

*An Evaluation Model for a Non-Sexist Education: Beyond Performance
Accountability*

Andrea Parra, Duoc UC, Chile
Nicole Vallejos, Duoc UC, Chile

The Barcelona Conference on Education 2020
Official Conference Proceedings

Abstract

This article is about the development of assessment tools concerning to the identification of gender biases in teachers of a Vocational Education institution in Chile. Particularly, in the fields of engineering and technology, usually characterized by having male majority presence. Our aim is to identify, based on a mix method perspective, the limits and the potentials of current evaluation systems in its goal of promoting a friendly culture about gender issues and inclusive education beyond policies of performance accountability. Based on international experiences review, we present a heading model in order to identify, within the classroom, practices that reproduce gender bias and stereotypes in a context strongly permeated by a masculine culture. From a performative approach, we empathize in the responsibility of teachers and policy makers in the development of inclusive educative contexts beyond formal curricula, assuming the relevance of institutions self-regulation. Nonetheless, we argue that evaluation systems should be thought as a meaningful formative process that has to give account of the local context and particularities of their members rather than high-stake accountability usually mediated by sanction, classification and erasure of singularity.

Keywords: Sexist Education, Professional Technical Education, Evaluation Model

iafor

The International Academic Forum
www.iafor.org

Introduction

In the last years Higher Professional Vocational Education (*Educación Superior Técnico Profesional* in Spanish) has been gaining more and more relevance due to its key role in the productive and economic systems. The latter has also bring the necessity of designing curricula in accordance to the labor field and with the development of skills for enabling student's adaptation to a dynamic world. Although, these reasons have not been the only ones that have brought Higher Professional Vocational Education to the spotlight. Precisely because HPVE is the heir of the old Schools of Arts and Crafts, institutions designed for training masculine workforce, the HPVE filed has been characterized by having a low female participation. Before a little more than a century, female participation has increased, however, we still face strong gender segregation within careers (Sepúlveda, 2017; Sevilla, Sepúlveda, Valdebenito, 2019).

Duoc UC (Department for workers and peasants development of the Pontifical Catholic University of Chile) is one of the most important Vocational Education institutions in Chile, concentrating two in ten students at the HPVE¹ level. In terms of Duoc UC annual enrolment, 40% is represented by women, but, if we concentrate our attention in the STEM field, feminine presence is only 14%, numbers that extend to all over the Vocational Education field.

The presence of women in the industrial areas of the Secondary Technical Education (*Educación Media Técnico profesional* in Spanish) is nearly 19%, while it increase to an 80% in the fields of Health, Education and Social Work (Mineduc, 2019). In Higher Education, considering graduate and undergraduate students, women only represent the 20% of enrolment in Science, Engineering, Construction, and Technology² (SIES, 2019). Only considering female enrolment in universities we have a more positive number, 28%, but, it decreases to an 11% in HPVE.

Gender gaps in the STEM filed have been recognized worldwide (UNESCO, 2017; CONICYT: 2017; 2019; and Comunidad Mujer, 2016). Women, usually have lower rates in math and science test, results that tend to progressively consolidate while they advance in educative stages (CONICYT, 2017), having as a result the minimal participation of women in these areas. In fact, women participation in the STEM filed has been conceptualized by the metaphor of the “leaking pipeline”, in order to emphasize how women presence in these fields tend to decrease while they advance in educative stages and hierarchies.

In this context, the Ministry of Education with the support of the Ministry of Women and Gender Equality have created the 2018-2022 agenda “quality without biases”, in order to promote more participation of women in HPVE and, particularly, in historically masculinized educative areas understood in the STEM field. Likewise, in 2019 Ministry of Education provided to the Institutions of Higher Education the

¹ Formed by Centros de Formación Técnico (CFT), that give technical degrees after two reays of studies and Institutos Profesionales (IP), that give profesional degrees after four years.

² Data obtained through SIES 2019 data bases. The Information Service of Higher Education (SIES in Spanish) of the Ministry of Education emerges from the Law 20.129 in 2006, in order to develop a National Information System for Higher Education that gives the necessary inputs for an adequate application of policies, public administration and public information, which also gives academic, administrative and financial transparency. This is open access data and can be search by gender and OCDE area. SIES Web address: <https://www.mifuturo.cl/sies/>.

commitment to promote gender equality in management positions, being the first step to foster a more inclusive culture in educational communities that also go along with the commitment for developing more research in gender issues. Duoc UC ascribed to this commitment in 2019 and established a formal space for developing initiatives that promote equality and discussion within the institution.

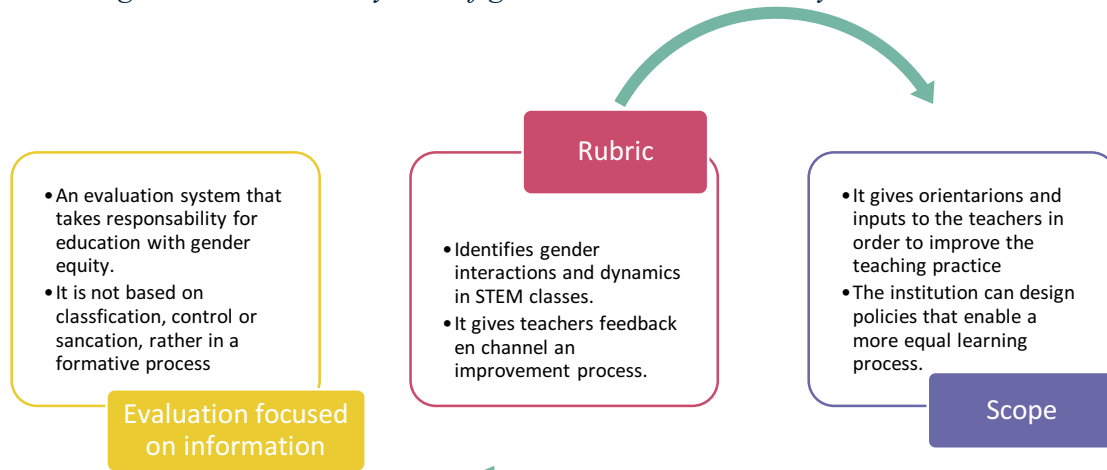
Having this commitment in mind, Duoc UC has created a Gender Equality agenda composed by different initiatives, among them, a series of diagnostic research on this issue. These studies have proved that there is not only a problem of gender participation and segregation in careers, there is also sexism within the educational process and the interactions in the classroom. Focus groups with female students have revealed that some professors expressed their open rejection to female presence in historically masculine careers, expressions that, as a result, have driven some female students to quit their studies. In fact, and although in general women usually have better grades and lower drop-out rates, in Duoc UC STEM careers female students have lower grades and higher drop-out rates than their peers in other fields³, while male students do not show different trends by subject-field area.

Debates concerning sexism in education are not new, as a matter of fact, 2018 and 2019 national protests for a non-sexist education concentrated public opinion, especially thanks to systematic denunciation at the Higher Education level. Thus, emerges the necessity of knowing what is going on inside the classroom and in the teaching-learning dynamics as well, because what happens there can have an effect in the reproduction on sexist patterns affecting personal and professional trajectories of female students but also of those who do not fit in traditional gender roles. With this purpose, we have designed, in a participatory way, a model for teacher evaluation based on a rubric adjusted for HPVE in order to identify sexist practices and dynamics in the teaching-learning process. This formative model aims to promote gender equality practices and also favor continuous improvement and feedback in the educational community of Duoc UC.

The article is structured as it follows: (1) main findings concerning sexism in the classroom interactions and in masculinized contexts; (2) a critic to accountability systems and new proposals for formative models; (3) methodological considerations; (4) conceptual discussion; (5) findings and the design of an evaluation model for gender biases; (6) recommendations for the Higher Education Institutions and (7) final considerations.

³ Internal Document N°21: "The persistence of an historical gap: gender participation in VE STEM fields".

Figure 1: evaluation system of gender interactions and dynamics in TVET



Source: prepared by the authors

Literature review

Sexism in masculinized contexts

A series of research done at the national level about the inclusion of women to masculinized fields, in education but also in the job market, have argued that, although the supposedly openness to women reception and an explicit inclusive discourse, women continue living segregation and exclusion (Angelcos and Isola, 2017; Sevilla, Sepúlveda, Valdebenito, 2019). The study carried out by Sevilla, Sepúlveda and Valdebenito (2019) in public schools that offer Secondary Technical Education, specifically, with students of industrial careers, has shown that although faculty members do not consider necessary to adopt specific measures for women due to their fast adaptation and efficiency in achieving learning goals, both peers and teachers think that women have a hard time learning specialized contents. By the same token, women foresee that, in order to achieve their professional goals, they have to double their efforts in comparison with their male peers. Also, female students think that they will end doing less valued tasks and the female presence is not welcomed in this particular labor market.

According to the latter, teacher's associate qualities such as kindness and sensibility to women, while men are related to leadership and strength. Likewise, the sexist naturalization that links strength with men and fine motor skills with women is highly extended among public schools that offers this education, thus contributing to the sexual division of labor within industrial disciplines (Sevilla, Sepúlveda and Valdebenito, 2019). Another interesting point is that while women do not perceive treatment differences, teachers and male peers recognize that they treat women differently just for being women, promoting what literature has called "benevolent sexism" (Glick and Fiske in Sevilla, Sepúlveda and Valdebenito, 2019).

Theses gender biases inside the classroom have been already studied in primary schools, where research has shown that education plays a key role in the reproduction of gender stereotypes and expectations of behavior, thus the school have been

conceptualized as an institution that systematically produce and reproduce inequalities between men and women (Azúa, 2016, Azúa, Saavedra y Lillo, 2019; Araya, 2004; Colás y Jimenez, 2006; Mizala, Ramírez, Ramírez, 2015; Martínez and Ramírez, 2017; Martínez, 2016; Guerrero, Provoste and Valdés, 2006). Particularly, has been argued that “teachers replicate in the classroom practices that has been historically and culturally accepted, maintaining gender stereotypes in the interactions and discourses” (SERNAM, 2009: 70).

Thus, teachers could affect student’s own perceptions about their cognitive potential, also the attitudes and interests towards different knowledge fields as well (Guderson et al, 2010, 2012). Some of this actions are related to masculinized language⁴, paying more attention to male than female students, doing cognitive complex questions and giving more feedback to men than to women, especially in “masculine” related subjects: math and science (Guerrero, Provoste y Valdés, 2006; Gray and Leith, 2004; Espinoza and Taut, 2016; Mizala, Ramírez y Ramírez, 2015).

Angelcos and Isola (2017) in their study about the inclusion of women to the great copper mining in Chile argue that although strategies and open discourses about women integration to this historically masculine field, discrimination still last in everyday practices. Particularly, they have shown how women presence, itself, becomes a transgression that exceeds hegemonic norms and cultural values where, paradoxically, traditional gender division of labor has become an anachronism. In this context of social change, these supposedly universal gender norms try to persist through a violent imposition, that is rather ethical than physical. This ethical violence that Angelcos e Isola argue about, is exercised over bodily gender expressions, where female mining workers exaggerate their “female” values and attributes (being tidy, responsible, clean, etc.) as a tactic in order to resist in this field. Thus, although their acceptance to mining is tacit, women are not accepted in their difference.

From accountability to accompaniment

Accountability has traveled from the detailed exam of finances to almost every aspect of professional life (Stobart, 2010). In this way, evaluations are becoming more common in our daily practice, being deployed in multiple spaces and aspects.

Accountability policies in the educational field rely on the responsibility of educational establishments to ensure the quality of the services offered, thus the fact of how someone can be hold accountable, responsibilities and roles, are assign depending on the educational model (Falabella y de la Vega, 2016). Currently, there are at least three models of accountability: state accountability, performance accountability and professional accountability. Nonetheless, performance accountability has been one of the most extended approaches.

Performance accountability system considers that evaluations are a powerful tool for educational reform and, when evaluation is associated with high stake consequences, it motivates improvement incentives (Stobart, 2010). Following this logic, when

⁴ In Spanish, unlike English, there are so many words that are not gender neutral. For example, “todos (for male) and todas (for female) are two not gender neutral forms of naming “everybody”, English word which, in principle, gender is not pre-assumed. Usually, teachers use the word “todos” instead of “todos y todas” while they are speaking to “everybody”.

educational quality is agreed and standardized, goals can be measured, compared and hierarchized; accountability process are public and linked to incentives and sanctions (Falabella y de la Vega, 2016; Flórez, 2019).

However, different studies have shown that this logic of control, examination and classification has negative consequences, having results that can contradict the expected results even. In fact, although performance accountability systems are encouraged by the ideals of equality and justice, it has been argued that they reinforce social and educational segregation, because individuals stand points, cultural and economic contexts, and its own particularities are not considered (Ball, 2013; Sánchez-Amaya, 2013; Flórez, 2019; Stobart 2010; Falabella y de la Vega, 2013; Comisión SIMCE 2014; 2015).

Authors like Sánchez-Amaya (2013) has argued that evaluations deploy distinction mechanisms such as: normal and abnormal, accepted and rejected, good and bad, among other hierarchical dichotomies. Thus, examination practices produce knowledge feed power relations. The application of these systems condition individual's possibilities, in other words, individuals are produce and administered through this very evaluation mechanism. Consequently, performance accountability system could have a performative effect by producing docile individuals without subjectivity (Ball, 2015; Sánchez-Amaya, 2013).

It has been argued that performance accountability systems have generated and impoverishment of pedagogical practice, this came be seen in the curricula reduction, training focus on standardized tests, behavior is adjusted in order to achieve evaluation indicators, de-professionalization of teachers by becoming standards implementers rather than conscious of their own pedagogical practices, affecting their reflection and innovation process, their self-stem and motivation with their job (Falabella y de la Vega, 2016; Stobart, 2010; Flórez, 2019; Comisión SIMCE 2014; 2015).

If we are in the presence of a system that controls and sanctions not achieving standards and that also generates the lack of mechanisms and formal strategies for supporting evaluated individuals and guiding them to an improvement process (Stobart, 2016; Comisión SIMCE 2014, 2015), why do we continue using it?

In the last years have appear interesting models that have tried to promote an accountability system beyond the logic of control and sanction, following a path oriented towards improvement and the formative process (Hevia and Vergara-Lope, 2016; Flórez, 2019; Falabella y de la Vega, 2016; Preal, 2009; Holz, 2019).

These approaches left behind the fantasy of absolute control in order to promote self-government and self-determination to the very individuals involved in these accountability practices (Stobart, 2019). They support the participation of individuals in the creation, design of instruments and evaluation criteria, enabling the emergence of an internal culture of improvement where individuals are more conscious of these process, stablishing their own goals and expected values.

These models are not based in sanction, rather in recording experiences in order to give feedback to pedagogical practice, designing strategies and improvement plans

(Preal, 2009; Hevia y Vergara-Lope, 2016). Likewise, they apply a multidimensional model where evaluated dimensions are not translated into a unique and decisive result, instead, each dimension gives information that can be understood as independent evidence that, as a whole, enable decision making (Holz, 2019).

Additionally, these systems consider diverse factors that influence in the expected results: students and teachers social and economic reality, the environment in which the learning process is developed: infrastructure, resources, pedagogical practices, didactical materials, among others. Thus, it is emphasized that the expected results depend on interrelations that include the environment, the educational community, directors and families as well.

Methodological considerations

This study is framed within the gender and education studies. On the one hand, research in education has been considered as the study of methods, proceedings and techniques that gives us access to knowledge, comprehension and explanation of educative phenomena, an also contributes to face social problems (Hernández, 1995). On the other, gender perspective research in education has been a significant contribution to the education field by identification of structures and social practices that reproduce gender inequalities.

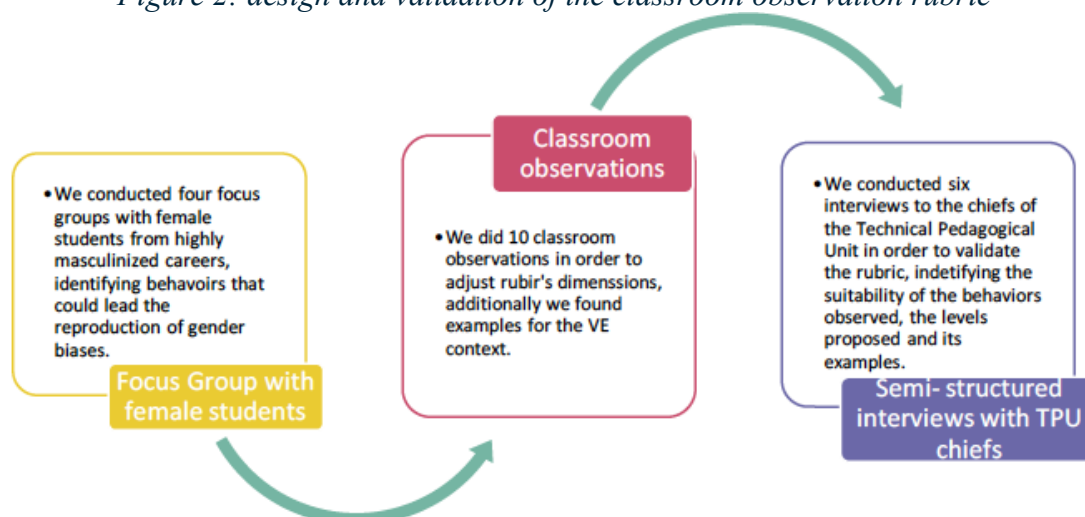
Thus, gender studies related to education have contributed to unveil the mechanisms through which educational institutions have part in discriminating women and non-hegemonic subjects, and also how the educational system, in its different levels, reproduce prejudices and gender stereotypes. In this way, our evaluation model for a non-sexist education is attuned to this discussion.

Following Gabriela Delgado Ballesteros (2010), we agree with the idea that research is done from an epistemic position, where knowledge emerges from a localized position and from the particularity of the subjective knower. From this standing point, knowledges is always partial, it comes from a particular subject and body, that, depending of the historical process, cultural and semiotic, and the ways gender, class and ethnicity are contingently mixed, enable the configuration of a subject that sees, think and act in a particular way. This is why for us it is important to design an evaluation model sensible to the particularities and situational experiences of the actors that form the educational community.

As Blázquez has argued (2010), due to gender research in education seeks to unveil the experience of the oppressed and the excluded, it is necessary to always adopt an multi-methodical perspective, where the incorporation and confluence of different techniques and methods enable a better approach to the observed and offers a broader, but also, rich and complex view of the studied phenomena.

For the design of the rubric we followed the use of multiple technics: (1) we conducted four focus groups to Douc UC students (see appendix 1), (2) ten classroom observations and (3) 6 in-depth interviews to chiefs of the Technical Pedagogical Unit (see appendix 2).

Figure 2: design and validation of the classroom observation rubric



Source: prepared by the authors

Discussion

In the last years, gender indicators have been incorporated to the national educational evaluation systems thanks to the State commitment on this issue (MINEDUC, 2016; CONICYT, 2019), however, these changes have been done following the accountability approach. In this way, when gender issues acquire relevance in evaluative practices they do it in the lens of high stake accountability systems, taking the risk that this challenge for a more equitable culture becomes an indicator devoid of discussions and reflections as Falabella and de la Vega (2013) have shown.

In the Chilean higher education system teachers evaluations are not applied at the central-level, thus, due to external evaluations does not exist, it is left to every institution criteria to have or nor an evaluation system. In the case of Duoc UC, this institution has applied an accompaniment program for teachers in order to support their pedagogical needs, in that way, standardizing and formalizing these measures in the Teachers Accompaniment Program. This program, which is part of a greater model for generating indicators called TDI (teachers development index), follows, however, the high stake logic.

At the time gender equality has become an institutional goal, it has been noted a gap between everyday practices and institutional strategies (Angelcos and Isola, 2017; Sevilla, Sepúlveda y Valdebenito, 2019), where open discourses for inclusion are translated to the logic of individual responsibility masking the very obstacles that should be attended. In doing so, it is not recognized that gender equality is the result of an institutional effort for creating a culture and strategies on this issue. According to the latter, we consider that evaluative practices should contribute to gender equality from a formative point of view. Understanding that this paradigm favors reaching minimal agreements that enable a constructive management (Stobart, 2019), it is worth noting that this is key for an issue in which inequalities and discriminations has been invisibilized. For this, instruments and criteria have to be agreed, promoting and recognizing the educational community commitment. Although, Pedagogical Technical Unit offers a key institutional infrastructure for implementing evaluation

models for a more equal education in gender terms, it has to abandon the individual accountability logic.

Due to the sexism and androcentrism in Chilean educational system (Azúa, 2016; Sevilla, Sepúlveda y Valdebenito, 2019), we have to pay especial attention to discourses and practices, because even in the most progressive approaches, gender equality tend to be exemplified and legitimized by the exaltation of “female” attributes such as tidiness and planning, values that may enable women to perform as equal as men or even better. Thus, it is observed that the conflict over the attributes associated to each sex, through which gender is socially constructed, is part of a complex and sometimes contradictory gear, hidden under more or less conventional attributes that reinforce discourses that create new forms of gender biases.

Findings

Designing the rubric

A series of interviews, focus groups and studies on gender and education has shown us the challenges and difficulties for designing a rubric through which observe not only teacher’s actions and discourses but classroom interactions. Although diagnosis and feedback will be oriented to teachers, observations will give account of actions and interactions between them and the students.

Based on what has been argued about the binary and exclusionary structure of gender biases and stereotypes, we designed a rubric with a scale that could enable us to distinguish between those actions and discourses that promote the naturalization of gender binary categories from those who recognize diversity. In the “positive” side, there are attitudes associated with the promotion equal participation among gender, while in the “negative” are those that superimpose one gender (usually male) over the others. Likewise, teachers could have an active role developing attitudes that either promote or difficult gender equality in the classroom (this is what we call “active behavior”), or s/he could be a witness allowing conducts to happen without getting involved (this is what we call “passive behavior”).

Figure 3: Rubric structure of classroom observation

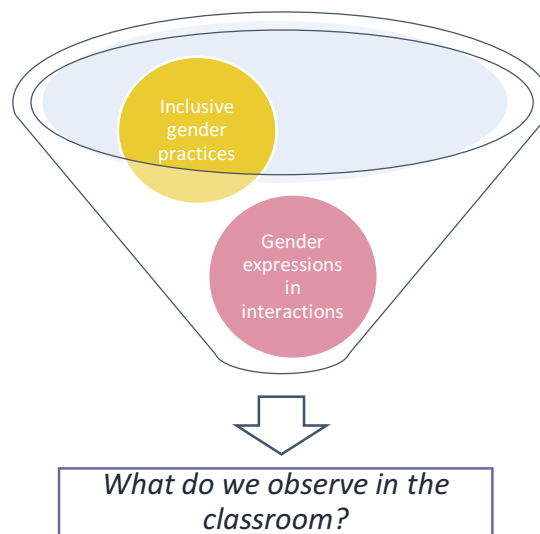
Dimension	Sub-Dimension	Description	Naturalization of a binary view of gender		Recognition of gender diversity	
			Passive attitude	Active attitude	Passive attitude	Active attitude

Source: prepared by the authors

Sexist practices and discourses inside the classroom

The qualitative data gathered helped us to identify practices and discourses that contribute to perpetuate sexist practices in the VE field, identifying two dimensions: (1) strategies and dynamics about gender inclusion and (2) expressions and preconceptions on gender in classroom interactions.

Figure 4: rubric's dimensions for classroom observations



Source: prepared by the authors

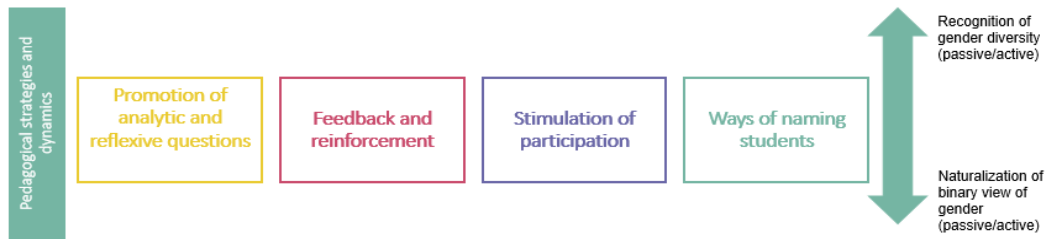
First Dimension: gender inclusion practices inside the classroom

Unequal participation in class is one of the themes that emerge from the interviews and focus groups with female students. The latter is clearer in the careers where male students outnumber females, generating, in women, shyness and reducing their interest of participating in class. However, in careers where female students are majority, men do not feel these pressures at all.

Among the behaviors associated with low class participation we identified those developed by students and teachers. Low class participation by gender can be explained either by personal interests or teacher's willingness to foster one group over the other. However, Pedagogical Technical Unit chiefs recognize that the type and number of questions or the promotion of participation in activities play a key role, these are resources that teachers can use precisely to promote a more inclusive environment for equal participation.

A second level of analysis in this dimension is related with the identification of practices of gender inclusion and the definition of attitudes and behaviors from a passive/active scheme. We presented to the interviewees situations based on gender biases literature, which some of these were corroborated by them and also providing new examples. Thus, we can appreciate the existence of four practices that occur in the classroom that can positively or negatively affect inclusion and integration of students. These are:

Figure 5: strategies and dynamics for gender inclusion



Source: prepared by the authors

We have defined this four dimensions as:

- Promotion of analytic and reflexive questions: this practice is about the generation of complex questions that foster analytical reflection without producing differences on gender identities and sexual orientations.
- Feedback and reinforcement: this practice is associated with promotion of ideas, giving support and favoring student's participation. It is observed teacher's disposition to recognize student's goals and giving positive feedback with clear recommendations to advance and resolve problems. Is it worth noting that these didactic strategies do not generate differences among gender identities and sexual orientation.
- Stimulation of participation: this practice is directly involved with the promotion to participate in class activities, to share opinions and being part of conversations. For this, it is important that participation stimulation is done without denying or invisibilizing students for their gender identity or sexual orientations.
- Ways of naming students: this practice refers to the equitable use of language. It is preferred to use neutral words for referring gender and individual persons, it is promoted to use names without highlighting gender differences under a binary paradigm, for example: ladies and gentlemen or the use of diminutives and kind expressions such as: dear, love, etc.

Expressions in interactions

The biological and binary matrix that support prejudices about each gender seems to be the cornerstone for practices that reproduce gender biases. In what follows, we will explain the dimensions that, inside the classroom, will help us to grasp this prejudices through expressions and interactions.

Figure 6: Dimensión expresiones y precon



cepciones en las interacciones de género

Source: prepared by the authors

This four dimensions have defined as:

- Expressions about gender roles: how expressions promote individual's potentials to perform a variety of roles without being restricted by its gender or sexual orientation.
- Expressions about psychological and physical features of gender: expressions that give account of physical and psychological diversity regardless of gender identities or sexual orientations, avoiding making associations based on traditional gender attributes.
- Comments about corporal expression, sexual orientation and gender diversity: examples and comments are used to promote corporal expressions, are respectful of sexual orientations and gender diversity, highlighting the existence of emotional/sexual relations.
- Access to key tools and equipment for the learning process: tools and equipment are distributed without doing differences based on student's gender, sexual orientation and identity.

Recommendations

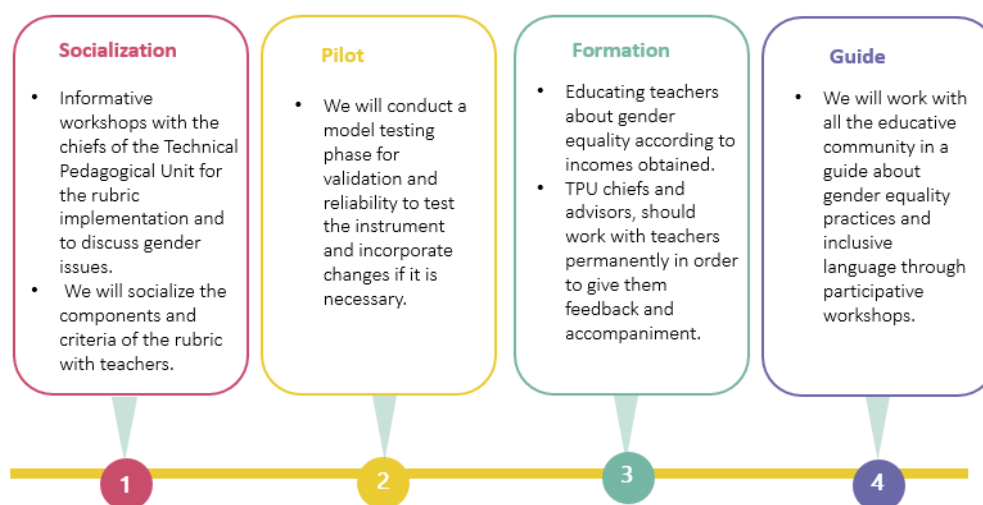
The design of a rubric for the identification of gender biases adjusted to the HPVE speaks of the necessity for developing a culture committed to gender inclusive and equitable education, one that promotes the involvement of the all the educational community, favoring the common will to improve and advance towards a more just society that guarantees equal opportunities for everyone.

That said, the implementation of Duoc UC "gender equality agenda" is an opportunity for creating initiatives that foster advancing in terms of parity, thus it is recommended that educational institutions lead this kind of efforts. Likewise, it is also important that institutions should find the way to implement evaluation models in formal instances, like, in our case, Teachers Accompaniment Program for example.

Apart from that, it is necessary to collect preliminary data that could be used as a diagnosis of institutional situation about the reproduction of gender biases in classrooms. The latter is also key for designing plans for working this biases in a constructive way, focusing the efforts in the capabilities that are expected to install

rather than individual accountability. For our case, we have considered the following steps in order to implement this model:

Figure 7: Steps for formalizing the preliminary evaluation process



Source: prepared by the authors

Conclusion

Throughout this study, we have noted the interest of different actors in participating in initiatives that promote more gender equality. We have shown that the necessity of improving classroom dynamics require a less conservative institutional agenda in order to design strategies to face this problem. The latter has to be done from both, a curricular but also an extracurricular perspective, incorporating a gender perspective that breaks from heteronormativity and androcentrism in different subjects. It is highlighted the necessity of actualizing pedagogical materials, figures and task resolving activities, in order to include gender diversity and experience. Furthermore, understanding that the toughest barriers for gender diversity appear after student's graduation, it is important that institutions develop strategies with the labor market to guarantee an adequate insertion.

We highlight the analytical exercise that emerged from the data gathering in the design of a contextualized rubric, because it helped Pedagogical support unite to identify gender inequalities in the learning process and reflect upon their own practices, considering the role they have in the transformation of educative spaces and developing more inclusive tactics.

Finally, it is important to include all educational community in the development of a strong outreach, along with a permanent accompaniment process that gives teachers the tools they need. Another key aspect to have in mind is that observations and evaluations do not have to be associated with a sort of teacher's performance index, rather it has to be a feedback process from a formative standpoint.

References

Agencia de la Calidad de la Educación (2016). "Panorama de la educación media técnico profesional en Chile."

Angelcos Gutiérrez, N., Ísola Sánchez, E. (2017). Violencia y táctica en los procesos de integración de las mujeres a la minería del cobre en Chile. *Psicoperspectivas. Individuo y Sociedad*, 16(2), 66-78. DOI: 10.5027/psicoperspectivas-vol16-issue2-fulltext-1019

Araya Umaña, S. (2004) Hacia una educación no sexista Revista Electrónica "Actualidades Investigativas en Educación", vol. 4(2), 0-13.

Azúa, X., Saavedra, P., Lillo, D. (2019). Injusticia social naturalizada: Evaluación sesgo de género en la escuela a partir de la observación de videos de la evaluación docente. Pontificia Universidad Católica de Valparaíso, Perspectiva Educacional. Formación de Profesores. Vol 58(2), 69-97.

Azúa, X. (2016). Aprender a ser mujer, aprender a ser hombre. La escuela como reproductora de estereotipos en: *Educación no sexista*, Del Valle, S. (Ed.). Red chilena contrala violencia hacia las mujeres: Santiago, Chile.

Ball, S. (2013). Performatividad y fabricaciones en la economía educacional: rumbo a una sociedad performativa. *Pedagogía y Saberes*, 38, 103-113.

Blazquez, N. (2010). Epistemología feminista: temas centrales en Blazquez, G., Flores, F., Ríos, M. Coord. (2010). *Investigación feminista. Epistemología, metodología y representaciones sociales*. Colección Debate y Reflexión, México.

Colás, P. y Jiménez C. (2006). Tipos de conciencia de género del profesorado en los contextos escolares. *Revista de Educación*, 340, 415-444.

Comisión-SIMCE 2014 (2015). Informe Ejecutivo Equipo de Tarea para la Revisión del Sistema Nacional de Evaluación de Aprendizajes.

CONICYT (2019). Reporte de participación femenina 2018. Periodo 2009-2018. Unidad de Estudios. Departamento de Estudios y Gestión Estratégica.

CONICYT (2017). Política institucional equidad de género en ciencia y tecnología, periodo 2017 – 2025.

Delgado, G. (2010). Conocer en la acción y el intercambio la investigación: Observación participativa en: Blazquez, G., Flores, F., Ríos, M. Coord. (2010). *Investigación feminista. Epistemología, metodología y representaciones sociales*. Colección Debate y Reflexión, México.

Elwood, J. (2005). Gender and Achievement: What have exams got to do with it? *Oxford Review of Education*, Vol.31 (3), 373-393. Routledge.

Elwood, J. (2016). Gender and the Curriculum. In D. Wyse, L. Hayward, & J. Pandya (Eds.), *The Sage Handbook of Curriculum, Pedagogy and Assessment* (pp. 247-262). SAGE. <https://uk.sagepub.com/en-gb/eur/the-sage-handbook-of-curriculum-pedagogy-and-assessment-2v/book242832#description>

Espínola, P. (2015). Sexismo en textos escolares. En C. Durán (Ed.). *El continuo de violencia hacia las mujeres y la creación de nuevos imaginarios* (pp. 45-56). Santiago, Chile: Red Chilena contra la Violencia hacia las Mujeres.

Espinoza, A.M., y Taut, S. (2016). El rol del género en las interacciones pedagógicas de aulas de matemática chilena. *PSYKHE*. Vol. 25(2), 1.18. doi:10.7764/psykhe.25.2.858

Falabella y De la vega, A., & De La Vega, L. F. (2016). Políticas de responsabilización por desempeño escolar: Un debate a partir de la literatura internacional y el caso chileno. *Estudios Pedagógicos*, 2(42), 395–413.

Flórez, T. (2011). La importancia de una perspectiva histórica para el análisis de las políticas educativas (o de cómo llevamos haciendo lo mismo durante mucho tiempo). *Historia 2.0*, 2, 71-91.

Flórez, T. (2019). La crisis del paradigma de la estandarización: Principios y procedimientos para una evaluación más justa. *Revista Docencia*, Colegio de Profesores, 63.

Gray, C. y Leith, H. (2004) Perpetuating Gender Stereotypes in the classroom: a teacher perspective. En *Educational studies*, vol. 30, N° 1.

Guerrero E., Valdés, A. & Provoste, P. (2006). La desigualdad olvidada: género y educación en Chile. En P. Provoste Fernández (Ed.), *Equidad de género y reformas educativas: Argentina, Chile, Colombia, Perú* (pp. 99-148). Santiago, Chile: Hexagrama.

Guerrero, E., Provoste, P., & Valdés, A. (2006). *Equidad de género y reformas educativas: Argentina, Chile, Colombia, Perú*. Santiago, Chile: Hexagrama Consultoras

Gunderson, E. A., Ramirez, G., Levine, S. C. & Beilock, S. L. (2012). The role of parents and teachers in the development of gender-related math attitudes. *Sex Roles*, 66, 153-166. doi:10.1007/s11199-011-9996-2.

Hernández Pina, F. (1995). Bases metodológicas de la investigación educativa. Barcelona: PPU.

Hevia, F., & Vergara-Lope, S. (2016). Evaluaciones educativas realizadas por ciudadanos en México: Validación de la Medición Independiente de Aprendizajes. *Innovación Educativa*, 16(70), 85–110.

Holz, M. (2019). Evaluación educativa e Uruguay. Dimensiones, formas de medición y resultados. Biblioteca del Congreso Nacional de Chile.

MINEDUC (2016). Comisión por una educación con equidad de género, propuesta de acción.

MINEDUC (2017). Enfoque de género. Incorporación en los instrumentos de gestión escolar.

MINEDUC (2016). Educación para la igualdad de género. Plan 2015-2018.

MINEDUC. "Estrategia Nacional de Formación Técnico Profesional". Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. Oficina Regional de Educación para América Latina y el Caribe.

Mizala, A., Martínez, F. & Martínez, S. (2015). Pre-service elementary school teachers' expectations about student performance: How their beliefs are affected by their mathematics anxiety and student's gender. *Teaching and Teacher Education*, 50, 70-78. doi:10.1016/j.tate.2015.04.006

Preal (2009). Tendencias en la evaluación del logro escolar: la experiencia de cinco países con alto rendimiento educativo. Mejoras y reformas en la educación, serie mejores prácticas.

Sánchez-Amaya, T. (2013). La evaluación educativa como dispositivo de constitución de sujetos. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 11(2), 755-767.

Stobart, G. (2010). "La larga sombra de la rendición de cuentas". En: *Tiempos de pruebas: los usos y abusos de la evaluación* (pp. 135-167). Madrid: Morata.

Sepúlveda, L. (2017). "La educación técnico-profesional en América Latina. Retos y oportunidades para la igualdad de género." CEPAL y Ministerio de asuntos exteriores de Noruega, Serie Asuntos de género N° 144.

Servicio Nacional de la Mujer. (2009). *Análisis de Género en el Aula. Documento de Trabajo N° 117*. Recuperado desde: http://estudios.sernam.cl/documentos/?eMTE0NDczNw==An%C3%A1lisis_de_Genero_en_el_Aula

Sevilla, M. P., Sepúlveda L., Valdebenito, M. J. (2019). "Producción de diferencias de género en la educación media técnico profesional." ResearchGate, 56(1): 17.

Subirats, M. (2010). Organization. Paris. ¿Coeducación o escuela segregada? Un viejo y persistente debate. *Revista Asociación Sociológica de la Educación*, 3(1), 143-158.