive complexity (Hudson Banks, 2009).</p>
<p><b>Impact short</b></p> <p>The impact of this type of intervention can be related to making the knowledge base of future researchers and societal leaders more gender sensitive. This can positively impact on the development of innovative products in the private sector, a greater general awareness of gender-sensitive approaches for public policies and a more diverse knowledge base to effectively tackle key societal challenges.</p>
<p>Impact indicators</p> <p>5.2.2 Innovative processes, products &amp; service delivery systems</p> <p>5.2.2 New, altered or improved ideas, products, designs, processes, services and business models</p> <p>5.4.1 Awareness of and support to gender sensitive research at system level (research councils, other research funding organisations)</p> <p>5.4.2 Existence/ absence of knowledge on sex and gender in research field</p> <p>5.4.3 Legal concepts related to gender and of analysis techniques about mainstreaming gender perspective in public policies are included (</p> <p>5.6 More effective promotion of gender equality and gender dimension in research and innovation content</p> <p>5.6 Responsible R&amp;I principles embedded into EU Higher Education (EU 2016)</p> <p>5.6 Better contribution of R&amp;I to tackling societal challenges (EU 2016)</p>

### Policy Context

The European Commission's major research funding programme Horizon 2020 (2014 -2020) prioritises the integration of gender/sex analysis in research and innovation (R&I) content as one of its main objectives to improve greater gender equality in science (EC 2014). This has led to the promotion of the gender dimension in tertiary education as a core target of Europe-wide gender equality policy in R&I. Member states have been invited to create a legal and policy environment and provide incentives to strengthen the gender dimension in research programmes and various national initiatives have been already undertaken to encourage greater sensitivity and the integration of sex and gender analysis in science knowledge and practice (EC 2012, 12). Specifically in relation to tertiary education, these include recommendations and/ or models for university curricula development and researcher training in relevant fields (Gender-Net). The legal framework at the national or regional level can really act as a catalyst (or not) for integrating the gender dimension in tertiary education. For example, legislation can demand that universities "mainstream the gender perspective and studies about the contribution of women throughout history in all knowledge spheres and in academic and research activities are included in degrees and post-graduate curriculum". Legislation can be even more effective if its implementation requires reporting to detail how the gender perspective has been incorporated in the curriculum (if appropriate), or if not the plan to make this possible. Therefore a monitoring system is needed to identify gender related research and teaching activities. Moreover, societal impacts of gender studies require extra surveying which should be done systematically to make effects visible, as the case study on fostering the integration of the gender dimension in tertiary teaching through performance agreements recommends.

### Organisational Context

As regards the context at the institutional level, the political will to integrate the gender dimension into tertiary education must be present at both the level of top management and at the faculty level as documented by both EFFORTI Case Studies. Including the gender dimension as one of the universities 'basic competences' maybe the most effective way to integrate the gender dimension across all study areas. Organisational factors that may hinder the implementation of the intervention may include a lack of resources or the lack of capacity to support teaching staff to integrate the gender dimension into their study areas. Within the university context there is also a strong division between academic fields of natural science, technology, engineering and mathematics (STEM), on the one side and , and social sciences and humanities (SSH), on the other which may impact on effective interdisciplinary working (Trbovc and Hofman 2015, 23).

If training is separate from the rest of the curriculum and co-exists with gender blind modules from different degrees and is not accompanied by mainstreaming there may be no change in the organisational culture nor academic management of universities. These gender sensitive modules also tend to be delivered by those members of academic staff who are most gender aware with training in gender studies – the rest of the academic staff carry on -without gender awareness nor competence (Verge Mestre and Cabruja Ubach 2017, 16). This approach however can be complemented by the development of or support given to gender studies programmes, professorships and a focus on inter-disciplinary collaboration. Another more comprehensive approach is the integrative approach where the gender dimension is integrated as a basic university competence.

### Sources

Becker, R.; Jansen-Schulz, B.; Kortendiek, B.; Schäfer, G. (2006): Gender-Aspekte bei der Einführung und Akkreditierung gestufter Studiengänge - eine Handreichung; Studien Netzwerk Frauenforschung NRW Nr. 7.

European Commission (2005): Science Policies in the European Union: Promoting Excellence through Mainstreaming Gender Equality. A Report from the ETAN Expert Group on Women and Science. European Commission, 2000; Women and Science: Excellence and Innovation – Gender Equality in Science. Commission Staff Working Document, Brussels.

European Commission (2012): Structural change in research institutions: Enhancing excellence, gender equality and efficiency in research and innovation, European Commission, Brussels.

Holzinger, F. & Schmidmayer, J. (2010): GENDERA Synthesis Report Good Practices on Gender Equality in R&D Organisations, Vienna: Centre for Economic and Innovation Research.

Banks, K. H. (2009). A Qualitative Investigation of White Students' Perception of Diversity. *Journal of Diversity in Higher Education*, 2(3), 149-155.

Kristensson, P.; Gustafsson, A.; Archer, T. (2004): Harnessing the Creative Potential among Users. In: *Product Innovation Management*, 21, 4-14.

Lüthje, C. (2003): Methoden zur Sicherstellung von Kundenorientierung in den frühen Phasen des Innovationsprozesses. In: Herstatt, C.; Verworn, B. (Eds.): *Management der frühen Innovationsphasen* Wiesbaden: Gabler, 35-47.

Palmén, R. & Caprile, M. (2018) TARGET: Guidelines to Design Customised GEPs.

Mihajlovic Trbovc, J. & Hofman, A. (2015): Garcia Working Paper 6: Toolkit for Integrating Gender-Sensitive Approach into Research and Teaching.

Verge Mestre, T. & Cabruja Ubach, T. (2017) La perspectiva de gènere a la docència i la recerca a les universitats de la xarxa vives: Situació actual i reptes de futur, *Xarxa Vives d'Universitats Col·lecció Política Universitària*.

von Schomberg, R. (2013): A Vision of Responsible Research and Innovation. In R. Owen, J. Bessant & M. Heintz (Eds.): *Responsible Innovation: Managing the Responsible Emergence of Science and Innovation in Society* (pp. 51-74) . New York: J. Wiley, pp. 64 f.