This is the authors' accepted manuscript. The Version of Record was published on 8 February 2020 in *Learning Environments Research*.

Aldridge, J. M., & McChesney, K. (2021). Parents' and caregivers' perceptions of the school climate: Development and validation of a Parent and Caregiver Survey (PaCS). *Learning Environments Research, 24*(2), 23-41. https://doi.org/10.1007/s10984-020-09308-z

Parents' and caregivers' perceptions of the school climate: Development and validation of a Parent and Caregiver Survey (PaCS)

Jill M. Aldridge[1] and Katrina McChesney[1, 2]

[1] Curtin University, Perth, Western Australia

[2] University of Waikato, Tauranga, New Zealand

ORCID details

Jill M. Aldridge: 0000-0003-0742-0473

Katrina McChesney: 0000-0002-3991-6265

Acknowledgements

The research reported in this article was supported by the Australian Research Council (grant number LP110200285) and a Curtin University Curtinnovation award.

Parents' and caregivers' perceptions of the school climate:

Development and validation of a Parent and Caregiver Survey (PaCS)

ABSTRACT

School climates are known to be associated with a range of student outcomes (including academic, social, behavioural, and affective outcomes), and much work to date has focused on gathering students' perceptions of their school climate to inform ongoing improvement efforts. However, parents and caregivers, as well as students, are also influenced by the psychosocial school climate. Although less attention has been given to capturing parents' and caregivers' perceptions, the way parents and caregivers come to feel about a school can affect their children's attitudes towards the school as well as the parents' and caregivers' own engagement with the school. Therefore, the perceptions of parents and caregivers with respect to the school climate offer critical information about both strengths and areas for improvement in terms of ensuring that schools are places that foster students' wellbeing and achievement. This article reports on the development and validation of the Parent and Caregiver Survey (PaCS), a quantitative instrument for gathering parents' and caregivers' perceptions of the socioemotional school climate. The PaCS is underpinned by strength-based and culturally responsive perspectives on parent and caregiver engagement as well as a socioecological perspective of child and adolescent development. Responses to the PaCS from N=1276 parents and caregivers at 23 Australian schools confirmed the validity and reliability of the instrument in the Australian context. Given its theoretical underpinnings and successful validation, the PaCS may be a useful tool for researchers and practitioners alike seeking to support parent engagement and school improvement.

KEYWORDS

School climate, survey, parents and caregivers, parent engagement, inclusive schools, survey validation

Parents' and caregivers' perceptions of the school climate:

Development and validation of a Parent and Caregiver Survey (PaCS)

Introduction

Research and practice both in Australia and internationally confirm the important role that parents and caregivers play in students' educational journeys (Henderson and Mapp 2002; Alton-Lee et al. 2009; McCoach et al. 2010; Emerson et al. 2012; Froiland and Davison 2014; Gemici et al. 2014). These findings align with an ecological perspective on human development, which sees students' experiences as being influenced by both their home and school environments as well as by the intersection of these environments (Bronfenbrenner 1994). Effective engagement with parents and caregivers is, therefore, critical to ensuring that schools effectively foster students' wellbeing and achievement (Schueler et al. 2014).

This article reports on the development and validation of a survey designed to gain feedback from parents and caregivers in relation to the socio-emotional school climate. The Parent and Caregiver Survey (PaCS) was developed as part of a wider school improvement and teacher professional development initiative focused on examining and improving school climate (AUTHORS 2019). Enhancing school climate is important both in its own right and as a lever for supporting improved academic achievement, behavioural and attitudinal outcomes (Thapa et al. 2013; AUTHORS 2018). Healthy school climates are also essential to achieving the aspirations outlined in the *Melbourne Declaration on Educational Goals for Young Australians* (Australian Government 2008). Although school climate is more commonly measured through the perceptions of teachers and students, parents' perceptions of school climate are important because these perceptions can influence how students feel about their school (J. Cohen et al. 2009) and parents' decisions about whether to involve themselves in school life (Hoover-Dempsey et al. 2005; Choi 2017). In addition, a positive school

climate appears to be a necessary prerequisite for the development of successful parent-school partnerships (Povey et al. 2016).

We begin below by reviewing literature related to parent and caregiver engagement. We then report on the development and validation of the new survey and discuss its application.

Background: Parent and caregiver engagement in education

Parents and caregivers are their children's first educators; they know their children best and have much to offer the school community. In Australia, engaging parents[1] in education is a national priority (Australian Government 2008; Education Council 2015). This priority is reflected in teacher and school leader professional standards (AITSL 2011, 2014) and the development of supporting materials to improve parent and caregiver engagement (Australian Government n.d.; AITSL n.d.; Department of Education and Training 2018).

Parental engagement has been defined in a range of ways (Baker et al. 2016), and related terms such as partnership (Epstein 2002; Christenson 2004) or involvement (Ferlazzo 2011; Baker et al. 2016) are also used at times to capture aspects of parental engagement. For the purpose of this study, *engagement* is used as an umbrella term for the various ways in which parents and caregivers may: communicate with their child/ren's school; participate in school activities; support children's learning at home; feel connected, valued or welcomed (or not) within the school community; and/or have ownership over the school's identity and direction (Epstein 2002).

Much research evidence demonstrates the potential power of effective parental engagement (Henderson and Mapp 2002; Alton-Lee et al. 2009; McCoach et al. 2010; New

[1] For ease of reading, the single term 'parents' is used throughout the remainder of the article but is intended to encompass biological parents, adoptive parents, grandparents, foster parents/carers, and other relatives or caregivers who may be responsible for a child's upbringing.

Zealand Education Review Office 2016a). When parents are effectively engaged in their children's education,

> schools gain access to a greater and deeper range of resources to support their educational efforts. In this way they enhance outcomes for all students, but especially for those who have been under-served by the system and/or are at risk, and can achieve large positive effects on academic and social outcomes. (New Zealand Education Review Office 2016b, p. 26)

In practice, however, levels of parental engagement vary. At a family level, Aboriginal and/or Torres Strait Islander parents and parents from lower socio-economic groups have been found to be less engaged in their children's schooling than their non-aboriginal counterparts and to face more barriers to engagement (Lea et al. 2011; Barr and Saltmarsh 2014; Higgins and Morley 2014; Povey et al. 2016; Choi 2017). At a school level, more advantaged schools have been found to be more successful in attracting parent engagement, with the result that "those schools in which the children stand to gain the most from increasing levels of parent engagement, are the same schools finding their efforts to engage parents the least effective" (Povey et al. 2016, p. 3).

Not all forms of parental engagement are equally effective (Alton-Lee et al. 2009). Research indicates that the most powerful approaches are clearly focused on student learning (rather than, for example, focusing on providing teachers with practical support; Alton-Lee et al. 2009). Effective approaches also seek to empower (rather than just inform or use) parents (Christianakis 2011; Higgins and Morley 2014; Choi 2017); to disrupt unbalanced power dynamics between school staff and parents (Hernández et al. 2016); and to overcome deficit-based attitudes towards parents and communities – particularly those who have been traditionally marginalised (Australian Government n.d.; Chenhall et al. 2011; Christianakis

2011; Higgins and Morley 2014; Choi 2017; Hernández et al. 2016). Importantly, effective approaches to engaging parents also incorporate attention to parents' *perceptions* of the school itself, an aspect which is sometimes overlooked (McKenna and Millen 2013; A. Ball et al. 2017).

McKenna and Millen (2013) have proposed that parent engagement comprises two domains: parent *presence* (parents' actions, attendance and involvement) and parent *voice* (parents' views about their children's education and the ways that these are expressed by parents and received by school staff). They draw on Noddings' (2013) philosophy of educational care as well as sociocultural theory (Vygotsky 1980) and critical race theory (Ladson-Billings 1995b) to argue that we must work to "diminish cultural insensitivity, prevent parent and child isolation within the educational realm, and advocate for a more open and inclusive model of parent engagement in the educational process" (McKenna and Millen 2013, p. 13; see also Vincent and Martin 2002; Higgins and Morley 2014). We share this perspective and position our development of a Parent and Caregiver Survey within this effort; specifically, the new survey offers a research-based, practical tool for gathering parent *voice*.

Background: School climate and existing parent surveys

The culture, ethos or climate of a school, involves a group phenomenon that is based on the patterns of practices that are experienced by those who are part of the school (J. Cohen et al. 2009). According to Brookover et al. (1978), the school climate refers to the quality and character of school life, including the norms, values and expectations that a school accepts and promotes. These practices create an environment at the school that determines whether the staff, students and parents feel safe (socially, emotionally or physically), welcome and respected. The climate of the school will, potentially, determine the extent to which parents feel satisfied with the school and willing to be involved or engaged in their child's education.

We acknowledge the existence of a small number of alternative parent surveys used to assess the school climate. We located nine such surveys that have been successfully validated and published since the year 2000 and that are intended for use in general education settings; these surveys are summarised in Table 1. All but one of these existing surveys were developed and validated in settings within the United States of America, raising questions about their relevance for other contexts. The ninth (ACT Government 2015) was developed by the Australian Research Alliance for Children and Youth and validated in a pilot study (*N*=445 parents) in the Australian Capital Territory.

The nine surveys summarised in Table 1 examine a wide variety of constructs. Some constructs relate to parents' perceptions of *their children's experiences* at school, including: the relationships and support students experience (New Jersey Department of Education n.d.; Patrikakou and Weissberg 2000; Bear et al. 2015; Thapa and Cohen 2018); school safety, rules and student behaviour (New Jersey Department of Education n.d.; California Safe and Supportive Schools 2012; Bear et al. 2015); and the physical and learning environments at the school (New Jersey Department of Education n.d.). Other constructs relate to parents' perceptions of *their own experiences* at or with the school, including; home–school relationships and communication (ACT Government 2015; Bear et al. 2015; Grover 2015); parents' sense of belonging to the school community (ACT Government 2015); and parental engagement or involvement in activities either at home or at school (New Jersey Department of Education n.d.; Patrikakou and Weissberg 2000; Grover 2015; Thapa and Cohen 2018). Two of the surveys, however, use aggregate scales that aim to measure parents' overall perceptions of the school and/or their relationship with it (Schueler et al. 2014; A. Ball et al. 2017).

Our survey adds to this small but growing pool of resources. We do not support the use of an aggregate scale summarising parents' overall perceptions of the school; instead, we

sought to develop a survey that would capture specific aspects of parents' perceptions of both their child/ren's experiences and their own experiences at the school. Our survey is also distinct in terms of its validation in South and Western Australia. Only one other instrument was able to be located that had been validated in an Australian context (ACT Government 2015), and that survey comprised only three dimensions of parents' perceptions of the school; as such, our survey makes an important contribution to the Australian context in addition to being a potentially useful tool in other settings.

Development of the survey: Theoretical underpinnings

The theoretical foundation from which we developed the Parent and Caregiver Survey (PaCS) comprised strength-based and culturally responsive approaches as well as a socio-ecological perspective of child and adolescent development. These perspectives are briefly introduced here.

Strength-based approaches avoid placing blame, focusing on deficits or assigning 'problem' status to others; instead, attitudes of openness, partnership, mutual respect, and positivity are deliberately held (Hammond and Zimmerman n.d.; Christenson and Sheridan 2001; Henderson and Mapp 2002). When schools employ strength-based approaches, issues and challenges are still acknowledged but are tackled by staff and parents working as equal partners (Ferlazzo 2011). Using a survey such as the PaCS is a way for schools to enact strength-based approaches: Rather than blaming parents for not engaging with the school in certain ways (deficit positioning and one-size-fits-all expectations; see Chenhall et al. 2011), school staff may open their own practice up to examination, listen respectfully to parent voice, and come to better understand parents' differing cultures, values, circumstances and ways of engaging with the school (Christianakis 2011; McKenna and Millen 2013; Choi 2017).

Table 1. Existing validated surveys capturing parents' perceptions of the school climate

Survey	Context	Scales [a]
ACT Government (2015): Family and School Survey	• Australian Capital Territory, Australia • *N*=445 parents across 4 primary schools	• Keeping track of children's learning (4)[b] • Belonging to the school community (4) • [Home-school] relationships and communication (2)
A. Ball et al. (2017): Parent Perceptions of Overall School Experiences scale	• Utah and Ohio, US • *N*=2643 parents across an unspecified number of elementary, middle, and high schools • English and Spanish language	• Parent perceptions of overall school experiences (5)[c]
Bear et al. (2015): Delaware School Climate Survey—Home	• Delaware, US • *N*=16,173 parents across 99 elementary, middle, and high schools	• Teacher–student relations (4)[d] • Student–student relations (4) • Teacher–home communications (4) • Respect for diversity (3) • School safety (3) • Clarity of expectations (4) • Fairness of rules (4)
California Safe and Supportive Schools (2012): California School Parent Survey	• California, US • *N*=8673 parents across 167 high schools	• School organisational supports (20; α=.95) • Perceptions of learning-related behaviour (8; α=.91)
Grover (2015): Family Involvement Questionnaire—High School	• Minnesota, US • *N*=517 parents across 5 high schools	• Home-school communication (11; α=.89) • Home-based activities (9; α=.71) • School-based activities (4; α=.77)
New Jersey Department of Education (n.d.): New Jersey School Climate Survey	• New Jersey, US • *N*=4757 parents across 60 elementary, middle, and high schools • English and Spanish language	• Physical environment (3; α=.73) • Teaching and learning (11; α=.96) • Morale in the school community (4; α=.43) • Relationships (11; α=.92) • Parental support and engagement (9; α=.89) • Safety/emotional environment (3; α=.74)
Patrikakou and Weissberg (2000): untitled instrument	• Midwestern US • *N*=246 parents across 3 elementary schools	• Parent involvement at home (8; α=.77) • Parent involvement at school (8; α=.71) • Parent perceived teacher outreach (6; α=.87)
Schueler et al. (2014): School Climate Scale	• US (national panels)	• Parent perceptions of overall school climate (single scale combining social

	• Three samples: *N*=385, *N*=253 and *N*=266; parents across elementary, middle, and high school levels	and academic climate; 7, α=.89–.91 across the three samples)
Thapa and Cohen (2018): School Climate Community Scale	• Illinois, Connecticut and Minnesota, US • *N*=516 parents and community members across 4 schools	• School–community collaborations (9, α=.921) • Support (3, α=.738)

[a] School climate scales/variables are listed; demographic variables and variables used to assess criterion-related validity are not. The number of items in each scale and the Cronbach's alpha value (where available) are shown in brackets.
[b] Cronbach's alpha was not reported for this instrument.
[c] Cronbach's alpha was not reported for this scale. The composite reliability was .93.
[d] Cronbach's alpha values ranged from .88 to .93; values for individual scales were not published.

Culturally responsive[2] approaches also involve disrupting deficit perspectives, but focus specifically on attitudes, policies, and practices that value, celebrate, include and promote all cultures – particularly non-white cultures that have historically been marginalised (Harrison and Greenfield 2011; Gay 2013; Berryman et al. 2018). Cultural responsiveness requires school staff to move away from 'one-size-fits-all' practices and instead "respect and acknowledge the cultural uniqueness, life experiences, and viewpoints of classroom families … leading to respectful partnerships with students' families" (Grant and Ray 2016, p. 5). Deliberate efforts in this area are critical given Australia's predominantly white, middle-classed teaching force (Forsey 2010) and the well-documented inequity and racism within the Australian education system (Australian Government 2008; Lea et al. 2011; Halse 2017).

[2] We acknowledge that there is debate in terms of the most appropriate terminology to describe culturally responsive practice in ways that do not lead to superficial, compliance-focused or minimalistic practices. We refer interested readers to the arguments of Gay (2013) in terms of cultural *responsiveness*, Ladson-Billings (1995a, 1995b) in terms of culturally *relevant* practice and of Paris (2012) in terms of culturally *sustaining* practice. We also refer readers to Harrison and Greenfield's (2011) discussion of these tensions specifically within the Australian context. Although all the above sources focus on classroom pedagogy, the points made regarding cultural dynamics are equally applicable to considerations around school climate and parent and caregiver engagement.

A socio-ecological perspective on child and adolescent development acknowledges that individuals do not exist in isolation but within a series of nested systems (Bronfenbrenner 1994). The school, family, and wider community contexts (or microsystems) all influence an individual student. Furthermore, the student is also influenced by the interactions between these contexts (or mesosystems), such as the connection and alignment (or disconnection and conflict) between home and school, between home and community, or between school and community. A survey such as the PaCS provides information that can be used to improve both the school climate itself (a microsystem) and the quality of the relationship between the family and school systems (a mesosystem).

Development of the survey: Constructs and items

The survey composition was informed by a review of existing literature related to both parent engagement and school climate. Six constructs were identified in the literature as being important aspects about which to gather parent voice. Two constructs related to parents' perceptions of *their child/ren's* experiences at school, and four constructs related to parents' perceptions of *their own* experiences at school. Five items were developed to assess each scale; all items used a five-point response scale (*strongly disagree* to *strongly agree*).

Table 2 provides a summary of the constructs involved in the survey, including the scale name, what the scale was intended to measure, and sample items. The table also lists selected literature sources that support the importance of each construct. A copy of the full questionnaire is available from the first author upon request.

Validation of the survey: Methods

The new survey was validated using data from N=1276 parents from 23 co-educational government schools in South and Western Australia (20 primary schools and 3 high schools). These schools were already working with the first author and all parents at

Table 2. Overview of the Parent and Caregiver Survey (PaCS)

Scale name	Measures the extent to which parents and caregivers …	Sample items	Literature support (examples)
Teacher support	… feel that teachers at the school are supportive of students	• Teachers at this school care about my child/ren • Teachers at this school give my child/ren the help that they need with their school work	• Aldridge and McChesney (2018) • Cornelius-White (2007) • Hattie (2017) • Noddings (2013) • Thapa et al. (2013)
Student behaviour	… feel that the school makes the expectations for behaviour clear and promotes a safe environment	• At this school, there are high expectations for student behaviour • The school ensures that a safe environment is provided during break times	• Aldridge and McChesney (2018) • S. J. Ball et al. (2012) • Hattie (2017) • Sullivan et al. (2014) • Thapa et al. (2013)
Affirming diversity	… feel that the backgrounds of different families are acknowledged and valued	• At this school, my family's culture and background are respected • At this school, there is respect for social issues (such as race, disabilities)	• Australian Government (2008) • Berryman et al. (2018) • Dessel (2010) • Sarra (2011) • Thapa et al. (2013)
Welcoming school	… feel welcomed at the school	• When I visit the school, the staff are approachable • Events are held at the school to help parents feel welcome	• Baker et al. (2016) • Harrison and Greenfield (2011) • Hoover-Dempsey et al. (2005) • Sarra (2011) • Schueler et al. (2014)
Communication	… feel that they are able to communicate with members of the school staff	• There is good communication from the school to the parents • I feel comfortable approaching school staff to give them information about my child/children's development	• ACT Government (2015) • Australian Government (2008) • Baker et al. (2016) • Emerson et al. (2012) • Graham-Clay (2005) • Kraft and Rogers (2015)
Assessment and feedback	… are provided with regular feedback and are aware of how their child's work is being marked	• There is regular feedback about my child/children's performance • I know the criteria used for marking my child/children's assessment tasks	• ACT Government (2015) • Australian Government (2008) • Kraft and Rogers (2015) • NWEA (2012)

these schools were invited to complete the survey. Of these parents, approximately 42% responded. Because this convenience sample may not be demographically representative of all parents at the 23 schools, the data generated cannot support general conclusions about the quality or nature of the schools' climates. However, the large sample size was considered sufficient to allow the statistical functioning of the survey itself to be validated (Stevens 1996).

The 1276 parents responded to the draft PaCS as well as to demographic items and two further scales that were developed for the purpose of this study: *satisfaction with child's development* (made up of five items, Cronbach's $\alpha = .89$) and *overall satisfaction with school* (made up of five items, Cronbach's $\alpha = .95$). These additional scales were not part of the PaCS itself but were used to examine the predictive validity of the survey (described below).

Principal axis factor analysis (Stevens 1996) was used to examine the scale structure of the survey. Oblique rotation was selected as the constructs being measured were expected to overlap. We used Stevens' (1996) criteria that each survey item should load at 0.4 or higher on its own scale, and below 0.4 on all other scales, to be retained. Items that did not meet these criteria were examined individually and a judgement made as to the appropriateness of retaining or discarding each item. The Eigenvalues were examined to determine the appropriateness of the scale using L. Cohen et al.'s (2018) cut off of one. Finally, the total variance explained was examined to provide to determine the contribution of each scale to explaining variance in the school climate.

Using the scale structure identified through the factor analysis, internal consistency (Cronbach's α), as well as discriminant, concurrent and predictive validity were then examined. To provide an estimate of internal consistency reliability, Cronbach's alpha coefficient was used. A minimum cut-off of 0.80 was used as the criteria for a "highly reliable" scale as recommended by L. Cohen et al. (2018, p. 774). Discriminant validity was

related to whether each scale measured a unique construct. The constructs involved in the survey were expected to overlap somewhat, but we used Brown's (2006) criterion that inter-scale correlations greater than 0.8 indicate poor discriminant validity.

To examine the ability of the survey to differentiate between the perceptions of parents from the different schools in the sample (concurrent validity), a one-way analysis of variance (ANOVA) was used. The eta^2, calculated from the ANOVA output, was used to determine the proportion of variance between the perceptions of parents in different schools ($eta^2 = SS_{between} / SS_{total}$). The widely used cut off for statistical significance, 0.05, was used.

To provide support for the predictive validity of the PaCS, we examined the ability of the survey scales to predict something that they should, theoretically, predict. In this case, it was hypothesised that parents' perceptions of the school climate would be related to their *satisfaction with child's development* and *overall satisfaction with school*. These scales were developed for the purpose of the study and included in the survey responded to by parents. Predictive validity was assessed using two-tailed Pearson correlations. As above, we used the widely-accepted minimum cut-off for statistical significance of 0.05.

Validation of the survey: Results

Table 3 presents the results of the factor analysis; only the factor loadings above 0.4 are shown. Of the 30 items, 27 loaded as expected (above 0.4 on their own scale and no other; Stevens 1996). Three items did not load as expected: items 11 and 15 for the welcoming school scale and item 22 for the communication scale. Item 15 was omitted from all further analyses as it loaded below 0.3 on all scales. However, despite not meeting the criteria, items 11 and 22 were retained as they all contributed to the overall reliability of the respective scales; each of these items loaded above 0.3 on their own scales and below 0.3 on all other scales. The final version of the PaCS, therefore, contains 29 (as opposed to 30) items measuring six scales.

Table 3. Factor analysis results for the Parent and Caregiver Survey (PaCS)

Item	Factor Loading					
	Teacher support	Student behaviour	Welcoming school	Affirming diversity	Communic-ation	Assessment & feedback
1	.779					
2	.774					
3	.619					
4	.673					
5	.550					
6		.627				
7		.734				
8		.743				
9		.706				
10		.788				
11			–			
12			.752			
13			.816			
14			.679			
15			–			
16				.440		
17				.807		
18				.749		
19				.690		
20				.887		
21					.569	
22					–	
23					.677	
24					.723	
25					.642	
26						.723
27						.829
28						.633
29						.743
30						.883
% variance	3.247	4.533	53.676	4.835	2.288	6.242
Eigenvalue	1.030	1.360	16.103	1.450	.986	1.873
Cronbach's Alpha	.91	.88	.87	.91	.89	. 92

N=1276 parents of students in 23 schools
Only factor loadings above 0.4 are shown.

Together, the six scales, as indicated by the factor analysis, explained 76.82% of the variation in the data set, which was considered to be acceptable. The eigenvalues were all greater than 1.0, thereby meeting L. Cohen et al.'s (2018) criterion, with the exception of the communication scale, which had an eigenvalue of 0.986. These values showed that all scales except the communication scale captured at least as much variance as a single survey item. At

this stage, given that this is the initial development of the PaCS, we chose to retain the communication scale despite its low eigenvalue; this decision is discussed further below.

The internal consistency values (using the 29-item, six-scale solution indicated in the factor analysis) ranged between 0.87 and 0.92, which indicates that all scales can be considered highly reliable (L. Cohen et al. 2018). These values indicate that the items within each scale are indeed closely aligned and are therefore likely to be measuring the same underlying construct.

The discriminant validity results confirmed that each scale in the PaCS (using the 29-item, six-scale solution indicated in the factor analysis) measured a distinct construct from those measured by the other scales. Table 4 presents the inter-scale correlations. These correlations ranged between 0.455 and 0.680, meeting Brown's (2006) criteria that such correlations be no higher than 0.8. The discriminant validity of the survey was, therefore, supported in this data set.

The concurrent validity examined the survey's ability to differentiate between the perceptions of parents from different schools. It was expected that parents from the same school should have relatively similar perceptions of that school's climate, but that these perceptions would differ from the perceptions that parents at another school would have of *their* school's climate. The ANOVA results (shown in Table 5) confirm that the survey was able to discriminate as expected, identifying statistically significant differences among the groups of parents for all six scales of the survey.

The predictive validity examined the survey's ability to predict results for other, related scales. It was expected that parents' perceptions of the school climate (as operationalised in the six scales of the PaCS) would be related to both their satisfaction with their child's progress and their overall satisfaction with school. The results for the two-tailed Pearson correlation (also shown in Table 5) were all positive and statistically significant

Table 4. Inter-scale correlation results for the Parent and Caregiver Survey (PaCS)

Scale	Teacher support	Student behaviour	Welcoming school	Affirming diversity	Communication	Assessment & feedback
Teacher support	–	.680	.592	.558	.654	.582
Student behaviour		–	.592	.634	.552	.545
Welcoming school			–	.573	.660	.455
Affirming diversity				–	.507	.502
Communication					–	.608
Assessment & feedback						–

Table 5. Predictive validity results for the Parent and Caregiver Survey (PaCS)

Scale	ANOVA (eta^2)	Pearson two-tailed correlation	
		Satisfaction with child's development	Overall satisfaction with school
Teacher support	.078**	.657**	.834**
Student behaviour	.035**	.615**	.702**
Welcoming school	.046**	.616**	.738**
Affirming diversity	.048**	.584**	.657**
Communication	.045**	.603**	.802**
Assessment & feedback	.053**	.515**	.747**

** $p<.01$

(p<.01), for every combination of a PaCS scale and one of these two additional scales. The predictive validity of the survey was, therefore, supported in this data set.

Discussion

The purpose of the present study was to develop and validate a questionnaire suitable for gathering parents' and caregivers' perceptions of the socioemotional school climate. The development of the questionnaire was informed by strength-based and culturally responsive perspectives on parent and caregiver engagement as well as a socio-ecological perspective on child and adolescent development. This positioning and the associated review of literature led to the identification of six scales to be included in the questionnaire: teacher support, student behaviour, affirming diversity, welcoming school, communication, and assessment criteria.

Responses to the questionnaire from N=1276 parents and caregivers at 23 Australian schools confirmed the validity and reliability of the instrument in the Australian context. The scale structure was confirmed using factor analysis (with the exception of one item, which was consequently removed from the questionnaire), with the five scales explaining 76.82% of the variance in the data set. The internal consistency, discriminant validity, and predictive validity results were all strong.

The successful development and validation of the *Parent and Caregiver Survey* (PaCS) are important because the PaCS offers schools a practicable tool for capturing parent voice in relation to the school climate. Listening to parents empowers them as valued members of the school community, since "the act of conducting a survey is itself a parent-friendly message to parents that a school cares what they think" (US Department of Education 2007, p. 38). Traditionally, some schools have taken a deficit view and positioned those parents who may not choose to engage with the school as the problem (Chenhall et al. 2011). In contrast, undertaking parent surveys and genuinely considering the feedback allows parents' perceptions and preferences to be respected while school staff show their willingness

to honestly reflect on their own practice (Christianakis 2011; McKenna and Millen 2013; Choi 2017).

Although listening to parent voice is important for all parents, a strengths-based approach to seeking out parent voice (such as the approach reflected in the PaCS) is a particularly important element of culturally responsive practice and efforts to disrupt existing inequities in the ways schools serve different ethnic communities (Queensland Government 2013; Grant and Ray 2016). Berryman et al. (2018, p. 6) argue that it is the responsibility of schools to take the first step in "creat[ing] spaces in which we must first listen to our students and their [families]." Such efforts can form a foundation for improved relationships and practices. This movement towards parents is not a simple step and does not guarantee a positive response from parents; Berryman et al. (2018, p. 6) go on to note that we must "allow each individual to determine whether they will engage in the dialogue or not" and recognise that developing genuine trust and partnerships with previously marginalised groups "takes time and commitment."

The development and validation of the PaCS are also important because this work contributes to broader efforts to engage schools in recognising the importance and influence of school climate. Whereas high-stakes assessment and performance expectations can lead to a narrow focus on academic attainment, much research has demonstrated the importance of taking a broader view of 'what matters' within a school. The socio-emotional school climate is known to influence student learning, development, wellbeing, behaviour (J. Cohen et al. 2009; Kutsyuruba et al. 2015; Wang and Degol 2016; AUTHORS 2018), and, as such, there are increasing calls for schools to be proactive in monitoring and enhancing their climates (see, for example, OECD 2012). Such calls reflect an ecological perspective on child and adolescent development, recognising the importance of the various contexts that surround an individual child (Bronfenbrenner 1994).

The results of the survey validation analyses were pleasing. However, one point warrants further discussion: the decision to retain the communication scale despite its low eigenvalue of 0.986. Typically, factor analysis involves retaining only the scales that explain at least as much variance as a single survey item (indicated by eigenvalues of 1.0 or higher for each scale; L. Cohen et al. 2018). Our decision to retain the communication scale was based on two considerations. First, the existing literature strongly endorses the importance of communication between home and school. We considered that omitting any examination of home–school communication from the PaCS would detract from the usefulness and comprehensiveness of the instrument and prevent schools from identifying strengths or weaknesses in this important area. Second, the proximity of the eigenvalue for the communication scale to the standard cutoff of 1.0 suggested that this scale explained *approximately* as much variance as a single survey item. We felt that had the survey been repeated with a different sample, natural variation could potentially have resulted in an eigenvalue slightly above 1.0, and that it would, therefore, be premature to exclude the communication scale from the instrument at this stage. Instead, we recommend that further studies examine the explanatory power of the communication scale with different samples before making a final determination as to the usefulness of this scale within the questionnaire. This decision reflects L. Cohen et al.'s (2018, p. 823) acknowledgement that "factor analysis is an art as well as a science" requiring researchers to exercise professional judgement in finalising the scale structure of an instrument.

Limitations

Two limitations of the PaCS and the present study need to be acknowledged. The first of these is the limited information that can be gained through a purely quantitative questionnaire. Our hope, through this study, was to provide schools with a research-based, validated yet manageable instrument to allow some useful data to be collected from parents.

However, we would encourage schools (or other researchers) to complement the use of the PaCS with methods for collecting qualitative data. Qualitative questions could be added to the written questionnaire (for example, "Can you give some examples of things you think we are doing well in this area?" and "Can you give some examples of things you think we could do better in this area?"). However, depending on the cultural backgrounds and preferences of those within the school community, it may also be appropriate to offer spaces for culturally relevant practices such as storytelling (Ober 2017) or talanoa conversations (Lātū 2009; Ioane 2017).

A second limitation arises because, to date, the PaCS has only been validated in the context of South and Western Australia. Before the survey is used in other contexts, it is recommended that the survey be piloted and/or re-validated within the intended new context. It may also be important to consider the cultural makeup of the school community/ies in the intended new context and consider whether the use of a survey in general, or the wording of the particular items in the PaCS, is likely to be appropriate for all community members.

Conclusion

Australian research has shown that deficit perceptions of Aboriginal parents remain present among educators and educational policymakers (Chenhall et al. 2011; Lea et al. 2011) and that there can be disconnects between parents' and teachers' expectations, values and beliefs (Chenhall et al. 2011; Higgins and Morley 2014). In addition, increasing parental engagement in schooling remains a priority across Australia, for both Aboriginal and non-Aboriginal families (Australian Government 2008; AITSL 2011, 2014; Education Council 2015). International literature indicates that similar issues and priorities are present in other Western countries (Crozier 2001; De Gaetano 2007; Christianakis 2011; McKenna and Millen 2013; New Zealand Education Review Office 2016a).

In this context, it is important for educators and researchers to have access to tools that can support positive parent-school relationships and engagement. The Parent and Caregiver Survey (PaCS) reported in this article is one such tool, in that it supports schools to genuinely listen to parents' perceptions of the school climate and undertake associated self-reflection. According to Ferlazzo (2011, p. 12):

> A school striving for family involvement often leads with its mouth—identifying projects, needs, and goals and then telling parents how they can contribute. A school striving for parent engagement, on the other hand, tends to lead with its ears—listening to what parents think, dream, and worry about … Effective family engagement requires the school to develop a relationship-building process focused on listening.

We hope that the PaCS will indeed enable schools to listen to parents' perspectives as a step towards enhancing the school climate, parent-school relationships and communication, and—ultimately—student outcomes.

References

ACT [Australian Capital Territory] Government (2015). *Progressing parental engagement in the ACT: Our evidence base: Survey pilot and recommendations*. Braddon, Australia: Australian Research Alliance for Children and Youth.

AITSL [Australian Institute for Teaching and School Leadership] (n.d.). *Resources to support parental engagement*. Retrieved from https://www.aitsl.edu.au/tools-resources/resource/resources-to-support-parental-engagement-illustration-of-practice. 10 January 2019.

AITSL (2011). *Australian professional standards for teachers*. Carlton South, Australia: Education Services Australia.

AITSL (2014). *Australian professional standard for principals and the leadership profiles*. Carlton South, Australia: Education Services Australia.

Aldridge, J. M., & McChesney, K. (2018). The relationship between school climate and adolescent mental health and wellbeing: A systematic literature review. *International Journal of Educational Research, 88,* 121–145.

Aldridge, J. M., McChesney, K. M., & Afari, E. (2019). Associations between the school climate and student life satisfaction: Resilience and bullying as mediating factors. *Learning Environments Research.* https ://doi.org/10.1007/s1098 4-019-09296 -0.

Alton-Lee, A., Robinson, V., Hohepa, M., & Lloyd, C. (2009). Creating educationally powerful connections with family, whānau, and communities. In V. Robinson, M. Hohepa, & C. Lloyd (Eds.), *School leadership and student outcomes: Identifying what works and why: Best evidence synthesis iteration* (pp. 142-170). Wellington, New Zealand: New Zealand Ministry of Education.

Australian Government (2008). *Melbourne declaration on educational goals for Young Australians*. Melbourne, Australia: Ministerial Council on Education, Employment, Training and Youth Affairs.

Australian Government (n.d.). *Family-school partnerships framework: A guide for schools and families*. Retrieved from http://www.familyschool.org.au/files/3013/8451/8364/Family-school_partnerships_framework.pdf. 10 January 2019.

Baker, T. L., Wise, J., Kelley, G., & Skiba, R. J. (2016). Identifying barriers: Creating solutions to improve family engagement. *School Community Journal, 26*(2), 161-184.

Ball, A., Bates, S., Amorose, A., & Anderson-Butcher, D. (2017). The Parent Perceptions of Overall School Experiences scale: Initial development and validation. *Journal of Psychoeducational Assessment*(advance online publication).

Ball, S. J., Maguire, M., & Braun, A. (2012). *How schools do policy: Policy enactments in secondary schools*. London, England: Routledge.

Barr, J., & Saltmarsh, S. (2014). "It all comes down to the leadership": The role of the school principal in fostering parent-school engagement. *Educational Management Administration and Leadership, 42*(4), 491-505.

Bear, G. G., Yang, C., & Pasipanodya, E. (2015). Assessing school climate: Validation of a brief measure of the perceptions of parents. *Journal of Psychoeducational Assessment, 33*(2), 115-129.

Berryman, M., Lawrence, D., & Lamont, R. (2018). Cultural relationships for responsive pedagogy: A bicultural mana ōrite perspective. *SET: Research Information for Teachers, 2018*(1), 3-10.

Bronfenbrenner, U. (1994). Ecological models of human development. In T. N. Postlethwaite, & T. Husen (Eds.), *The international encyclopedia of education* (2nd ed., Vol. 3, pp. 1643-1647). Oxford, UK: Elsevier.

Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J. M. (1978). Elementary school social climate and school achievement. *American Educational Research Journal, 15*(2), 301-318.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford Press.

California Safe and Supportive Schools (2012). *Measurement analysis of California School Climate, Health, and Learning Survey (Cal-SCHLS) for Parents.* Retrieved from https://data.calschls.org/resources/CSPS_MeasurementAnalysis.pdf. 10 January 2019.

Chenhall, R. D., Holmes, C., Lea, T., Senior, K., & Wegner, A. (2011). *Parent-school engagement: Exploring the concept of 'invisible' Indigenous parents in three north Australian school communities.* Darwin, Australia: The Northern Institute.

Choi, J. (2017). Why I'm not involved: Parental involvement from a parent's perspective. *Phi Delta Kappan, 99*(3), 46-49.

Christenson, S. L. (2004). The family-school partnership: An opportunity to promote the learning competence of all students. *School Psychology Review, 33*(1), 83-104.

Christenson, S. L., & Sheridan, S. M. (2001). *Schools and families: Creating essential connections for learning*. New York, NY: Guilford Press.

Christianakis, M. (2011). Parents as 'help labor': Inner-city teachers' narratives of parent involvement. *Teacher Education Quarterly, 38*(4), 157-178.

Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record, 111*(1), 180-213.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). London, England: Routledge.

Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research, 77*(1), 113-143.

Crozier, G. (2001). Excluded parents: The deracialisation of parental involvement. *Race, Ethnicity and Education, 4*(4), 329-341.

De Gaetano, Y. (2007). The role of culture in engaging Latino parents' involvement in school. *Urban Education, 42*(2), 145-162.

Department of Education and Training (2018). *Parent engagement in children's learning*. Retrieved from https://www.education.gov.au/parent-engagement-children-s-learning. 10 January 2019.

Dessel, A. B. (2010). Prejudice in schools: Promotion of an inclusive culture and climate. *Education and Urban Society, 42*(4), 407-429.

Education Council (2015). *National Aboriginal and Torres Strait Islander education strategy 2015*. Retrieved from http://www.educationcouncil.edu.au/site/DefaultSite/filesystem/documents/ATSI%20documents/NATSI_EducationStrategy_v3.pdf. 10 January 2019.

Emerson, L., Fear, J., Fox, S., & Sanders, E. (2012). *Parental engagement in learning and schooling: Lessons from research*. Canberra, Australia: Family-School and Community Partnerships Bureau.

Epstein, J. L. (2002). School, family, and community partnerships: Caring for the children we share. In J. L. Epstein, M. G. Sanders, B. S. Simon, K. C. Salinas, N. R. Jansorn, & F. L. Van Voorhis (Eds.), *School, family, and community partnerships: Your handbook for action* (2nd ed., pp. 7-29). Thousand Oaks, CA: Sage.

Ferlazzo, L. (2011). Involvement or engagement? *Educational Leadership, 68*(8), 10-14.

Forsey, M. (2010). Teachers and the re-production of middle-class culture in Australian schools. *International Studies in Sociology of Education, 20*(1), 67-81.

Froiland, J. M., & Davison, M. K. (2014). Parental expectations and school relationships as contributors to adolescents' positive outcomes. *Social Psychology of Education, 17*(1), 1-17.
Gay, G. (2013). Teaching to and through cultural diversity. *Curriculum Inquiry, 43*(1), 48-70.
Gemici, S., Bednarz, A., Karmel, T., & Lim, P. (2014). *The factors affecting the educational and occupational aspirations of young Australians*. Adelaide, Australia: National Centre for Vocational Educational Research.
Graham-Clay, S. (2005). Communicating with parents: Strategies for teachers. *School Community Journal, 16*(1), 117-129.
Grant, K. B., & Ray, J. A. (2016). *Home, school, and community collaboration: Culturally responsive family engagement* (3rd ed.). Thousand Oaks, CA: Sage.
Grover, K. A. (2015). *A validation of the Family Involvement Questionnaire-High School version* (doctoral thesis). Minnesota State University, Minnesota, USA.
Halse, C. (2017). Responsibility for racism in the everyday talk of secondary students. *Discourse: Studies in the Cultural Politics of Education, 38*(1), 2-15.
Hammond, W., & Zimmerman, R. (n.d.). *A strengths-based perspective*. Calgary, Canada: Resiliency Initiatives.
Harrison, N., & Greenfield, M. (2011). Relationship to place: Positioning Aboriginal knowledge and perspectives in classroom pedagogies. *Critical Studies in Education, 52*(1), 65-76.
Hattie, J. (2017). *250+ influences on student achievement.* Retrieved from https://visible-learning.org/wp-content/uploads/2018/03/VLPLUS-252-Influences-Hattie-ranking-DEC-2017.pdf. 10 January 2019.
Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: National Center for Family and Community Connections with Schools.
Hernández, L., Zubov, L., Goddard, J., & Vargas, M. (2016). Culturally diverse families. In K. B. Grant, & J. A. Ray (Eds.), *Home, school, and community collaboration: Culturally responsive family engagement* (3rd ed., pp. 133-157). Thousand Oaks, CA: Sage.
Higgins, D., & Morley, S. (2014). *Engaging Indigenous parents in their children's education*. Canberra, Australia: Australian Government Closing the Gap Clearinghouse.
Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., et al. (2005). Why do parents become involved? Research findings and implications. *Elementary School Journal, 106*(2), 105-130.
Ioane, J. (2017). Talanoa with Pasifika youth and their families. *New Zealand Journal of Psychology, 46*(3), 38-45.
Kraft, M. A., & Rogers, T. (2015). The underutilized potential of teacher-to-parent communication: Evidence from a field experiment. *Economics of Educatio Review, 47*, 49-63.
Kutsyuruba, B., Klinger, D., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: A review of the literature. *Review of Education, 3*(2), 103-135.
Ladson-Billings, G. (1995a). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice, 34*(3), 159-165.
Ladson-Billings, G. (1995b). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal, 32*(3), 465-491.
Lātū, M. (2009). *Talanoa: A contribution to the teaching and learning of Tongan primary school children in New Zealand* (doctoral thesis). Auckland University of Technology, Auckland, New Zealand.

Lea, T., Thompson, H., McRae-Williams, E., & Wegner, A. (2011). Policy fuzz and fuzzy logic: Researching contemporary Indigenous education and parent-school engagement in north Australia. *Journal of Education Policy, 26*(3), 321-339.

McCoach, D. B., Goldstein, J., Behuniak, P., Reis, S. M., Black, A. C., Sullivan, E. E., et al. (2010). Examining the unexpected: Outlier analyses of factors affecting student achievement. *Journal of Advanced Academics, 21*(3), 426-468.

McKenna, M. K., & Millen, J. (2013). Look! Listen! Learn! Parent narratives and grounded theory models of parent voice, presence, and engagement in K-12 education. *School Community Journal, 23*(1), 9-48.

New Jersey Department of Education (n.d.). *Summary of New Jersey School Climate Survey domain scale validation*. Retrieved from https://www.state.nj.us/education/students/safety/behavior/njscs/NJSCS_FactSheet.pdf. 10 January 2019.

New Zealand Education Review Office (2016a). *Educationally powerful connections with parents and whānau*. Wellington, New Zealand: Author.

New Zealand Education Review Office (2016b). *School evaluation indicators: Effective practice for improvement and learner success*. Wellington, New Zealand: Author.

Noddings, N. (2013). *Caring: A relational approach to ethics and moral education* (3rd ed.). Berkeley, CA: University of California Press.

NWEA (2012). *For every child, multiple measures: What parents and educators want from K-12 assessments*. Portland, OR: Author.

Ober, R. (2017). Kapati time: Storytelling as a data collection method in indigenous research. *Learning Communities, 22*, 8-15.

OECD [Organisation for Economic Co-operation and Development] (2012). *Equity and quality in education: Supporting disadvantaged students and schools*. Retrieved from https://www.oecd.org/education/school/50293148.pdf. 5 September 2019.

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher, 41*(3), 93-97.

Patrikakou, E. N., & Weissberg, R. P. (2000). Parents' perceptions of teacher outreach and parent involvement in children's education. *Journal of Prevention & Intervention in the Community, 20*(1-2), 103-119.

Povey, J., Campbell, A., Willis, L., Haynes, M., Western, M., Bennett, S., et al. (2016). *Engaging parents in schools and building parent-school partnerships: The role of school and parent organisation leadership*. Indooroopilly, Australia: Life Course Centre.

Queensland Government (2013). *Engaging with families: Practice paper*. Retrieved from https://www.communities.qld.gov.au/resources/childsafety/practice-manual/pp-engaging-with-families.pdf. 5 September 2019.

Sarra, C. (2011). *Strong and smart - Towards a pedagogy for emancipation: Education for first peoples*. London, UK: Routledge.

Schueler, B. E., Capotosto, L., Bahena, S., McIntyre, J., & Gehlbach, H. (2014). Measuring parent perceptions of school climate. *Psychological Assessment, 26*(1), 314-320.

Stevens, J. P. (1996). *Applied multivariate statistics for the social sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.

Sullivan, A. M., Johnson, B., Owens, L., & Conway, R. (2014). Punish them or engage them? Teachers' views of unproductive student behaviours in the classroom. *Australian Journal of Teacher Education, 39*(6), 43-56.

Thapa, A., & Cohen, J. (2018). School Climate Community Scale: Report on construct validity and internal consistency. *School Community Journal, 27*(2), 303-320.

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357-385.
US Department of Education (2007). *Engaging parents in education: Lessons from five parental information and resource centers*. Jessup, MD: Author.
Vincent, C., & Martin, J. (2002). Class, culture and agency: Researching parental voice. *Discourse: Studies in the Cultural Politics of Education, 23*(1), 108-127.
Vygotsky, L. (1980). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
Wang, M., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review, 28*(2), 315-352.