

A Competency-Based Approach to Improve the Selection of Applicants for Initial Teacher Training in Early Childhood and Primary Education in Spain

Un enfoque basado en la aptitud docente para mejorar la selección de los y las aspirantes a la formación inicial del profesorado de infantil y primaria en España

<https://doi.org/10.4438/1988-592X-RE-2025-408-679>

Aída Valero Moya

<https://orcid.org/0000-0002-2551-2841>

Universidad Complutense de Madrid

Robert M. Klassen

<https://orcid.org/0000-0002-1127-5777>

Universidad de Oxford

Resumen

Esta revisión conceptual explora el modelo de selección a la formación inicial del profesorado de infantil y primaria en España, con el objetivo de contribuir a su mejora. El análisis incluye un examen en profundidad de los procedimientos y mecanismos de selección existentes en el territorio, la identificación de las deficiencias encontradas y la propuesta de posibles soluciones para subsanarlas. El trabajo sostiene que la adopción de un enfoque basado en la evaluación de la aptitud o el desempeño docente, fundamentado en la teoría y la investigación aplicada, podría potenciar la calidad del profesorado y, con ello, fortalecer de manera significativa el sistema educativo español. La evaluación de la aptitud docente implicaría considerar, además de las calificaciones de la EvAU, los resultados de pruebas

específicas para el ingreso en los programas de formación inicial. Estas pruebas evaluarían tanto competencias académicas, como atributos no académicos y factores de antecedentes. Además de los exámenes competenciales de corte cognitivo, las mini entrevistas múltiples y los test de juicio situacional se presentan como los instrumentos más adecuados para la evaluación de atributos de corte no cognitivo. A pesar de que la implementación de un modelo de selección no generalista podría tener numerosos beneficios para el panorama educativo español, también guarda ciertas limitaciones que es preciso considerar. La investigación contribuye a una comprensión más detallada de aquellas estrategias que podrían resultar efectivas para evaluar y seleccionar a los mejores aspirantes a los programas de formación inicial del profesorado de infantil y primaria a nivel global, ofreciendo una hoja de ruta para la toma de decisiones informadas.

Palabras clave: procesos de selección, aspirantes a docentes, formación inicial, instrumentos de evaluación, políticas docentes

Abstract

This conceptual review examines the selection model for initial teacher education in early childhood and primary education in Spain, with the goal of contributing to its improvement. The analysis provides an in-depth evaluation of the current selection procedures and mechanisms across the country, highlighting key shortcomings and offering solutions to address them. The paper advocates for a competency-based approach, grounded in both theoretical and applied research, as a means to enhance teacher quality and significantly strengthen the Spanish education system. This approach would assess teaching aptitude not only through the EvAU university entrance exam but also via specialized tests designed for aspiring teacher candidates. These tests should evaluate a combination of academic competencies, non-academic attributes, and relevant background factors. In addition to cognitive assessments, tools such as multiple mini-interviews and situational judgment tests are recommended as the most effective methods for evaluating non-cognitive traits. While the implementation of a specialized selection model holds the potential for substantial benefits to the Spanish education system, it also presents certain challenges that require careful consideration. This study offers valuable insights into effective strategies for evaluating and selecting the most qualified candidates for initial teacher education programs, providing a roadmap for informed policymaking with global relevance.

Keywords: selection processes, teacher candidates, initial teacher education, assessment tools, teacher policies

Introduction

Education systems worldwide are consistently challenged with the task of attracting and selecting the best possible candidates to enter teacher preparation programs. The process of identifying high quality candidates is a historical problem: over 100 years ago, the educational psychologist F.B. Knight criticized teacher selection processes of the day, noting that ‘The kind of information usually asked of a candidate does not correlate... with successful (teaching) performance’ (1922, p. 216). Most current teacher candidate selection systems focus on assessing academic competencies (e.g., subject knowledge, numeracy and literacy skills) that are relatively easily derived from academic records and well-established measures. However, evaluating non-academic attributes—motivation and other personal characteristics—that are important predictors of teaching success is much more difficult, and many education systems around the world have struggled to develop reliable and valid methods to assess these important ‘people skills’ that are closely related to teacher success. Notably, recent developments in fields outside of education, spanning medicine, nursing, business, and civil service, have made inroads in appraising non-academic attributes in job candidates. We suggest that education can successfully build on these cross-disciplinary developments to improve the selection of prospective teachers.

In this conceptual review, we explore the selection of teacher education candidates in, Spain, a key nation in Europe and Latin America, currently undergoing a significant reform within the teaching profession. Central to these reforms is the enhancement of teacher quality, with a strong focus on policies aimed at improving the selection process for teacher education. Specifically, we focus on initial teacher education at the early childhood and primary levels, both of which adhere to a concurrent training model¹. Our exploration encompasses an in-depth analysis of the current teacher candidate selection process, the identification of existing gaps, and the proposal of po-

¹ The review does not encompass the Master’s program for secondary teacher education for three primary reasons: (a) the concurrent training model at the early childhood and primary education levels (Castro & Egido, 2024), which facilitates the development of comprehensive, simultaneous teacher policies; (b) the long-term influence of early education—and consequently, early childhood and primary teachers—on students’ academic and personal growth (Maulana et al., 2023); and (c) the heightened importance of non-academic attributes, such as empathy and emotional competence, during these stages (Bardach et al., 2020), which contrasts with the more academically focused nature of secondary education.

tential solutions to address these shortcomings. We argue that adopting a competency-based approach, grounded in theory and research, could strengthen teacher quality and, consequently, the country's education system.

Our goal is to contribute to a more nuanced understanding of effective candidate assessment and selection strategies at these educational stages, with broader implications for teacher education systems globally. While our primary focus is on the Spanish context, the insights garnered possess broad applicability to diverse educational settings grappling with fundamental questions such as, *How can we identify the best possible candidates to enter our teacher education programs? What can we do differently to ensure that the methods we use for selection reflect the latest research? How can we implement these changes?* Recognizing the pivotal role teachers play in the overall success of education systems, we acknowledge the complexity and multifaceted nature of the teacher candidate selection predicament.

The importance of teachers and teacher selection

Teachers are pivotal in shaping individual lives and influencing a nation's intellectual and economic well-being. It is clear that the role of teachers extends far beyond the classroom; they leave an indelible mark on students, influencing not only their immediate learning but also their long-term development. Teachers are not just educators, but also mentors and role models, providing behavioural examples that resonate with their students' future roles as citizens. They play a pivotal role in developing life-necessary qualities and skills, enhancing or impeding both their current opportunities and their life-long motivation for learning (e.g., Edward, 2021).

Influencing roughly 30% of the variance in student outcomes—and up to 60% for those with additional educational needs—teachers can significantly level the playing field for students from less privileged backgrounds (Maulana et al., 2023). The distinction between the impact of proficient and underperforming teachers is stark, with some research indicating a variance of up to one academic year's learning between highly effective and less effective teachers over a single school year (Hanushek et al., 2019; Hanushek & Rivkin, 2012). This influence is not fleeting; it accumulates over a lifetime, af-

fecting students' educational and social prospects in profound ways (Bardach et al., 2020; Chetty et al., 2014; Hattie & Zierer, 2019; Klassen & Kim, 2021).

The calibre of educators, therefore, must be held to the highest standard, encompassing not only pedagogical skills but also the intrinsic qualities that foster a transformative educational experience. A teacher is not merely a conduit for transmitting information or knowledge; rather, they are responsible for nurturing the full spectrum of human development (Gusdorf, 2019). The teacher's role extends beyond imparting cultural knowledge and intellectual understanding, encompassing the socio-emotional domain as well. This requires treating students with respect and care, fully engaging in their learning process, and fostering environments that encourage meaningful educational influence (Martínez et al., 2020). Consequently, it is essential to focus on this socially significant role through measures designed to ensure educators' effective performance.

Identifying the most effective teachers implies several interventions throughout the career span, beginning with recognising and selecting prospective candidates who exhibit a strong foundation of desirable attributes for the teaching profession. Researchers and policy-makers emphatically state that the 'long-term success of an education system depends on the "raw materials" that enter the system because there are significant individual differences in the developmental trajectory of new teachers' (Atteberry et al., 2015, p. 3). These differences are largely conditioned by the entry qualities of the candidates, particularly considering that some attributes are more influential in future performance and that their capacity for change varies over time. While academic attributes such as cognitive or verbal skills are modestly predictive of teaching prowess (Bardach & Klassen, 2020), traits like motivation and self-efficacy tend to have greater predictive power (Bardach et al., 2020). The selection process, therefore, is crucial, aiming to recruit candidates with optimal characteristics for future teaching while filtering out those whose personal characteristics are less aligned with the profession's demands. Examining and improving selection processes promises to cultivate a robust and capable teaching workforce, vital for the future of education.

In addition, high-quality selection processes are advantageous even when selection itself is not the primary goal (e.g. when the 'selection ratio'

of applicants to available places is low). These procedures have the potential to optimize costs and resources by the implementation of standardised processes; they enhance the social image and prestige of the profession by conveying that not just anyone can become a teacher; and most importantly, they can provide valuable insights into the entry profile of candidates—especially about the non-cognitive or non-academic attributes—which can guide the design of policies aimed at improving initial training, professional development, and even recruitment strategies.

Teacher selection in Spain

From an international perspective, models for selecting teacher education candidates can generally be categorized into two primary types (Castro & Egado, 2024): (1) those employing general entry criteria similar to other fields of study, with standardized requirements for teacher education, and (2) those utilizing specialized selection processes specifically designed for teacher training. The first model typically evaluates secondary school grades, university entrance exams, or a combination of both, with a focus on proficiency in core subjects such as mathematics and language, alongside skills relevant to specialized areas like physical education or music. In contrast, the second model adopts a multi-stage selection process, beginning with standardized assessments and advancing to more specialized evaluations. Within this framework, two distinct approaches emerge: (a) systems that assess applicants' cognitive abilities, knowledge, and aptitudes, and (b) systems that prioritize the evaluation of non-cognitive attributes critical to teaching, such as motivation, interpersonal skills, and professional dispositions. While the first model emphasizes cognitive skills, the second incorporates psychological assessments to evaluate non-cognitive traits, aligning more closely with the diverse demands of the teaching profession.

In Spain, early childhood and primary education teacher training is primarily offered by the country's leading higher education institutions: universities. The primary mechanism for selecting candidates for early childhood and primary teacher training programmes is the national university entrance examination, known as EvAU (Evaluación de Acceso a la Universidad in

Spanish). This assessment evaluates the academic knowledge that candidates acquire during secondary education. While a section of the EvAU is tailored to the candidate's chosen field (e.g., Social Sciences), it maintains a universal character applicable across all disciplines. Notably, the specialized section is optional, allowing applicants to decide whether or not to complete it. Those who opt out are eligible for a maximum score of 10 points, while those who take the specialization exams can achieve up to 14 points. Admission to any program, including teacher training, requires a minimum score of 5 out of 10. However, in practice, acceptance is contingent upon the number of available seats and the scores of other applicants. As a result, admission is determined by the "entry score," which is established based on the performance of other candidates and the availability of places..

Although Spain generally follows the first of the models outlined, there are some regional exceptions that must be addressed. Since 2016, Catalonia requires an additional competency exam for those aspiring to enter teacher training programmes. This examination, specifically designed to meet the demands of the teaching profession, assesses communicative and critical reasoning skills, as well as logical-mathematical abilities—collectively referred to as CCiRC and CLOM. The primary aim of this assessment is to evaluate the acquisition of these crucial competencies through problem-solving exercises, acting as a barometer of candidates' preparedness for teacher training programmes. Success in this examination is mandatory for admission, regardless of the candidates' scores in the EvAU. The implementation of this measure followed the identification of several deficiencies in the basic competencies of individuals entering these programs, as well as the largely cognitive and non-competency-based nature of the EvAU (Martínez et al., 2015).

Following Catalonia's lead, the Balearic Islands introduced a specialized entrance exam for teacher training programmes in 2020. This exam also evaluates CCiRC and CLOM skills and incorporates non-academic attributes, such as interpersonal skills, motivation, previous professional experiences, personal beliefs, and adaptability. After successfully passing these cognitive assessments, candidates are required to complete a video presentation and participate in a group interview. In the video presentation, applicants are en-

couraged to reflect on questions like *Who am I? What are my interests and hobbies? Why do I wish to become a teacher? and What qualities do I bring to the future educator role?* The group interview obliges candidates to reach a consensus on a relevant educational issue, fostering dialogue, reasoning, and the expression of their viewpoints in a collaborative environment (Oliver-Trobat et al., 2021). In addition to achieving a favourable score on the EvAU, successful completion of all these stages is a prerequisite for securing a place in the programme.

Finally, some private institutions in Spain impose additional admission criteria beyond the EvAU for entry into initial teacher training programs (Valero, 2023). However, these additional requirements generally reflect the institution's broader admission policies and are not specifically tailored to teacher education. Only a limited number of universities—namely Universidad de Deusto, Universidad Atlántico Medio, Universidad Internacional de Valencia, and Universidad Internacional de la Empresa—refrain from assessing non-academic attributes, instead focusing on prior academic knowledge or proficiency in a foreign language, typically English. Nonetheless, the first two institutions acknowledge the importance of non-academic attributes in their admission profiles.

The majority of universities offering these programs (a total of 10) employ a more comprehensive assessment approach, evaluating both cognitive abilities—such as logical, spatial, and verbal reasoning (e.g., Universidad Nebrija)—as well as personal characteristics related to motivation, attitude, and interpersonal skills (e.g., Universidad Francisco de Vitoria, Universidad Loyola, and CEU Cardenal Herrera). These personal traits are assessed through a range of methods, including personal interviews, psychometric tests, and personal statements or video presentations. Notably, only Universidad Camilo José Cela has established specific admission requirements for early childhood and primary education programs. Two other universities—Universidad de Navarra and Universidad Pontificia de Comillas—apply specific criteria for Social Sciences. The remaining universities do not differentiate their admission requirements for initial teacher education programs.

What's missing in the Spanish selection process?

With the exception of the previously mentioned cases, it is challenging to assert that Spanish selection processes are fully aligned with international trends—whether in policies, practices, or research—that advocate for establishing specific requirements for entry into early childhood and primary teacher training programs (Castro & Egido, 2024). These requirements should not only reflect the multidimensional nature of teaching but also acknowledge the importance of early effectiveness in shaping long-term teacher success (Klassen & Kim, 2021). In practice, however, the Spanish education system relies heavily on selection processes that are largely based on EvAU scores, without incorporating the rigorous application of current research in teacher training programs. As a result, it is challenging to describe this approach as a true selection process, as candidates are admitted to initial teacher training programs solely based on their EvAU scores, provided sufficient places are available. This reflects a broader lack of attention to policies that target the early stages of the teaching career, including attraction, recruitment, and selection, which ultimately results in a relatively low threshold for entry into teacher training programs. The following sections will explore the challenges associated with the current selection model, as well as the deficiencies that could be addressed by implementing more specific selection processes tailored to the teaching profession.

Implications of lacking a specific selection process: two main issues to address

The initial concern centres on the insufficient academic and motivational profiles of individuals applying for early childhood and primary teacher training programmes in Spain. For the 2023-2024 academic year, entry scores for early childhood education programs averaged around 7.7 out of 14, while for primary education the average was 8.2. These scores, while moderate and consistent over time, are significantly lower when compared to more demanded fields such as Medicine (13,3) or Mathematics and Statistics (11,3) (Ministry of Universities [MU], 2024). Additionally, a dearth of STEM back-

ground among candidates results in lower achievements in disciplines such as Language, Mathematics, Science, History, and Literature, where STEM students typically excel (Asensio et al., 2022). These academic gaps frequently manifest throughout teacher training programs (Fernández-Mellizo & Constanste-Amores, 2020; Jiménez et al., 2021), further contributing to the societal perception that the teaching profession lacks highly qualified individuals (Valero, 2023).

The proportion of students opting for early childhood and primary teacher training programmes remains modest. For the same academic year, the preference rate (first-choice applications per available place) for these programmes was 147.4 for early childhood education and 166.3 for primary teachers, surpassing fields such as Engineering (122.2) and Business (137.5). However, these numbers fall significantly behind more sought-after fields like Health Sciences, led by Medicine (1066.4), and Social Services (457.4). Additionally, the suitability rate (the percentage of students who were able to enrol in their first-choice program) was 67.1% for early childhood education and 75.7% for primary teachers. Despite these figures, teacher education programs rank as the fifth most in-demand nationwide (MU, 2024), indicating that a considerable percentage of students admitted to these programs did not select teaching as their first choice. This suggests that the motivations of many applicants do not fully align with the ideal aspirations for pursuing a teaching career (Ministry of Education and Vocational Training [MEFP], 2022).

Furthermore, a mismatch exists between the number of teacher training graduates and the available teaching positions. This imbalance can be attributed to two main factors. First, the number of available places in teacher training programs is determined primarily by applicant demand, rather than the actual needs of educational institutions. Given the high demand for these programs, the number of places offered is also considerable. Second, the high rate of enrolment (typically above 95%), the absence of rigorous selection mechanisms, and the relative ease of completing the programs (also with a completion rate above 95%) have resulted in an oversupply of early childhood and primary education graduates (MU, 2024). According to the MEFP (2022), this situation has led to an oversupply of qualified teachers, contrib-

uting to limited job prospects and the devaluation of the teaching profession. Additionally, the ease of programme entry and completion perpetuates the perception that teaching is accessible to anyone, regardless of their suitability for the profession (Valero, 2023). Therefore, a rebalancing of supply and demand is recommended, along with increased academic stringency in teacher training.

The issues outlined above highlight the need to improve the current selection model. This improvement requires the establishment of specific admission criteria for early childhood and primary teacher training programs that assess candidates' suitability for the teaching profession. The following section will seek to identify the existing gaps in the adoption of this model.

Identifying gaps

To effectively address the challenges identified, the selection model for teacher training must evolve from a “minimum standards” approach to one focused on “maximum potential” (Hirschhorn et al., 2016). This means transitioning from a generalized framework to one specifically designed for the teaching profession. Currently, institutions responsible for early childhood and primary teacher training primarily admit a set number of applicants based on criteria that bear little relation to their actual suitability or aptitude for teaching. Present university policy prioritizes broad access to education for individuals who meet basic requirements—such as passing the EvAU—and relies on these institutions to provide high-quality training. Nevertheless, universities are permitted to establish their own additional admission criteria for specific fields where necessary (Boletín Oficial del Estado [BOE], 2023).

In the field of teacher education, this approach reflects the belief that “good teachers are made” (incremental view), emphasizing the transformative power of training and professional development, as well as the adaptability of certain attributes in predicting teaching effectiveness. In contrast, the entity view—arguing that “good teachers are born”—suggests that certain traits are innate and unchangeable, making it critical to identify and select the most naturally gifted candidates. A more balanced perspective is offered by the dynamic interactionist view, which asserts that teaching competence

arises from an interplay of personal and environmental factors, placing equal importance to recruitment and selection processes, as well as to training and professional growth (see Klassen & Kim, 2017). According to this interactionist approach, the role of educational institutions extends beyond delivering high-quality training to also include the identification and selection of the most suitable candidates for the profession. In the Spanish context, adopting this paradigm would necessitate a significant transformation of the prevailing selection model, aligning it with the more advanced procedures already in place in regions such as Catalonia and the Balearic Islands, where results have been reported as favourable (Valero, 2023).

The second shortfall refers to the absence of an competency-based framework for selection processes. Although the MEFP has been working on such a framework, the specific competencies it encompasses remain unclear. With the exception of Catalonia and the Balearic Islands, selection processes are largely generalized across most degree programs and do not align with the specific demands of teacher education and the teaching profession. It is therefore crucial to move towards a well-defined competency framework that includes both cognitive and non-cognitive attributes, which will serve to inform and shape a more effective selection model.

Furthermore, assessing the attributes most relevant to successful teaching performance demands the careful selection of appropriate assessment instruments—one of the most pressing challenges in both the theory and practice of teacher selection (Klassen & Kim, 2021). The competency-based assessments employed in Catalonia and the Balearic Islands offer a strong starting point for evaluating academic attributes. However, the true challenge lies in developing accurate and equitable methods for assessing non-academic qualities. It is essential to continue evaluating the effectiveness of the multiple interviews used in the Balearic Islands, while also exploring additional tools that can address or eliminate their current limitations.

The gaps identified in the existing selection processes draw attention to potential solutions that could be implemented to enhance the recruitment of candidates for early childhood and primary teacher education. The following sections will outline several strategies that have been widely recognized in international educational research and practice as promising approaches to

improving teacher selection.

How to strengthen the Spanish selection process?

After identifying the principal issues and gaps in the Spanish selection process, we suggest potential solutions and measures that could enhance the robustness of the model. We propose that adopting a competency-based approach, informed by theory and research and encompassing the assessment of non-academic attributes, could significantly strengthen the quality of teachers and the education system.

A competency-based approach

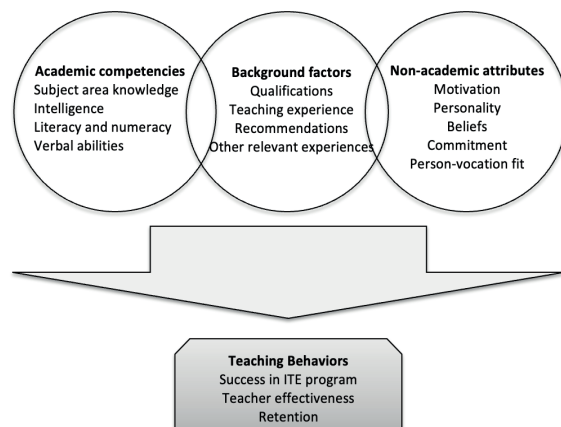
Adopting a competency-based approach prompts several important questions: Does the quality of the selection process of individuals for teacher training significantly influence how people perform in the classroom? If so, what are the competencies and attributes that we should search for in a screening or selection process?

Research consistently indicates that teaching effectiveness encompasses a broad spectrum of personal traits and contextual factors that should be integral to the selection process (see Klassen & Kim, 2021). However, an education system is faced with a range of challenges in this assessment process. First, there are a very wide range of personal characteristics (e.g., academic competencies and non-academic attributes) and contextual factors to consider, making the determination of (a) the most crucial competencies and attributes and (b) reliable evaluation methods difficult. Second, making decisions regarding the selection of prospective teachers at the very beginning of their careers is inherently challenging, steeped in a substantial degree of uncertainty about making predictions of future teaching success even before applicants step into the classroom. Teacher selection is a complex and multifaceted issue, requiring strong, evidence-based support to justify decision-making. Grounding selection models in robust scientific evidence not only enhances the likelihood of identifying the most capable individuals for

the teaching profession but also contributes to the long-term goal of ensuring a high-quality teaching workforce.

In Figure I, we graphically portray a competency-based framework for teacher selection that takes into account three factors: academic competencies, background factors, and non-academic attributes. Included in the academic competencies and background factors domains are the kinds of factors traditionally assessed in education systems: academic achievement as an indicator of subject knowledge, intelligence, literacy and numeracy skills, and verbal abilities, and perhaps a review of background factors that might include past experiences and recommendations from knowledgeable referees. The assessment of academic competencies and background factors is relatively straightforward, as records of academic achievements, such as transcripts and employment records, are readily available. If additional data is needed, standardized tests measuring subject knowledge and literacy/numeracy are available. However, the factor of non-academic attributes is much more difficult to assess, and might include motivation, personality, beliefs, occupational commitment, and the candidate's 'fit' with the teaching profession. Research suggests that this latter category is at least as important as academic competencies and background, but much less frequently assessed in selection processes (Klassen & Kim, 2021).

FIGURE I. How competencies, attributes, and background factors influence teaching behaviours



Source: Compiled by the authors

While teacher selection methods may reference teaching standards as behavioural benchmarks indicative of various competencies and values (e.g., Casey & Childs, 2007), the chosen methods may not consistently and reliably assess these competencies. In any domain, selection methods must undergo regular evaluation for their reliability (consistency over time), validity (demonstrated predictive utility), and fairness toward all applicants, irrespective of age, gender, ethnicity, sexuality, or socioeconomic status.

An evidence-supported, competency-based approach to teacher selection involves first identifying a framework of desired competencies based on theory and research, followed by the development of reliable, valid, and unbiased methods to assess these competencies.

The importance of non-academic attributes

In reflecting on their school experiences, individuals often recall their teachers' personal attributes more vividly than their specific teaching practices (Pajares & Urdan, 2008). These attributes significantly influence students' engagement and interact with how teachers teach in complex ways. Select-

ing the best possible teacher candidates involves aiming to identify individuals possessing the right mix of personal attributes and teaching knowledge. However, there are challenges involved when selecting questions arise: Can these attributes change, and is it crucial for applicants to exhibit them during selection, or can they be cultivated over time?

Teacher effectiveness involves a dynamic interplay of personal attributes and contextual factors. Interactionist approaches propose that traits and attributes are manifested based on the interplay between individuals and their specific situations. While individual attributes underlying teacher effectiveness may evolve, their patterns of expression remain consistent within individuals. Identifying and evaluating these attributes, particularly during entry into the teaching profession, is crucial due to the potential benefits of recognizing individual variations in teacher effectiveness (Atteberry et al., 2015).

Recent research has explored how the factors related to teacher effectiveness—emphasizing background factors, academic abilities, and non-academic attributes—predict teaching effectiveness. Academic abilities, often considered crucial at the selection stage, are relatively easily measured through proxies like college entrance scores. However, the ‘bright person hypothesis’, asserting that effective teachers possess high levels of intellectual capacity, is challenged by findings suggesting that general cognitive ability is unrelated to student achievement and enjoyment (Kunter et al., 2013). Our recent research indicates that non-academic attributes—motivation, personality, and person-environment fit—may offer more promising insights into teacher selection.

Non-academic attributes present challenges in assessment during teacher selection. While attributes like self-efficacy are robustly linked to effectiveness, evaluating them in high-stakes situations can be problematic. Applicants may respond in socially desirable ways, potentially skewing results. Research has expanded to explore various non-cognitive attributes, including motivation (especially self-efficacy), personality, and emotions. However, the challenge lies in reliably and fairly assessing these attributes during selection processes.

In summary, teacher effectiveness is a complex interplay of academic and non-academic factors, and their interaction with background factors

and experience. These personal competencies and contextual factors all play roles in shaping effective teaching. The dynamics of these factors vary, with non-academic attributes holding promise for future research and development in teacher selection processes.

Assessing non-academic attributes in teacher selection

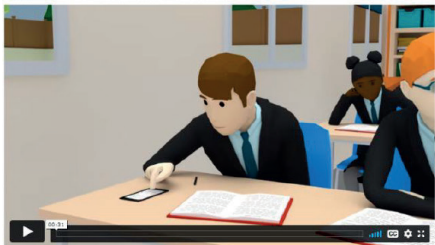
Selecting teachers involves predicting their performance in both short-term training and long-term professional practice. A robust and defensible selection process becomes crucial when the number of applicants exceeds available positions, necessitating the screening of unsuitable candidates and identifying strengths and weaknesses for future development. While competency-based selection methods have been extensively researched in various fields, they have not been widely applied in teacher selection. Traditional methods like academic records, personal statements, group interviews, reference letters, and structured interviews often lack predictive power and may exhibit harmful biases. In contrast, two competency-based methods, Situational Judgment Tests (SJTs) and Multiple Mini Interviews (MMIs), have recently been adapted and tested for use in education settings.

SJTs and MMIs

SJTs have gained popularity in the last two decades due to their high predictive validity compared to other selection tools. They are based on desired competencies and typically present a challenging workplace scenario with response options, delivered in text-only or video + text formats. See Figure II for an example of a computer-administered SJT. Originally developed in World War II, SJTs were initially used to assess officer candidates and were later adopted in medical training, civil service, and large corporations. The underlying theory, implicit trait policy, explores individuals' beliefs about expressing personality traits in specific situations. SJTs aim to capture how competencies like empathy, adaptability, and commitment can manifest in diverse contexts.

FIGURE II. Example of a computer-administered situational judgment test used in the UK.

One of your pupils, Mark, has been playing with his mobile phone throughout the lesson. The school has a no-phone policy. You have asked Mark for his phone, which has angered him. Rate the appropriateness of each option in terms of what you should do as a teacher trainee.



	Inappropriate	Somewhat inappropriate	Somewhat appropriate	Appropriate
Go to get assistance from a senior member of staff.	☐	☐	☐	☐
Ignore that Mark is using his phone and continue with the lesson.	☐	☐	☐	☐
Ask Mark to put the phone away again, but more sternly.	☐	☐	☐	☐
Give school sanctions for having a mobile phone in class and for refusing the teacher's instruction.	☐	☐	☐	☐

You are working with Rosa, a pupil who is not achieving her target grade outcomes even though she is working very hard. You have tried a number of different approaches, taken advice from your mentor and have done online research to find new strategies. You are not sure if Rosa is capable of making her target grade outcomes.



	Inappropriate	Somewhat inappropriate	Somewhat appropriate	Appropriate
Speak to the Special Educational Needs and Disabilities Coordinator to see if they have worked with Rosa before.	☐	☐	☐	☐
Tell Rosa that she is doing OK so that she keeps working hard.	☐	☐	☐	☐
Reluctantly accept that Rosa will underachieve and target your attention on other pupils.	☐	☐	☐	☐
Consult Rosa's parent for strategies to help Rosa reach her target grade outcomes.	☐	☐	☐	☐

Source: Compiled by the authors

Research indicates that SJTs, administered at the start of training programs, robustly predict job performance and exhibit lower susceptibility to group biases than other methods (Nadmilail et al., 2023). Developing SJTs for teacher selection offers advantages such as clear links to competencies, efficiency in implementation, especially for screening numerous applicants, and effectiveness, as SJTs are among the most predictive selection tools. Despite these benefits, SJTs can be expensive to produce, and revisions can be time-consuming and costly. Furthermore, SJTs are relatively new in teacher education, possibly due to historical reluctance to move away from less effective but more intuitive selection approaches.

SJTs for selecting candidates into teacher education or the teaching profession have, until recently, not been implemented in education systems. However, there has been a notable increase in their usage in recent years, in particular through the research conducted in the UK through the Teacher Selection Project and the TCAT group in Australia (e.g., Bowles et al., 2014). According to Klassen and Kim (e.g., 2021), teacher education programs rare-

ly implement selection methods with a published evidence base, such as SJTs, MMIs, or other evidence-based approaches. Research on the use of SJTs for teacher selection is gradually emerging, with growing evidence of their effectiveness in identifying high-quality candidates. In the UK, research on teacher selection tools revealed that SJTs administered to primary and secondary teaching applicants accurately predicted performance in subsequent stages of selection (Klassen et al., 2020) and up to six months into teacher training (e.g., Klassen & Rushby, 2019).

Another approach to measure the non-academic attributes of prospective teachers is multiple mini-interviews, or MMIs, particularly in use in Finland (Metsäpelto et al., 2022; Vilppu et al., 2024), a country that typically ranks highly in international education system comparisons. Traditional interviews, characterized by a low-to-medium structured format with significant interviewer flexibility, are widely employed for selecting candidates into teacher training in certain contexts (Davies et al., 2016). However, these interviews are generally labour-intensive and have proven to be poor predictors of subsequent performance (Dana et al., 2023). A more recent advancement in recruitment research is the emergence of MMIs, a method extensively utilized in medical education (e.g., Eva et al., 2018) and more recently adopted for teacher education selection (Metsäpelto et al., 2022; Salingré & MacMath, 2021; Vilppu et al., 2024). MMIs designed for teacher education selection are built on core competencies and have demonstrated superior reliability, validity, and fairness compared to traditional interview methods. Although the implementation of MMIs demands more extensive planning, preparation, and additional interview spaces, these costs are mitigated by the reduced requirement for personnel hours.

Distinguished from traditional interviews, MMIs employ independent, highly-structured stations with corresponding scoring protocols. MMIs inherently feature multiple stations, typically ranging from 3 to 10, each targeting specific non-academic competencies. Notably, these stations operate independently, with interviewers unaware of candidates' profiles or performance in other stations. The content and scoring protocols of each station are meticulously structured, employing standardized scoring schemes. MMIs are typically collaboratively developed by experts and a diverse group of program

staff who identify key target competencies, subsequently crafting and testing stations designed to assess these competencies (see Table I for a description of stations and attributes in a 3-station MMI used for selecting candidates for teacher education in the UK).

TABLE I. Attributes assessed at each of three stations in a teacher selection MMI

Station	Activity	Description
Station 1. Values and beliefs	<i>Teacher profiles:</i> picture profile stimulus and discussion	The task requires candidates to show an understanding of a range of approaches to teaching, an appreciation of the value of diversity in teaching, and a commitment to exploring and establishing their own teacher identity.
Station 2. Diversity and social justice	<i>School play:</i> Discussion with picture and text stimuli	The task assesses candidates' understanding of issues related to social justice, equality and inclusion in day-to-day teaching.
Station 3. Professionalism	<i>Always, sometimes, never:</i> Card-sorting activity	The task evaluates candidates' awareness and understanding of a range of teacher professional values and behaviours.
Communication	Assessed at all three stations	Defined as the ability to articulate well-reasoned arguments and to respond effectively to new information.

Source: Compiled by the authors

In this case, the attributes chosen for each station developed following a multi-step process of: (a) identifying key attributes to assess, (b) considering the logistics of the MMIs (e.g., how many applicants, how many assessors, etc.), (c) station writing and review, developing a scoring guide, and pilot-testing with existing students. For a further look at the development of MMIs (and SJTs), see Klassen and Kim (2021). Overall, these two examples of research-based teacher selection processes—SJTs and MMIs—provide some insights of how to revise traditional selection methods that lack a strong evidence base. In the Spanish context, research on the applicability of MMIs in the selection processes could provide valuable insights for decision-making, particularly when exploring a shift towards a new selection model.

Discussion

This study underscores the urgent need to enhance the selection process for candidates entering early childhood and primary teacher training programs in Spain by adopting a competency-based approach. Our analysis critically evaluates the current selection model and proposes potential improvements, including integrating recent scientific evidence and international trends. These trends advocate for evaluating a broad spectrum of attributes during the selection process, reflecting the multifaceted nature of teaching and the well-documented influence of certain variables on teaching effectiveness. Ultimately, this paper argues that reforming the selection model will raise the quality of the teaching workforce and strengthen the education system as a whole.

A competency-based approach requires moving beyond reliance on EvAU scores alone and incorporating specific assessments tailored to prospective teachers. This entails the development of a clear competency framework to guide the selection process, aligned with international research and encompassing both academic competencies and non-academic attributes linked to teaching effectiveness. Drawing on research such as Alonso-Sainz (2019), which identifies desirable characteristics for entry into teacher education programs, and Valero (2023), which emphasizes the importance of socio-emotional dispositions in selection, would provide a more contextually informed model. The selected attributes should focus on those most critical at the point of entry, either because of their direct impact on teaching effectiveness or their limited potential for significant development over time.

Equally important is the selection of appropriate assessment tools for a competency-based model. Spain could look to the competency-based assessments used in Catalonia and the multiple mini-interviews (MMIs) adopted in the Balearic Islands as models for evaluating non-cognitive attributes such as interpersonal skills, motivation, personal beliefs, psychosocial adaptability, and communication. A potentially more effective and equitable approach could involve the use of situational judgment tests (SJTs), which assess candidates' dispositions towards teaching. However, designing and implementing these tools will require substantial material and human resources, a responsibility that would fall primarily to universities. The key question is

whether the benefits of improving the selection process outweigh the associated costs, or if resources should be allocated elsewhere. This study advocates that the long-term benefits of improving teacher quality outweigh concerns about increased expenditure.

Another challenge involves the potential consequences of raising admission standards for teacher education programs. Such a shift could disproportionately affect candidates from disadvantaged backgrounds, who may have had fewer educational opportunities, potentially undermining the principle of equity (Childs et al., 2011). While there is a risk that more stringent selection processes could exacerbate social inequalities, this is a concern inherent to any entrance exam. Therefore, equity concerns should not deter the adoption of a competency-based model. Instead, the challenge lies in designing tools that can fairly evaluate a broad range of attributes—both academic and non-academic—while mitigating the negative impacts of selection processes and consistently measuring teaching aptitude (Klassen & Kim, 2021).

The proposed selection model must also account for the coexistence of public and private universities within the Spanish education system. In Catalonia, private institutions saw reduced enrolment when students failed to meet selection criteria, prompting a relaxation of entry requirements. In a context of underfunded public universities and an expanding private sector, there is a risk that less motivated or less qualified candidates could gravitate towards programs with less rigorous selection processes. This could diminish public university funding, which is tied to student demand, ultimately harming teacher quality. A unified selection process across both public and private institutions would help mitigate this risk.

Furthermore, the shift towards a competency-based selection model could create a market for preparatory services aimed at helping candidates navigate the selection process, potentially undermining equal opportunity and the integrity of the system (Klassen & Kim, 2021). Additionally, raising admission standards might result in psychological pressures on candidates, leading some to abandon the teaching profession in favour of alternative career paths (Mankki & Kyrö-Ämmälä, 2022).

While fluctuations in the supply and demand of teacher candidates are a key factor, the selection model proposed here would better align the

number of trained teachers with the actual demand for teaching positions in Spain. However, it is essential to recognize that such fluctuations are influenced by broader teacher policies related to recruitment, training, and professional development, as well as cultural factors, including the social status of the teaching profession. To address this, measures must be taken to attract top secondary school students, raise the standards of teacher education programs, improve school conditions, and create better career progression opportunities for teachers (Castro & Egado, 2024). As the attractiveness of teaching increases, selection processes must ensure that only candidates with the necessary aptitude are admitted into teacher training programs. Meanwhile, the state should adjust the number of available places in these programs to align with the needs of the education system. Such measures would link training opportunities more closely with the actual practice of teaching (Valero, 2023). In Catalonia and the Balearic Islands, these initiatives have improved both the competency and motivational profiles of teacher trainees and better balanced the supply and demand for qualified teachers. These regional experiences could serve as models for implementing an alternative selection process at the national level.

The significance of this competency-based approach, which is fully compatible with existing university legislation, is clear. However, it is crucial to expand the limited body of research focused on the Spanish context. Further theoretical studies are needed to explore key competency frameworks and the implications of implementing a teacher aptitude-based selection model. Applied research could investigate the outcomes from Catalonia and the Balearic Islands to inform decision-making, develop and validate instruments for assessing non-cognitive attributes, and study the predictive power of specific variables in selection processes. Additionally, it is essential to consider other teacher policies, as improving teacher quality and educational outcomes depends on a coordinated set of measures—not just those focused on selecting the best candidates for teacher training programs.

Conclusions

If Spain aims to address current challenges in its educational sector, a focus on strengthening selection processes for early childhood and primary teacher education is indispensable. By adopting a nuanced, holistic approach—encompassing academic competencies, non-cognitive skills, and other key attributes—the country could significantly enhance the quality and professional standing of its teaching workforce.

The findings from analysing the teacher selection process in Spain greatly contribute to a better understanding of effective candidate assessment and selection strategies. These insights have broader implications that go beyond the specific context of Spanish education. The lessons learned are applicable across various educational settings worldwide, providing valuable guidance. As we tackle the challenges of identifying the most suitable candidates for early childhood and primary teacher education, the strategies discussed in this analysis offer a roadmap for informed enhancements in teacher selection processes on a global scale. This, in turn, supports the development of a more robust and effective approach to shaping the future of education.

Bibliographic References

- Alonso-Sainz, T. (2019). ¿Qué estudiantes de Magisterio queremos en España? Expectativas de los centros universitarios españoles mostradas en los perfiles de ingreso y egreso. In J. Manso (Ed.), *La formación inicial del profesorado en España: análisis de los planes de estudios tras una década desde su implementación* (pp. 42-59). Ministry of Education and Culture.
- Asensio, I., Arroyo Resino, I., Ruíz-Lázaro, D., Sánchez-Munilla, J., Ruíz de Miguel, M., Constante-Amores, C., & Navarro-Asencio, E. (2022). University access profile of teachers in Spain. *Educación XXI*, 25(2), 39-63. <https://doi.org/10.5944/educxx1.31924>

- Atteberry, A., Loeb, S., & Wyckoff, J. (2015). Do first impressions matter? Predicting early career teacher effectiveness. *AERA Open*, 1(4), 1–23. <https://doi.org/10.1177/2332858415607834>
- Bardach, L., & Klassen, R. M. (2020). Smart teachers, successful students? A systematic review of the literature on teachers' cognitive abilities and teacher effectiveness. *Educational Research Review*, 30, 2-21. <https://doi.org/10.1016/j.edurev.2020.100312>
- Bardach, L., Klassen, R. M., & Perry, N. E. (2020). *Teachers' Psychological Characteristics, Teacher Effectiveness, and Within-Teacher Outcomes: An Integrative Review*. Teacher Selection Project Working Paper, 1-33. York University, United Kingdom.
- Boletín Oficial del Estado [BOE]. (2023). Ley Orgánica 2/2023, de 22 de marzo, del Sistema Universitario. núm. 70.
- Bowles, T., Hattie, J., Dinham, S., Scull, J. y Clinton, J. (2014). Proposing a comprehensive model for identifying teaching candidates. *Australian Educational Researcher*, 41(4), 365-380. <https://doi.org/10.1007/s13384-014-0146-z>
- Casey, C. E., & Childs, R. A. (2007). Teacher education program admission criteria and what beginning teachers need to know to be successful teachers. *Canadian Journal of Educational Administration and Policy*, 67, 1-24. <https://journalhosting.ucalgary.ca/index.php/cjeap/article/view/42748>
- Castro, M., & Egido, I. (2024). *Qué sabemos sobre el profesorado: políticas, evidencias y perspectivas de futuro*. Narcea Ediciones.
- Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the impacts of teachers I: Evaluating bias in teacher value-added estimates. *American Economic Review*, 104(9), 2593-2632. <https://doi.org/10.1257/aer.104.9.2593>
- Childs, R., Broad, K., Gallagher-Mackay, K., Sher, K., Escayg, K.-A., & McGrath, C. (2011). Pursuing equity in and through teacher education program admissions. *Education Policy Analysis Archives*, 19(24), 1-22. <https://doi.org/10.14507/epaa.v19n24.2011>
- Coe, R., Aloisi, C., Higgins, S., & Major, L. (2014). *What makes great teaching? A review of the underpinning research*. Sutton Trust.

- Dana, J., Dawes, R., & Peterson, N. (2023). Belief in the unstructured interview: The persistence of an illusion. *Judgment and Decision Making*, 8(5), 512-520. <https://doi.org/10.1017/S1930297500003612>
- Davies, P., Connolly, M., Nelson, J., Hulme, M., Kirkman, J., & Greenway, C. (2016). 'Letting the right one in': Provider contexts for recruitment to initial teacher education in the United Kingdom. *Teaching and Teacher Education*, 60, 291-302. <https://doi.org/10.1016/j.tate.2016.09.003>
- Edward, M.R. (2021). *Teacher: Their Role in Modern Education*. Notion Press.
- Fernández-Mellizo, M., & Constante-Amores, A. (2020). Factors associated with the academic performance of new entry students at Complutense University of Madrid. *Revista de Educación*, 387, 213-240. <https://doi.org/10.4438/1988-592X-RE-2020-387-433>
- Gusdorf, G. (2019). *Para qué profesores*. Miño y Dávila.
- Eva, K. W., Macala, C., & Fleming, B. (2018). Twelve tips for constructing a multiple mini-interview. *Medical Teacher*, 41(5), 510-516. <https://doi.org/10.1080/0142159X.2018.1429586>
- Eva, K. W., Macala, C. y Fleming, B. (2018). Twelve tips for constructing a multiple mini-interview. *Medical Teacher*, 41(5), 510-516. <https://doi.org/10.1080/0142159X.2018.1429586>
- Hattie, J., & Zierer, K. (2019). *Visible learning insights*. Routledge.
- Jiménez, E., Arroyo, D., Hurtado-Martín, M., Ruíz-Lázaro, J., Sánchez-Munilla, M., Illana, J. J., & González, C. (2021). University admission scores as a predictor of academic performance in the first year of university: Education VS social services-oriented degrees. *Revista de Educación*, 393, 129-154. <https://doi.org/10.4438/1988-592X-RE-2021-393-488>
- Hanushek, E. A., & Rivkin, S. G. (2012). The distribution of teacher quality and implications for policy. *Annual Review of Economics*, 4, 131-157. <https://doi.org/10.1146/annurev-economics-080511-111001>
- Hanushek, E., Piopiunik, M., & Wiederhold, S. (2019). The value of smarter teachers: International evidence on teacher cognitive skills and student performance. *Journal of Human Resources*, 1-82. <https://doi.org/10.3368/jhr.55.1.0317.8619R1>

- Hirschhorn, M., Sears, A., Sloat, E., Christou, T. M., Kristmanson, P. y Lemisko, L. (2016). The Relevance of Prior Learning in Teacher Education Admissions Processes, 23(1), 130-149. 10.37119/ojs2017.v23i1.256
- Klassen, R. M., & Kim, L. E. (2021). *Teacher selection: Evidence-based practices*. Springer.
- Klassen, R. M., & Rushby, J. V. (2019). *Can we predict preservice teachers' performance in teaching placements? The validity of ITE selection methods*. Teacher Selection Project Working Paper, 1-21. York University, United Kingdom.
- Klassen, R. M., Kim, L. E., Rushby, J. V., & Bardach, L. (2020). Can we improve how we screen applicants for initial teacher education? *Teaching and Teacher Education*, 87, 1-11. <https://doi.org/10.1016/j.tate.2019.102949>
- Klassen, R.M., Rushby, J. V. y Durksen, T.L. (2023). Teacher recruitment: a competency-based approach. *International Encyclopedia of Education*, 4 (5), 329-338. <https://doi.org/10.1016/B978-0-12-818630-5.04083-5>
- Knight, F. B. (1922). Qualities related to success in elementary school teaching. *The Journal of Educational Research*, 5, 207-216. <https://www.jstor.org/stable/27524618>
- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, 105(3), 805-820. <https://doi.org/10.1037/a0032583>
- Mankki, V. y Kyrö-Ämmälä, O. (2022). Arduous admissions and a precarious profession: student teachers' pre-admission demotives. *Asia-Pacific Journal of Teacher Education*, 50(3), 282-294. <https://doi.org/10.1080/1359866X.2021.1978390>
- Martínez, M., Prats, E., & Marín, A. (2015). La millora de la formació inicial de mestres: el Programa de Millora i Innovació en la Formació de Mestres. *Revista Catalana de Pedagogia*, 9, 24-42. <https://raco.cat/index.php/RevistaPedagogia/article/view/306416>
- Martínez, M., Esteban, F., Jover, G., & Payá, A. (2020). *La educación, en teoría*. Síntesis.

- Maulana, R., Helms-Lorenz, M., & Klassen, R. M. (2023). *Effective Teaching Around the World: Theoretical, Empirical, Methodological and Practical Insights*. Springer.
- Metsäpelto, R.-L., Utriainen, J., Poikkeus, A.-M., Muotka, J., Tolvanen, A., & Warinowski, A. (2022). Multiple mini-interviews as a selection tool for initial teacher education admissions. *Teaching and Teacher Education*, 11, 103660. <https://doi.org/10.1016/j.tate.2022.103660>
- Ministry of Universities [MU]. (2024). *Datos y cifras del Sistema Universitario Español. Publicación 2023-2024*. Spanish Government
- Ministry of Education and Vocational Training [MEFP]. (2022). *Documento para debate 24 propuestas de reforma para la mejora de la profesión docente*. Spanish Government
- Nadmilail, A. I., Mohd Matore, E. E., & Maat, S. M. (2022). Measurement of Non-academic Attributes in the Situational Judgment Test as Part of School Teacher Selection: Systematic Literature Review. *International Journal of Learning, Teaching and Educational Research*, 21(5), 263-280. <https://doi.org/10.26803/ijlter.21.5.14>
- Oliver-Trobat, M. F., Rosselló-Ramon, M. R., Comas-Forgas, R., Calvo-Sastre, A., & Sureda-Negre, J. (2021). Admission tests model to pre-service teacher students admission based on a participatory design approach. *Revista de educación*, 393, 261-291. <https://doi.org/10.4438/1988-592X-RE-2021-393-493>
- Salingré, B., & Macmath, S. (2021). Using Multiple-Mini-Interviews for Admission into Teacher Education. *Canadian Journal of Education*, 44(1), 150-173. <https://doi.org/10.53967/cje-rce.v44i1.4401>
- Pajares, F., & Urdan, T. (2008). *The ones we remember: Scholars reflect on teachers who made a difference*. Information Age Pub.
- Valero, A. (2023). *The Emotional Dimension of Teachers in Admission Policies to Initial Teacher Training* (Doctoral dissertation). Complutense University of Madrid.
- Vilppu, H., Laakkonen, E., Haataja, E., Tolvanen, A., & Metsäpelto, R.L. (2024). Exploring the reliability and validity of multiple mini-interviews in admission to teacher education. *European Journal of Teacher Education*. 10.1080/02619768.2024.2351068

Contact address: Aída Valero Moya. Universidad Complutense de Madrid, Facultad de Educación. Centro de Formación del Profesorado. Departamento de Estudios Educativos. E-mail aidavale@ucm.es

