



Key Competences That Allow Excellence in Teaching Practice

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The Europe 2020 Education Principles emphasize the improvement of educational processes at all levels, aiming to enhance educational standards through the integration of personal and professional competences with teaching skills. This study focuses on the validation of a new tool for assessing teaching competences, which aims to support excellence in teaching practice. Using Confirmatory Factor Analysis (CFA), the study provides evidence for the multidimensional nature of teacher self-efficacy, supporting a four-factor model consisting of reciprocal leadership, creative potential with institutional support, didactic technical domain and active personality with metacognitive didactic capacity. Internal consistency was assessed using Cronbach's Alpha, and the estimation method employed was Weighted Least Squares Means and Variance Adjusted (WLSMV), following recommendations of Hu & Bentler (1999), such as a GFI and TLI value of at least .90 and RMSEA of .08 or less. The study demonstrated good psychometric properties, supporting the use of this tool to evaluate teaching competences in real-world contexts. These findings contribute to the field by linking teaching competences to the notion of complementarity and coexistence, fostering sustainable education and aligning with the principles of democratic teaching.

Keywords: professional competencies, standard of education, teaching skills, democratic teachers, teaching practice

INTRODUCTION

The educational landscape is entrenched in an ethical, political, and social neoliberal paradigm, characterized by a paradoxical approach to its goals and means (Laval & Sorondo, 2022; Santos, 2022). Progress in education from a human rights perspective requires a shift towards an ethical, political, and social democratic paradigm. This approach emphasizes complementarity and coexistence with students and their families

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and calls for initiatives, strategies, and action plans to transform various aspects of the social reality in which the current educational "model" is situated (Del Valle & Rodríguez, 2017; Torres-Hernández, 2023). At the same time, it is essential to address and prevent inequalities that exclude certain students, as highlighted by Campoy (2013) and Roguero-García et al. (2022). Exclusion in education runs counter to the UN's 2030 Agenda for Sustainable Development, particularly Goal 4, which advocates for inclusive, equitable, and quality education for all. Education must ensure that no segment of society is excluded from participation in cultural, economic, and social life and that the fundamental right to education is upheld.

Despite these efforts, there is a notable gap in the current educational research: existing tools predominantly assess teaching practices rather than the development of meaningful, competence-based learning facilitated by teachers. Moreover, few instruments adequately evaluate the practices of democratic teachers or their capacity to foster reciprocal learning processes (Moreira et al., 2024). This disconnect between theoretical models and practical realities limits the ability to accurately assess and enhance teacher self-efficacy, which is essential for fostering inclusive and democratic education.

Achieving this requires a cultural shift that transforms educational practices and structures, with teachers acting as co-creators in this process (Melich, 2021; Del Valle & Rodríguez, 2017). It requires an anthropological approach that fosters reciprocal, complementary, and dialectical relationships, rooted in the concept of educability (Mediavilla & Gallego, 2016). Social and pedagogical engagement is essential for democratic education, with teachers serving not only as educators but also as agents of collective and personal projects (Arendt & Kohn, 2006; Santisteban & Anguera, 2013), capable of shaping a more equitable future. Ultimately, education must be seen as a space where new generations are empowered to build a just society (Arendt & Kohn, 2006; Casadellà et al., 2022; Su, 2022).

Currently, the tools available to evaluate teacher self-efficacy fall short in addressing key dimensions essential for inclusive and effective education. These dimensions include: (1) the creation of planned teaching environments with emotional balance, which has been shown to enhance both teaching effectiveness and student outcomes (Fernández, 2008; Klassen et al., 2009; Tschannen-Moran & Woolfolk, 2002; Yeo et al., 2008); (2) the continuous improvement of teaching strategies through self-assessment, a critical factor in fostering reflective and adaptive teaching (Brophy & Evertson, 1976; Gibson & Dembo, 1984; Guskey & Passaro, 1994; Ross, 1998); (3) the effort required to achieve meaningful learning objectives, which directly influences student engagement and success (Deemer, 2004; Henson, 2001; Prieto, 2002; Woolfolk & Burke-Spero, 2005); (4) the analysis of teachers' competence in diverse educational settings, a necessary component for understanding and improving teacher effectiveness (Baena-Extremera et al., 2015; Del Valle et al., 2015; Hernández et al., 2010; Tejada & Ruiz, 2016); and (5) the engagement in tasks that promote high metacognitive development, which is essential for fostering deep, critical thinking in students (Bandura, 1997; De la Vega et al., 2008). These dimensions highlight the complexity of teaching and the multifaceted nature of self-efficacy in educational contexts.

The limitations of current tools necessitate the development of new instruments that reflect teachers' perceptions of their own efficacy within real educational contexts, beyond theoretical and philosophical models with limited empirical backing (Baena-Extremera et al., 2015; Del Valle et al., 2015; Tejada & Ruiz, 2016). Following Bandura's social-cognitive theory (1977), self-efficacy is shaped by personal, behavioral, and contextual determinants, including teachers' beliefs about their capacity to organize and execute actions required to achieve educational goals. These beliefs significantly influence their motivation, resilience, and teaching effectiveness (Hastuti et al., 2020; Hung & Thuy, 2021; Ng & Wu, 2024; Pazhoman & Sarkhosh, 2019; Skaalvik & Skaalvik, 2023).

Teacher self-efficacy is further influenced by personal factors such as gender, experience, and educational background, as well as contextual elements like school environment and student characteristics (Emiru & Gedifew, 2024; Ramírez-Velásquez et al., 2025). However, current evaluations often overlook these nuanced interactions, focusing instead on generic teaching effectiveness. There is a growing need to explore how teachers perceive their ability to foster competence-based learning and reciprocal student-teacher relationships in diverse educational settings (Baena-Extremera et al., 2015).

The challenge in education is to identify tools that can recognize democratic teachers in different modalities, regardless of their personal, psychological, or social characteristics (Huete-García et al., 2019; Pov & Kawai, 2024). This is in line with the Committee on Economic, Social and Cultural Rights' General Comment No. 13, which highlights the right to education that is affordable, accessible, acceptable, and adaptable. Teachers play a critical role in sustainable development by addressing the diverse needs of students. To achieve this, it is essential to understand teachers' attitudes and skills in dealing with conflict and to provide appropriate training (Candela & Benavides, 2020).

Therefore, the objective of this study is to validate a tool designed to measure self-efficacy for democratic teachers' core practices, with both predictive and diagnostic purposes, and to relate these practices to culture (Arendt & Kohn, 2006; Casadellà et al., 2022; Su, 2022). This tool aims to bridge the gap between theoretical frameworks and practical realities by assessing how teachers perceive their self-efficacy in fostering competence-based and reciprocal learning environments.

By validating this instrument in a specific educational context, this study seeks to offer a reliable and context-sensitive tool for assessing teacher self-efficacy. Ultimately, the findings will contribute to enhancing teacher development, fostering inclusive educational practices, and promoting equitable and sustainable educational policies.

METHOD

Participants

We used a convenience sample of 1,238 teachers selected at random from different educational stages in Spain. Of these, 480 (38.8%) were employed in primary education, 468 (37.8%) in secondary education, and 290 (23.4%) in higher education

institutions. The participants were drawn from public, private, and semi-private institutions, selected through voluntary participation in focus groups.

The majority of participants were female (799; 62.9%) and their ages ranged from 24 to 69 years ($M = 45.30$; $SD = 9.47$). In terms of teaching experience, 15.3% had over 30 years of experience ($M = 54.56$; $SD = 7.62$), 24.6% had between 21 and 30 years ($M = 53.36$; $SD = 7.28$), 30% had between 11 and 20 years ($M = 53.84$; $SD = 7.60$), 18.7% reported between 6 and 10 years ($M = 53.73$; $SD = 7.32$), and 11.5% had less than 5 years of experience ($M = 53.38$; $SD = 7.69$).

Data were collected from teachers across all of Spain's 17 Autonomous Communities. Participation was entirely voluntary, and informed consent was obtained from all participants. Anonymity and confidentiality were strictly maintained throughout the study. Ethical guidelines were followed in accordance with the Declaration of Helsinki (World Medical Association, 2013).

Procedure

We followed a quantitative research approach, the instrument was sent by email to the headmaster of every school all of Spain's Autonomous Communities (17), respecting the transparency law. In addition, the headmaster sent the instrument to all teachers at the educational institution to individually complete the questionnaire having previously shown their consent to participation. Participation in the study was voluntary, and teachers had the option to decline. At the beginning of the questionnaire, teachers were informed of the objectives of the study, with the confidentiality of the results being guaranteed and the voluntary nature of participation being emphasized, respecting the ethical standards recognized by the Declaration of Helsinki (2013 revision), the recommendations of Good Clinical Practice of the EEC 111/3976/88 de julio de 1990 and the current Spanish legal regulations governing clinical research on humans (Real Decreto 957/2020 Clinical trials).

Instrument

The instrument was developed based on social cognitive theory (Bandura, 1997) and a framework for teaching competencies in higher education (Tigelaar et al., 2004). It included the following domains: person as teacher, expert on content knowledge, facilitator of learning processes, organizer, and scholar/lifelong learner with emotionally supportive teacher behavior (Del Valle & Rodriguez, 2017), $RMSR = .069$, $GFI = .76$, $AGFI = .65$; with institutional support and creative potential and practiced creativity in the work context (Boada-Grau et al., 2014), $TLI = .923$, $CFI = .934$, $RMSEA = .066$. The instrument for democratic teachers' core practices (DTCP) is made up of 89 items distributed into 4 dimensions: 1) expert on content knowledge (7 items), 2) facilitator of learning processes (34 items), 3) organizer and scholar/lifelong learner (10 items), 4) person as a teacher with capacity of democratic leadership-creativity (38 items). One of the main purposes of the instrument plays in teaching competence and teacher democratic effectiveness linked to the notion of complementarity and co-existence.

The next stage was the validation of the content through a trial of 16 experts (Skjong & Wentworth, 2000) they established the criteria to decide the changes for the validity of

the instrument (Ruiz, 2002). After this analysis, the final instrument was constituted of 75 items into 4 dimensions. 1) expert on content knowledge (6 items), 2) facilitator of learning processes (27 items), 3) organizer and scholar/lifelong learner (8 items), 4) person as a teacher with capacity of democratic leadership-creativity (34 items). Responses to each item were measured using a Likert Scale of 1 to 4, where 1: completely disagree; 2: disagree; 3: agree; and 4: completely agree. Subsequently, four control questions were created to discover the participant's intention to confirm the veracity of the answers.

Study 1

The first study focused on exploring the factorial structure of the DTCP. An exploration based on prior theory was proposed using exploratory factor analysis (EFA). The procedure and decisions made are presented in addition to the resulting structure and its internal consistency.

Method

Participants

The sample consisted of 428 teachers from Spanish primary, secondary and university institutions. Of these, 167 (39.0%) were male and 261 (61.0%) were female. The average age is 44.61 years old ($SD = 9.69$), and their average work experience was between 10 and 20 years. All the teachers took part voluntarily and signed the informed consent form.

Data analysis

To assess the factorial structure of the DTCP, different criteria were established for the sample selection to be analyzed in the study: the selection of the number of factors and the extraction method as suggested by Izquierdo et al. (2014). Following the recommendations of Netemeyer et al. (2003), to provide cross-validation and to avoid capitalizing on chance, the sample for this study is different to that of Study 2 (CFA).

It was decided that the EFA and CFA would each include at least 100 or 200 subjects, following the recommendations of MacCallum et al. (1999) and Mundfrom et al. (2005). Specifically, we had 35% of the sample for the EFA ($n = 428$) and 65% of the sample for the CFA ($n = 810$) in Study 2. The analysis was carried out in R (R Development Team, 2012), using the package Factor (Lorenzo-Seva, & Ferrando, 2013). For deciding the number of factors, certain criterion was used (Ford et al., 1986; Gorsuch, 1983). Firstly, the number of factors provided by theory was assessed. Additionally, criterion established in the academic field were considered, such as the study of the sedimentation graphic (Abad et al., 2011), the parallel analysis procedure of Horn (1965), as well as a comparison of nested models based on their remainders or the likelihood ratio. We have not assessed Kaiser's K1 method due to the excess of factors retained (Cattell, 1996; Ruiz & San Martín, 1992). If a factor remained poorly identified (low loadings or less than three indicators in each factor) the number of factors to be extracted was re-evaluated (Ferrando, & Anguiano-Carrasco, 2010). To decide the extraction method, the nature of the variables was considered. Given that the items have

four categories, the recommended option is to use polychoric or tetrachoric correlation coefficients (Finney & DiStefano, 2006) for both the EFA and the CFA. Pearson's correlation coefficient is only recommended if the items have more than five categories or if there is evidence of asymmetry in the items. If Pearson's correlation coefficient were used instead of the polychoric correlation coefficient, method groups would be provoked (Brown, 2006; Izquierdo et al., 2014). Due to these reasons and after rejecting the contrasting of normality and multivariate normality criterion (K-S <.001 and Mardia test; $p < .01$), estimation methods based on the polychoric correlation coefficient were used, such as weighted least squares mean and variance adjusted (WLSMV), for the CFA and weighted least squares (WLS) for the EFA (Forero et al., 2009).

Findings from the Exploratory Factor Analysis

To evaluate if the data is factorable, the Kaiser-Meyer-Olkin index was observed (KMO = .93) as well as the Bartlett sphericity test (1954), the significance level of which was less than .001. The results show the use of an EFA is justified in the data, both for exceeding the recommendations of Kaiser (1970) and in the sphericity test.

With regards to the number of factors to be extracted, those whose standardized factor loading is superior to .40 in a factor and inferior to .30 in the rest were taken as valid items; the parallel analysis (Timmerman, & Lorenzo-Seva, 2011), based on the polychoric correlation coefficient permuting the raw data (Buja, & Eyuboglu, 1992). 500 replicas suggesting the extraction of four factors; in addition to the theory and sedimentation graphic (the eigenvalues were $F1 = 22.37$, $F2 = 4.93$, $F3 = 2.66$, $F4 = 2.20$), which suggests the extraction of four factors. The ratio of variance explained was 44.0%, with the variance explained for each factor being: $F1 = 12.0\%$, $F2 = 10.0\%$, $F3 = 11\%$ and $F4 = 11\%$; the correlations between rotated factors can be seen in Table 1.

Table 1
Correlations between rotated factors of the DTCP

	F1	F2	F3	F4
Reciprocal leadership	1.000			
Creative potential with institutional support	0.426	1.000		
Didactic technical domain	0.471	0.490	1.000	
Active personality with metacognitive didactic capacity	0.208	0.286	0.315	1.000

Reliability

The value of Cronbach's alpha for the total scale was $\alpha = .93$, the value of McDonald's omega for the total scale was $\Omega = .96$; for the first factor, $\alpha = .88$ and $\Omega = .89$; for the second factor, $\alpha = .92$ and $\Omega = .94$; for the third factor, $\alpha = .87$ and $\Omega = .89$; and for the fourth factor, $\alpha = .85$ and $\Omega = .87$.

Study 2

The second study focused on confirming the psychometric properties of the DTCP. The factorial structure established in Study 1 was evaluated using confirmatory factor analysis (CFA) by comparing nested models. To assess the scale's suitability, the factor

scores were correlated with external criteria, thereby providing evidence of convergent validity with previous criterion models.

Method

Participants

The sample is comprised of 810 teachers from Spanish educational institutions for primary, secondary and university. Of the total number of participants in this study, 518 (64.0%) were female and 292 (36.0%) were male. The average age was 45.76 years old ($SD = 9.27$), and their average work experience was between 10 and 20 years. All the teachers participated voluntarily and signed the informed consent form.

Data analysis

The analysis was carried out in the program R (R Development Team, 2012) using the package Lavaan (Rosseel, 2012). The models tested are based on Study 1: one model of four independent factors, one model of four related factors and one model of four factors gathered in a second-order factor. The estimation method was weighted least squares means and variance adjusted (WLSMV). Certain recommendations were followed to evaluate the adjustment of the model, specifically; GFI, TLI and RMSEA indexes were used. A value of at least .90 was set as the criteria for GFI and TLI, and .08 or less for RMSEA (Hu, & Bentler, 1999). The likelihood ratio was used to compare the imbalance between models.

Findings from the Confirmatory Factor Analysis

The three models were tested with the adjustment values of the models expressed in Table 2. The result of the likelihood ratio can be seen in Table 3. The results are like those obtained in the previous study: the model of four independent factors does not fulfil the minimum adjustment criterion proposed. The models of four factors, related factors, and that of four factors with a second-order factor fulfil the minimum adjustment criterion proposed but considering the insignificance of the likelihood ratio and the TLI index, the model of four factors with a second-order factor is established as the final model. All standardized loadings of the model associated with their respective items are shown in Table 4.

Table 2

Comparison of nested models

Model	χ^2	df	CFI	TLI	RMSEA (IC)
4 independent factors	57951.60	1652	0.49	0.48	.10 (.10 - .11)
4 factors + 1 second-order factor	5174.70	1648	0.92	0.92	.04 (.04 - .04)
4 related factors	5166.70	1646	0.92	0.91	.04 (.04 - .04)

Table 3

Likelihood ratio between nested models

Model	χ^2	gl	p $\Delta \chi^2(gl)$
4 independent factors	57951.60	1652	
4 factors + 1 second-order factor	5174.70	1648	<.001
4 related factors	5166.70	1646	.9812

Table 4
Standardized loadings CFA

Factors	Items with their standardized loadings CFA
Reciprocal leadership	1. I understand that as a 21st century professional, my employability necessarily depends on my ability to offer a high-value-added service in the domain of the subject I teach. (0. 763)
	2. I get involved as much as I can in teaching the subject I teach. (0. 686)
	3. I evaluate whether in the teaching methodology I establish a reciprocal relationship with the student. (0. 624)
	4. I manage the conflicts that occur in class with education and affection, trying to empathize with the other, seeking the responsibility of each one and the possible compensations depending on the fact. (0.693)
	5. I use a moderate tone of voice that makes it easier for all students to listen to me, without losing calm, always controlling the situation and stress. (0.560)
	6. I am receptive to what students, classmates, administrators, and parents tell me. (0.616)
	7. I create and maintain a stimulating environment for learning and socialization in the classroom, generating a culture based on conversation, knowledge, connectivity, and collaboration. (0.623)
	8. I take charge of student performance, be it high, low, or medium, and I try to improve it to the best of my ability and with the collaboration of the student himself. (0.736)
	9. I develop tutorial work that makes me the teacher, guide, counselor, and trainer of people. My commitment as a tutor to the student is mandatory. (0.649)
	10. I have the ability in the school environment to persuade and influence people or situations, to obtain a positive attitude without pressure. (0.636)
	11. I awaken the passion for learning in the students, doing my own work with efficiency and conviction. (0.602)
	12. I see teaching as a unique experience that improves my life as a person and that of the students. (0.685)
	13. I work with an attitude of empathy with the students, with a view to understanding the personality of each one of them. (0.526)
	14. I am consistent with the ethical duties of the profession, loyalty and integrity in the different functions assumed in the center. (0.553)
	15. I leave a mark of myself in the students for the construction of a democratic and just society. (0.705)
Creative Potential with institutional support.	16. I have the talent and skills to do my job as a teacher well. (0.478)
	17. At the educational center, I can use my creative abilities and capacities to improve the quality of student learning. (0.838)
	18. At the school I am invited to present ideas to improve the quality of student learning. (0.794)
	19. In the educational center my creative capacities are used to the maximum. (0.818)
	20. The educational center recognizes the creative work I do. (0.832)
	21. My school judges' creative ideas fairly because it improves the quality of student learning. (0.796)
	22. In my educational center, people are encouraged to solve problems that occur inside and outside the classroom, creatively. (0.768)
	23. My school has good mechanisms to encourage and develop creative ideas inside and outside the classroom. (0.805)
	24. In my school, teachers are encouraged to take risks to improve student learning. (0.784)
	25. Innovative and creative ideas that enhance student learning are rewarded at my school. (0.823)
Didactic technical domain.	26. I meet frequently with my classmates, to learn the fundamentals of the content that each one addresses in their subject, with application to life. (0.682)
	27. When I organize the contents of the subjects I teach, I use the evaluation criteria based on the learning outcomes. (0.624)
	28. I carry out the programming by competencies of the course, based on the existing official curriculum. (0.577)
	29. Design learning objectives and contents, based on evaluation criteria and assessable learning standards, relating it to competencies. (0.708)
	30. Design a temporalization of contents by didactic units, with several sessions that allow competent learning to the student. (0.543)
	31. I explain the teaching objective at the beginning of the session, I control the time in each learning task and at the end of the session I make a synthesis of what has been learned detecting the level of achievement of the proposed objective. (0.650)

	32.I communicate clearly and concretely before starting the didactic unit, the evaluation criteria, and the evaluation instruments. (0.675)
	33. I apply the evaluation criteria and the evaluable learning standards. (0.737)
	34.I anticipate the error in student learning, go back to its origin, investigate the cause, and offer concrete and effective strategies. (0.535)
	35.I check if the teaching tasks are adequate to organize the ideas with precise meaning by the students, to achieve the learning objective. (0.512)
	36.I assess whether I have been able to make students learn the fundamentals of teaching effectively, in the shortest possible time. (0.482)
	37.I evaluate the effectiveness of the learning objectives, contents, evaluation criteria and assessable learning standards in competency teaching, considering the students' learning level. (0.786)
	38.While I teach the teaching content of the session, I am internally evaluating the degree of achievement of the objectives in the students. (0.557)
	39.I check if I have used the evaluation instruments effectively in compliance with the evaluation criteria. (0.639)
Didactic technical domain.	40.I evaluate if I have used tasks that generate reflective processes that fulfill the proposed objective, without forgetting the formative nature of the students. (0.670)
	41.I make clear to students and parents the educational objectives, the evaluation criteria, and the evaluation standards. (0.530)
	42.I have planned the schedule, the objectives of the sessions and the learning outcome that I expect. (0.665)
F3 = 11%	43.I overcome resistance to legislative changes, and I value them positively, which is why I constantly reinvent myself as a teacher. (0.495)
	44.To improve my mastery of the subject I teach, I master information and communication technologies. (0.501)
	45.I consider interdisciplinary teaching to generate meaningful learning in students. (0.610)
	46.In programming I propose some didactic innovation that is useful for the lives of students. (0.632)
	47.In the programming I propose some didactic research that is useful for the lives of the students. (0.572)
	48.I frequently propose learning activities in the form of problems, with application to everyday life. (0.606)
	49.I rely on Tics to solve the tasks in the form of problems, according to the proposed objective. (0.577)
Active personality with metacognitive didactic capacity.	50.I start from the needs and interests to stimulate and encourage the student, so that he / she becomes involved in the learning, with a character of use in daily life. (0.564)
	51.In problem solving, students learn with precise meaning in an organized way. They relate these learnings with previous ideas and create alternative proposals for use in life. (0.515)
	52.I organize work in groups, monitoring the development of the objective and establishing a co-evaluation to verify progress, generating democratic attitudes and mutual respect. (0.678)
	53.I promote interdisciplinary projects with other curricular areas of application to life. (0.711)
F4 = 11%	54.I act autonomously and proactively by launching actions on my own account, such as an innovation or research project. (0.607)
	55.I promote a culture of student participation outside the classroom. (0.448)
	56.I anticipate events and visualize scenarios to formulate improvement objectives. (0.620)
	57.I believe that I am proficient in generating innovative ideas to improve the quality of student learning. (0.670)
	58.I investigate obtaining evidence and communicating results about what happens in the students' learning process. (0.422)
	59. I act autonomously and proactively, initiating actions on my own responsibility that improve both general and specific vision. (0.683)

Note. % explain the variance of each factor.

The final CFA model is presented in Figure 1 showing the structure of the second-order model for the DTCP with 59 items, with strong factor loadings. (Figure 1).

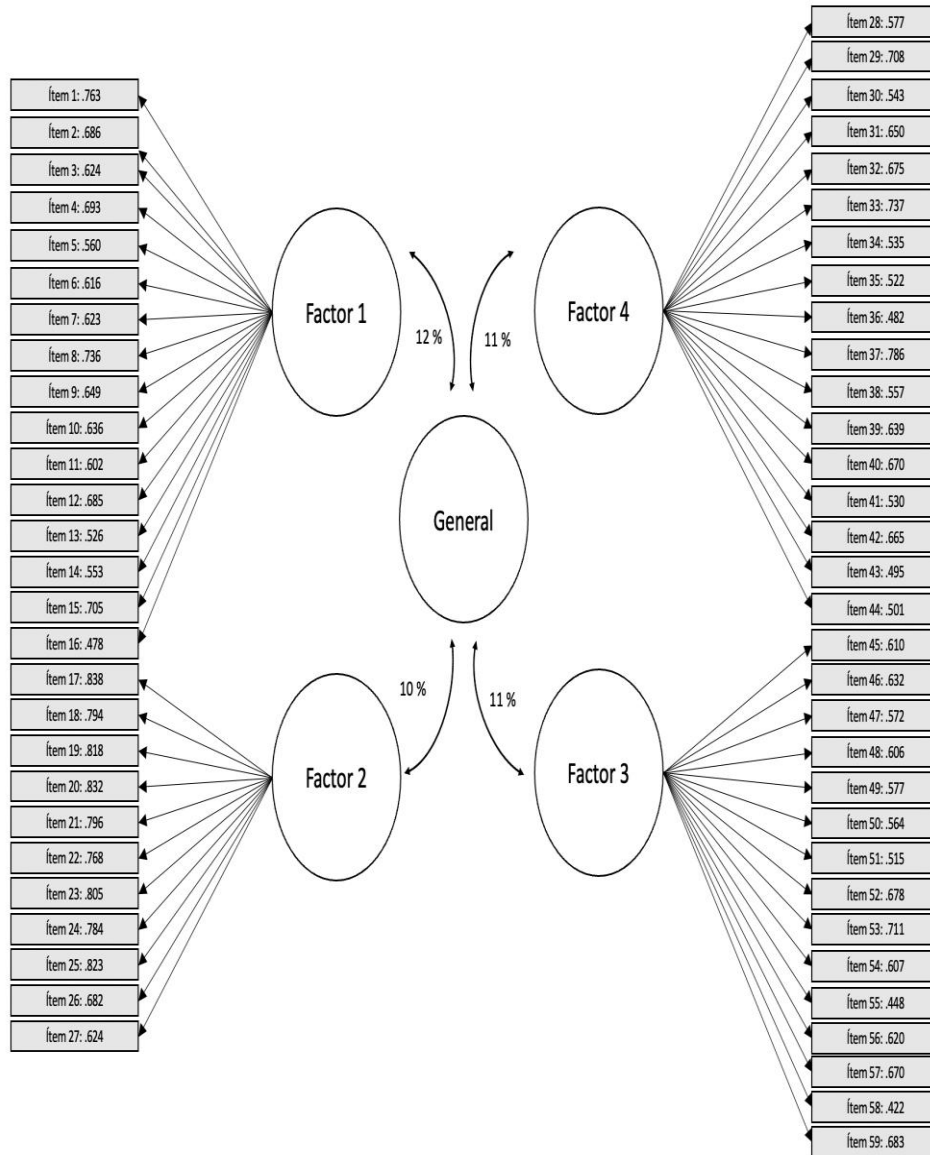


Figure 1

Structure of the second-order model of the TCP

Questionnaire items are represented by squares, and factors are represented by circles (for descriptions of items and factors, see in Table 4). The numbers next to the double-headed arrows connecting factors represent the variance of each factor. The numbers in the squares represent the standardized loadings.

DISCUSSION AND CONCLUSION

The results of the study of the DTCP were based on the review of the scientific literature comprising four factors: 1) expert in content knowledge; 2) facilitator of learning processes; 3) organizer and scholar/lifelong learner; 4) person as a teacher with the capacity for democratic leadership-creativity. These factors are correlated (Henson, 2001; Reise et al., 2007), suggesting a multi-factor model explained by several factors. In this study, through exploratory factor analysis (EFA), we identified four factors that reconfigure the original instrument (Tigelaar et al., 2004), focusing on reciprocal leadership, creative potential with institutional support, technical educational knowledge, and active personality with metacognitive didactic ability (De la Vega et al., 2008; Ng & Wu, 2024; Ramírez-Velásquez et al., 2025; Skaalvik & Skaalvik, 2023; Torres-Hernández, 2023). Advancements in tools make it possible to investigate more complex structures.

The four factors of the DTCP after EFA: Reciprocal leadership (e. g., 7. I believe and maintain a stimulating atmosphere for learning and socializing in the classroom, generating a culture based on conversation, knowledge, connectivity, and collaboration). Creative potential with institutional support (e. g., 1. In the educational centre I can use my creative skills and abilities to improve the quality of student learning). Technical educational knowledge (e. g., 3. I design learning objectives and content based on evaluation criteria and gradable learning standards, relating it to competences). Active personality with metacognitive didactic ability (e. g., 4. In programming, I suggest a didactic investigation that is useful for the lives of students).

Regarding the psychometric properties of the DTCP, the factorial structure of Study 1 is addressed by carrying out a Confirmatory Factorial Analysis (CFA) of nested models ($\Delta \chi^2$ (gl)). We found a second-order structure with different factor solutions (5174,70 (1648) $p < .001$), differing from the model of related factors (5166,70 (1646) $p = .981$). This suggests that the four DTCP factors converge in a general factor that gathers the four dimensions, where all factors account for a similar percentage of the variance. Reciprocal leadership shows a variance of 12%, creative potential with institutional support 10%, technical-didactic command 11%, and active personality with metacognitive didactic capacity 11%. All of these are necessary for teaching self-efficacy (Skaalvik & Skaalvik, 2023; Zee et al., 2016). Even though we had initial expectations supporting the internal structure theoretically proposed for the DTCP, the results obtained by AFE and CFA corroborate a structure based on Woolfolk & Davis (2006) and are consistent with the findings of Zee et al. (2016), which focus on a Reciprocal leadership teacher who creates a friendly and cooperative atmosphere, stimulating open communication and encouraging students' responsible autonomy. A teacher who is democratic and linked to the notion of complementarity and co-existence, offers students a safe learning environment, within which they can make choices, and he/she stimulates their social-emotional development (Del Valle & Rodriguez, 2017; Skaalvik & Skaalvik, 2023; Torres-Hernández, 2023).

Technical educational knowledge should be an understanding of subject matter and the ability to use teaching methods effectively (Del Valle & Rodriguez, 2017). A teacher

with creative potential and institutional support is organizationally competent when they can create a well-organized and task-oriented democratic learning environment in which students can thrive (Boada-Grau et al., 2014; Laval & Sorondo, 2022; Santos, 2022). A teacher who is competent in collaborating with colleagues contributes to a positive school climate and receives institutional support (Casadellà et al., 2022; Macías, 2021; Su, 2022). A teacher with an active personality and metacognitive didactic ability, in terms of reflection and development, reflects regularly on their professional views and competence development, keeps their professional ability up to date and improves it with responsibility (De la Vega et al., 2008; Hastuti et al., 2020; Ramírez-Velásquez et al., 2025). In summary, a teacher who is competent in subject knowledge and methodology has a thorough knowledge of subject matter and the ability to use teaching methods effectively (Del Valle & Rodríguez, 2017; Hastuti et al., 2020; Van Der Schaaf et al., 2019).

Furthermore, this study validates a new instrument for evaluating competences that will allow teachers to excel in teaching practice and could serve as a measure of a democratic teachers' core practices, a source for further professional development through diagnostic tools, linked to the notion of complementarity and co-existence (Arendt & Kohn, 2006; Del Valle & Rodríguez, 2017; Melich, 2021; Santisteban & Anguera, 2013), which is highly necessary today.

As limitations of this study, we point out that the study relied on self-reported data from teachers, which may introduce biases related to self-assessment. Future research could incorporate additional sources of data, such as student evaluations or peer reviews, to provide a more comprehensive and objective view of teaching competence. Additionally, this study focused on general teaching competences. Future studies could explore how competences may vary across specific subject areas.

In conclusion, this study presents the validation of the DTCP as a reliable tool for assessing key teaching competences, crucial for enhancing teaching self-efficacy. The results highlight the importance of factors as reciprocal leadership, creative potential, technical educational knowledge, and an active personality with metacognitive ability in improving educational practices and promoting teacher professional development. These competences are vital for fostering a more democratic, collaborative, and effective learning environment. The DTCP provides educators and researchers with valuable instrument to evaluate and develop teachers' core competences, contributing to the alignment of educational practices with the contemporary pedagogical needs outlined in the Europe 2020 education principles.

Furthermore, this study underscores the need for continuous improvement of instruments for measuring teaching competences, addressing the generally weak evidence for the effectiveness of current measurements. It argues that to excel in teaching practice, it is essential to assess competences in real-world contexts, adopting a democratic perspective based on the notions of complementary and coexistence.

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