Investigation of Non-Academic Characteristics Used for Selection Entry of Pre-Service Teachers into Higher Education Courses

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Abstract: Education reform is prioritised in most countries. In 2014, the Australian federal government established the Teacher Education Ministerial Advisory Group with a mandate to improve initial teacher education (ITE) to better prepare new teachers for the classroom. One recommendation involved higher education providers selecting ITE candidates who possessed the required academic skills and non-academic characteristics to become successful teachers. This study investigates the prevalence and impact of non-academic characteristics among first-year graduates, using insights from principals in Western Australian public schools. According to the available literature, the link between non-academic characteristics in the ITE selection process and student outcomes and teacher employment is not clearly established. Principals confirmed first year graduates possessing the required non-academic characteristics impacted on student learning and were more employable.

Keywords: non-academic characteristics, teacher selection, teacher characteristics, initial teacher education, personality traits, non-cognitive attributes

Introduction

Education reform is a priority of almost every country in the world. However, there is international debate about how best to improve the school system due to the complexity of taking this action and the uncertainty about the outcomes (Barber & Mourshed, 2007). In Australia, proposed reforms to initial teacher education (ITE) selection practices were made by the Teacher Education Ministerial Advisory Group (TEMAG). TEMAG was established in 2014 to provide evidence-based advice and practical solutions for improving ITE to better prepare new teachers for the classroom. A recommendation was made for higher education providers (HEPs) to select the best candidates for teaching, using sophisticated approaches that ensured ITE students possessed the required academic skills and non-academic characteristics to become successful teachers (Australian Institute for Teaching and School Leadership [AITSL], 2022). It was thought a rigorous candidate selection procedure into ITE would support the quality of teaching in Australia, particularly as ITE sets the foundation for a high-quality teaching workforce (AITSL, 2020). Likewise, international countries Singapore, Finland, Canada (Alberta, Ontario) and Shanghai all use rigorous approaches inclusive of assessing non-academic characteristics for pre-service teacher and teacher selection. These countries are renowned for their high-performing education system (Darling-Hammond et al., 2016). The selection of teachers and ITE candidates is important

not just for students' academic outcomes and well-being, but also for a nation's social and economic well-being (Klassen & Kim, 2019).

In Australia, as of September 2019, 325 accredited programs were offered by 48 HEPs in 92 locations (AITSL, 2019). AITSL was responsible for implementing the reform agenda arising from the TEMAG report's recommendations. AITSL developed the Standards and Procedures which set out the requirements that an ITE program must meet to be nationally accredited (AITSL, 2015). All HEPs obtain and maintain accreditation for each program offered at their institution. In Western Australia (WA), the Teacher Registration Board of Western Australia under the *Teacher Registration Act 2012*, is responsible for the administration of an accreditation scheme for ITE programs. Within the Standards and Procedures document are key criteria that providers of accredited ITE programs in Australia must take into account when developing and implementing selection processes and determining entry requirements for their programs. This is inclusive of the following key non-academic characteristics associated with successful teaching: motivation to teach; strong interpersonal and communication skills; willingness to learn; resilience; conscientiousness; self-efficacy, and organisational and planning skills.

HEPs were advised by AITSL (2020) to use a combination of these characteristics in selecting entrants, and to provide evidence to justify the focus on particular characteristics, and the approach taken when assessing them. In WA, the Minister of Education approved the revised Accreditation Standards, which now included non-academic entry requirements, on August 4, 2016. WA HEPs were granted a transition period to meet this new requirement, resulting in a postponement from 2017 to 2018. The application of non-academic characteristics in the WA HEPs selection processes varied widely. One HEP used an interview process, another used the University of Melbourne capability test, and the others required applicants to submit personal statements (PTR Consulting Pty Ltd, 2017). This was common practice for HEPs across the country, which raised concerns about equity and cost effectiveness. Ultimately, it was not clear whether all selection methods were effective alongside the outcomes and impacts (PTR Consulting Pty Ltd, 2017).

Research on non-academic characteristics has been undertaken internationally, particularly in the United States of America and the United Kingdom (Shipton & Bermingham, 2018). Notwithstanding, it has been recommended in the *Western Australian Standards for the Accreditation of Initial Teacher Education Programs* and the *Next Steps: Report of the Quality Initial Teacher Education Review* to evaluate and research the non-academic characteristics associated with the ITE selection process in Australia. This study will focus on principals' insights into the non-academic characteristics displayed by first year graduates within the real-world teaching context.

Research Context

In Australia, the TEMAG recommendation to introduce non-academic admission requirements for ITE programs in 2017 was based on effective teachers possessing both academic and non-academic capabilities, in which case having a rigorous ITE candidate selection procedure would maximise the likelihood of those entering the profession becoming effective teachers (AITSL, 2020). There was evidence that some graduates lacked personal attributes that would help them work effectively, noting there is less research in education on teacher selection methods than other fields (Klassen & Kim, 2021). Each year, Graduate Careers Australia surveys graduate employers about their recruitment intentions and the quality of graduate applicants. The 2013 survey showed employers were concerned

about the lack of interpersonal and communication skills, attitude and work ethic, and motivation in graduates (Norton & Cherastidtham, 2014).

University admission processes have been criticised for overly emphasising academic factors such as university entrance scores and subject content knowledge. Although important, other relevant aptitudes and attributes should be considered to ensure first year graduates are effective (Norton & Cherastidtham, 2014). Teacher effectiveness is defined by Klassen and Kim (2019, p. 34) as "… a set of within-person attributes— personality, motivation, beliefs, and dispositions—that interact with contextual factors (cultural, social, educational)" usually considered as non-academic characteristics which influence student outcomes. Such characteristics generally include attitudes and values (self-efficacy, motivation, conscientiousness, attitude to learning), social and emotional skills (communication, resilience), creative skills, and metacognitive skills (planning) (Shipton & Bermingham, 2018). Understanding what makes teachers effective is essential given the significant impact of teachers on student academic outcomes (Bastian, 2013). Research is now beginning to focus on metacognitive and non-cognitive attributes related to motivation, integrity, and interpersonal interaction which are associated with an individual's personality, temperament, and attitudes (Gu, 2014; Hattie & Zierer, 2018; Mansfield et al., 2016; Mansfield et al., 2014; Muijs et al., 2014). Whereas, there is extensive research on teacher effectiveness related to pedagogical strategies (Good & Brophy, 2007; Hattie, 2009, 2012; Marzano, 2017; Sharrat, 2019; Sharratt & Fullan, 2012; Teddie & Reynolds, 2000).

Ates and Kadioglu (2017) identified numerous non-academic characteristics an effective teacher should possess, for example, high personal responsibility, creativity, ability to solve problems, critical thinking, teamwork, ability to initiate change, understanding, compassion and tolerance, high social relationships and moral values. Clinton et al's (2018) review of key characteristics of effective teachers found cognitive ability, self-efficacy, social and emotional learning competence, communication, attitudes, beliefs and expectations, cultural competence, personality, self- reflection and reflection, and collegiality were all important. However, there is currently a lack of synthesized evidence in the literature about psychological characteristics and a critical evaluation of their relative importance for teacher effectiveness (Bardach et al., 2022). Klassen et al. (2019) found that beliefs about the attributes of effective early career teachers are expressed in different ways across countries and within countries and there are culturally-relevant variations in the importance placed on key non-academic characteristics. Also, there is an inter-connectedness between the non-academic traits of effective teachers for example, willingness to learn is linked to increased resilience (Shipton & Bermingham, 2018) and resilience fuels conscientiousness or 'grit' (Mansfield et al., 2016). Also, allied to resilience is the role of relationships, an important element in the construct of wellbeing (Seligman, 2011). A challenge for any HEP in terms of selection of potential pre-service teachers is gauging or predicting most non-academic characteristics. A positive finding by Osada and Schaeper (2021) showed that individual characteristics predicted the choice of study programs and teaching degrees. They identified the right students chose the teaching profession as it matched their abilities, interests, and personality.

Noting that there is no universal definition of non-academic characteristics, competing terminologies and isolating individual non-academic characteristics can be difficult, as they interact and overlap with each other (Shipton & Bermingham, 2018). The link between non-academic characteristics and current pre-service teacher selection and student outcomes is not clear in the literature (Sheridan et al., 2022). According to Neugebauer (2019), there is no strong evidence proving non-academic teacher characteristics impact on student learning, as well it is difficult to identify teacher characteristics that predict student learning because student learning is influenced by a wide

range of factors. Limited research has been conducted into how consistent teachers' performance is across different measures of effectiveness (Harris & Sass, 2014) and what research has been conducted suggests the relationships between different measures of teachers' effectiveness are relatively weak (Harris et al., 2014). Bardach et al. (2022) suggest just accepting the small yet potentially meaningful contribution of specific teacher psychological characteristics, particularly when a small effect size can make a big difference to educational outcomes if the effect is applied to a large sample (Coe, 2002). This is confirmed by Klassen and Kim (2019) who reviewed 32 studies reporting on selection methods and found non-academic predictors, while small, were significantly associated with teacher effectiveness measures and had the potential to enhance educational outcomes by improving the selection of prospective teachers.

Also, for consideration is that Kell (2019) found the associations between teachers' personality traits and their performance were highly variable, with associations potentially controlled by which personality traits were measured, how they were measured, and how teacher effectiveness was indexed. AITSL (2020) advised HEP's non-academic capabilities could be measured in selection processes using measures such as student retention and student success data about each entry cohort within each program. Importantly, these measures fall short of knowing the impact in the Australian workplace. Additionally, the concern of national indecisiveness on how to measure impact will not be resolved without difficult decisions being made (PTR Consulting Pty Ltd, 2017). Due to this complex interplay, care must be taken in designing studies in this area, as inappropriate consideration of these factors could lead to over or under estimates of the relationship between teachers' personalities and their effectiveness in a given research or practice setting (Kell, 2019). Further resolution is needed to justify the criteria and processes for including non-academic qualities in the selection of students (PTR Consulting Pty Ltd, 2017) as well as what is meant by 'impact', how impact is measured and what data is of most value.

Additionally, the range of selection methods used for ITE programs varies across and within countries (Klassen & Kim, 2021). According to Darling-Hammond et al. (2016), Singapore utilises a single state-wide process that strongly emphasises academic achievement, communication skills and motivation for joining the profession as well as having school partners play a key role in the decision making process. In Finland, candidates must pass an exam on topics from educational research papers known as the VAKAVA. Those who pass are then interviewed on a holistic basis to assess motivation and potential for collaboration with others (Darling-Hammond et al., 2016). The University of Notre Dame Australia has for over 20 years interviewed students in person to assess suitability and a sense of vocation, although this ceased with the advent of Covid-19. Also, students are required to make a written submission outlining their responses to questions that address vocation, attributes suited to teaching, leadership and community engagement, relational qualities and ability to overcome obstacles in life. In Australia, Monash University uses Casper as an additional admission criterion for all applicants who meet the minimum academic standards. All candidates who enrol in any of the Federation University Australia's ITE programs must meet the minimum academic standards, as well as complete the Altus Suite which is a non-academic selection component and part of the admission requirements. Establishing rigorous methods to select individuals likely to become successful teachers is challenging (Jacob et al., 2018).

Equally, so is hiring effective teachers, but school principals can be influential and hire teachers who have the greatest chance of being successful (Kimbrel, 2019). However, the "… identification of clear and consistent criteria for teacher hiring based on a shared definition of high-quality teaching has also proven to be problematic in practice" (Kimbrel, 2019, p. 14). The selection process for employment is about making a prediction about

future teacher effectiveness and Klassen and Kim (2019) support the use of non-academic predictors (reasoning ability, motivation, empathy, conscientiousness) for employment despite the lack of strong evidence. According to Shipton and Bermingham (2018), non-academic characteristics are associated with employability. Kimbrel (2019, p. 23) found "…that principals tend to rely on their own opinions rather than research when making decisions about the structure of the hiring process and the qualities of the teacher whom they will hire." Teacher background factors (educational qualifications and teaching-related experiences) are often the main hiring focus but these factors have little bearing on teacher performance or student outcomes (Kimbrel, 2019). It is suggested that principals test for these non-academic characteristics as part of their selection process and select those applicants who possess them. However, "… selecting teachers based on having the 'right' motivations or the required 'level' of resilience, confidence, or emotional stability is complicated" according to Sheridan et al. (2022, p. 390). If the principal is unsure, additional scrutiny is required (Nixon et al., 2010) to avoid an unwise selection decision that "… not only impacts student achievement but also creates a monetary and emotional drain on a school and its community" (Kimbrel, 2019, p. 13). Kell (2019) suggests that purposely considering prospective teachers' personalities related to their performance during hiring needs further investigation. Accordingly, there is a need for increased quantitative (more syntheses) and qualitative (greater diversity in studied psychological characteristics) research (Bardach et al., 2022).

This research project uses employer insights about ITE graduates from WA universities to judge how actively the universities have been in taking into consideration non-academic characteristics in their selection processes and basis of admission. Having this information will confirm for the WA HEPs if they are potentially improving the quality of graduates entering the teaching profession, which in turn will result in public confidence in ITE.

Research Aim

This research project aims to investigate the prevalence and impact of the ITE non-academic selection characteristics amongst first year graduates by assessing insights of principals in Western Australian public schools. For this study, the term non-academic characteristics (sometimes referred to as 'non-cognitive' attributes) which refers to beliefs, motives, personality traits, and dispositions will be used (Patterson et al., 2016). Research questions include:

1   What is the prevalence of first year graduates possessing these non-academic characteristics?
2   Does the possession of these non-academic characteristics by first year graduates' impact on student learning?
3   Are first year graduates who possess these non-academic characteristics more employable?

Method

This mixed methods sequential explanatory design uses both qualitative and quantitative data collected at the same time, but analysed separately, to answer the research questions. The qualitative data explains and contextualises the quantitative findings by exploring principals' views in more depth.

Participants

The research population included 148 first year graduates employed at the Department of Education Western Australia (the Department), see Table 1.

Demographic	Degree commencement year					
	2018		2019		Total	
	n	*%*	*n*	*%*	*n*	*%*
Gender						
Female	60	65.2	35	62.5	95	64.2
Male	32	34.8	21	37.5	53	35.8
Age (years)						
20-29	38	41.3	38	67.9	76	51.4
30-39	36	39.1	15	26.8	51	34.5
40-49	13	14.1	3	5.4	16	10.8
50-59	5	5.4	0	0.0	5	3.4
University						
Curtin University	4	4.3	6	10.7	10	6.8
Edith Cowan University	54	58.7	24	42.9	78	52.7
Murdoch University	17	18.5	6	10.7	23	15.5
University of Notre Dame Australia	7	7.6	4	7.1	11	7.4
University of Western Australia	10	10.9	16	28.6	26	17.6
Degree						
Diploma of Education	68	73.9	0	0.0	68	45.9
Master of Teaching	24	26.1	56	100.0	80	54.1
Year employed by the Department						
2019	25	27.2	0	0.0	25	16.9
2020	41	44.6	1	1.8	42	28.4
2021	26	28.3	55	98.2	81	54.7
Total	92	100.0	56	100.0	148	100.0

Table 1. Demographics of first year graduates

Data Collection

Initially, an audit was done against the Department of Education Skills & Employment data whereby any first year graduate who was not on this list of enrolments, commencements, and completions was deleted from the dataset. This reduced the study sample, but it confirms those included in the sample commenced their degree in either 2018 or 2019 and completed as per Table 2. The sample includes one-year Graduate Diploma of Education (*n* = 68) and two-year Master of Teaching (*n* = 80) postgraduates of WA

universities. As advised by the Teacher Registration Board of Western Australia, in WA, the Minister of Education approved the revised Accreditation Standards, which included non-academic entry requirements, on August 4, 2016. WA HEPs were granted a transition period to meet this new requirement, resulting in a postponement from 2017 to 2018.

Commencement year of degree	Completion year of degree									
	2018		2019		2020		2021		Total	
	n	%	*n*	%	*n*	%	*n*	%	*N*	%
Graduate Diploma of Education										
2018	42	61.8	22	32.4	4	5.9			68	100.0
Master of Teaching										
2018			12	50	12	50			24	100.0
2019					52	92.9	4	7.1	56	100.0
Total	42	28.4	34	23	68	45.9	4	2.7	148	100.0

Table 2. Information about first year graduate's degrees

A potential limitation of this study is that the focus has been on postgraduates who potentially have held a position in the workforce and are in a different age group compared to undergraduates. It is known that personality traits continue to change in a positive direction over time and people retain the capacity to change at all ages but most personality-trait change occurs between the ages of 20 and 40 (Grunder, 2016). Also, some non-academic attributes, such as interpersonal and communication skills, are considered "… learnable and teachable" over time (Grunder, 2016, p. 157).

Data Analysis

Data was sourced from the Department's 2019 to 2021 annual Principals' surveys. Sampling ensured there was representation of first year graduates from all WA universities and that the principals had supervised the first year graduate for a minimum of 20 weeks. The questionnaire asked principals if their first year graduate demonstrated the following non-academic characteristics associated with successful teaching:
- motivation to teach;
- strong interpersonal and communication skills;
- willingness to learn;
- resilience;
- conscientious; and
- organisational and planning skills (AITSL, 2020).
Additionally, Principals were asked if their first year graduate had a positive impact on student learning and if they would retain their first year graduate, if possible, in the following year.

Quantitative data was analysed with IBM SPSS (Version 28). A Kruskal-Wallis H test was used to determine if there were statistically significant differences between

the dependent variable (universities) and the independent variables (positive impact on student learning, and retention of graduates). Somers' delta was used to determine the measure of the strength and direction of association that existed between the ordinal dependent variables and the ordinal independent variable. The qualitative data from the open-ended survey questions involved using thematic analysis. Data was manually coded with a focus on deriving themes about a principal's viewpoint. Themes and supporting excerpts from the data are presented in the paper.

Findings

Of the 148 first year graduates, 78 (52.7%) attended one particular university in WA, see Table 1. A Kruskal-Wallis H test was used to determine if there were statistically significant differences between the dependent variable (universities) and the independent variables (positive impact on student learning, retention of graduates). Distributions of survey question scores were not similar for all groups, as assessed by visual inspection of a boxplot. The mean rank of the survey scores was not statistically significantly different between the universities, $\chi^2(4) = 1.290$, $p = .863$ (positive impact on student learning) and $\chi^2(4) = 3.305$, $p = .508$ (retention of graduate). There was a 86.3% chance of finding a positive impact on student learning and a 50.8% chance of retention of first year graduate differences because of random sampling. As the statistic is not significant, there is no evidence of stochastic dominance between the universities.

Research Question 1: Prevalence of First Year Graduates Possessing these Non-Academic Characteristics

The majority of principals, indicated their first year graduates displayed each of the selected non-academic characteristics, see Table 3. Five principals advised they did not observe some non-academic characteristics in their first year graduate. For example, of these five principals, one did not observe six out of the seven non-academic characteristics, another did not observe five out of the seven on-academic characteristics. One principal was unsure of observing three non-academic characteristics in their first year graduate.

Observation of non-academic characteristics	Yes		No		Unsure		Total	
	n	%	*n*	%	*n*	%	*N*	%
Willingness to learn	147	99.3	1	0.7	0	0.0	148	100.0
Motivation to teach	147	99.3	1	0.7	0	0.0	148	100.0
Self-efficacy	146	98.6	1	0.7	1	0.7	148	100.0
Conscientiousness	144	98.0	3	2.0	0	0.0	147	100.0
Resilience	145	98.0	2	1.4	1	0.7	148	100.0
Strong interpersonal & communication skills	144	97.3	4	2.7	0	0.0	148	100.0
Organisational & planning skills	144	97.3	3	2.0	1	0.7	148	100.0

Table 3. Prevalence of first year graduates possessing non-academic characteristics

Research Question 2 Does the Possession of these Non-Academic Characteristics by First Year Graduates' Impact on Student Learning?
Quantitative Data - Graduate's Impact on Student Learning

Principals indicated 134 (90.5%) first year graduates had a positive impact on student learning, four (2.7%) did not and 10 (6.8%) were unsure. Somers' d was run and it showed no statistically significant association between the positive impact on student learning with motivation to teach ($d = .844$, $p = .313$), strong interpersonal and communication skills ($d = .382$, $p = .200$), willingness to learn ($d = .844$, $p = .313$), resilience ($d = .531$, $p = .174$), self-efficacy ($d = .372$, $p = .372$), organisational and planning skills ($d = .613$, $p = .086$), and conscientiousness ($d = .854$, $p = .075$).

Qualitative Data – First Year Graduate's Impact on Student Learning

Of the 148 principals, 22 (14.9%) commented about their first year graduate's impact on student learning. The majority indicated their first year graduate had a positive impact, and their observations of the non-academic characteristics displayed by their first year graduate are shown in Table 4.

Positive impact on student learning response	Theme	Total	
		n	%
Yes a positive impact			
	A cultural fit for the school	7	36.8
	Positive interactions with students' parents and colleagues	6	31.6
	Conscientious, enthusiastic contributor to the school	6	31.6
Sub-total		19	100.0
Did not have a positive impact			
	Demonstrates a lack of teaching skills	1	50.0
	Inability to reflect and improve	1	50.0
Sub-total		2	100.0
Unsure			
	Difficult to identify if they had a positive impact	1	100.0
Sub-total		1	100.0
Total		22	100.0

Table 4. Principals' responses on the positive impact on student learning

Research Question 3 Are First Year Graduates Who Possess these Non-Academic Characteristics More Employable?
Quantitative Data - Retention of their First Year Graduate

Of the 148 principals, the majority ($n = 125$, 84.5%,) advised they would, if possible, employ their first year graduate in the following year, six (4.1%) would not and 17 (11.5%) were unsure. Somers' d was run and it showed no statistically significant association between the retention of first year graduates with ($d = .156$, $p = .321$), strong interpersonal and communication skills ($d = .108$, $p = .644$), willingness to

learn ($d = .156$, $p = .321$), resilience ($d = .158$, $p = .091$), self-efficacy ($d = .157$, $p = .164$), organisational and planning skills ($d = .159$, $p = .053$), and conscientiousness ($d = .160$, $p = .091$).

Qualitative Data - Retention of their First Year Graduate

Of the 148 principals, 29 (19.5%) principals commented on the retention of their first year graduate and the majority of these indicated they would retain their first year graduate, if possible, in the following year. The dominant themes are detailed in Table 5.

Retention response	Theme	Total	
		n	%
Yes, would retain graduate			
	Already hired as a permanent staff member	8	40.0
	A cultural fit for the school	6	30.0
	Demonstrates willingness to learn and improve, accepting of feedback	3	15.0
	Other (variety of positive but not specific reasons e.g. "it is our intention")	3	15.0
Sub-total		20	100.0
No, would not retain graduate			
	Poor cultural fit and interpersonal skills	1	33.3
	Poor instructional skills	1	33.3
	Lack of resilience and interpersonal skills. Inability to take on feedback	1	33.3
Sub-total		3	100.0
Unsure			
	Contextual staffing restraints regarding hiring e.g. not sure of the teaching staff requirements for the following year.	4	66.7
	Has the potential to improve but requires ongoing support and more experience	2	33.3
Sub-total		6	100.0
Total		29	100.0

Table 5. Principals' responses on whether they would retain their first year graduate if possible, in the following year

Discussion

In Australia, non-academic ITE selection procedures vary widely, which is thought to be potentially problematic (PTR Consulting Pty Ltd, 2017). Study findings showed no significant difference amongst the first year graduates, despite most first year graduates attending one particular WA university and that each university applied a different selection method to assess non-academic characteristics. Nonetheless, Klassen and Kim (2019) confirm that selection methods assessing non-academic characteristics are statistically associated with

teacher effectiveness measures. It is suggested that ITE selection methods be investigated and supported by evidence to show any issues (PTR Consulting Pty Ltd, 2017) and that evidence is then used to inform improvements to selection methods and entry requirements. It is believed there is a disparity caused by research focussing on organisational psychology and health-related fields in particular medical education in relation to selection methods. Sheridan et al. (2022, p. 388) believes an "… education-specific evidence is needed to ensure that policy development reflects the needs of future teachers in Australia." Additionally, there needs to be a better understanding of any equity issues and the costs to providers, pre-service teachers, and schools alongside the outcomes and impacts, to understand the value of the return on investment (PTR Consulting Pty Ltd, 2017). These actions would facilitate ITE providers moving beyond simple compliance with the TEMAG recommendation (Sheridan et al., 2022). Importantly, the findings support the diversification of ITE providers and their communities and establish that a one-size-fits-all approach is not required as long as the selection framework reflects the non-academic characteristics for the success and satisfaction of teachers in local settings (Sheridan et al., 2022).

Study results showed principals deemed the non-academic characteristics used in the ITE screening process by WA HEPs were displayed by the majority of first year graduates in the workplace. According to Oh et al. (2011), observers' ratings of personality traits and overall job performance are better than self-reports. Sheridan et al. (2022) confirmed the non-academic characteristics as the most important for ITE in Australia. However, Sheridan et al. (2022) identified organisation and planning, communication skills, resilience, motivation to teach, and conscientiousness as core, and willingness to learn, and self-efficacy as common, meaning they did not appear as often as the core attributes across the reviewed documents associated with their research. However, isolating individual non-academic characteristics can be difficult as they interact and overlap with each other (Shipton & Bermingham, 2018). Similarly, a few principals advised they were unsure of observing non-academic characteristics such as self-efficacy, resilience, and organisational and planning in their first year graduate. Kell (2019) suggests some teachers are more adept with some non-academic characteristics than others. Also, some non-academic characteristics could be positively related to one aspect of teachers' performance but negatively related to another. Consequently, it is important not to over or under estimate the relationship between teachers' personalities and their effectiveness (Kell, 2019), and to take into account both the full scope of teachers' performance and a broad range of personality traits (Keller, 2020).

Principals indicated that first year graduates possessing non-academic characteristics of conscientiousness, and organisational and planning skills had a positive impact on student learning. Clinton et al. (2018) confirmed conscientiousness and organisation and Bardach et al. (2022) identified conscientiousness as a fundamental teacher characteristic that facilitated effective teaching. Derived from the principals' comments about the positive impact on student learning was the theme of first year graduates having positive interactions with students' parents and colleagues. In this case, principals potentially observed collegiality which is described in terms of teachers working with other teachers, but also extending to the broader school community, such as school leadership, parents, and professionals outside the school (Clinton et al., 2018). The first year graduates who did not have a positive impact on student learning either demonstrated a lack of teaching skills or were unable to self-reflect on their experiences. Clinton et al. (2018) found that teacher self-reflection is influential on teaching practice and as a result is an important teacher characteristic. Farrell (2016) noted teacher self-reflection is linked to collegiality, as reflection includes a discussion with colleagues and observation of other teacher practices.

This study found principals were more likely to retain their first year graduate if they had organisational and planning skills, strong interpersonal and communication skills, and if

they were conscientiousness, and resilient. Similarly, Shipton and Bermingham (2018) found having a proficiency in social skills (communication) and emotional skills (resilience) was associated with an increased likelihood of being employed. It has been found that conscientiousness (Goodman et al., 2015) and planning (Nixon et al., 2010) are associated with employment. Hence, the annual surveys conducted by the Department remind principals of the importance of these non-academic characteristics in their reflections on their first year graduate teacher performance and retention decisions. According to Nixon et al. (2010, p. 217), a "… large challenge for school principals is to accurately assess teacher dispositions." Kell (2019) suggests it is likely principals to some extent implicitly base their hiring decisions about teacher candidates on their personality traits. This study found principals would not employ their first year graduate in the following year if their first year graduate did not adequately display certain non-academic characteristics. Similarly, Nixon et al. (2010) found the cause for not retaining staff was because they often struggled due to dispositional issues. The Department for Business Innovation & Skills & Higher Education Funding Council for England (2016) advised unemployment was worse among graduates who lacked awareness of the benefits of developing non-academic skills alongside their technical knowledge. Principals who were unsure about hiring their first year graduate, indicated their first year graduate had the potential to improve. Nixon et al. (2010) advised that principals can have an impact on improving first year graduates non-academic characteristics by helping them to be more thoughtful about their dispositions, while supporting their development.

Principals identified a number of non-academic characteristics displayed by the first year graduates that they considered desirable and necessary such as self-reflection and collegiality which were not specified by AITSL. Additionally, principals identified their first year graduate was an ideal cultural fit for the school. This suggests the first year graduate was culturally competent, which is a characteristic of effective teachers and is characterised by their teaching practices as well as their dispositions, attitudes, values, and ability to adapt to the cultural context of the school. There is limited evidence in the literature regarding cultural competence in an Australian context (Sheridan et al., 2022). Sheridan et al. (2022) identify cultural competence as a contextual attribute essential for teacher retention and it, both directly and indirectly, impacts student learning (Clinton et al., 2018). Teachers who demonstrate high levels of cultural competency understand diversity and cultures of power and it is this understanding that enables them to build effective relationships (Clinton et al., 2018). Relationships play an important role in what is considered to be the most important non-academic characteristic of first year graduates (Klassen et al., 2019). The role of relationships is an important element in the construct of wellbeing (Seligman, 2011) and according to Cacioppo et al. (2011) contributes to social resilience or social fitness. This theory contends that attention to the development and maintenance of relationships in life in general and in the workplace positively enables resilience, wellbeing and effectiveness. The social navigation of the workplace is a complex journey for many first year graduates. However, the development of positive professional relationships through immediate peers, mentors, and affiliation to broader networks provides them with a strong support system across the span of their career.

Conclusion

This study established that non-academic characteristics such as: motivation to teach; strong interpersonal and communication skills; willingness to learn; resilience; conscientious; and organisational and planning skills all used as part of WA HEPs ITE selection processes are evident amongst first year graduates in the workplace, regardless of the WA university that they graduated from. Principals confirmed first year graduates possessing the required non-academic characteristics impacted on student learning and were more employable. More longitudinal studies are needed to corroborate these findings and a national decision needs to be made on how to measure the impact of the non-academic characteristics (PTR Consulting Pty Ltd, 2017). In this study, principals identified non-academic characteristics like self-reflection, collegiality, and cultural competence as desirable traits in teachers. It is suggested that ITE policy makers, HEPs, and researchers evaluate the impact of non-academic ITE selection criteria through systematic investigation to gain an understanding of which non-academic characteristics are most likely to indicate suitability for teaching (PTR Consulting Pty Ltd, 2017), taking into consideration the diversification of HEPs and their communities. More work is needed as Sheridan et al. (2022) acknowledge there may be value in categorising non-academic characteristics as core, common and contextual. This has implications for the preparation of pre-service teachers by ITE providers and those in charge of early career teacher professional development. Additionally, Klassen and Kim (2019) suggest that differentiating non-academic characteristics across teaching levels, such as early childhood, primary, or secondary, could provide valuable insights. Incorporating non-academic characteristics into the ITE selection process is seen as a reform that presents an opportunity for Australia to recruit effective candidates and ensure the quality of teaching, ultimately leading to improved student outcomes. However, further research, evaluation, and collaboration among stakeholders are necessary to fully understand the impact and implementation of these non-academic characteristics in ITE.

Declaration of Conflict Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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