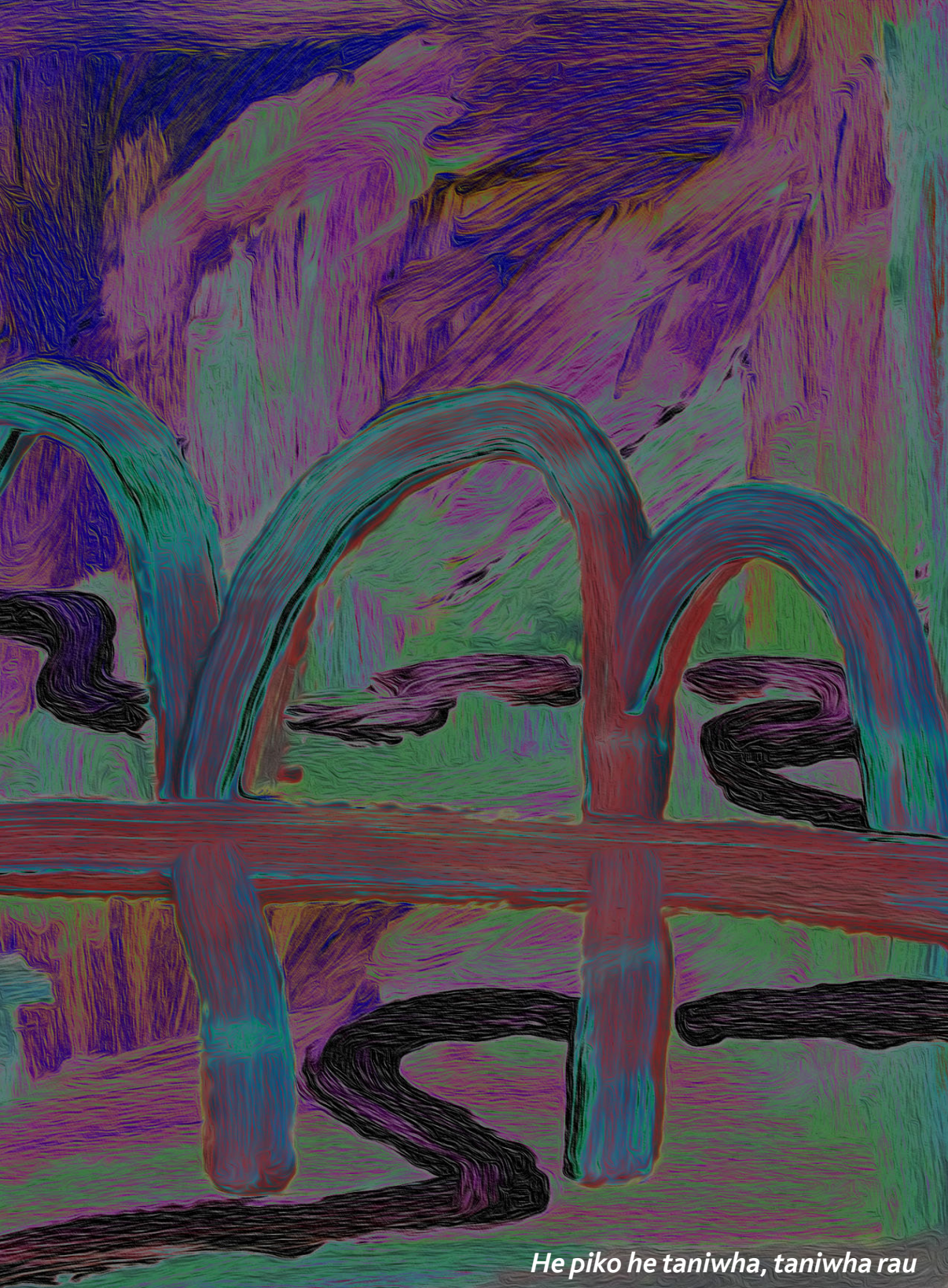




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Te Pūtahi Rangahau Mātauranga o Wilf Malcolm
THE UNIVERSITY OF WAIKATO

Waikato Journal of Education Te Hautaka Mātauranga o Waikato



He piko he taniwha, taniwha rau

Special
20th
Anniversary
Collection
2015

TE KURA TOI TANGATA
FACULTY OF EDUCATION



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Waikato Journal of Education Te Hautaka Mātauranga o Waikato

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Te Hautaka Mātauranga o Waikato

Special 20th Anniversary Collection, 2015

Foreword <i>Heleen Visser</i>	3
Editorial <i>Emeritus Professor Clive McGee</i>	11

Curriculum, teaching and learning

Exploring children's perspectives: Multiple ways of seeing and knowing the child <i>Sally Peters and Janette Kelly</i>	13
Dancing within postmodernism <i>Pirkko Markula</i>	23
Health invaders in New Zealand primary schools <i>Lisette Burrows Kirsten Petrie and Marg Cosgriff</i>	33
Forging the jewels of the curriculum: Educational practice inspired by a thermodynamic model of threshold concepts <i>Jonathan Scott</i>	47
Learning perspectives: Implications for pedagogy in science education <i>Bronwen Cowie</i>	55
Considering pedagogical content knowledge in the context of research on teaching: An example from technology <i>Alister Jones and Judy Moreland</i>	65
Creative teaching or teaching creatively? Using creative arts strategies in preservice teacher education <i>Robyn Ewing and Robyn Gibson</i>	77
Experiential learning: A narrative of a community dance field trip <i>Ralph Buck and Karen Barbour</i>	93

Māori and Pasifika education

Bicultural challenges for educational professionals in Aotearoa <i>Ted Glynn</i>	103
1999 Professorial address: Nau te rourou, naku te rourou ... Māori education: Setting an agenda <i>Russell Bishop</i>	115
The 'Pasifika Umbrella' and quality teaching: Understanding and responding to the diverse realities within <i>Tanya Wendt Samu</i>	129

Politics and teacher education

Reviews of teacher education in New Zealand 1950–1998: Continuity, contexts and change <i>Noeline Alcorn</i>	141
Policy research and 'damaged teachers': Towards an epistemologically respectful paradigm <i>John Smyth</i>	153

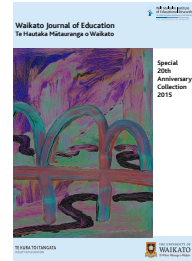
Poor performers or just plain poor?: Assumptions in the neo-liberal account of school failure <i>Martin Thrupp</i>	169
Stories to live by on the professional knowledge landscape <i>D. Jean Clandinin</i>	183

Information and communications technology (ICT) and e-learning

Beyond lecture capture: Student-generated podcasts in teacher education <i>Dianne Forbes</i>	195
The Science-for-Life Partnerships: Does size <i>really</i> matter, and can ICT help? <i>Garry Falloon</i>	207
Evaluating an online learning community: Intellectual, social and emotional development and transformations <i>Elaine Khoo and Michael Forret</i>	221
Confirmations and contradictions: Investigating the part that digital technologies play in students' everyday and school lives <i>Margaret Walshaw</i>	237

Research methods

Doing qualitative educational research in the mid-1990s: Issues, contexts and practicalities <i>Sue Middleton</i>	249
Teacher–researcher relationships and collaborations in research <i>Bronwen Cowie, Kathrin Otrell-Cass, Judy Moreland, Alister Jones, Beverley Cooper and Merylyn Taylor</i>	265
Tension and challenge in collaborative school–university research <i>Deborah Fraser</i>	275
The Te Kotahitanga observation tool: Development, use, reliability and validity <i>Mere Berryman and Russell Bishop</i>	287



The Te Kotahitanga observation tool: Development, use, reliability and validity

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Abstract

Te Kotahitanga is a New Zealand school reform project aimed at improving the pedagogical contexts in mainstream classrooms in which the indigenous Māori students have traditionally been marginalised. It does this by assisting teachers to implement an Effective Teaching Profile. Part of this process uses an observation tool to monitor the degree to which participating teachers are incorporating the interactions and relationships described in the Effective Teaching Profile into their day-to-day teaching. Given the central importance of these tasks, the Te Kotahitanga team undertook to test the observation tool for measurement reliability and validity.

In order to undertake this study, the team conducted synchronous observations amongst trainers (the Professional Development Coordinator and Regional Coordinators) to ascertain their level of consistency when using the tool. The team then conducted synchronous observations between trainers and 38 in-school facilitators in the 12 schools involved in Phase 3 of the project. In total 41 teachers were observed and over 200 Māori students were involved in these observations.

This study suggests that the tool can produce consistent and reliable results when observers have been effectively trained.

Keywords

School reform, observation tool, reliability, validity, professional development.

Introduction

The overall aim of Te Kotahitanga has been to investigate how to improve the educational achievement of year 9 and 10 Māori students in mainstream secondary school classrooms in New Zealand (Bishop, Berryman, Tiakiwai, & Richardson, 2003). In 2001, to examine what this pedagogy might look like in practice, the research team collected narratives of experience from year 9 and 10 Māori students, their parents and other family members, their principals and some of their teachers (Bishop & Berryman, 2006). From the interviews with these Māori students it was clear that they were able to articulate their concerns



about the majority of current teaching practices in relation to themselves. In addition, these students clearly articulated possible solutions to improve teaching practices in ways that would engage them more effectively with learning in the classroom. The students' suggestions were then aligned with the current literature on effective teaching and other recent research results, which in turn led to the development of the Te Kotahitanga Effective Teaching Profile (Bishop et al., 2003).

Learning contexts such as these have since generated what has been termed a culturally responsive pedagogy of relations (Bishop, Berryman, Powell, & Teddy, 2007). According to these authors, a culturally responsive pedagogy of relations is accomplished when teachers create contexts where learners can be more self-determining; where pedagogy is interactive and dialogic; where the cultural experiences of all students have validity; where knowledge is actively constructed; and where participants are connected through the establishment of a common vision of what constitutes educational excellence.

The Te Kotahitanga Effective Teaching Profile

The Te Kotahitanga Effective Teaching Profile provides direction and focus for the professional development undertaken in Te Kotahitanga. Fundamental to the Effective Teaching Profile is teachers' understanding of the need to explicitly reject deficit theorising as a means of explaining Māori students' educational achievement levels,ⁱ and teachers taking an agentic position in their theorising about their practice. That is, teachers expressing their professional commitment and responsibility to bringing about change in Māori students' educational achievement by accepting professional responsibility for the learning outcomes of Māori students. These two central understandings are then exemplified by teachers in their classrooms through their demonstration that they care for Māori students as culturally located individuals; have high expectations for the learning of Māori students; are able to manage their classrooms so as to promote Māori students' learning; are able to engage in a range of discursiveⁱⁱ learning interactions with Māori students or facilitate students' engagement with others in ways that are discursive; know a range of strategies that can facilitate learning interactions; promote, monitor and reflect upon learning outcomes that in turn lead to improvements in Māori students' achievement and that is knowledge that they share with these students.

The Te Kotahitanga observation tool

The Te Kotahitanga observation toolⁱⁱⁱ is directly linked to evidence of each of the understandings from the Te Kotahitanga Effective Teaching Profile, as listed above. It provides the framework for classroom observations and is focused on gathering evidence about teachers' interactions and relationships with Māori students. Using this tool, the impact of teachers' relationships and interactions with Māori students can be objectively observed by trained observers who are part of the facilitation team in each Te Kotahitanga school team. The evidence gathered is then fed back to teachers by the trained observer/facilitator and discussed as the basis for their ongoing individual professional learning.

The developers of the Te Kotahitanga observation tool acknowledge that there are many factors within the learning environment that contribute to students' behaviour and learning. Observations that focus on students alone are likely to be located within a functional limitations paradigm (Moore, et al., 1999) that suggests the problem or deficiency is found within the student. In contrast, the development of the Te Kotahitanga observation tool drew upon understandings from both kaupapa Māori and socio-cultural perspectives on

i This is also relevant for other students who are minoritised; see Shields, Bishop, & Mazawi (2005).

ii Discursive refers to pedagogy that is dialogic and interactive.

iii Please note the Te Kotahitanga Observation tool is copyrighted by the Ministry of Education and cannot be used for any purpose without the express written permission of the Ministry and training by the Te Kotahitanga Research and Professional Development Team.

human learning. Kaupapa Māori perspectives emphasise the importance of relationships that are collective and interdependent and at the same time set high expectations that are mutually responsive and evolving. Socio-cultural perspectives emphasise the responsive social and cultural contexts in which learning takes place as being key components to successful learning (Glynn, Wearmouth, & Berryman, 2006; Gregory, 1996; Rogoff, 1990; Vygotsky, 1978). Socio-cultural perspectives highlight the acquisition of knowledge and skills through social interactions and activities, in formal and informal settings. Contextualised social interactions such as these are also increasingly seen as fundamental to the acquisition of intellectual knowledge and skills (Bronfenbrenner, 1979; Bruner, 1996; Glynn et al., 2006; McNaughton, 2002; Vygotsky, 1981; Wood, Bruner, & Ross, 1976).

Important information therefore may be attained by taking into account what can be learned from the direct observation of teachers and students in authentic responsive, social settings such as are encouraged through the implementation of the Effective Teaching Profile. In these settings it is possible for the teacher to implement strategies that will promote a responsive and interactive role where students have opportunities to exercise a measure of autonomy in their learning and where teachers assume a co-constructive or facilitative rather than a directive, transmission role. The breadth of these observation parameters therefore is an attempt to provide greater scope for examining evidence that will generate a range of effective and meaningful solutions for teachers and students.

To reiterate, the Te Kotahitanga observation tool provides the framework for monitoring the degree to which participating teachers are incorporating the relationships and interactions from the Effective Teaching Profile into their everyday teaching. Side one of the Te Kotahitanga observation tool is a variation of the time sample sheets developed for the Mangere Guidance Units (Glynn, Thomas, & Wotherspoon, 1978) and a collaborative home and school behaviour programme, Hei Āwhina Mātua (Glynn, Berryman, Atvars, & Harawira, 1997). The Te Kotahitanga observation tool and the recording conventions used were first developed by the research team during Phase 1 (Bishop et al., 2003) of Te Kotahitanga, then further refined and developed during Phase 2 of Te Kotahitanga (Bishop et al., 2007).

Side one of the Te Kotahitanga observation tool (see Appendix 1) is used to quantify evidence of teaching and learning interactions between teachers and Māori students within their day-to-day teaching and learning settings. Side two aims to gather evidence of the relationships between teachers and Māori students in these same settings. Evidence of the teaching and learning interactions observed using side one of the observation tool includes the teachers'

- description of the lesson;
- level of cognitive challenge of the lesson for the specific class of students being observed;
- range of pedagogical interactions used with students, from traditional and transmissive to more interactive and co-constructive;
- direct interactions with student groupings, from whole class, small group or individual student; and
- own location throughout the observation.

Side one of the observation tool is also used to gather evidence about the lesson from five Māori students that includes

- these students' engagement with the lesson;
- their work completion, in line with expectations observed to have been set by the teacher; and
- their location throughout the observation.

Finally side one is also used to gather any other relevant information about the teacher, the lesson or the class in order to add richness to the observation information.

Side two of the observation tool (see Appendix 2) is used to gather evidence about the

- teacher's relationships with Māori students;
- teacher's expectations of Māori students' learning and behaviour;
- visible signs of culture in the classroom;
- responsiveness of the teacher to Māori students and their culture; and
- strategies being used by the teacher.

Each observation is followed closely with a feedback session during which time the observer/facilitator and the teacher deconstruct and discuss the evidence recorded during the observed lesson and together co-construct new directions for future teaching. These future goals, planned with the teacher, are also recorded on side two of the observation tool.

Accurate use of the Te Kotahitanga observation tool, by facilitators trained in the observation conventions, allows teachers to share in the process of monitoring and reflecting on their own Effective Teaching Profile practice through a term-by-term facilitated cycle of observation followed by individual feedback. Teachers are then encouraged to set group goals through group co-construction meetings. This is most effective when teachers are working with teachers from other curriculum areas who teach a common group of students. Finally shadow-coaching is undertaken by facilitators with teachers in order to achieve the set goals.

In line with Bishop and Glynn (1999), who suggest that professional development should create power-sharing contexts wherein self-determining individuals work together to set goals and reflect on outcomes, this term-by-term cycle, undertaken by the school Te Kotahitanga facilitators, forms the basis of the professional development programme in schools and ensures that there are ongoing opportunities for reflection and feedback based on the accurate and objective gathering and mutual sharing of evidence. Given that Te Kotahitanga advises teachers about their classroom practices based on the results obtained by using the tool, the team wanted to ensure that the instrument was reliable and that it could yield consistent results that would be valid for the intentions and contexts where it was being used.

Conducting observations for consistency: Method

Testing for consistency began by conducting *synchronous observations* (two people observing the same teacher in the same lesson over the exact same time period) by the professional development coordinator and an experienced regional coordinator. These two observers were our most experienced observers. One had been a teacher observed by others using the tool. Both had used the Te Kotahitanga observation tool on a regular basis for more than three years in their role as Te Kotahitanga facilitators and as trainers of facilitators.

Prior to beginning the synchronous observation and as per the established conventions for Te Kotahitanga observations, five students, identified by the school records as Māori, were selected as target students for the observation and their locations within the classroom were marked on the Student Location grid by both observers. This was done in the first 10 minutes of the lesson to ensure that the observation itself occurred within the main body of the lesson. Within these 10 minutes both observers also recorded the school and teacher information on side one of the Te Kotahitanga Observation tool.

To ensure both observers were observing and coding the same moment in time, a *new timekeeping convention* was introduced for this exercise. Timekeeping was synchronised between the two observers so as to begin the 25 minutes of observation simultaneously. Then, to ensure that the two observers remained synchronous, the new timekeeping convention introduced a 15-second wait period, added at the end of every column (after 10 segments of observations and recordings) on the Te Kotahitanga observation grid throughout the 25-minute duration of the observation.

Both observers then proceeded to complete the 25 minutes of formal observation following the established conventions of 10 seconds of observation followed by five seconds to record the last discrete observation.

During the new 15-second wait period, the two observers independently recorded the location of the teacher within the room before making eye contact. Using a prearranged signal, observer one then signalled the beginning of the next cycle of 10 observation and recording segments. Consequently each of the 10 columns was clearly begun at the same time by each of the two observers. Following this new timing convention gave greater assurance that the two observers would be completing each cycle of 10 observations and recordings simultaneously, which would indicate a greater likelihood that the timing of both observers was synchronous. Accordingly, each observer should be observing, and subsequently coding, the same classroom events in each 10-second slice of time.

On completing the timed observation of student engagement and teacher interactions, both observers remained in the classroom and completed the recording of evidence. This involved the two observers making independent assessments of the work completed by each of the five Māori students being observed, then, independently recording qualitative evidence in each of the six relationship dimensions highlighted in the Effective Teaching Profile (side two of the observation tool). At the completion of this process, the two observers left the classroom and independently tallied the five students' engagement percentages and the 50 teacher interactions observed. Each observer also independently assigned a rating (1 to 5, five being the highest) for the cognitive level of the lesson and for each of the six dimensions of relationship on side two of the observation tool. At this point, both observers had completed all elements required of the Te Kotahitanga observation. Observers then transferred their own data onto a shared summary sheet (see Appendix 3). This summary sheet compared the following data from the two observation sheets:

- the percentage engagement level and work completed for each of the five Māori students observed;
- the totals for each of the 13 codes of teacher interactions;
- the totals for whole class, group and individual interactions;
- the value (1–5) assigned for the cognitive level of the lesson;
- the number of teacher locations at the front of the room and elsewhere in the classroom; and
- the number of student locations at the front of the room and elsewhere in the room.

Following a comparison of side one of the completed observation sheets, the two observers then compared the quantitative evidence they had independently recorded for each of the six dimensions of relationship on side two of the Te Kotahitanga observation tool. In the normal course of events Te Kotahitanga facilitators would assign the 1 to 5 values for the evidence observed in each of these dimensions in consultation with the teacher, during the course of the feedback meeting. In this consistency exercise the two observers had independently assigned these values, then the two values in each dimension of relationship were compared alongside the other quantitative evidence recorded.

Two synchronous observations by the professional development coordinator and the regional coordinator produced consistent results across the items on the observation tool with at least 80 percent agreement between observers. The professional development coordinator then completed a number of synchronous observations with the second and third regional coordinators following the newly set time-keeping conventions as described above. If 80 percent agreement was not reached after the first synchronous observation, observations were repeated and followed by formative feedback and discussion until at least 80 percent agreement between observers was achieved over more than one consecutive synchronous observation. Having established 80 percent agreement with each of the regional coordinators, this team (the entire Te Kotahitanga professional development team) then followed the same procedure with 38 Te Kotahitanga facilitators (75 percent of facilitators overall) in each of the 12 Phase 3, Te Kotahitanga schools.

Reliability

Morgan, Gliner, and Harmon (2006) say that “reliability refers to consistency of scores on a particular instrument” (p. 44). When discussing the reliability of an instrument or test, we are referring to

the test's consistency, that is, a reliable test will give consistent results when used to assess a representative sample from a target population. Two forms of evidence for measurement reliability of the Te Kotahitanga observation tool were obtained: inter-rater reliability and inter-item reliability (Leech, Barrett, & Morgan, 2005). To obtain evidence of inter-rater reliability, a Pearson product-moment correlation coefficient was calculated using the Statistical Package for the Social Sciences (SPSS). To determine the initial consistency among items of the observation tool, we calculated a Cronbach's alpha. Cronbach's alpha coefficient "currently is the most commonly used index of reliability in the area of educational and psychological research" (Gliner & Morgan, 2000, p. 316).

Results: Side one of the observation tool

Side one of the observation tool relates to the interactions between the teacher and Māori students. Evidence for measurement reliability was obtained for the following items on side one of the observation tool: student engagement, student work completed, cognitive level of lesson, teacher location, and teacher interactions (both the type of interactions and who with, using 1 to 5 Likert scales). The results on each of these items, using a Pearson's correlation and Cronbach's alpha, are reported below.

Student engagement

A Pearson's correlation was computed to assess inter-rater reliability of the five student scores for *percent of engagement*, with the following results: student 1, $r(43) = .74$; student 2, $r(43) = .85$; student 3, $r(43) = .84$; student 4, $r(43) = .73$; and student 5, $r(43) = .87$. These results indicate that there is adequate to good inter-rater reliability for these five scores.

Cronbach's alpha was computed to assess whether a reliable scale was formed when the five items were combined to create a composite *student-percent-engagement-score*. For the five items, Cronbach's alpha was .85, which indicates that the items form a scale that has good to very good internal consistency.

Student work completed

A Pearson's correlation was computed to assess inter-rater reliability of the five student scores for *work completed*, with the following results: student 1, $r(43) = .84$; student 2, $r(43) = .87$; student 3, $r(43) = .93$; student 4, $r(43) = .88$; and student 5, $r(43) = .84$. These results indicate that there is good to very good inter-rater reliability for these five scores.

Cronbach's alpha was computed to assess whether a reliable scale was formed when the five items were summed to create a composite *student-work-completed-score*. For the five items, Cronbach's alpha was .94, which indicates that the items form a scale that has excellent internal consistency.

Cognitive level of lesson

A Pearson's correlation was computed to assess inter-rater reliability of the *cognitive-level-scores*, $r(43) = .68$. These results indicate there is minimal to adequate inter-rater reliability for this score.

Teacher location

A Pearson's correlation was computed to assess inter-rater reliability of the *teacher-location, front-scores*, $r(42) = .80$. These results indicate there is good inter-rater reliability for this score. A Pearson's correlation

was also computed to assess inter-rater reliability of the *teacher-location, other-scores*, $r(42) = .85$. These results indicate there is good to very good inter-rater reliability for this score.

Teacher interactions

The observation tool requires that teacher interactions are observed over 10 sets of consecutive time intervals (see Appendix 1). Teacher interactions are scored against a range of 13 interaction types from traditional to discursive (co-construction, feed forward academic +, feed forward academic -, feedback academic +, feedback academic -, prior knowledge, feed forward behaviour +, feed forward behaviour -, feedback behaviour +, feedback behaviour -, monitoring, instruction, other), with each interaction being recorded using specific codes on the observation tool. Each interaction is also scored according to the Whole class, Individual or Group (WIG) or who the interaction is with (see Table 1, column 3). Cronbach's alpha was computed to assess whether a reliable scale was formed when these five items (traditional interactions, discursive interactions, whole class, individual, group) were combined to create composite *teacher-interactions-observation-scores*. Cronbach's alpha coefficients for the 30 items indicate that the items form a scale that has minimal to very good internal consistency reliability.

Table 1. Cronbach's alpha coefficients for teacher interaction scores

Set	Code	WIG	Code/WIG
1	0.83	0.93	0.86
2	0.90	0.92	0.90
3	0.82	0.91	0.83
4	0.71	0.90	0.72
5	0.78	0.90	0.79
6	0.63	0.93	0.65
7	0.75	0.92	0.75
8	0.65	0.92	0.68
9	0.74	0.91	0.76
10	0.74	0.92	0.76

Analyses of the evidence recorded on the observation tool by the observers (initially the professional development coordinator and the regional coordinators, then the regional coordinators and in-school facilitators) were rated consistently. Further, results showed that items in the areas of student engagement, student work completed, and teacher interactions were interrelated, that is, they go together well enough to add them together for use as a composite score or variable.

Results: Side two of the observation tool

Side two of the observation tool relates to the *relationships* between the teacher and Māori students and covers six dimensions within contexts of culturally responsive pedagogy of relations. These six dimensions are:

- i. *Caring* for Māori students as culturally located.
- ii. Having high expectations for learning *performance* of the Māori students.
- iii. Having high expectations of the *behavioural* performance of Māori students.

- iv. Providing a well-managed (*management*) learning environment.
- v. Providing *culturally appropriate* learning contexts for Māori students.
- vi. Providing *culturally responsive* learning contexts for Māori students (see Appendix 2).

Evidence for measurement reliability was obtained across these items from side two of the observation tool.

A Pearson's correlation coefficient was computed to assess inter-rater reliability of the six relationships' scores (caring; performance; behaviour; management [of the learning environment], culturally appropriate, and culturally responsive). The Pearson's correlation coefficients were: caring, $r(42) = .81$; performance, $r(42) = .87$; behaviour, $r(42) = .87$; management, $r(41) = .85$; culturally appropriate, $r(40) = .92$; and culturally responsive, $r(41) = .86$. These results indicate that there is a good to very good inter-rater reliability for these six scores.

Cronbach's alpha was then computed to assess whether a reliable scale was formed when the six items were combined to create a composite *relationship score*. Cronbach's alpha for the six items was .92, which indicates that the items form a scale that has very good internal consistency. Further analyses showed that the six items in this area of the observation tool were interrelated, that is, they go together well enough to add them together for use as a composite score or variable.

Validity

Gliner and Morgan (2000) state, "the evaluation of validity is concerned with establishing evidence for the use of a particular instrument in a particular setting" (p 319). They discuss different methods that are used to gather evidence to support validity and maintain that one method of establishing validity "is if the content appears to be appropriate for the purpose of the instrument" (p. 320). In this case the instrument is said to have *face validity*. The Te Kotahitanga observation tool is linked directly to the Te Kotahitanga Effective Teaching Profile (ETP) and is integral to the two in-school professional development activities of observation and feedback. During the observation the facilitator records data obtained from observing a teacher working with students in authentic learning contexts. At the feedback meeting the facilitator provides feedback to the teacher based on the specific results from the observation. Those results then become the basis for assisting teachers to enhance their teaching practices, by setting goals for improving their classroom interactions and relationships with Māori students. Given that observations are conducted in a term-by-term cycle, the impact of these actions on Māori students' educational achievement can thus be monitored and reviewed. Accordingly the observation tool could be said to have face validity, in that the content of the tool is appropriate for their purpose (i.e., to make specific classroom observations of the Effective Teaching Profile in order to feed back to teachers how effectively they are incorporating the Effective Teaching Profile into their teaching).

Gliner and Morgan (2000) also discuss "content validity" that "refers to the actual content of the instrument" (p. 320). The content of the tool was developed to align with each item from the Effective Teaching Profile described earlier in this paper; however, ongoing feedback in terms of content validity was also sought from special educators and researchers who use similar tools, as well as teachers and facilitators throughout Phases 1 and 2 of Te Kotahitanga, during which time the tool was being developed and trialled. Expert feedback from these groups has contributed to the tool's *content validity*.

Feedback to teachers, from evidence gathered using the Te Kotahitanga observation tool, promotes culturally responsive interactions and relationships amongst students and teachers in authentic day-to-day learning contexts. The information provided by this observation tool therefore enables trained observers/facilitators to provide teachers with feedback and feed-forward based on the interactions (side one) and relationships (side two) of students and teachers in their day-to-day learning settings. The in-class observation is then followed by opportunities for the teacher and the observer to reflect on their in-class experiences and co-construct more relevant directions for culturally responsive contexts for learning in the immediate future.

Conclusions

This study was conducted in accordance with the AERA guidelines for reporting on empirical social science research in educational settings (American Educational Research Association, 2006). These standards were followed in order that the report was warranted, that is, adequate evidence was provided to justify the results and conclusions; and transparent, that is, the logic of the study and activities that led from initiating the project to interpretation of results was clearly stated. The Te Kotahitanga observation tool is integral to the professional development activities conducted in classrooms of participating teachers. Data obtained using this instrument are used to give feedback to teachers. Thus, we wanted to know if the tool was appropriate for us to use.

Based on the results of this study, we can reasonably assume that the Te Kotahitanga observation tool, when used by trained and experienced observer/facilitators, is reliable and valid for observing teachers participating in Te Kotahitanga in New Zealand secondary schools. The results of this study suggest that two trained observers, observing the same teacher at the same time and scoring the observation tool using the new synchronous time-keeping conventions can produce consistent results. Therefore we can suggest with confidence that data obtained using this tool are suitable for providing effective formative and summative feedback to teachers on their use of the Effective Teaching Profile.

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Appendix 1: Te Kotahitanga in-class observation sheet

Appendix 1 - Te Kotahitanga In-class Observation Sheet

Date: _____ Class and Level: _____ Name of Observer: _____
 School: _____ Banding of Class: _____ Period in day: _____
 Teacher: _____ Lesson Outline: _____
 Ethnicity of teacher: Māori ___ Non Māori ___ Years of teaching: 0-5 ___ 5-10 ___ 10-15 ___ 15+ ___

Observe for 10 seconds then record for 5 seconds	Target	1	2	3	4	5	6	7	8	9	10	% Engaged	Work Completed 1 - 5	
	Student 1													
	Teacher													
	Student 2													
	Teacher													
	Student 3													
	Teacher													
	Student 4													
	Teacher													
	Student 5													
	Teacher													
	Check Location													

Code	Whole	Indiv	Group	Total
Co				
FFA +				
FFA -				
FBA +				
FBA -				
P				
FFB +				
FFB -				
FBB +				
FBB -				
M				
I				
O				
Total				50

Cognitive Level					Student Location *					Teacher Location *				
1	2	3	4	5										
Not Challenging														
Medium														
Challenging														
Work Completed														
1	2	3	4	5										
None					Some					All				

* NB: Top = Front of class

* NB: Top = Front of class

Appendix 2: Evidence of relationships

Relationships:	What evidence is there of the teacher:	Range:
Manaakitanga Caring for Maori students	a) caring for the Maori student as (culturally located) individuals	1 2 3 4 5 Low Medium High
Mana Motuhake Caring for the performance of Maori students	b) having high expectations for the learning performance of the Maori students	1 2 3 4 5 Low Medium High
Mana Motuhake Behaviour expectations	c) having high expectations for the behaviour performance of the Maori students	1 2 3 4 5 Low Medium High
Whakapiringatanga Management of the classroom	d) proving a well-managed learning environment	1 2 3 4 5 Low Medium High
Culturally appropriate context (C)	e) providing a culturally appropriate learning context for Maori students	1 2 3 4 5 Low Medium High
Culturally responsive context (c)	f) providing a context where Maori students can bring their own cultural experiences to their learning	1 2 3 4 5 Low Medium High
Positive feedback to teacher 1. 2. 3.	Feed forward to teacher 1. 2. 3.	
Teacher reflections on the lesson and the observer feedback		
Future directions: Notes/ideas for co-construction meeting / suggestions for improvements		

Appendix 3: Shared summary sheet

Page 1: Teacher and Student Interactions							Page 2: Teacher and Student relationships					
Observer 1:			Observer 2:									
Date:							Lesson Description:					
Time:												
School:												
Interactions	Observer 1:			Observer 2:			Student Engagement	Observer 1	Observer 2		Observer 1:	Observer 2:
	Whole	Individual	Group	Whole	Individual	Group					Evidence:	Evidence:
Co							Student 1 Engagement			Caring	Evidence: Score: /5	Evidence: Score: /5
FFA+							Work Completion			Perform	Evidence: Score: /5	Evidence: Score: /5
FFA-							Student 2 Engagement					
FBA+							Work Completion			Behaviour	Evidence: Score: /5	Evidence: Score: /5
FBA-							Student 3 Engagement					
P							Work Completion					
Totals Dis							Student 4 Engagement			Manager	Evidence: Score: /5	Evidence: Score: /5
FFB+							Work Completion					
FFB-							Student 5 Engagement					
FFB+							Work Completion					
FFB-							Teacher (Under teacher positioning identify % agreement)			Culture	Evidence: Score: /5	Evidence: Score: /5
M							Teacher Positioning					
I							Cognitive Level					
O									Culture	Evidence: Score: /5	Evidence: Score: /5	
Totals Tra												
Overall Comparison							Overall Comparison					
Discursive							Student Engagement					
Traditional							Work completion					
Whole							Teacher Positioning					
Individual							Cognitive level					
Group							Calculate Differences					
Calculate Differences												