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Secondary school culture and improvement: teacher, student and parent perspectives

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Abstract

A school improvement program was designed for a large Western Australian senior high school. This included an empirical study of learning community culture with surveying of staff, students and parents.

The School Cultural Elements Questionnaire was administered to staff (N = 77). Previous factor analysis revealed it was profiling six elements of staff perceptions of school culture. Data analysis identified professional values and an emphasis on learning as attributes of the staff. However, staff were uncertain about the presence of collegiality, transformational leadership, collaboration and shared planning.

The Classroom Cultural Elements Questionnaire was administered to students (N = 988) in a stratified sample of 53 classes. Factor analysis showed the instrument was profiling eleven constructs. ANOVA were used to examine differences due to class membership. All eleven elements varied significantly across the 53 classes

The Parental Involvement in Schooling Questionnaire was administered to parents (N = 293). Previous factor analysis revealed the instrument was profiling 10 constructs. Family and home attributes were identified as being conducive to parental involvement whereas parents perceived teacher communication with parents to be lacking.

The results provided an overview of culture of the learning community as perceived from the multiple perspectives of teachers, students and parents.

THEORETICAL ORIENTATION AND CONCEPTUAL FRAMEWORK

Cavanagh and Dellar (1997) described the culture of a learning community as being manifested by the sharing of values and norms amongst teachers resulting in commonality of purpose and actions intended to improve the learning of students. The culture of the individual school is characterised by the perceived extent of participation in the interactive social processes that develop, maintain and transform the culture. This description was based in part upon organisational theory derived conceptions of school culture that focus upon the influence of the school staff on school culture. However a learning community includes teachers, students and parents. The study of learning environments needs to give consideration to the contribution of all three learning community groups in influencing the culture of the community and the attainment of community expectations. Indeed, Coleman (1998) attested to school improvement necessitating a triad comprised of collaborative partnerships between parents, students and teachers. From a cultural orientation, the relationship between the members of the triad is more complex and deeper than collaboration. The cohesion of the learning community derives from bonding between individuals based upon collective beliefs, values, attitudes and aspirations. Common expectations concerning improving the educational outcomes of students and the means of accomplishing this mission lie at the core of the shared value system. Supportive interpersonal relationships accommodative of personal dispositions also provide the community with cohesion and resilience to fragmentary pressures.

Evaluating the culture of a learning community requires consideration of the contribution of teachers, students and parents through a holistic approach based upon a unified theoretical framework. The culture can be portrayed as a multi-dimensional phenomenon comprised of staff, classroom and parent/ care giver dimensions.

The staff dimension has been strongly emphasised in school effectiveness research, in particular, ascertaining whether or not differences in resourcing, processes and organisational arrangements in schools affect learning outcomes (Stoll and Fink, 1996). Stoll and Mortimer (1995) synthesised the research findings on school effectiveness and improvement and identified eleven factors requiring consideration in the design of school improvement programs. These were participatory leadership, shared vision and goals, teamwork, a learning environment, emphasis on teaching and learning, high expectations, positive reinforcement, monitoring and inquiry, pupil rights and responsibilities, learning for all and partnerships and support. School improvement literature assumes these factors are directly influenced by school leaders and the teaching staff and that improvement initiatives need to be focused on and effect changes within the school staff.

The majority of the time students spend at school is in class receiving instruction from teachers and interacting with peers. Apart from extra-curricular activities, what they contribute to the school and receive from the school predominantly occurs within the classroom. However, the research literature on effective learning and teaching is 'vast and highly complex' (Harris, 1995 p.1). Indeed, the relationship between specific teaching styles and student achievement has been extensively researched with inconclusive results concerning the relative merits of different styles (Merson, 1990). Harris (1995) proposed that this finding was due to the difficulty of categorising specific styles and the diversity of teaching situations and contexts. Notwithstanding this dilemma, the constructivist approach to student learning and teaching provides a general framework for examining classroom conditions (McCarthy, 1994). In particular, social constructivism emphasises the importance of the classroom social environment on the acquisition and development of knowledge (Cole, 1991). Adoption of a social constructivist view of learning assumes everyone present within the classroom has capacity to influence the social environment and enable learning. From this perspective, effective learning is influenced not just by the teacher, but also by individual students, groups of students and the class as a whole. The construction of cognitive and attitudinal mental schema within the minds of individual students occurs through discussion of learning and sharing experiences. Confidence and motivation are also consequence of a supportive classroom social environment.

Coleman (1998) extended the boundaries of the learning environment beyond the classroom and the school to include the home environment Partnerships between teachers, students and parents are essential for the attainment of educational outcomes. The nature of the parent-child relationship in the home is particularly important. Expressions of family and parent values about schooling are part of learning at home and the child's development. The confidence of parents to play an active role in their child's learning will affect their capacity to assist with homework and willingness to become involved in school activities. This confidence also affects the nature of relationships with the child's teachers. However parent -teacher partnerships require more than parental confidence, teachers need to communicate with parents and encourage their participation in the instructional program.

Commonality of expectations and values between individuals and groups provides the community with cohesion. Collective values about educational outcomes and the means of their attainment are inter-woven through each of three dimensions of the culture. These are the fabric of the culture and govern the nature of interaction and relationships within the community. The culture is both characterised and constituted by the expression of collective values in interpersonal interaction. Evaluating the culture of a learning community requires

identification of teacher, student and parent values concerning learning and also examination of the interaction between these community members. Communication between members is a pre-requisite for building relationships, but it is the nature of what is said, discussed and shared which determines whether or not these relationships lead to mutual empowerment. In addition to placing high value on student learning, the community also needs to value the collaborative processes which strengthen inter-personal relationships and bind the community together.

School improvement and effectiveness research have identified learning community attributes conducive to student learning and school improvement. For the purposes of this study and related investigations, these attributes have been combined to produce four over-arching constructs. The members of a learning community give emphasis to learning, value mutual empowerment, caring, collaboration and partnerships directed towards improving educational outcomes. The culture of a learning community is characterised by:

- Improved educational outcomes;
- An emphasis on learning;
- Mutual empowerment and caring;
- Collaboration; and
- Partnerships.

These five constructs guided development of separate but complementary theoretical frameworks to investigate staff, student and parental perceptions of secondary school culture. The staff instrument, the *School Cultural Elements Questionnaire* (*SCEQ*) (Cavanagh & Dellar, 1996, 1997 & 1998), was refined by principal components factor analysis of data from 422 teachers in eight schools. The *SCEQ* instrument scales, numbers of items and sample items are presented in Appendix 1 and scale internal reliability and the range of inter-scale correlation coefficients are presented in Appendix 2. The parent instrument, the *Parental Involvement in Schooling Questionnaire* (*PISQ*) (Cavanagh & Dellar, 2001), was refined by principal components factor analysis of data from 526 parents from three schools. The *PISQ* instrument scales, numbers of items and sample items are presented in Appendix 3 and scale internal reliability and the range of inter-scale correlation coefficients are presented in Appendix 4.

The student instrument, the *Classroom Cultural Elements Questionnaire* (*CCEQ*) was also refined by factor analysis of data from multiple schools (Cavanagh, Dellar, Ellett & Rugutt, 2000). However, the sample size in this investigation was sufficiently large to allow factor analysis of data specific to this sample. Consequently, the original instrument was administered and then refined by factor analysis. The original instrument scales, numbers of items and sample items are presented in Appendix 5.

Development of all three instruments was based upon the previously discussed conception of learning community culture and shared a common theoretical framework. Appendix 6 presents this framework with inclusion of *SCEQ* refined scales, *CCEQ* original scales and *PISQ* refined scales. This was the theoretical framework for the investigation.

Data Collection and Analyses

The *SCEQ* was administered to all the teachers and administrators within the school (N = 77). The *CCEQ* was administered in a stratified sample of 53 classes across all subject areas in Years Eight to Eleven. This resulted in 988 valid surveys being returned from the 53 classes. The *PISQ* was mailed home to 1112 homes with 231 valid surveys returned to the school for data entry and processing.

Principal components factor analysis was used to explore the structure of the *CCEQ* data. Oblique rotations were applied on assumption of the constructs under investigation being interdependent. The loading of each item within the resulting Structure Matrix was examined and items were retained in a component if the minimum loading was 0.33. Items loading above 0.33 on more than one component were retained in the component with the highest loading provided the difference in the squared loading values was at least 10%. To ensure potential scale reliability only components with four or more items were retained. The items remaining in each component were then examined for construct consistency and those that described a common construct were retained. The components were then operationally defined. The refined*CCEQ* instrument scales, numbers of items and sample items are presented in Appendix 7 and scale internal reliability and the range of inter-scale correlation coefficients are presented in Appendix 8.

Staff and parent data on the six *SCEQ* scales, the eleven *CCEQ* scales and the ten *PISQ* scales were examined with descriptive statistics. Scale mean scores were calculated and then divided by the respective numbers of items to produce a value corresponding to the Likert scale intervals used in the instruments. Additional analyses of the student CCEQ data were conducted. Instrument development and evaluation had revealed statistically significant variation of all scales between different class groups (Cavanagh, Dellar, Ellett & Rugutt, 2000). In anticipation of differences between class groups in this study, ANOVA was conducted by class group with additional calculation of the eta^2 statistic to show the percentage of variance due to class group membership.

Results and discussion

Staff Dimension

The SCEQ utilises a five point Likert scale including strongly agree (5), agree (4), uncertain (3), disagree (2) and strongly disagree (1). Scale mean scores above 3.5 for indicate an aggregated response level in the 'agree' range with > 2.5 and <3.5 indicating overall uncertainty.

The results presented in Table 1 (p.5) reveal staff barely affirmed the presence of professional values and strongly affirmed the presence of an emphasis on learning. Professional values concern the importance of the social institution of education and the need for school growth which is grounded on pedagogical principles. An emphasis on learning produces a learning community in which there is a commitment to professional growth and improved outcomes for students.

Table 1

Staff perceptions (N = 77)

Scale	Scale mean score	Variance
Professional values	3.5	0.34
Emphasis on learning	4.2	0.58
Collegiality	3.4	0.55

Transformational leadership	3.0	0.54
Collaboration	3.1	0.40
Shared planning	3.2	0.39

However, staff were slightly uncertain of the presence of collegiality and more uncertain of the presence of transformational leadership, collaboration and shared planning. Collegiality empowers teachers to exercise professional judgments through the development of supportive inter-personal relationships. Transformational leaders share power and facilitate a school development process that engages the human potential and commitment of teachers. Collaboration is interaction between teachers in which information is shared on school operational matters including the instructional program. Shared planning is a collective process whereby a common vision of the school is actualised by logical planning.

Staff valued and demonstrated a commitment to their educative role with students but were uncertain about relationships with colleagues and working together. They did not confirm evidence of supportive inter-personal relationships, leadership engagement of teacher potential and commitment, or evidence of collective decision-making about the instructional program or school development. This may be an example of what Fullan and Hargreaves (1992) described as balkanisation; strong allegiances to different groups within the school characterised by their divergent views of learning and the tendency towards insulation from the influences of other groups. Teachers working individually or in groups but not as a complete staff. They have withdrawn from school-wide activities and concentrate on their own work in the classroom or with colleagues in the faculty.

Student Perceptions

The *CCEQ* utilises a four point Likert scale including strongly agree (4), agree (3), disagree (2) and strongly disagree (1). Scale mean scores > 2.5 indicate an aggregated response level in the 'agree' range with < 2.5 indicating disagreement. Table 2 (p.6) presents the scale mean scores for the 988 students in 53 classes. In addition, it presents the results of ANOVA by class group with inclusion of the percentage of variance due to class group membership obtained from calculation of the eta^2 statistic.

ANOVA and eta^2 results reveal significant differences between the classrooms for all of the elements profiled. The percentage of variance due class membership was particularly large for teacher caring and teacher concern for individuals. Thus aggregation of data from total sample to produce the scale mean scores presented in Table 2 requires interpretation of these values to be undertaken with caution. However the F ratio and eta^2 value for parental involvement suggests a higher degree of commonality and the scale mean score of 2.4 suggests students perceive this not to be an attribute of their teachers. This proposition is supported by the relatively low scale mean score and eta^2 value for teacher to parent communication.

Notwithstanding the potential invalidity of examining aggregated data when fine grain analysis has revealed significant classroom level differences, some generalisation are possible. The students had positive perceptions of their attainment of educational outcomes, their values about education and their values about learning. They also perceived their teachers to have high expectations of classroom learning and behaviour. The presence of

positive interpersonal relationships between the teacher and students and within the student group were affirmed, but only marginally.

Table 2

Student perceptions (N = 988)

Scale	Scale mean scores (N = 988)	Range of Scores (N = 53 classes)	F ratio	Sig	% Variance due to Class Group
Student Values about Education	3.6	3.0 - 3.9	4.47	0.000	20%
Student Values about Learning	3.1	2.8 - 3.6	3.00	0.000	14%
Educational Outcomes	2.9	2.4 - 3.5	3.33	0.000	14%
Teacher Expectations of Learning	3.2	2.6 - 3.7	3.83	0.000	18%
Teacher Expectations of Behaviour	3.3	2.6 - 3.8	4.40	0.000	20%
Peer Support	2.9	2.4 - 3.3	3.40	0.000	16%
Teacher Caring	2.5	1.9 - 3.2	7.54	0.000	30%
Teacher Concern for Individuals	2.9	2.2 - 3.6	7.50	0.000	30%
Teacher Student Collaboration	2.5	1.8 - 3.2	5.20	0.000	22%
Teacher Parent Communication	2.5	1.8 - 3.1	3.07	0.000	15%
Parental Involvement	2.4	1.8 - 3.0	1.77	0.001	9%

The cultures of the classrooms surveyed are generally characterised by a strong teacher influence resulting in students having positive views of their learning and educational progress. There was evidence of collaborative classroom environments and student based instruction in many classrooms, but these attributes were not sufficiently common to be

considered as attributes of the school. The involvement of parents in their child's education and teacher-initiated communication with parents was another 'marginal' feature of the classroom learning environment. This is probably due to many teachers being reluctant to enter into what Coleman (1998), termed 'partnerships' with students and their parents. Overall, the classrooms were characterised by 'traditional' teacher centered behaviour focused upon cognitive rather than social outcomes.

Parent/ Caregiver Perceptions

The constructs profiled by the PISQ (Appendix 3) require some preliminary explanation. Factor analysis during instrument development differentiated between parental perceptions of their child's educational values, attainment of learning outcomes and preferences for learning. Student educational values concern the role of schooling in preparation for future education or work, recognition of the importance of education, the need to be successful and well educated and gaining satisfaction from learning. Student learning outcomes are of a more immediate nature and centre upon understanding of schoolwork, academic performance and demonstration of behaviour and habits conducive to improved learning. Student learning preferences share a similar classroom orientation with the educational outcomes but with an attitudinal rather than cognitive emphasis. Although the *PISQ* is sensitive to these differences, conceptually, all three constructs are strongly related.

The *PISQ* solicits responses on a four point Likert scale similar to that of the *CCEQ*. The scale intervals and response categories are the same. Scale mean scores > 2.5 indicate an aggregated response level in the 'agree' range with < 2.5 indicating disagreement. Table 5 profiles parental perceptions of their involvement in their child's schooling gauged by mean scores for the ten instrument scales.

Table 3

Parent/ caregiver perceptions

Scale	Scale mean scores (N = 231)	Variance
Student Educational Values	3.5	0.21
Student Learning Preferences	3.1	0.32
Student Learning Outcomes	3.0	0.36
School Culture	3.0	0.28
Parent to Student Expectations	3.5	0.26
Student to Parent Assistance Requests	3.0	0.44
Parental Confidence to Assist Student	2.9	0.38

Student to Parent Information	2.8	0.45
Teacher to Parent Communication	2.1	0.28
Parental Confidence in Communication with Teachers	3.0	0.32

The high scale mean scores for student educational values and parent to student expectations are an expression of parental confidence in their child placing high value on schooling and their own influence upon this value system. The affirmative responses concerning student learning preferences and learning outcomes also evidence positive perceptions of their child's learning. This is also reflected in their recognition of the school having a culture oriented towards improved student learning. Parents considered the family and themselves able to support their children's learning, they were confident in this aspect of the parenting role. They also confirmed their children were willing to seek their assistance with homework and resolving school problems. The students also communicated information about classroom and school activities to their parents.

Parents had negative perceptions of the nature and extent of communication from teachers. They disagreed that teachers provided sufficient information about classroom activities, homework assignments, their child's learning and strategies for assisting their child with schoolwork. In addition, they perceived teachers to be disinterested in parental opinions of their child and unwilling to solicit their assistance when needed. However, parents did not perceive barriers in initiating communication with teachers and found the teachers to be approachable and accessible. This apparent inconsistency between teacher to parent communication and parental confidence in communication with teachers can be explained by the nature of the teacher-parent relationship. Teachers were able to respond in a positive manner to parent initiated communication leading to parental perceptions of approachability and accessibility. However, teachers were not perceived to be proactive in initiating communication with parents. It appears that the teachers have the capacity to maintain positive relationships with parents but these relationships develop from reactive interaction stimulated by parental initiatives rather than from teacher initiated interaction. The direction of communication was from parents to the teacher but teachers were not negative towards parents when responding to this communication.

The parent dimension of the learning community culture is characterised by parental confidence in the child's educational progress and family attributes to support this progress. The relationships between parents and teachers are congenial but restricted by teacher reluctance to dissolve the boundary between the school and home and enter into genuine partnerships with parents. This type of relationship is akin to 'contrived collegiality' between teachers in which collaborative structures and processes are put in place without decision-making being fully shared (Fullan & Hargreaves, 1992).

The Composite View

There was overall consistency and complementarity in the perceptions of teachers, students and parents of the learning community culture.

The importance of the educative mission of the school was affirmed by teacher responses to the SCEQ professional values and emphasis on learning scales and also by parental perceptions of the school's culture. The development of long-term student values about the importance of schooling and being a successful student was perceived by students and parents to be occurring within the school. This was reflected in student and parent

expression of learning outcome attainment. There is strong evidence of a learning community culture grounded in valuing learning and student achievement.

School improvement literature and school effectiveness research emphasise the importance of collegiate and collaborative school cultures in effecting improved student educational outcomes. The results of this study portray a large secondary school culture which is educationally effective from staff, student and parent perspectives. However, the presence of collegiality and empowerment within the staff was not affirmed; teachers caring for students in their classes was present but not strongly affirmed by students; and there were varying levels of peer support within the class groups. In contrast, within the home environment, the relationships between parents and their children displayed higher levels of support and discussion of classroom and learning issues. Mutual empowerment and caring were not a well recognised feature of the staff and classroom environments. This is most likely a consequence of staff value systems placing worth on the individual work of the teacher concentrating on student learning but not on the development of mutually empowering relationships between staff, with students and with parents. The presence of collaboration within the culture is similar. There was limited collaboration between teachers and colleagues; between teachers and students; and particularly between teachers and parents. The culture is characterised more by disconnection than by connection between individuals.

The related issue of partnerships requires particular examination. It is not surprising that the tendency towards isolation within the staff extends beyond the school to relationships with parents. There is cooperative interaction between teachers and parents, but this is controlled by the teachers. Notwithstanding parents identifying low levels of teacher-initiated communication, they were not deferred from pursuing their own concerns with teachers. This is again a matter of teacher control with teachers exercising inter-personal and public-relations skills to provide a partnership veneer rather than developing authentic partnerships based upon mutual trust and respect.

The most significant finding of the study is the presence of an emphasis on student learning and outcomes without an equivalent presence of collegiality and collaboration. The need for collegiate and collaborative practices as expressed in school improvement literature, may well be associated with pressure for organisational change resulting from educational reform initiatives. Reform is difficult to manage and implement when teachers can retreat to the security of their own classroom or faculty. Thus change management may well necessitate development of collegiate and collaborative cultures but whether or not such cultures are required in an environment of low press for change is worthy of contemplation.

conclusion and recommendations

The study applied a common paradigmatic framework to obtain multiple perspectives of the culture of the learning community within a large senior secondary school. The three instruments used in soliciting teacher, student and parent views were developed from complementary theoretical frameworks. The study has evidenced the utility of the specific theoretical frameworks and instruments to enable provision of reliable and valid data on the culture of a learning community.

The study was predicated on assumptions about the need for schools to have the features identified in school effectiveness research in order to be effective in educating children. This research treats educational outcomes as the independent variable and seeks to identify relationships between it and school internal conditions. Adoption of a learning community conception of schools views educational outcomes and values as attributes of the culture (Cavanagh & Dellar, 2000). Indeed, commitment to schooling and learning should be at the

core of the belief and value systems within a learning community. This was evidenced in the study by widespread perceptions of improved educational outcomes for students and an emphasis on learning within the community. Mutual empowerment, caring, collaboration and genuine partnerships build community within the school to support improvement of educational outcomes. Thus assignment of high value to these elements of the culture is important, but not as important as the value placed upon learning and educational outcomes.

The promise of a learning community approach in investigating what occurs within school communities lies in the capacity of this orientation to explore relationships and the interaction between community members. Recognition and assignment of values is also fundamental to this approach. Identification and re-affirmation of core learning community beliefs and values are essential for long-term sustainable school improvement. The priority for applied research in this area should not be to identify strategies for changing the culture of the learning community, but to fully understand why it has persevered and how it enables student learning. Without such understanding, the effect of school improvement initiatives could be superficial by stimulating changes in learning community culture which do not necessarily improve student educational outcomes.

With respect to application of the findings of this study for the improvement of the school investigated, it is possible to make some recommendations. These centre upon the nature of the relationships between teachers, students and parents and the need for developing partnerships which improve the learning of individual students. Attainment of educational outcomes and the presence of positive student values towards their learning and education were affirmed by both students and parents. This may well be a consequence of the teachers having high expectations of the learning and classroom behaviour of their students in conjunction with parental influences on the individual child. However there were relatively lower levels of mutual empowerment, caring and collaboration within classrooms and the overall community. Instructional strategies and motivation for learning in many classrooms are 'teacher centered'. A similar 'teacher-centered' orientation exits in relationships between teachers and parents. It is the professional values and beliefs of teachers that are the predominant influence on the learning community culture. Whilst there is ample research evidence suggesting that student learning could be further improved by more equitable relationships within the community, questioning teacher value systems with the overt intention effecting changes could destabilise the learning community. Alternatively, highly collegiate and collaborative staff professional development directed specifically at improving the teaching and learning process does have the potential to effect a shift in teacher values and instructional practices without teachers feeling disempowered. Such professional development is entirely consistent with the core values and beliefs within the prevailing culture which emphasise learning and improving educational outcomes. Mutual empowerment, caring, collaboration and genuine partnerships amongst the staff should be used as the vehicles for effecting school improvement.

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Appendix 1

SCEQ scales, number of items and sample items

Scale	Number of Items	Sample item
Professional Values	7	Educational programs contribute to improving the quality of life in our society.
An Emphasis on Learning	7	We believe that every child can learn.

Collegiality	7	We are willing to help each other when problems arise.
Transformational Leadership	7	Members of the administration show a genuine concern for me as a person.
Collaboration	7	We frequently discuss what should be taught in particular curricula or courses.
Shared Planning	7	We have identified ways of determining if school priorities are achieved.
Total	42	

Appendix 2

SCEQ scale internal reliability and inter-scale correlation (N =422 from eight schools)

Scale	Cronbach Alpha Reliability	Range of Inter-scale Correlation Coefficients (Spearman)
Professional values	0.71	0.28 - 0.53
Emphasis on learning	0.75	0.20 - 0.40
Collegiality	0.72	0.25 - 0.55
Transformational leadership	0.70	0.24 - 0.49
Collaboration	0.81	0.25- 0.56
Shared planning	0.74	0.28 -0.49

Appendix 3

PISQ instrument scales, number of items and sample items

Refined Scale	Number of Items	Sample Item
Parent to Student Expectations	4	I really want my child to do well in school

Parental Confidence to Assist the Student	5	Our family has strengths that help my child to succeed at school
Parental Confidence in Communicating with Teachers	8	I find my child's teachers approachable
School Culture	5	There is a belief that every child can learn
Student Educational Values	6	My child considers attending school will be useful for future education or work
Student Learning Outcomes	7	He/she is a successful student
Student Learning Preferences	5	My child asks for help from his/her teachers when required
Student to Parent Assistance Requests	4	My child lets me know when he/she is having problems in class
Student to Parent Information	4	My child usually shows me the work he/she has done at school
Teacher to Parent Communication	10	Teachers keep me informed about classroom activities
Total	58	

Appendix 4

PISQ scale internal reliability and inter-scale correlation (N = 526 from three schools)

Scale	Cronbach Alpha Reliability	Range of Inter-scale Correlation Coefficients (Spearman)
Parent to Student Expectations	0.84	0.16 - 0.50
Parental Confidence to Assist Student	0.85	0.31 - 0.41
Parental Confidence in Communication with Teachers	0.94	0.29 - 0.54
School Culture	0.82	0.26 - 0.54

Student Educational Values	0.88	0.31 - 0.72
Student Learning Outcomes	0.92	0.31 - 0.80
Student Learning Preferences	0.84	0.39 - 0.54
Student to Parent Assistance Requests	0.86	0.27 - 0.79
Student to Parent Information	0.87	0.23 - 0.53
Teacher to Parent Communication	0.92	0.16 - 0.54

Appendix 5

Original CCEQ instrument scales, number of items and sample items

Scale	Number of Items	Sample Item
Educational Values	19	Continuing at school will be useful for my future education or work.
Emphasis on Learning	19	We believe that everyone can learn.
Classroom Support	13	Students are willing to help each other when problems arise.
Classroom Discussion	10	We listen to what others have to say
Shared Planning and Organisation	12	Students are involved in deciding how their progress will be assessed.
The Teacher	16	The teacher provides us with encouragement.
Teacher Caring	12	We feel safe in this teacher's class.
High Expectations	13	The teacher expects us to perform to the best of our ability.
Parental Involvement	15	My parent(s) help with my homework.

Learning Outcomes	14	I perform to the best of my ability.

Appendix 6

Attributes of Secondary School Learning Community Culture

Learning Community Culture	Staff Dimension	Classroom Dimension	Parent/ Care -giver Dimension
	(*SCEQ* Refined Scales)	(*CCEQ* Theoretical frameworks)	(*PISQ* Refined Scales)
Improved Educational	1 Professional Values	1 Student Values about Education	1 Student Values about Education
Outcomes		2. Learning Outcomes	2 Student Values about Learning
			3 Educational Outcomes
			4 School Culture
Emphasis on Learning	2 Emphasis on Learning	3. Emphasis on Learning	5 Parent to Student Expectations
		4. High Expectations	
Mutual Empowerment	3 Collegiality	5. Peer Support	6 Student to Parent Assistance Requests
and Caring	4 Transformational Leadership	6. Teacher Concern for Individuals	7 Confidence to Assist Student
		7. Teacher Caring	

Collaboration	5 Collaboration	8. Classroom Discussion	8 Student to Parent Information
	6 Shared Planning	9. Shared planning and Organisation	9 Teacher to Parent Communication
Partnerships	*7 Parental Involvement*	10. Parental Involvement	10 Confidence to Communicate
	(Additional scale subject to ongoing research)		with Teachers

Appendix 7

CCEQ refined instrument scales, number of items and sample items

Scale	Number of Items	Sample Item
Student Values about Education	7	I would like to become a well educated person.
Student Values about Learning	5	I feel in control of my own learning.
Educational Outcomes	10	I am a successful student.
Teacher Expectations of Learning	4	The teacher encourages us to produce our best work.
Teacher Expectations of Behaviour	6	The teacher expects us to dress properly.
Peer Support	11	Our classroom is a happy place.

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Teacher Caring	9	The teacher helps students with family problems
Teacher Concern for Individuals	14	The teacher makes us feel important.
Teacher Student Collaboration	11	Students set the deadlines with the teacher for completing work.
Teacher Parent Communication	4	The teacher contacts my parent(s) if I don't complete work
Parental Involvement	6	My parent(s) communicate with the teacher.
Total	87	

Appendix 8

CCEQ refined scale internal reliability and inter-scale correlation (N = 998)

Scale	Cronbach Alpha Reliability	Range of Inter-scale Correlation Coefficients (Spearman)
Student Values about Education	0.85	0.10 - 0.62
Student Values about Learning	0.79	0.14 - 0.62
Educational Outcomes	0.89	0.28 - 0.50
Teacher Expectations of Learning	0.81	0.26 - 0.55
Teacher Expectations of Behaviour	0.88	0.10 - 0.55
Peer Support	0.90	0.17 - 0.44
Teacher Caring	0.92	0.16 - 0.72
Teacher Concern for Individuals	0.94	0.19 - 0.72
Teacher Student Collaboration	0.87	0.12 - 0.53
Teacher Parent Communication	0.79	0.10 - 0.53
Parental Involvement	0.83	0.18 - 0.53