



RELIEVE. Revista Electrónica de Investigación y
Evaluación Educativa

ISSN: 1134-4032

emolmedo@ugr.es

Universidad de Granada
España

Tejada Fernández, José; Jurado de los Santos,
Pedro; Navío Gámez, Antoni; Valls-Figuera, Robert G.
Validation of the self-assessment questionnaire of the context of practice and
self-efficacy towards the inclusion of LGBTIQ+ people in higher education

RELIEVE. Revista Electrónica de Investigación y Evaluación
Educativa, vol. 31, no. 1, 2025, January-June, pp. 1-19

Universidad de Granada
Valencia, España

DOI: <https://doi.org/10.7203/relieve.25.1.30646>

Available in: <https://www.redalyc.org/articulo.oa?id=91681713005>

- How to cite
- Complete issue
- More information about this article
- Journal's webpage in redalyc.org

redalyc.org

Scientific Information System Redalyc

Diamond Open Access scientific journal network

Non-commercial open infrastructure owned by academia

Validation of the self-assessment questionnaire of the context of practice and self-efficacy towards the inclusion of LGBTIQ+ people in higher education

Validación del cuestionario de autoevaluación del contexto de práctica y autoeficacia hacia la inclusión de personas LGBTIQ+ en educación superior

Validação do questionário de autoavaliação do contexto de prática e da autoeficácia relativamente à inclusão de pessoas LGBTIQ+ no ensino superior

高等教育中包容 LGBTIQ+ 群体实践情境与自我效能自评问卷的验证

في التعليم العالي (LGBTIQ+) حقق من صحة استبيان التقييم الذاتي لسياق الممارسة والكفاءة الذاتية نحو إدماج أفراد مجتمع الميم

Tejada Fernández, José ⁽¹⁾ ; Jurado de los Santos, Pedro ⁽¹⁾ ; Navío Gámez, Antoni ⁽¹⁾ ; Valls-Figuera, Robert G. ⁽²⁾ 

⁽¹⁾ Autonomous University of Barcelona, ⁽²⁾ University of Barcelona

Abstract

This paper aims to present the results of the process of construct validation of the Self-Assessment Questionnaire in the context of practice and self-efficacy of education students towards including LGBTIQ+ people in higher education. It is based on an instrumental study of undergraduate and master's degree students in education at Spanish universities, involving a sample of 334 students in the pilot study. Two procedures were used for construct validation: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Cronbach's Alpha coefficient was used to establish reliability. The results of the AFE point to six factors in the CONTEXT OF PRACTICE scale (Activities and resources, Faculty policy, Practicum, Classroom climate, Institutional climate, Curriculum) and two factors in the SELF-EFFICIENCY scale (Curriculum design and development and Problem management). The CFA shows satisfactory levels of final fit. In this regard, we conclude that the two subscales of the questionnaire considered, in light of the evidence provided, can be considered valid, while also indicating the robustness of the instrument for the purposes of understanding the context of educational practices and self-efficacy in the training of education professionals in relation to attention to gender diversity.

Keywords: LGBTIQ+, students, higher education, inclusion, validity, reliability.

Resumen

El objetivo de este trabajo es presentar los resultados del proceso de validación de constructo del Cuestionario Autoevaluación del contexto de práctica y autoeficacia de los estudiantes de educación hacia la inclusión de personas LGBTIQ+ en educación superior. La investigación se inscribe dentro de los estudios instrumentales; la población de referencia son estudiantes de los grados y másteres de educación de facultades españolas; la muestra del pilotaje del cuestionario es de 334 estudiantes. Para la validación de constructo se recurrió a dos procedimientos: el análisis factorial exploratorio (AFE) y el análisis factorial confirmatorio (AFC). Para establecer la fiabilidad se ha utilizado el coeficiente Alpha de Cronbach. Los resultados del AFE apuntan a seis factores en la Escala de CONTEXTO DE PRÁCTICA (Actividades y recursos, Política Facultad, Prácticum, Clima aula, Clima institucional, Plan de estudios) y a dos factores en la de Escala de AUTOEFICACIA (Diseño y desarrollo Curricular y Gestión de problemáticas). El AFC muestra unos niveles de ajuste final satisfactorios. Se concluye que el Cuestionario, a la luz del proceso de diseño y validación desarrollado, se constituye en un instrumento robusto, fiable y válido para conocer el contexto de las prácticas educativas y la autoeficacia en la formación de los profesionales de la educación en relación con la diversidad sexo-genérica y su inclusión en el perfil académico.

Palabras clave: LGBTIQ+; estudiante; educación superior; inclusión; validez; fiabilidad.

Received/Recibido

Apr 25, 2024

Approved /Aprobado

Jan 06, 2025

Published/Publicado

Jun 30, 2025

Resumo

O objetivo deste trabalho é apresentar os resultados do processo de validação de constructo do Questionário de Autoavaliação do contexto de prática e autoeficácia dos estudantes de educação relativamente à inclusão de pessoas LGBTIQ+ no ensino superior. A investigação insere-se no âmbito dos estudos instrumentais; a população de referência são estudantes de licenciaturas e mestrados de educação de faculdades espanholas; a amostra-piloto do questionário é de 334 estudantes. Foram utilizados dois procedimentos para a validação do constructo: a análise factorial exploratória (AFE) e a análise factorial confirmatória (AFC). O coeficiente Alfa de Cronbach foi utilizado para determinar a fiabilidade. Os resultados da AFE apontam para seis fatores na Escala de CONTEXTO DE PRÁTICA (Atividades e recursos, Política da faculdade, Prácticum, Ambiente na sala de aula, Ambiente institucional, Plano de estudos) e para dois fatores na Escala de AUTOEFICÁCIA (Conceção e desenvolvimento curricular e Gestão de problemas). A AFC apresenta níveis satisfatórios de ajuste final. Conclui-se que o Questionário, à luz do processo de conceção e validação desenvolvido, é um instrumento robusto, fiável e válido para conhecer o contexto das práticas educativas e da autoeficácia na formação dos profissionais de educação em relação à diversidade sexo-genérica e à sua inclusão no perfil académico.

Palavras-chave: LGBTIQ+, estudante, ensino superior, incluso, validade, fiabilidade.

摘要

本研究旨在呈现《高等教育学生包容 LGBTIQ+群体的实践情境与自我效能自评问卷》构念效度验证的全过程。该研究属于工具性研究，目标人群为西班牙师范学院本科学位及硕士学位的教育类学生，问卷预测试样本为 334 名学生。构念效度的验证采用了探索性因子分析（EFA）和确认性因子分析（CFA）两种方法，信度评估采用了 Cronbach α 系数。EFA 结果显示，“实践情境”量表包括六个因子（活动与资源、院系政策、教学实习、课堂氛围、机构氛围及课程方案），而“自我效能”量表包括两个因子（课程设计与开发、问题管理）。CFA 分析表明模型最终拟合度令人满意。综上所述，该问卷经设计与验证流程后，已成为评估教育实践情境以及教育专业人员针对性别多样性包容性和学术能力自我效能的重要、可靠且有效的测评工具。

关键词: LGBTIQ+，学生，高等教育，包容性，效度，信度。

ملخص

يهدف هذا العمل إلى عرض نتائج عملية التحقق من صدق البنية لمقياس الاستبيان الخاص بالتقويم الذاتي لسياق الممارسة والكفاءة الذاتية لطلبة التربية نحو تتدرج هذه الدراسة ضمن البحوث الأدائية، وتتمثل الفئة المستهدفة في طلبة درجات في التعليم العالي (LGBTIQ+) إدماج الأشخاص من مجتمع الميم البيكالوريوس والماجستير في كليات التربية الإسبانية. وبلغت عينة المرحلة التجريبية للاستبيان 334 طالبًا وطالبة. وللتحقق من صدق البنية، تم استخدام كما تم اعتماد معامل ألفا كرونباخ لتحديد مستوى الثبات. وتشير نتائج (CFA) والتحليل العاملي التوكيدي (EFA) لإجراءين: التحليل العاملي الاستكشافي التحليل العاملي الاستكشافي إلى وجود ستة عوامل في مقياس سياق الممارسة (الأنشطة والموارد، سياسة الكلية، التدريب العملي، المناخ داخل الصف، المناخ المؤسسي، المنهاج الدراسي)، وعاملين اثنين في مقياس الكفاءة الذاتية (تصميم وتطوير المناهج وإدارة الإشكاليات). أما نتائج التحليل العاملي التوكيدي فقد أظهرت مستويات ملائمة نهائية مرضية. وبناءً على ما سبق، يمكن الاستنتاج أن الاستبيان يُعد أداة قوية وموثوقة وصادقة لقياس سياق الممارسات التربوية والكفاءة الذاتية في تكوين المهنيين التربويين فيما يتعلق بالتنوع الجندي والجنسي وإدماجه في التكوين الأكاديمي

الكلمات المفتاحية: (LGBTIQ+) الكلمات المفتاحية: الطلبة؛ التعليم العالي؛ الإدماج؛ الصدق البنائي؛ الثبات؛ التحقق من الصلاحية؛ مجتمع الميم

Introduction

UNESCO (2016b, 2017), in the framework of the establishment of the Sustainable Development Goals (SDGs) of the 2030 Agenda, includes in its 5th (SDG) the aspiration to "Achieve gender equality" and the 4th (SDG) to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

Assuming a gender perspective in education translates into correcting any type of inequality by favouring access and use of resources that highlight equality between men and women, promoting the values of equality and respect, and empowering women to participate equally in all spheres. It would also be logical to think that, if education is to be inclusive and for all people, it should carry out actions that contemplate equity in the attention to gender and sexual diversity (GSD). This has so far been invisible and discriminated against (Toro-Alfonso, 2012). In the face of gender-based violence, it is assumed that teachers should be more aware of the different dynamics that occur in their classrooms, as well as of their own conceptions, beliefs, prejudices and behaviours in order to combat violence (UNESCO-UN Women, 2019; Fernández-Rotaecche et al., 2021).

In recent times, attention to GSD has been emerging as a demanded need in educational contexts, especially for those groups that have had to face situations of vulnerability derived from their sexual orientation or gender identity. In this regard, situations related to LGBTIQ+phobia, bullying and exclusion due to discrimination can be referred to (INJUVE/CIS, 2011; Pichardo et al., 2015; UNESCO, 2016a). This problem has been regarded as one of social justice and law (Arrubia, 2018; Rojas et al., 2019), representing its recognition in equality and equity with all people.

The work carried out by García-Cano et al. (2018) shows the situation regarding attention to affective-sexual diversity in Spanish universities. Although progress has been made

in the regulatory framework both at a national and regional level, (Organic Law 3/2020 on education; Law 8/2017, to guarantee the rights, equal treatment and non-discrimination of LGBTI people and their families in Andalusia, for example) and there are initiatives to eradicate discrimination, there are still only few studies on discrimination in the university environment.

In this context, Penna's (2015) study on homophobia in university classrooms describes the curricular shortcomings in the curricula and the lack of training of university teaching staff on affective-sexual diversity. We concur, in line with García Cano et al. (2018), on the need to include content related to affective-sexual diversity in the curriculum, as well as on the importance of the institutional role and that of teachers themselves in recognising, raising awareness and promoting visibility from an inclusive perspective, with the aim of helping to reduce the problems identified (Tejada et al., 2025a).

The literature reviewed by Pérez-Jorge et al. (2020) focused on the LGBTIQ+ (community and found very few studies based on specific teacher training. These same authors highlight the importance of these professionals being able to effectively manage LGBTIQ+ diversity in the classroom, promoting coexistence and inclusion among students, regardless of their gender identity and sexual orientation. In this sense, cisheteronormativity (Allen, 2020; Sánchez Sáinz, 2019) is evident in practices of non-recognition of sex-gender diversity, manifesting itself, for example, in the absence of curricula and in the lack of curricular content that includes LGBTIQ+ issues and realities.

Liscano and Jurado (2016) offer some studies developed in the field of higher education, focusing mainly on LGBTIQ+phobic bullying, equality policies, homogenising discourses on gender and self-determination, family values, non-discriminatory educational climate on acceptance or equality and prejudice. They point out that teachers recognise the

importance of accepting and working on difference and discrimination in their practices, while pointing out. However, they feel incompetent to carry them out.

Given the diversity of conceptions that have been appearing in relation to this subject, the acronym LGTB is used to refer to people who represent a broad set of realities that break with the hegemonic/heteronormative norms of gender and sex. Likewise, given the diversity of terms and concepts that exist to refer to LGBTIQ+ people in the field of education, we have opted for the concept of gender-sexual diversities (SDG) because we understand that it encompasses issues related to sexual characteristics, sexual orientation and gender identity.

As we have already pointed out in another study (Tejada et al., 2025b), universities have a legal responsibility to be proactive in promoting equity, equality and social justice, key concepts that guide the processes of socio-educational inclusion. The training of education professionals has a major influence on the sustainability of the education system. This is evident in educational practices at different levels, which is why universities must assume their responsibility to meet the needs that arise.

It is in this context that the training of teachers and education professionals must consider diversity, the difference of students, specifically for our interest, the SDGs (Staley & Leonardi, 2020). These should appear as a concern in the curricula that make up the different profiles of the professional family of Education, verifying the inclusion of contents and competences towards diversity, and gender identity and sexual orientation, as an indicator of equity and social justice (Miralles et al., 2020).

In such training, attention to gender-based violence is addressed by building on what learners already know and incorporating new knowledge. The analysis carried out by Baker et al. (2018) shows that students, future education professionals, can learn to build genuine relationships that do not conform to

gender; moving away from binary notions of preconceived gender, recognising that their identity impacts on interactions and, therefore, on their learning.

On the other hand, there is still a gap between theory and practice, between thinking and action, between attitudes and willingness to accept teachers' commitment to inclusive practice (Hwang & Evans, 2011). Bracho and Hayes (2020) allude to the development of professional identity as a multitude of skills and knowledge are learnt in order to become an experienced professional. In this sense, assuming that teachers' identities are dynamic, we must consider the skills they have to deal with interactions in the teaching-learning process when faced with SGD, specifically generic-transversal competences such as those of attention and respect for diversity (Tejada et al., 2025a).

It should be specified that there is a requirement embedded in the codes of conduct of education professionals that obliges them to practice in a way that respects diversity. This is also a consequence of the implementation of legislation (Organic Law 3/2020) which explicitly refers to the need to make visible and respond to LGBTIQ+ students on up to five occasions. It means recognising the tension between marginalisation and inclusion, and supporting the latter.

In the face of apparently reactive regulations, focused on action to preserve the duties and rights of all people, limitations are found when it comes to incorporating initial and continuous training mechanisms for teachers at compulsory schooling levels. For this reason, the question of whether there is sufficient information and training available for university students remains in their training as education professionals, to tackle the problems derived from the SGD, considering them as the realisation of professional skills that are oriented towards appropriate responses in the preservation of people's rights (Tejada et al., 2025b).

The purpose of this paper is to present part of the information gathering device used for

this purpose, while also presenting the process of constructing and validating the construct of two of its subscales: the PRACTICE CONTEXT Scale and the SELF-EFFICACY Scale for DSG care by students in the education professions.

Method

The design and validation of the Self-Assessment Questionnaire of the context of practice and self-efficacy of university education students towards the inclusion of LGBTIQ+ students are part of a data collection mechanism for a broader research project, whose objective is to assess the levels of information and training that students and teachers in university education programmes have in order to address issues arising from DSG care (Navío et al. 2024). This is a cross-sectional explanatory study with a mixed approach, integrating quantitative instruments (student questionnaires and teacher questionnaires) and qualitative strategies and techniques (teacher interviews and student focus groups), using a triangulated and complementary logic.

Participants

The study population are students of different degrees (Early Childhood Education, Primary Education, Pedagogy, Social Education) and master's degrees (Psychopedagogy, Guidance, Secondary Teacher Training) of the faculties of education of five Spanish public universities. All of them are in their final years of study. The sample extraction procedure in the pilot study for instrument validation was non-probabilistic by convenience (accessibility-voluntariness).

The 334 students who make up the initial sample are characterised by a profile, within education studies, in which gender stands out, with 69.66% female, 30.14% male and 0.3% non-binary. Their average age is 23.82 years old and correspond to students in the last two years of education studies, 61.1% in Bachelor and 38.9% in Master. In addition, almost 40% work while studying, with an average of 20.5 hours per week. Furthermore, 55.6% live with

their parents, 22.8% with friends, 7.9% live with a partner and the rest in other situations. The training received to address issues related to LGTBIQ+ care is rated 3.35 (scale 1 to 5, none - very much).

Instruments

The *Self-Assessment Questionnaire of the context of practice and self-efficacy of university students of education towards the inclusion of LGBTIQ+ people* are structured in two large dimensions: *context of training practices for DSG* (35 items) and *level of self-efficacy for SGD attention* (20 items). In addition, it contains 12 items of socio-demographic and training variables and 4 open-ended questions. For this purpose, in addition to the general rationale (Tejada et al., 2025a) outlined above, other studies and specific instruments on the dimensions involved, variables and indicators are considered as a basis (Table 1): *CONTEXT OF TRAINING PRACTICES* in higher education (*Trainee teachers' approaches to gender diversity*, Bochicchio et al., 2019; *Higher education students and sexual diversity*, Espinoza, 2020; *Gender Equality Training Sensitive Evaluation Scale ESFIG*, Miralles et al., 2020; *Self-Assessment Rubric for the Institutionalization of Diversity, Equity and Inclusion in Higher Education*, NERCHE, 2016; *Cuestionario de Formación del Profesorado en la diversidad afectivosexual*, Penna, 2012; *Escala de Creencias, actitudes y prácticas de atención a la diversidad para docentes universitarios*, Ramos Santana et al, 2021; *La formación del profesorado de Educación Primaria en diversidad sexogenérica*, Sánchez Torrejón, 2021; *Comportamientos de profesores frente a la comunidad LGTBI*, Toro et al, 2020) and *SELF-EFFICIENCY IN ATTENTION SGD* (*Self-Efficacy Scale on working with and for LGBTQ students*, Brant, 2017; *Core Self Evaluations Scale*, Carroll, 2019; *The Teacher Self-Efficacy Scale LGBTQ*, Jones et al., 2021; *Questionnaire for the evaluation of teacher competences in attention to diversity*

CECPAD, Mena Ramos and García Sanz, 2017).

Table 1. Dimensions and variables of the questionnaire.

DIMENSIONS	VARIABLES/Indicators	Item
Socio-demographic variables	Age	4
	Religion	13
	Political ideology	14
	Family living situation	6
	Employment status	7
Training variables	University	1
	Degree	2
	Course	3
	Pre-university training institution	15
Sex-generic diversity	Gender Identity	5
	Sexual orientation	12
	Knowledge of LGBTIQ+ people	16
	SGD-study plan	8
	SGD -subjects	9
	SGD -professional utility	10
	SGD -barriers in the curriculum	11
Scale CONTEXT PRACTICAL TRAINING CONTEXT SGD	CONTEXT OF THE EDUCATIONAL OFFER	
	Access to education	
	LGBTIQ+ Inclusion Policies (University, Faculty)	
	Institutional climate	
	Faculty Inclusion Activities	
	Community interest	
	Teacher sensitivity	
	Thematic training offer	
	Relevance SGD treatment profession	
	CURRICULUM DESIGN SGD CARE	
	Presence of content	
	Relevance Content	
	Competences for diversity	II.1 to
	Inclusion of gender perspective	II.35
	CURRICULUM DEVELOPMENT SGD CARE	
	Learning and attention to diversity	
	Classroom diversity assessment	
	Sexual diversity resources	
	Climate	
	Identity treatment	
	Pupil-student relations	
	Teacher-student relations	
	Incorporating personal experiences	
	Practicum-respecting sexual orientation students	
	Practicum-Thematic Sexual Orientation	
	Practicum-student-teacher relations	
	Practicum-incorporation of personal experience students	
Self-Efficacy Scale attention SGD	Adaptation methods	
	Planning and development of activities	
	Good practice identifications	
	Design and evaluation of resources	III.1 to
	SGD evaluation	III.20
	Cooperative work in the classroom	
	Addressing situations of homophobic discrimination and conflict	

Procedure

For the validation of the questionnaire, *construct validity and reliability analysis* were used. The *construct validity* involved two sequential stages corresponding to the two procedures applied: a) *Exploratory Factor Analysis* (EFA) and b) *Confirmatory Factor Analysis* (CFA) (Dueñas et al., 2024)

In the process of collecting information in the pilot, the corresponding criteria of ethical rigour have been applied, ensuring confidentiality. All participants agreed and consented to participate in this study.

Data analysis

Data analysis was performed using *IBM SPSS Statistics v.29* and *IBM SPSS Amos v.29* software. Given the nature of the data, the relevant statistical tests for factor analysis were used, as can be verified in the following section, taking into account the specific situation of the analysis.

For the AFE, the Kaiser-Meyer-Olkin sample adequacy test and Bartlett's sphericity test were previously considered and then the principal component extraction procedure and the Varimax rotation procedure were used (Costello & Osborne, 2005; Kahn, 2006; Pérez & Medrano, 2010). The sedimentation plot was also considered to establish the number of factors in each of the scales (Kline, 2000).

For the CFA, the Structural Equation Method has been used, and its parameters are

estimated by the maximum likelihood procedure, specifying the fit indices of the initial and final models Cronbach's *alpha* coefficient was used to analyse the reliability of the two scales.

Results

Exploratory Factor Analysis (EFA)

The results of the Kaiser-Meyer-Olkin statistical tests, ($KMO > .75$), which is characterised as “good” and Bartlett's sphericity indicate its validity, as there are common factors for performing a factor analysis. With these results, we can decide to perform an AFE.

For factor extraction, it is assumed that the factor solution explains at least 50% of the total variability (Tabachnick & Fidell, 2001), considering the additional rotated matrix shown in table 2.

In the case of the SGD PRACTICE CONTEXT scale, as can be seen in the next table, we extracted six factors that explain a total variance equal to 61.52%. In line with the previous conceptual structure, the extracted factors have been named: F1: *Classroom: Activities and resources*; F2: *Faculty policy*; F3: *Practicum*; F4: *Classroom climate*; F5: *Institutional climate*; F6: *Syllabus*.

Table 2. Rotated Component Matrix: scale PRACTICE CONTEXT

MATRIZ DE COMPONENTES ROTADOS	Componente						
	1	2	3	4	5	6	7
23. Los recursos materiales que utilizamos en el aula ayudan a romper los mitos sobre las personas LGBTIQ+	.765						
21. Las actividades en el aula tienen presente las distintas identidades que pueden aparecer en la misma	.762						
20. Las actividades en el aula se orientan a reducir los prejuicios sobre las personas LGBTIQ+	.761						
24. Las referencias y textos que se utilizan en el aula se orientan a evitar sesgos con relación a las personas LGBTIQ+	.751						
19. Las actividades en el aula tienen en cuenta la diversidad de alumnado LGBTIQ+	.746						
22. En el aula, las cuestiones controvertidas relacionadas con la identidad sexual se tratan de forma holística	.694						
27. En el aula, se promueve la incorporación de temáticas relacionadas con la orientación sexual	.599						
18. En las clases se valora la diversidad como un aspecto enriquecedor del entorno del aula	.514						
7. En mi facultad se realizan actividades que propician la inclusión de las personas LGBTIQ+		.811					
8. En mi facultad se ha adoptado un enfoque proactivo para la inclusión de las personas LGBTIQ+		.809					
11. Existe una oferta formativa para el profesorado sobre temáticas de LGBTIQ+		.697					
9. La comunidad académica manifiesta interés por temáticas LGBTIQ+		.639					
10. En mi facultad, el profesorado está sensibilizado respecto de la diversidad sexo-genérica		.567					
3. Mi universidad cuenta con una política de inclusión personas LGBTIQ+		.558			.519		
4. Existen protocolos de seguimiento a situaciones de LGBTIQ+fobia		.520					
34. En el prácticum, las relaciones profesorado-alumnado son empáticas			.792				
33. En el prácticum, las relaciones alumnado-alumnado son empáticas			.758				
35. En el prácticum, se favorece la incorporación de experiencias personales del alumnado			.746				
31. En el prácticum, se respeta la orientación sexual de alumnado y profesorado			.703				
32. En el prácticum, se promueve la incorporación de temáticas relacionadas con la orientación sexual							
25. En las clases, se genera un clima de confianza				.789			
28. En el aula, las relaciones alumnado-alumnado son empáticas				.751			
26. En el aula, se respeta la orientación sexual de alumnado y profesorado				.726			
29. En el aula, las relaciones profesorado-alumnado son empáticas				.628			
30. En mis clases, se favorece la incorporación de experiencias personales del alumnado							
1. La Administración Pública garantiza el acceso de las personas LGBTIQ+ a la educación					.740		
5. La facultad es un lugar donde se respetan a las personas LGBTIQ+					.692		
6. Existe un clima institucional de respeto a las personas LGBTIQ+					.650		
2. Las universidades acogen políticas inclusión hacia personas LGBTIQ+					.634		
13. En mi plan de estudios se abordan temáticas de LGBTIQ+						.774	
14. En mi plan de estudios se incluye el desarrollo de competencias para educar en la atención a la diversidad sexo-genérica						.767	
15. En mis estudios se trata el tema de la orientación e identidad sexual						.761	
17. A lo largo de mis estudios estoy aprendiendo todo lo que necesito sobre la atención a la diversidad sexo-genérica						.548	
12. El tratamiento de los temas relacionados con la identidad y orientación sexual es pertinente para mi profesión							.880

16. Incluir la perspectiva de género en mi formación es esencial para mi futuro profesional .863

In the case of the SELF-EFFICIENCY scale for SGD care, as can be seen in table 3, two factors that explain a total variance of 67.23% have been extracted: F1: *Curriculum design and development*; F2: *Conflict and issue management*.

Table 3. Component matrix: SGD SELF-EFFICIENCY scale

ROTATED COMPONENT MATRIX	Component	
	1	2
I am able to:	.811	
6.- identify LGBTIQ+ bias/stereotypes in materials used in education	.782	
5.- developing appropriate materials for a classroom with LGBTIQ+ students	.776	
1.- adapting methodological strategies to meet the needs of LGBTIQ+ students	.761	
3.- develop activities that increase the self-confidence of LGBTIQ+ students.	.761	
4.- identify school practices that may harm LGBTIQ+ students	.755	
7.- help students to examine their own prejudices towards LGBTIQ+ people.	.722	
2.- plan educational activities to reduce prejudice towards LGBTIQ+ people.	.713	
8.- teach about being LGBTIQ+ in a way that engenders mutual respect with people who are not LGBTIQ+.	.711	
9.- to provide instructions showing how prejudice affects LGBTIQ+ people	.667	.528
10.- help students to solve problematic situations caused by stereotypical and/or prejudicial attitudes towards LGBTIQ+ students.	.623	.553
16.- involve students in decision making and clarify their values on LGBTIQ+ issues.	.622	.531
13.- identify the social mechanisms that influence opportunities for LGBTIQ+ people	.619	.500
15.- help students to see history and current events from an LGBTIQ+ perspective.		.863
19.- assume a mediating role in situations of conflict due to homophobia.		.851
18.- dealing with conflict situations due to homophobia		.711
17.- tackling discrimination and exclusion towards LGBTIQ+ people	.505	.667
12.- identify solutions to problems that may arise as a result of someone being LGBTIQ+.	.515	.662
14.- help students to take on board the perspective of people with sexual identities different from their own.		.573
11.- to get LGBTIQ+ and non-LGBTIQ+ students to work together.		
20.- I have sufficient training to address issues of inclusion of LGBTIQ+ persons		

Confirmatory Factor Analysis (CFA)

Subsequently, a *confirmatory factor analysis* was performed to validate the structure of the theoretical dimensions measured by the questionnaire-scales. This was also used to verify their correspondence with the AFE, estimating a measurement model composed of observed variables (items) and latent variables (factors) (Dueñas et al., 2024). The CFA of the SGD PRACTICE

CONTEXT SCALE corroborates the factor structure suggested by the EFA and, in turn, is in line with the conceptual structure of the two scales. Table 4 presents the comparative data of the *Initial and Final* fit models. In fact, the PCMIN/DF already points to an acceptable goodness of fit (2.14). The incremental fit indices (IFI, TLI, CFI) are acceptable at around .90. With regard to residuals, an RMSEA of .06 was obtained, together with an SRMR of .13, which are considered acceptable. On the

other hand, the Parsimony Indices (PRATIO of .89, PNFI of .76, PCFI of .79) can be considered high, above .07 and close to 1.

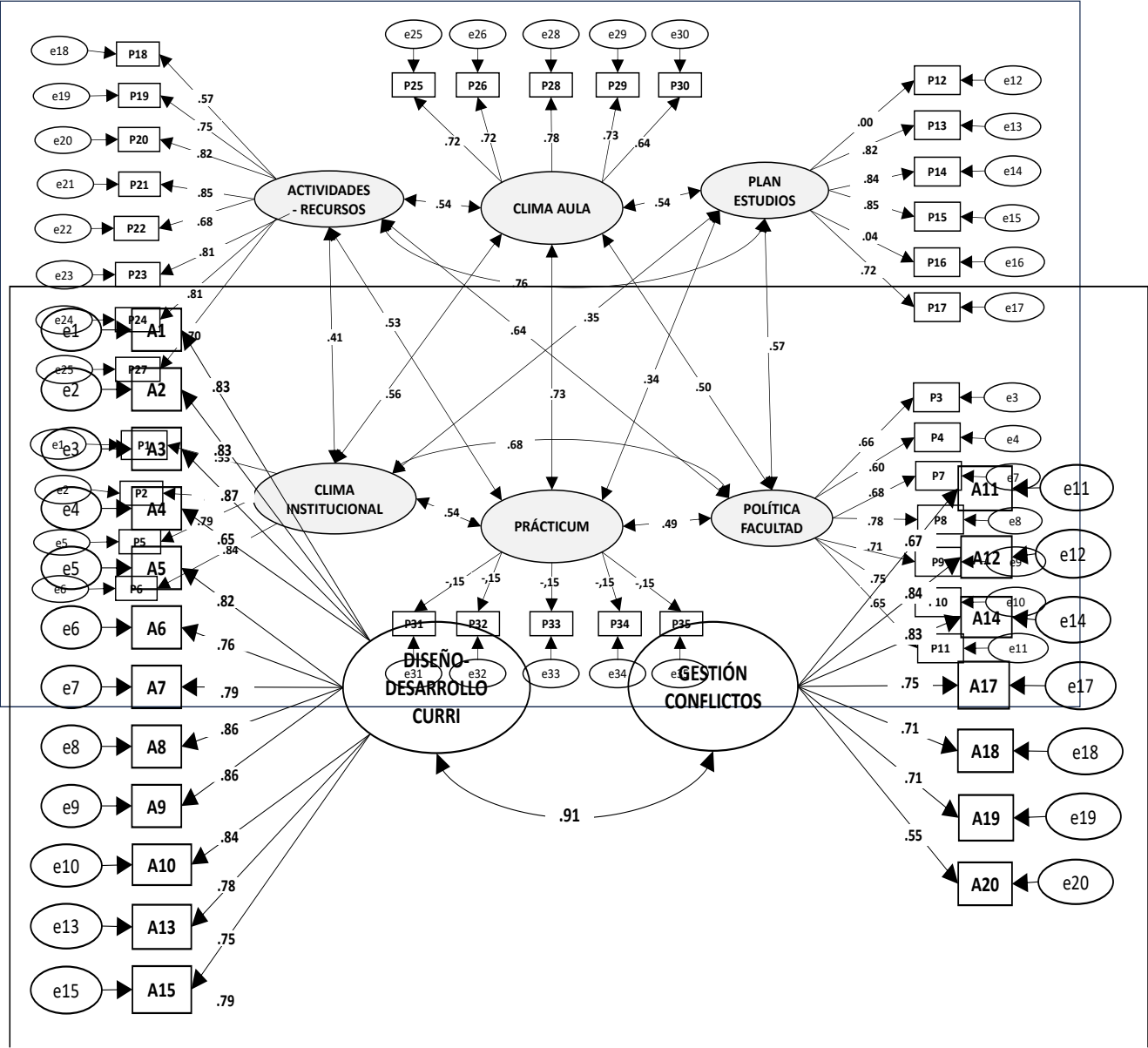
Table 4. Statistical indices of AFC: PRACTICE CONTEXT and SGD SELF-EFFICACY

INDEX	Acronym	Adjustment criterion	PRACTICAL CONTEXT		SELF-EFFICIENCY	
			Initial	Final	Initial	Final
Ratio of X2 X2/df	PCMIN/DF	≤ 2 appropriate ≤ 3 acceptable ≤ 5 reasonable	3.71	2.14	4.8	2.8
Comparative fit index	IFI	1 perfect	.72	.89	.88	.94
	TLI	≥ .95 excellent	.70	.87	.86	.93
	IFC	≥ .9 acceptable	.72	.89	.88	.94
Parsimony Index	PRATIO	≥ .7 appropriate	.94	.89	.89	.85
	PNFI	(close to 1)	.61	.72	.76	.78
	PCFI		.68	.79	.78	.80
Root mean square residual approximation	RMSEA	≤ .05 appropriate	.10	.06	.11	.08
	LO90	≤ .08 acceptable	.09	.06	.10	.07
	HI90		.11	.07	.12	.08
Standardised root mean square residual	SRMR	≤ .05 adequate ≤ .1 acceptable (close to zero)	.27	.13	.05	.04

Figure 1 presents a structural model that confirms the initial structure of the instrument, showing that both the regression

weights or factor loadings of the items and the factor-dimensions are high.

Figure 1. Structural model of measurement: scale CONTEXT OF PRACTICE SGD



The CFA of the SGD Self-Efficacy Scale corroborates the factor structure suggested by the EFA. It is in line with the conceptual structure of the two scales. Table 8 presents the comparative data of the *Initial and Final* fit models. The PCMIN/DF points to an acceptable goodness of fit (2.8). The incremental fit indices (IFI, TLI, CFI) are acceptable at around .90. Regarding the residuals, an acceptable overall RMSEA is obtained with a value of .08 and the SRMR

is also acceptable with a value of .04. Likewise, the Parsimony Indices are high (with a PRATIO of .85, PNFI of .78, PCFI of .80), above .07 and close to 1.

Figure 2 presents a structural model that confirms the initial structure of the SGD SELF-EFFICIENCY scale. It shows that both the regression weights or factor loadings of the items and the factor dimensions are high.

Figure 2. Structural model of measurement: scale CONTEXT OF PRACTICE SGD

Reliability

Table 5 and Table 6 present the results of the reliability of the instrument based on the pilot sample (n = 334). The statistics are

established, and it can be verified that the level of internal consistency of the questionnaire is very high, according to the Alpha coefficient

Table 5. Reliability analysis statistics

Subscales	N of elements	Cronbach's alpha
Scale CONTEXT OF PRACTICE	35	.94
SELF-EFFICIENCY scale	20	.96

Table 6. Reliability results SGD SCALES

ITEMS	Half scale item deleted	Variance deleted element	Correlation Total	Alpha Cronbach	ITEMS	Half scale item deleted	Variance deleted element	Total correlation	Alpha Cronbach
CONTEXTO DE PRÁCTICA DSG					AUTOEFICACIA DSG				
CP1.	109.72	444.956	.348	.938	A1.	76.35	203.939	.785	.961
CP2.	110.38	438.417	.483	.937	A2.	76.13	204.644	.801	.961
CP3.	110.60	436.881	.525	.937	A3.	76.14	203.349	.836	.961
CP4.	110.61	437.133	.483	.937	A4.	76.09	209.144	.631	.963
CP5.	109.85	441.639	.485	.937	A5.	76.27	202.977	.793	.961
CP6.	110.10	438.118	.525	.937	A6.	76.10	205.613	.739	.962
CP7.	110.88	434.462	.507	.937	A7.	76.02	207.606	.759	.962
CP8.	110.73	431.596	.607	.936	A8.	76.08	204.323	.828	.961
CP9.	110.67	430.657	.629	.936	A9.	76.12	204.679	.824	.961
CP10.	110.55	430.211	.684	.935	A10.	76.00	207.337	.825	.961
CP11.	111.22	436.819	.513	.937	A11.	75.87	211.607	.610	.963
CP12.	109.59	455.009	.083	.941	A12.	76.00	207.852	.790	.961
CP13.	111.29	431.283	.551	.936	A13.	76.20	205.443	.791	.961
CP14.	111.35	430.718	.589	.936	A14.	76.01	207.636	.790	.961
CP15.	111.22	429.047	.577	.936	A15.	76.21	204.872	.766	.962
CP16.	109.60	455.482	.082	.941	A16.	76.10	205.723	.808	.961
CP17.	111.47	430.633	.597	.936	A17.	75.93	208.564	.726	.962
CP18.	110.32	432.669	.563	.936	A18.	75.91	210.336	.661	.963
CP19.	110.97	429.417	.608	.936	A19.	75.88	211.507	.633	.963
CP20.	111.02	427.846	.664	.935	A20.	76.74	208.521	.529	.965
CP21.	110.99	424.541	.710	.935					
CP22.	110.95	433.407	.592	.936					
CP23.	111.11	427.205	.664	.935					
CP24.	111.03	426.100	.681	.935					
CP25.	109.97	438.168	.510	.937					
CP26.	109.54	441.369	.491	.937					
CP27.	110.76	425.055	.651	.935					
CP28.	109.90	438.911	.505	.937					
CP29.	110.15	437.406	.537	.937					
CP30.	110.26	430.846	.591	.936					
CP31.	109.78	439.171	.474	.937					
CP32.	110.75	428.946	.584	.936					

CP33.	109.89	441.601	.426	.937
CP34.	109.90	437.678	.503	.937
CP35.	110.08	431.971	.582	.936

Discussion

The design of the *Self-Assessment Questionnaire of the context of practice and self-efficacy of university students in education towards the inclusion of LGBTIQ+ students* is based on a conceptualisation. It also follows the general foundation mentioned in other studies and specific instruments on the dimensions involved, variables and indicators: context of educational practice (Bochicchio et al., 2019; Espinoza, 2020; Miralles et al., 2020; Penna, 2012; Ramos Santana et al., 2021; Sánchez Torrejón, 2021; Toro et al., 2020), and self-efficacy (Brant, 2017; Carroll, 2019; Jones et al., 2021; Mena Ramos & García Sanz, 2017).

This frame of reference has made it possible to structure the *self-assessment* questionnaire in accordance with the different dimensions and indicators mentioned above and to articulate the different scales (CONTEXT OF PRACTICE of SGD care and SELF-EFFICIENCY for SGD care). This provides internal coherence from the theoretical conceptualisation that has been carried out (Tejada et al., 2025a).

The construct validity, through EFA with the Varimax rotation procedure, has enabled the grouping of items that correlate strongly with each other, verifying six factors in the CONTEXT OF PRACTICE scale (*Activities and resources*, *Faculty policy*, *Practicum*, *Classroom climate*, *Institutional climate*, *Study plan*) and two factors in the SELF-EFFICIENCY scale (*Curricular design and development* and *Management of problems and conflicts*). The extraction of these factors allows us to conclude that they explain all of the variables involved in the research.

For its part, the CFA corroborates the factorial structure suggested by the PFA. This is evidenced by the models shown in the Figures as well as by the data in Table 4,

where the comparative data of the initial and final models are presented, concluding that satisfactory levels of final fit are obtained (Byrne, 2016). In fact, the PCMIN/DF already points to an acceptable goodness of fit, below 3 (Kline, 2016). The incremental fit indices (IFI, TLI and CFI) are acceptable at around .90 (Byrne, 2016; Whittaker, 2012) in *Practice Context* and above .90 in *SGD Self-Efficacy*. Regarding the residuals, values below .08 are obtained (Kline, 2016; Whittaker, 2016), with an overall acceptable RMSEA with values below .08 and the SRMR is also acceptable with values below .08. Likewise, the parsimony indices are high (PRATIO, PNFI and PCFI), above .07 and close to 1 (Ho, 2006).

It is worth noting the great adaptation of the theoretical model to the definition made through the CFA around the structural equation model (Fernández-Cruz et al., 2018). As indicated above (Tejada et al., 2025a), the dimensions, variables and indicators set have been adjusted quite closely to the theoretical model analysed. This shows the consistency and robustness of the factors that made up the initial structure of items, dimensions and scales that make up the instrument, based on these theoretical references.

In summary, the scales evaluated, in light of the results of the design and validation process carried out, can be considered a robust and valid tool for the assessment of the *Practice Context and Self-efficacy* for SGD care of university students in education, as well as a relevant contribution from a theoretical point of view.

However, the size of the sample should be considered a limitation. Although it is considered sufficient, acceptable and valid for the piloting of the questionnaire, with the next applications in the research study designed, the robustness, reliability and validity obtained so far will be extended.

Finally, it is also worth pointing out some implications, particularly related to the use and application of the *self-assessment questionnaire*. In this sense, it satisfies the objective of gathering sufficient information from university students of education studies, in this case, on the context of practice of the SGD in which they are trained and, at the same time, verifying the perception of self-efficacy to tackle the problems derived from attention to the SGD, considering them, in this sense, as the search for competences that are oriented towards the appropriate responses in their training, development and professional performance.

This will give rise, with discernment and meaning, to specific proposals for individual training initiatives and also to more comprehensive ones from higher education institutions themselves (Tejada et al., 2025a). These training policies will make it possible to strengthen the visibility of SDGs as a mechanism for consolidating equity in the exercise of rights, to guide processes for improving training plans and programmes in education faculties in relation to attention to SDGs. They will also contribute to the recognition of the preventive and social facilitating role of the faculties themselves, as centres for the training of education professionals, in favour of educational improvement in the face of diversity in general and SDGs in particular. Finally, they will contribute to the deepening of the training provided to students in different degrees and specialities and to social and institutional change in the university in favour of equity, equality and social justice (Tejada et al., 2025b).

Acknowledgements and funding

The study is funded by the Spanish Ministry of Science and Innovation, State Research Agency, and co-funded by the European Union, within the framework of the State Programme to Promote Scientific and Technical Research and its Transfer, of the State Plan for Scientific, Technical and Innovation Research 2021-2023. Project

PID2021-128041NB-I00 ‘The training of education professionals and gender diversity. Perceptions and educational practices towards the inclusion of LGBTIQ+ students’.

References

- Allen, L. (2020). Reconceptualising homophobia: by leaving ‘those kids’ alone. *Discourse: Studies in the Cultural Politics of Education*, 41(3), 441-453. <https://doi.org/10.1080/01596306.2018.1495617>
- Arrubia, E. (2018). Educación y derechos humanos a la luz de los estándares jurídicos de la diversidad sexual: Límites, resistencias y desafíos desde la experiencia socio-legislativa argentina. *Revista Electrónica Educare*, 22(3), 1-23. <http://dx.doi.org/10.15359/ree.22-3.12>
- Baker, J. S., Hurula, M., Goodreau, A., & Johnson, B. (2018). Poetic explorations of cisgender privilege: How teacher candidates learn to advocate for gender non-conforming youth, *Journal of Curriculum and Pedagogy*, 15(3), 312-317, <https://doi.org/10.1080/15505170.2018.1525452>
- Byrne, B. M. (2016). *Structural Equation modelling with AMOS: Basic concepts, applications and programming*. (3rd ed.). Routledge. <https://doi.org/10.4324/9781315757421>
- Bochicchio, V., Perillo, P., Valenti, A., Chello, F., Amodeo, A. L., Valerio, P., & Scandurra, C. (2019). Pre- service teachers’ approaches to gender-nonconforming children in preschool and primary school: Clinical and educational implications, *Journal of Gay & Lesbian Mental Health*, 23(2), 117-144. <https://doi.org/10.1080/19359705.2019.1565791>
- Bracho, C. A., & Hayes, C. (2020). Gay voices without intersectionality is White supremacy: narratives of gay and lesbian teachers of color on teaching and learning, *International Journal of Qualitative Studies in Education*, 33(6), 583-592.

- <https://doi.org/10.1080/09518398.2020.1751897>
- Brant, C. A. R. (2017). How Do I Understand the Term Queer? Preservice Teachers, LGBTQ Knowledge, and LGBTQ Self-Efficacy. *The Educational Forum*, 81(1), 35-51.
<https://doi.org/10.1080/00131725.2016.1243744>
- Carroll, W. E. (2019). *Perceptions of subtle sexism in the higher education workplace*. Thesis Doctoral. Temple University.
<https://doi.org/10.3102/1588067>
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98-104.
<https://doi.org/10.1037/0021-9010.78.1.98>
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most your analysis. *Practical Assessment, Research and Evaluation*, 10(7) 1-9.
<https://doi.org/10.7275/jyj1-4868>
- Dueñas, M., Tejada, J., & Pozos, K. V. (2024). Diseño y validación de una escala de autoevaluación de la competencia digital docente y actitud hacia la innovación educativa del profesorado en servicio. *Revista Complutense de Educación*, 35(2), 237-252.
<https://dx.doi.org/10.5209/rced.85257>
- Espinoza, M. A. (2020). *Estudiantes de educación superior y diversidad sexual (re)conociendo la experiencia escolar LGTB+*. Tesis Doctoral. Universidad de Sonora.
- Fernández Rotaache, P., Jaureguizar Alboniga-Mayor, J., & Idoiaga Mondragon, N., (2021). Representaciones sobre sexismo en Educación Superior y Formación Profesional. *Educación XXI*, 24(2), 421-440.
<https://doi.org/10.5944/educXXI.28225>
- García-Cano, M., Buenestado, M., Gutiérrez, P., Hinojosa, E. F., & Naranjo, A. (2018). *LGBTI+: Diversidad afectivo-sexual e identidades de género*. Servicio de Atención a la Diversidad, UNEI, Univ. de Córdoba.
- Ho, R. (2006). *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. CRC Press.
<https://doi.org/10.1201/9781420011111>
- Hwang, Y. S., & Evans, D. (2011). Attitudes towards inclusion: Gaps between belief and practice. *International Journal of Special Education*, 26(1), 136-146.
- INJUVE/CIS (2011). *Jóvenes y Diversidad*. INJUVE.
- Jones, M. H., Hershberger, M. A., Goodrich, K. M., Hackel, T. S., & Love, A. (2021). Preservice Teachers' Self-Efficacy for Teaching LGBTQ Youth, *The Teacher Educator*, 56(4), 427-444.
<https://doi.org/10.1080/08878730.2021.1927275>
- Kahn, J. H. (2006). Factor Analysis in Counseling Psychology research, training and practice. *The Counseling Psychologist*, 34(5), 684-718.
<https://doi.org/10.1177/0011000006286347>
- Kline, P. A. (2000). *Handbook of Psychological Testing*. (2nd ed.). Routledge.
- Kline, R. B. (2016). *Principles and practices of structural equation modelling* (4ª ed). Guilford Press.
- Kumashiro, K. K. (2004). Uncertain Beginnings: Learning to Teach Paradoxically *Theory into Practice*, 43(2), 111-115.
https://doi.org/10.1207/s15430421tip4302_3
- Ley Orgánica 3/2020, de 29 de diciembre, por la que se modifica la Ley Orgánica 2/2006, de 3 de mayo, de Educación. *Boletín Oficial del Estado*, 340, de 30 de diciembre de 2020, 122868-122953.
- Ley 8/2017, de 28 de diciembre, para garantizar los derechos, la igualdad de trato y no discriminación de las personas LGTBI y sus familiares en Andalucía. *Boletín Oficial Junta Andalucía*, núm. 10, de 15/01/2018, 1-32.

- Liscano, D. C., & Jurado, P. (2016). Representaciones sociales sobre las personas LGBTI en la Universidad. *Revista de Educación Inclusiva*, 9(3), 231-249.
- Mena Ramos, R., & García Sanz, M. P. (2017). *Cuestionario para la evaluación de competencias del profesorado en atención a la diversidad*. Universidad de Murcia <http://hdl.handle.net/10201/53959>
- Miralles-Cardona, C., Cardona-Molto, M. C., & Chiner, E. (2020). La perspectiva de género en la formación inicial docente: estudio descriptivo de las percepciones del alumnado. *Educación XXI*, 23(2), 231-257. <https://doi.org/10.5944/educXX1.23899>
- Navío, A., Soler, R., Jurado, P., Tejada, J.; Valls, R. G., Colmenero, M. J., Valle, R. E., & Sánchez Sáinz, M. (2024). La formación de profesionales y las diversidades sexo-genéricas. Percepciones y prácticas educativas hacia la inclusión del alumnado LGBTIQ+. En J. Ramos & M.A. Zabalza (Coords.) *XIII Congresso Ibero-americano de Docência Universitária. CIDU 2024. Livro de Resumos*. (pp. 732-735). Instituto de Educação da Universidade de Lisboa.
- New England Resource Center for Higher Education (NERCHE) (2016). *Self-Assessment Rubric for the Institutionalization of Diversity, Equity and Inclusion in Higher Education*. New England Resource Center for Higher Education.
- Nunnally, J., & Bernstein, I. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Penna, M. (2012). *Formación del profesorado en la atención a la diversidad afectivo-sexual*. Tesis doctoral. Universidad Complutense de Madrid.
- Penna, M. (2015). Homofobia en las aulas universitarias. Un metaanálisis. *REDU. Revista de Docencia Universitaria*, 13 (1), 181-202. <https://doi.org/10.4995/redu.2015.6445>
- Pérez, E., & Medrano, L. (2010). Análisis factorial exploratorio: Bases conceptuales y metodológicas. *Revista Argentina de Ciencias del Comportamiento*, 2(1), 58-66
- Pérez-Jorge, D., Farina, L., Márquez, Y., Rodríguez, M. C., & Lupson J. B. (2020). Knowledge and perception of trainee teachers towards the LGBTQ+Community. *International Journal of Education and Practice*, 8(2), 207-220. <https://doi.org/10.18488/journal.61.2020.8.2.207.220>
- Pichardo, J. I., De Stéfano, M., Faure, J., Sáenz, M., & Williams, J. (2015). *Abrazar la diversidad*. Instituto de la mujer para la igualdad de oportunidades.
- Ramos Santana, G., Pérez Carbonell, A., Chiva Sanchis, I., & Moral Mora, A., (2021). Validation of a scale of attention to diversity for university teachers. *Educación XXI*, 24(2), 121-142. <https://doi.org/10.5944/educXX1.28518>
- Rojas, M. T., Fernández, M. B., Astudillo, P. Stefoni, C., & Salinas, P. (2019). La inclusión de estudiantes LGTBI en las escuelas chilenas: entre invisibilización y reconocimiento social. *PEL. Pensamiento Educativo. Revista de Investigación Educativa Latinoamericana*, 56(1), 1-14. <https://doi.org/10.7764/PEL.56.1.2019.3>
- Sánchez Sáinz, M. (2019). *Pedagogías queer ¿nos arriesgamos a hacer otra educación?* La Catarata
- Sánchez Torrejón, B. (2021). La formación del profesorado de Educación Primaria en diversidad sexo-genérica. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 24(1), 253-266. <https://doi.org/10.6018/reifop.393781>
- Staley, S., & Leonardi, B. (2020). A Pretty Queer Thing: Thinking Queerly About Teachers' Gender and Sexual Diversity-Focused Professional Learning. *Journal of Teacher Education*, 1-12. <https://doi.org/10.3102/1688991>
- Tabachnick B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics*. (7th Ed.). Pearson.

- Tejada, J., Jurado, P., & Navío, A. (2025a). Diseño y validación de contenido del cuestionario de percepciones y prácticas educativas hacia la inclusión del alumnado LGBTIQ+ en educación superior. *Educación*, 61(1), 69-70. <https://doi.org/10.5565/rev/educar.2082>
- Tejada, J., Jurado, P., & Navío, A. (2025b). La atención a la diversidad sexo-genérica en la formación de los profesionales de educación. *Aula Magna 2.0 [Blog]*. *Revistas Científicas de Educación en Red*. <https://cuedespyd.hypotheses.org/18073>
- Toro, E., Moya, P., & Poblete, R. (2020). Representaciones sociales de profesores y estudiantes sobre las personas LGBTI: Un estudio de caso en un Liceo Católico y Laico. *Revista Latinoamericana de Educación Inclusiva*, 14(1), 37-51. <http://dx.doi.org/10.4067/S0718-73782020000100037>
- Toro-Alfonso, J. (2012). El estado actual de la investigación sobre discriminación sexual. *Terapia Psicológica*, 30(2), 71-76. <http://dx.doi.org/10.4067/S0718-48082012000200007>
- UNESCO (2016a). *Abiertamente. Respuestas del sector de educación a la violencia basada en la orientación sexual y la identidad/expresión de género*. Informe resumido. UNESCO
- UNESCO (2016b). *Educación 2030: Declaración de Incheon y Marco de Acción para la realización del Objetivo de Desarrollo Sostenible 4: Garantizar una educación inclusiva y equitativa de calidad y promover oportunidades de aprendizaje permanente para todos*. https://unesdoc.unesco.org/ark:/48223/pf0000245656_spa
- UNESCO (2017). *La UNESCO Avanza La Agenda 2030 para el Desarrollo Sostenible*. UNESCO
- UNESCO-ONU Mujeres (2019). *Orientaciones internacionales para abordar la violencia de género en el ámbito escolar*. UNESCO
- Whittaker, T. A. (2012). Using the modification index and standardized expected parameter change for model modification. *Journal of Experimental Education*, 80(1), 26-44. <https://doi.org/10.1080/00220973.2010.531299>

Authors / Autores

Tejada Fernández, José (jose.tejada@uab.cat)  0000-0001-9044-8826

He holds a degree in Psychology (1980) and Pedagogy (1983) and a PhD in Education Sciences (1987) from the Autonomous University of Barcelona. He is Professor of Didactics and School Organisation. He has been attached to the Department of Applied Pedagogy of the Faculty of Education Sciences at the Autonomous University of Barcelona since September 1983. He is a specialist in educational innovation, job training, training for training professionals, skills-based training, and evaluation of training plans and programmes. He teaches and conducts research at the university and non-university level in these fields, at the undergraduate, doctoral, master's and postgraduate levels, both nationally and internationally. Member of the Core Team of the CIFO Research Group (Occupational Training Research Group) since 1995. Consolidated university research group by the Agency for University and Research Management and Aid (Generalitat de Catalunya), renewal 2022- SGR 01302, resolution of 13 January 2022).

Author Contribution (JTF): Conceptualisation, design and development of the study, preparation of the manuscript, style editing of the work, organisation and structure of the document, formal review of research techniques .

Conflict of interest statement (JTF): There is no conflict of interest for the completion/publication of the study.

Jurado de los Santos, Pedro (pedro.jurado@uab.cat)  0000-0001-8239-8558

Doctor of Education Sciences, Professor of Didactics and School Organisation, Department of Applied Pedagogy, Autonomous University of Barcelona. He has worked as a trainer, training manager and coordinator, teacher and researcher. He participates in postgraduate, master's and university extension courses at national and international level. He has published numerous articles in journals, book chapters and encyclopaedias, focusing on teacher training, teaching-learning processes and the educational, social and labour inclusion of people with special support needs. He has participated, as principal investigator or as a member of the research team, in studies related to teacher training, social guarantee programmes, disruptive behaviour and academic failure, evaluation of educational inclusion, transition, gender diversity and general needs analysis.

Author Contribution (PJS): Conceptualisation, design and development of the study, preparation and revision of the manuscript, style correction, organisation and structure of the document.

Conflict of interest statement (PJS): There is no conflict of interest for the completion/publication of the study.

Navío Gámez, Antoni (antoni.navio@uab.cat)  0000-0002-1638-9167

Bachelor's degree in Philosophy and Arts (Education Sciences) (1993) and PhD in Pedagogy (2001) from the Autonomous University of Barcelona. He is a tenured university professor of Didactics and Educational Organisation, attached to the Department of Applied Pedagogy, Faculty of Education Sciences at the Autonomous University of Barcelona. He is an expert in job training, trainer training, professional skills and the assessment of learning and training programmes. His research activity is carried out within the framework of the CIFO (Occupational Training Research Group), a consolidated university research group by the Agency for University and Research Management (Generalitat de Catalunya) (2022-SGR01302), of which he is the coordinator.

Author Contribution (ANG): Conceptualisation, design and development of the study, preparation and revision of the manuscript, style correction, organisation and structure of the document.

Conflict of interest statement (ANG): There is no conflict of interest for the completion/publication of the study.

Valls-Figuera, Robert G. (rgvalls@ub.edu)  0000-0003-0634-9556

He holds a degree in Political Science and Administration (UPF) and master's degrees in Educational Research and Change (UB) and University Teaching (UB). He is a Doctor of the Education and Society Programme (UB) and a lecturer (assistant professor) in the Department of Research Methods and Diagnosis in Education at the University of Barcelona. He is a member of the TRALS research group and a collaborator with the CIFO Collective as a result of his Margarita Salas postdoctoral fellowship.

Author Contribution (RGVF): Methodological design, data curation, formal analysis of results and validation; programming and implementation of the necessary IT tools for data processing (software). Drafting and revision of the manuscript, style correction, organisation and structure of the document.

Conflict of interest statement (RGVF): There is no conflict of interest for the completion/publication of the study.



Revista Electrónica de **I**nvestigación y **E**valuación **E**ducativa
E-Journal of Educational Research, Assessment and Evaluation

[ISSN: 1134-4032]



Esta obra tiene [licencia de Creative Commons Reconocimiento-NoComercial 4.0 Internacional](https://creativecommons.org/licenses/by-nc/4.0/).

This work is under a [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/).