2014

Relations between Teachers' Classroom Goals and Values: A Case Study of High School Teachers in Far North Queensland, Australia

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Abstract: To date, there is an empirical gap in the evidence of the relations between teachers' classroom goals and values, two key variables linked to students' achievement motivation. The purpose of this study was to investigate this relationship in an Australian teacher sample. We surveyed 102 high school teachers from seven schools in Cairns, Queensland using items of Wentzel's Classroom Goals Scales and Schwartz's Portrait Values Questionnaire. Results showed several positive associations between teachers' classroom goals and values. Social goals were linked to a wide range of values, while academic goals were linked to specific value dimensions, e.g. mastery approach goals were positively correlated with openness to change and self-transcendence values, performance approach goals with self-enhancement values and conformity. Mastery approach goals and social goals were related to similar values, unlike performance approach goals. Schools could benefit from examining their hidden value curriculum in order to maximise teachers' communication of academically relevant learning goals.

Introduction

Over 40 years of research has demonstrated that values and goals are primary influences on achievement motivation in students (Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006). Goals give students purpose for pursuing tasks (Ames, 1992) and motivate effective learning behaviour (Walberg & Uguroglu, 1980). Values can influence actions (Holland & Verplanken, 2002) and direct achievement motivation (Liem, Martin, Porter, & Colmar, 2012). Moreover, Liem and Nie (2008) showed that internalised values can elicit certain achievement goals. Thus, values and goals are interdependent constructs.

Recent development of research on achievement motivation has adopted a sociocultural view, arguing that achievement motivation is a learned cognitive behaviour that depends on context (Schunk, 2004). At school, teachers were identified as important influences upon students' achievement motivation. Teachers make pedagogical choices according to the values and goals they aim to develop in students (Ames & Ames, 1984; Lopes & Santos, 2012), teachers communicate what counts as achievement through expectations and rewards (McClelland, Atkinson, Clark, & Lowell, 1976) and teachers can impart values and goals on students (Martin & Dowson, 2009; Wentzel, Baker, & Russell, 2012). Therefore, classroom goals and values are potentially key drivers of teachers' pedagogy and in turn, students' achievement motivation.

Because of the proposed influence of goals and values on classroom teaching and students' achievement motivation, it is important to understand relations between these variables. Past research reported correlations between students' achievement goals and values (Liem et al., 2012), but a systematic literature search found no empirical studies investigating the relationship between teachers' classroom goals and values. This study explored links between teachers' values and their classroom goals in a high school teacher sample from Far

North Queensland, Australia, using Achievement Goal Theory and Basic Human Values Theory as theoretical frameworks.

Achievement goals

For the purpose of this study, goals are defined as cognitive representations of future events that motivate behaviour. Achievement Goal Theory was chosen as a guiding framework for this research because it provides a basis for exploring the socio-cultural character of achievement motivation. The theory highlights the importance of context in teachers' and students' conceptualisation of achievement motivation, proposing that it is a product of personal attributes, including values, goals, skills and abilities (Deemer, 2004).

Achievement Goal Theory

Classic Achievement Goal Theory focused on two types of academic goals: mastery goals, also labelled learning goals or task involvement goals, and performance goals, also labelled ego involvement goals. Central to mastery goals is the desire to learn new skills and truly understand content based on self-referenced standards. Central to a performance goal is the demonstration of one's skills with a focus on ability, which is gauged by comparison to others or to normative standards (Ames, 1992).

In a further development of Goal Theory, Elliot and McGregor (2001) proposed a 2x2 achievement goal framework. They described each academic goal as having an approach and an avoidance orientation. Approach orientations refer to goals of achieving positive outcomes, whereas avoidance orientations refer to goals of avoiding negative outcomes. Students with performance avoidance goals try to avoid looking incompetent or doing worse than others, while students with performance approach goals focus on the positive outcome of outperforming others. Likewise, students with mastery avoidance goals focus on avoiding being incompetent at a task, while students with mastery approach goals try to reach their maximum potential. With the introduction of the 2x2 framework, achievement goals were able to predict graded performance of students (Elliot & Church, 1997; Elliot & McGregor, 2001).

However, the 2x2 framework still oversimplified the complexity of achievement motivation in the classroom. Mansfield (2012) inferred from focus group interviews that students pursue goals other than mastery and performance at school and that frequently, more than one goal is pursued at the same time. Other qualitative and quantitative studies showed that knowledge goals, social goals, work avoidance goals, extrinsic goals and future goals can all impact on academic outcomes (e.g., Dowson & McInerney, 2003; Mansfield, 2012). How these multiple goals are coordinated or prioritised can influence behaviour (Wentzel, 1993b). This multiple goal perspective explicitly assumed that students can and do pursue several salient goals reflecting both academic and social concerns (Kaplan, Middleton, Urdan, & Midgley, 2002; Wentzel & Wigfield, 1998).

Teachers' Influence on Students' Achievement Goals

The formation of achievement goals has been observed to be an ongoing process depending on contextual factors rather than implicit personal needs (Pintrich, 2005). "Ongoing" means that goal setting did not only occur before a learning activity, but also

during task performance as a result of students monitoring their progress. "Dependent on contextual factors" means that goals at school were influenced by objectives students set for themselves as well as objectives teachers set for them. Wentzel and Wigfield (1998) proposed that goals can be transmitted to students through teachers' instructional practices, modelling, expectations, performance feedback and relationships with students. Longitudinal survey data from elementary schools in the United States confirmed, for instance, that when teachers emphasised deep understanding of learning material, students were more likely to pursue the goal to master subject matter. When teachers promoted competition during their lessons, however, students were likely to adopt personal performance goals (Anderman & Anderman, 1999). Similarly, Urdan and Turner (2005) reviewed empirical evidence demonstrating that students' perception of goals emphasised by teachers influences students' personal goal orientation and achievement at school. One could conclude that students learned which goals are most important to achieve in any given classroom.

Achievement Goals and Academic Performance

Correlation studies have repeatedly demonstrated that variations in students' performance at school are related to the goals they pursue (Wentzel, 1999). Specifically, two academic and two social goals have been nominated consistently by students and teachers as important goals for high achievement at school. They are:
1. Mastery approach goals: learning new skills and truly understanding content;
2. Performance approach goals: demonstrating one's skill and getting good grades;
3. Pro-social goals: cooperating, sharing and helping peers with problems;
4. Compliance goals (also labelled social responsibility goals): following instructions, keeping promises and considering how one's behaviour affects others;

Extensive empirical research provided evidence that the above four goals are academically relevant and associated with high achievement. Elliot and Dweck (1988) showed that mastery goals promote intrinsic motivation, the use of effective learning strategies and positive affect in primary school students. Anderman and Anderman (1999) described how compliance goals are associated with increased focus on academic tasks and greater sense of academic efficacy in middle school students. Wentzel (1993a) showed that pro-social goals in primary school classrooms encourage help-seeking behaviour and facilitate academically relevant interactions with teachers. Finally, research in high schools also demonstrated that performance approach goals are positively associated with persistence, deep cognitive strategies and high grades (Liem, Lau, & Nie, 2008).

It should be noted that performance goals per se have also been associated with negative outcomes, such as low retention or anxiety (Midgley, Kaplan, & Middleton, 2001). Before the avoidance-approach distinction, performance goals were portrayed as leading to helplessness in the face of failure and to negative affect towards school. Later research employing the 2x2 framework, however, showed that performance approach goals can be positively associated with academic performance by increasing self-efficacy and persistence, while performance avoidance goals are negatively related to academic performance (Malka & Covington, 2005). Further, it has been shown that teachers can communicate performance approach goals without simultaneously communicating performance avoidance goals (Church, Elliot, & Gable, 2001).

Barron and Harackiewicz (2001) suggested that a high performance approach – high mastery approach goal combination is most beneficial for students. They also proposed that students' personality influences which goal or goal combination is most advantageous. In short, performance approach goals may be beneficial for some individuals under certain

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circumstances and a mastery goal orientation is not the only approach to learning situations that leads to success. It seems that the simultaneous pursuit of multiple academic and social classroom goals leads to strongest and longest lasting achievement motivation at school (Wentzel, 2000).

Values

Values have also been implicated in achievement motivation. Parsons and Goff (1980) argued even before the development of Goal Theory that individuals choose behaviour congruent to the values they consider important. In the past, achievement experiences have been shown to have little emotional effect on individuals if the achievement does not correspond with their value system (Heckhausen, 1967). Thus, what one person considers as achievement may not necessarily be perceived that way by another person with different value priorities. More recently, Liem and Nie (2008) showed that students' adoption of particular values was a strong predictor of achievement motivation because values provided students with specific reasons for goal pursuit. There is also some evidence that values are direct predictors of academic achievement (Liem et al., 2012).

The present study adopted Schwartz's (1994) definition of values as "(1) beliefs (2) pertaining to desirable end states or modes of conduct, that (3) transcend specific situations, (4) guide selection or evaluation of behaviour, people, and events, and (5) are ordered by importance relative to other values to form a system of value priorities" (p. 20). This definition was adopted because it sees values as hierarchically organised guiding principles in people's lives that are distinct from attitudes, traits and norms in terms of their influence in motivating behaviour.

Value Acquisition

Values are assumed to be acquired and internalised through socialisation during childhood (Liem et al., 2012). Situations arising in the classroom or indeed the home or playground require a child to reflects on what is right and what is wrong, or to select a response from a range of options; to make a considered judgement, a judgement that is based on values, either the child's own, if sufficiently developed or those imparted by the parents, teachers or peers. Cognitive psychology, and in particular social constructivism within cognitive psychology (Prawat, 1998) explains the processes used by individual children to arrive at reasoned judgements. Piaget and Kohlberg studied these processes and reported them in their respective theories of moral development. It is understood that value acquisition is inextricably linked to moral philosophy and in particular to the moral philosophy socially prevalent in any given era. For example, human rights debates about affirmative action, entitlements, and gender and ethnic violence (Penna and Campbell, 1998) are more typical of the twentieth century than previous eras. However, the processes though which values are internalised and adopted are centred in cognitive psychology and in particular in social constructivism. As such they are amenable to influences for refinement, alteration or even extinction. According to Boekaerts, Koning and Vedder (2006), value acquisition can occur through teaching, modelling or reinforcement by members of the child's culture and lead to the child choosing goals and behaviours that are considered socially appropriate. However, socialisation is a life-long process. Holland and Verplanken (2002) argued that values can be acquired after childhood and even though parents are often seen as the main socialising factor, peer groups, teachers or public institutions may all be sources of internalised values.

Hoge, Petrillo, and Smith (1982) demonstrated that adolescents can acquire values from extra-familial culture as much as from parents; church, for example, can be a socialising institution.

Similar effects are likely to apply to schools. For instance, day-to-day interactions between teachers and students teach students how to become competent and accepted as a member of the school community. Martin and Dowson (2009) reviewed literature on the role of interpersonal relationships in academic motivation and concluded that students can internalise values that are displayed by teachers. Values can be transmitted by way of communicating expectations for participation and problem solving, modelling attitudes, classroom management practices, structuring of learning environments and encouragement through rewards (Wentzel & Looney, 2007).

It can be argued that the values which teachers communicate are important influences on teaching quality and effectiveness. Empirical evidence has shown that imparting certain values can direct students' learning goals and increase their achievement motivation (Liem et al., 2008). Past research also suggests that the implicit endorsement of particular values characterises good teachers (Boon, 2011) and that values education may foster effective engagement in learning (Lovat & Clement, 2008). These studies point to the link between teachers' classroom values and quality teaching. Whilst the debate surrounding quality teaching is ongoing and complicated by arguments arising from socio-cultural and socio-economic perspectives and post-modernist views promoting the de-construction of gender-specific pedagogy and 'middle-class' curricula (Rowe, 2003), teacher influences upon students' outcomes (literacy skills, general academic achievements, attitudes, behaviours) exert a far stronger effect than influences from their background characteristics (Rowe, 2003). That is, the quality of teaching and learning experience are by far the strongest influences on students' cognitive, affective, and behavioural outcomes (Department of Education, Science and Training, 2013).

Basic Human Values Theory

Individuals and groups can differ strongly in their value preferences and the importance they attribute to specific values. However, the social psychologist Shalom Schwartz (2012) analysed survey data of over 200 samples from 82 countries in five continents and identified ten broad value types that are recognised across most cultures. They are: security, conformity, tradition, benevolence, universalism, self-direction, stimulation, hedonism, achievement and power (Table 1).

Value Type	Definition
Power	Social status and prestige, control or dominance over people and resources (social power, authority, wealth, preserving public image)
Achievement	Personal success through demonstrating competence according to social standards (successful, capable, ambitious, influential)
Hedonism	Pleasure and sensuous gratification for oneself (pleasure, enjoying life)
Stimulation	Excitement, novelty, and challenge in life (daring, a varied life, an exciting life)
Self-direction	Independent thought and action-choosing, creating, exploring (creativity, independence, freedom, curiosity, choosing own goals)
Universalism	Understanding, appreciation, tolerance, and protection of the welfare of all people and of nature (broad-minded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible)
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide (humble, accepting my portion in life, devout, respect for tradition,

	moderate)
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (politeness, obedient, self-discipline, honouring parents and elders)
Security	Safety, harmony, and stability of society, of relationships, and of self (family security, national security, social order, clean, reciprocation of favours)

Table 1: Basic value types
Note: Definitions adopted from "Are there universal aspects in the structure and contents of human values?", by S. H. Schwartz, 1994, Journal of Social Issues, 50(4), 19-45.
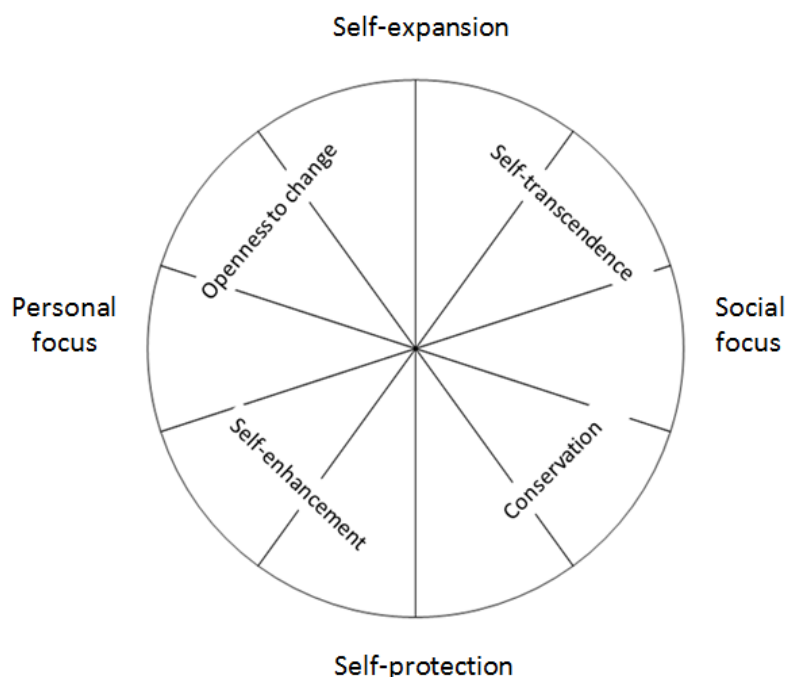
In Basic Human Values Theory, the ten values are arranged in a circle, depicting complementary and conflicting values (Figure 1). The closer values are in either direction around the circle, the more positive their interrelationship and the more similar their resulting motivation. In other words, if a value type is hypothesised to positively correlate with a particular behaviour, the adjacent values are also likely to correlate positively with that behaviour. The circle's value dimensions capture differences in the motivation each value expresses. Openness to change values motivate independence of thoughts, feelings and actions, while conservation values motivate self-restriction and resistance to change; self-enhancement values motivate the pursuit of one's own success or interest, while self-transcendence values motivate concern for the welfare of others (Schwartz, 2006).
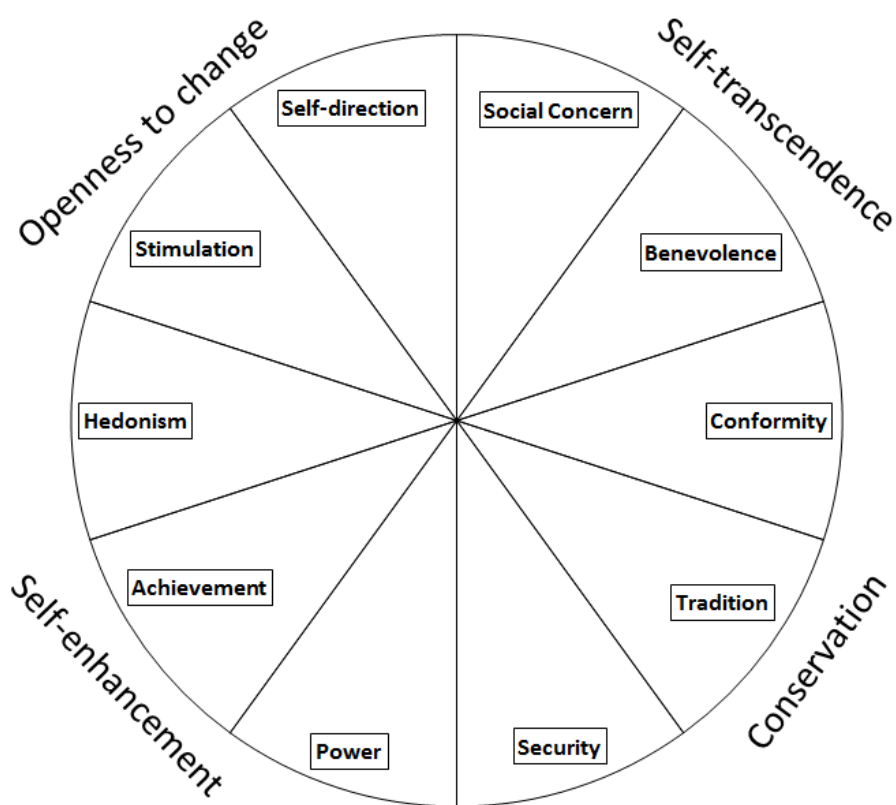
Figure 1: Theoretical model of relations among basic value types and bipolar value dimensions
Note: Structure adopted from "Extending the cross-cultural validity of the Theory of Basic Human Values with a different method of measurement", by S.H. Schwartz, G. Melech, A. Lehmann, S. Burgess, M. Harris and V. Owens, 2001, *Journal of Cross-Cultural Psychology, 32*(5), 519-542.

Differences and similarities of values belonging to different value dimensions are further summarised by Figure 2. Openness to change and self-enhancement values tend to promote behaviour that serves personal interests, while self-transcendence and conformity values tend to regulate how one relates socially to others. Furthermore, openness to change and self-transcendence values tend to motivate self-expansion and growth, while self-enhancement and conservation values motivate actions related to self-protection (Schwartz, 2006).


Figure 2: Differences and similarities of value dimensions
Note: Structure adopted from "Basic human values: Theory, measurement, and applications", by S. H. Schwartz, 2006, *Revue francaise desociologie,* 42, 249-288.

The Relation between Values and Goals

Correlation studies have pointed to the notion that internalised values may guide behaviour by eliciting goals (e.g., Holland & Verplanken, 2002; Liem et al., 2008; Liem et al., 2012). Reported correlations between students' values and learning goals led to our hypothesis that teachers' values for students are likely to be antecedents of their classroom goals and teaching practices through their choice of pedagogy, expectations for achievement, performance feedback or the nature of teacher - student relationships (Figure 3).
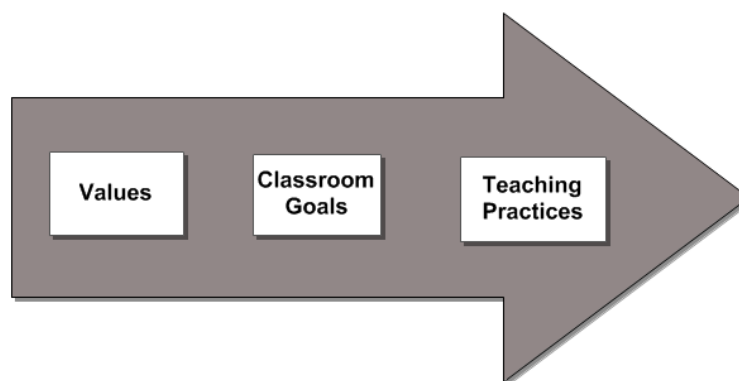
Figure 3: Values as potential antecedents of teachers' classroom goals and teaching practices

Past research on predictors of teachers' classroom goals has focused predominantly on teachers' personal learning behaviour (Gordon, Dembo, & Hocevar, 2007), teachers' beliefs of how learning occurs (Patrick, Anderman, Allison, Edelin, & Midgley, 2001), teachers' self-efficacy and the school culture (Deemer, 2004). There appears to be little evidence about whether and how teachers' values shape their classroom goals. A literature search using the PRISMA framework for systematic literature reviews (Moher, Liberati, Tetzlaff, & Altman, 2009) identified no empirical studies that had explored the connection between teachers' value priorities and their classroom goals in Australia which was the focus of this study.

We searched three databases in June 2013: A⁺Education, PsychINFO and Scopus; the search strategy involved looking for abstracts containing the terms "value*", "goal*", "teacher*" and "classroom*". In PsycINFO, results were limited to peer-reviewed publications in English; results in Scopus were limited to publications in English relating to the Social Sciences and Humanities. The searches identified 179 matches. Reviews of the title of each match eliminated 137 studies. The remaining 42 studies were screened by reading each abstract. We identified eight possibly relevant publications, which were reviewed in full. Figure 4 shows the screening process and results at each step.
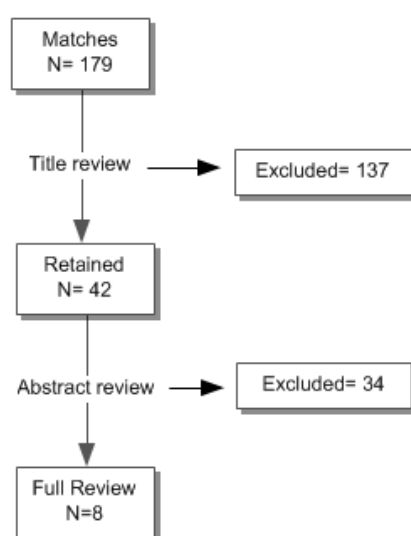
Figure 4: Systematic Literature Search and Screening Process

The search revealed that to date, there is little empirical evidence of the relationship between the values teachers aim to communicate and their classroom goals. None of the eight fully reviewed papers specifically explored such links, although two studies alluded to their presence.

Akhter (2003) surveyed 145 teachers and 1400 year five students from 50 schools in Bangladesh to investigate the relationship between teachers' controlling behaviour and students' academic and social goals. Akhter's cross-sectional questionnaire measured teachers' pedagogical ideology and students' motivational goals. Data were analysed using path analysis of models based on previous studies and a multiple regression design. The study found that teachers who created a caring and humanistic classroom environment enhanced students' social goals, which pointed to a relationship between values such as benevolence or independence with social goals. Additionally, the study reported that authoritarian teachers, who endorsed values like conformity, increased students' academic goals.

Leu's (2005) case study of an experienced female maths teacher in Taiwan explored one teacher's values and pedagogical choices. The researcher used numerous classroom observations and follow-up interviews to document the teacher's pedagogical values as well as a questionnaire and student interviews to investigate students' perceptions of these values. Grounded Theory was used as framework for data analysis. The study found that the teacher encouraged compliance goals in order to convey values like obedience, respect and trust. The teacher also believed that individual orientated values like independence promoted mastery goals, hence suggesting a link between those constructs.

Achievement goals and values have been shown to be shaped by culture because individuals from different cultures form different beliefs about desirable qualities and success criteria (Abd-El-Fattah & Patrick, 2011). Akhter's (2003) and Leu's (2005) studies were both conducted in the context of an Eastern, possibly collectivist society. Findings might therefore not be applicable to Western cultures because of differences in cultural beliefs possibly affecting relations between certain values and goals.

Research Questions

This study examined the relationship between teachers' value priorities and the learning goals they encourage in a Western context. It investigated how the basic human values described by Schwartz (1994) related to four classroom goals which support high achievement by means of a high school teacher sample in Far North Queensland, Australia. The following research questions were pursued:
1. What is the relationship between teachers' value preferences and their academic classroom goals?
2. What is the relationship between teachers' value preferences and their social classroom goals?
3. Are particular value dimensions linked to academically relevant goals?

Methods

Ethics considerations

Ethics clearance for this study was obtained before the research began. Ethics were granted by James Cook University, Catholic Education Queensland and Education Queensland.

Participants

The target population was high school teachers in Cairns, Far North Queensland. To obtain a representative sample, we invited 406 teachers across a range of teaching areas and seven schools to participate. School participation was based on Principals' agreement. The resulting sample consisted of 102 grade 8 to 12 teachers from three state, two Catholic and two independent schools in Cairns. The respondents were 57% females and 43% males and varied by demographics (Table 2). As there were a great many different subjects taught by the participants, these results are not reported here. However, they can be obtained from the first author upon request.

Demographic	Category	N	N %
School	1	14	13.7
	2	12	11.8
	3	15	14.7
	4	17	16.7
	5	12	11.8
	6	12	11.8
	7	20	19.6
Age	21-30 years old	14	13.9
	31-40 years old	18	17.8
	41-50 years old	38	37.6
	51-60 years old	25	24.8
	>60 years old	6	5.9
Gender	female	56	57.1
	male	42	42.9
Born in Australia	yes	79	79.0
Teaching experience	1-10 years	35	34.3
	11-20 years	23	22.5
	>20 years	43	42.2
Teaches year level	year 8	67	67.7
	year 9	72	72.7
	year 10	74	74.7
	year 11	85	85.9
	year 12	78	78.8

Table 2: Sample demographics

Measures

We collected data using an anonymous self-report questionnaire based on a modified version of Schwartz's (2006) Portrait Values Questionnaire; it assessed the relative importance attached to particular values by teachers. The PVQ has been validated by several studies the school context (e.g. Boekaerts et al., 2006; Liem, Martin, Nair, Bernardo, & Prasetya, 2011; Liem et al., 2012; Liem & Nie, 2008). To keep the measure short and relevant to the research questions, we used only eight of the original ten subscales. We dropped seven items of the used subscales because Knoppen and Saris (2009) have pointed to their lack of discriminant validity. After the exclusion of these items, "tradition" needed to be reconceptualised as "humility" and "universalism" as "social concern". "Self-direction" was split into two separate constructs: "creativity" and "independence". The wording of items is shown in Appendix A. Teachers rated each statement according to how much they wanted their students to be like the described person. Scores were measured on a 6-point interval scale ranging from 0% agreement to 100% agreement.

Nineteen items of Wentzel's (1993b) validated Achievement Goal Questionnaire (AGQ) assessed the extent to which teachers encouraged two academic goals (mastery

approach goals and performance approach goals) and two social goals (pro-social goals and compliance goals) in their classrooms. The instrument has been administered to students and teachers in the past (Spera & Wentzel, 2003; Wentzel, 1994). The wording of items is shown in Table 3. Scores were measured on a 6-point interval scale ranging from 0% agreement to 100% agreement.

Procedure

Data were collected in the middle of 2013. Depending on principals' preferences, teachers were handed the questionnaire during a staff meeting, via their pigeon holes or via email. We ensured that teachers of all schools received exactly the same information about the study, independent of delivery mode. The electronic version of the instrument was created with the online survey tool Survey Monkey and was identical to the printed version. All questionnaires included a James Cook University information sheet outlining the purpose of the study, instructions on how to participate, rights of participants and the researchers' contact details as well as an envelope to seal each response. Participation was voluntary and teachers were given two weeks to return their questionnaire to a provided drop box in each school or submit it online. After one week, teachers received a reminder email to increase response rates.

Data Analysis

We coded and analysed data using the IBM Statistics Standard Grad Pack Shrinkwrap Version 21.0. Descriptive statistics were used to check for outliers in the data, which could strongly affect correlation coefficients (Muijs, 2004). The Kolmogorov-Smirnov and Shapiro-Wilk tests showed that collected data were not normally distributed. Thus, we examined the relationship between values and goals using Spearman's rank correlation coefficient as recommended by Field (2009).

Results

Analysis showed frequent positive relations between teachers' classroom goals and values (Table 3). Academic goals correlated with fewer and less similar values than social goals. No measured values correlated negatively to any classroom goals.

	Mastery approach goals	Performance approach goals	Pro-social goals	Compliance goals
Creativity	.45[**]	.26[*]	.39[**]	.24[*]
Power	.06	.26[*]	.06	.04
Social concern	.34[**]	.12	.35[**]	.38[**]
Stimulation	.41[**]	.14	.40[**]	.30[**]
Conformity	.08	.26[*]	.16	.48[**]
Humility	.17	.12	.22[*]	.28[**]
Hedonism	.29[**]	.20[*]	.39[**]	.25[*]
Independence	.39[**]	.09	.37[**]	.36[**]
Benevolence	.34[**]	.18	.52[**]	.31[**]

*= $p <.05$, **= $p < .01$

Table 3: Correlations between goals and values (Spearman's Rho, r_s)

Values and Academic Goals

Mastery approach goals correlated with creativity, r_s= .45, p< .01, stimulation, r_s= .41, p< .01, independence, r_s= .39, p< .01, social concern, r_s= .34, p< .01, benevolence, r_s= .34, p<.01, and weakly with hedonism, r_s= .29, p< .01. These six values lie next to each other on Schwartz's (1994) value circle and comprise all values of the openness to change and self-transcendence value dimensions (Figure 5). Performance approach goals linked weakly to power, r_s= .26, p< .05, creativity, r_s = .26, p< .05, conformity, r_s= .26, p< .05, and hedonism, r_s= .20, p< .05. Power and hedonism are directed towards the self-enhancement value dimension (Figure 5). Therefore, performance would validate efforts for self-enhancement, while stimulation and mastery are linked through experiencing new things and achieving success in those new things.
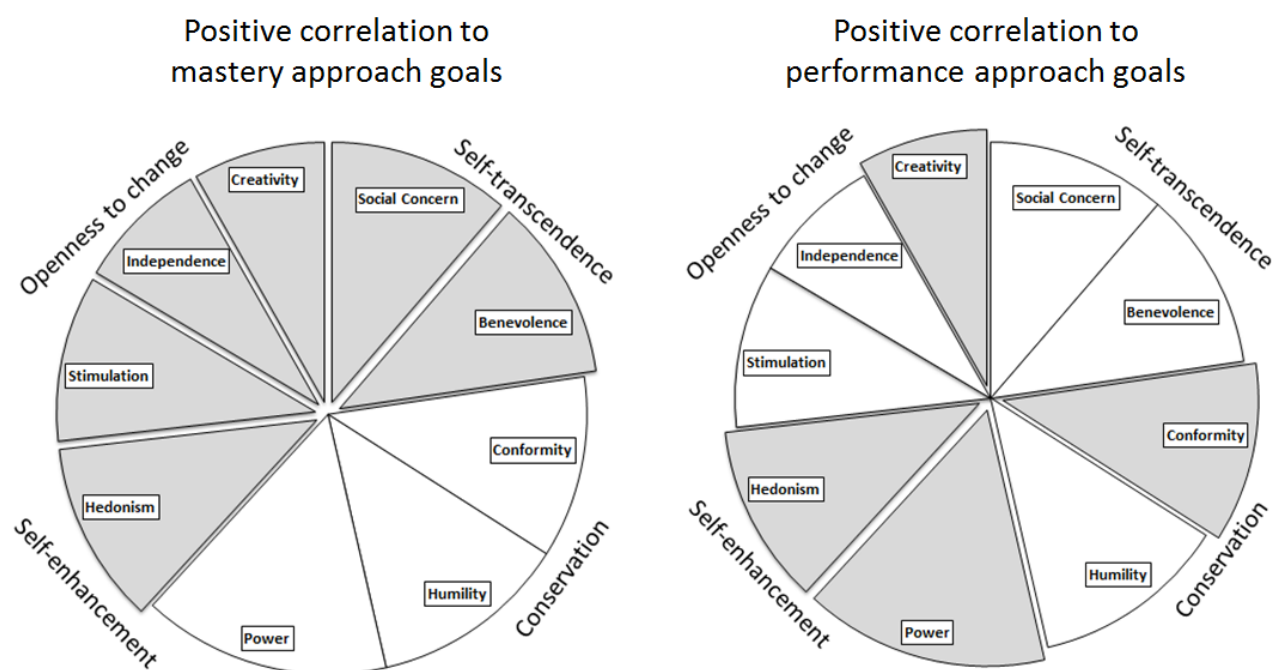

Figure 5: Values correlating to academic classroom goals

Values and Social Goals

Pro-social goals were associated with benevolence, r_s= .52, p< .01, stimulation, r_s=.40, p< .01, creativity, r_s =.39, p< .01, hedonism, r_s = .39, p<.01, independence, r_s = .37, p< .01, social concern, r_s = .35, p< .01, and weakly linked to humility, r_s = .22, p< .05. Thus, all values except power and conformity related positively to pro-social goals. Values which correlated strongest are part of the openness to change and self-transcendence dimensions of Schwartz's (1994) value circle (Figure 6). Similarly, compliance goals were positively correlated with conformity, r_s =.48, p< .01, social concern, r_s = .38, p< .01, independence, r_s =.36, p< .01, benevolence, r_s =.31, p< .01, stimulation, r_s=.30, p< .01, and weakly with humility, r_s =.28, p< .01, hedonism, r_s =.25, p< .05, as well as creativity, r_s =.24, p< .05. Therefore, all values except power were positively linked to compliance goals. The strongest correlating values lean towards the self-transcendence value dimension (Figure 6).
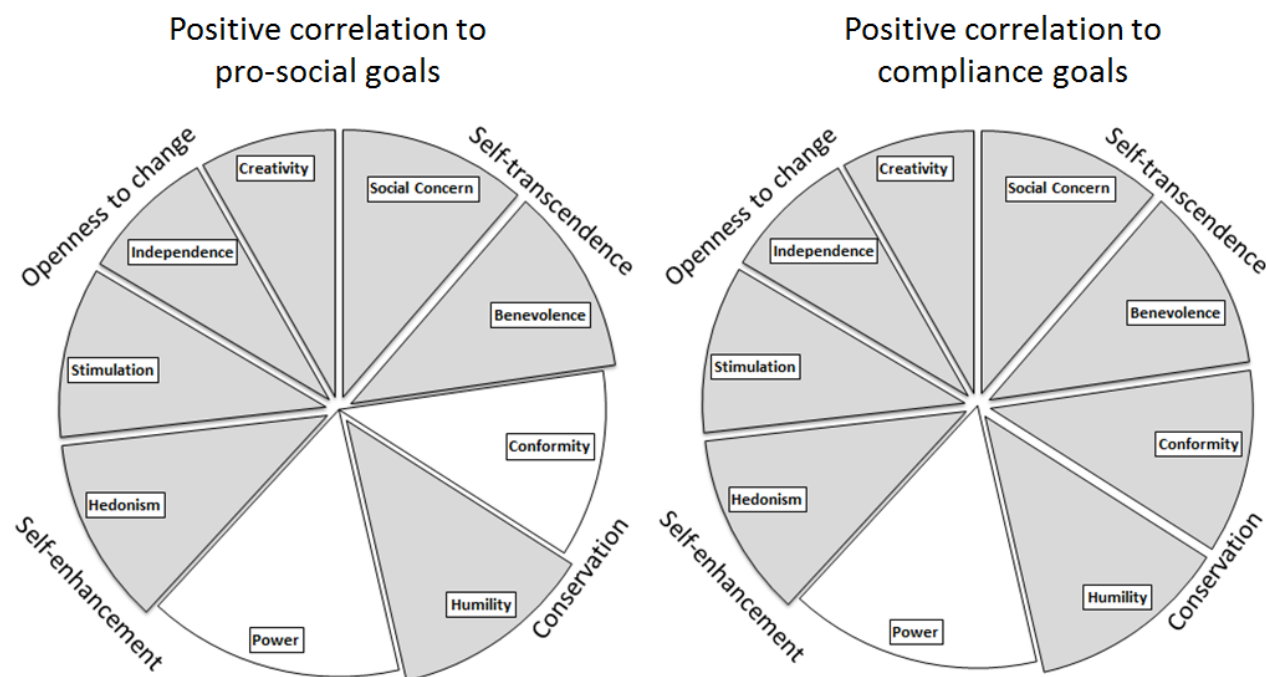
Figure 6: Values correlating to social classroom goals

Discussion

Correlations between teachers' values and goals supported our that teachers' values relate to the achievement goals they encourage. Social goals related to a much greater number of values than academic goals. This suggests that teachers are likely to encourage pro-social and compliance goals regardless of their value preferences, whilst teachers' specific value preferences are likely to influence their encouragement of mastery approach and performance approach goals. In other words, most teachers want to communicate social goals to their students, but only certain teachers, the ones with certain value preferences, aim to communicate academic goals. This preference may explain why research has found that Australian teachers, when compared to other nationalities, were above average in creating supportive learning environments, but below average in designing learning experiences of high intellectual quality (Hayes, Mills, Christie, & Lingard, 2006)

Correlations between Values and Academic Goals

Mastery approach goals were positively correlated with all openness to change and self-transcendence values. These findings were not unexpected as openness to change and self-direction values are thought to be derived from the human need for mastery and learning (Schwartz, 2005). Teachers endorsing such values are likely to encourage students' self-expression and growth via mastery approach goals. Results did not show correlations between conformity and mastery approach goals, which contradicted a sample of Indonesian and Chinese students (Liem & Nie, 2008) and a sample of Bangladesh teachers (Akhter, 2003). This might be because culture influences which values teachers relate to particular classroom goals. In collectivistic cultures like Indonesia or Bangladesh, respect for authority, fitting in and conforming to rules are emphasised and likely seen as necessary for the mastery of learning content, whereas individualistic societies like Australia often perceive

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independence and self-direction as antecedents of mastery (Trumbull & Rothstein-Fisch, 2011).

Performance approach goals correlated with both self-enhancement values. This result was not surprising given that the underlying focus of these two motivational variables is to pursue and demonstrate achievements (Schwartz, 2012). Furthermore, teachers who encouraged performance approach goals also endorsed conformity, possibly because implicit in performance is an underlying conformity. Performance is based on competition and competition between disparate elements is not possible. Boekaerts et al. (2006) argued for a similar link between conformity and performance approach goals in students' learning behaviour.

Correlations between Values and Social Goals

Pro-social goals were related positively to all values except conformity and power. Power entails a focus on the self and dominance over others (Schwartz, 1994) and is, therefore, unlikely to be linked to pro-social goals. However, one could have expected conformity to be a pre-condition of pro-social behaviour in the classroom because it entails the restrain of actions which may upset or harm others (Education Queensland, 2007). Investigation of the questionnaire revealed that in this study, items describing conformity and pro-social goals do not refer to the same construct. Pro-social goals are connected to an ethic of care, while conformity items refer to upholding established standards and following rules. The latter can be done without considering the needs of others. The correlation between pro-social goals and benevolence was particularly strong, which was expected as the tendency to share, help and cooperate is the very definition of pro-social goals (Wentzel, 1994).

Compliance goals correlated positively with all values except power and were related strongest to conformity. Conformity emphasises self-discipline, respect and obedience (Schwartz, 2012), all necessary characteristics for compliance with school's social expectations and norms. Mackay (2013) argued that successful behaviour management practices depend on the presence of a wide range of values, such as openness to change values in the form of active student participation and democratic decision making, self-transcendence values in the form of trust between students and teachers, and even self-enhancement values in the form of fun tasks that enhance self-worth.

Compatibility of Classroom Goals

The two academic goals were correlated with predominantly different values on opposite sides of Schwartz's (1994) value circle. These correlations suggest that teachers perceived mastery approach goals and performance approach goals to be incompatible with each other. The two social goals, on the other hand, correlated with similar values, suggesting that teachers who encouraged one of the social goals were likely to encourage the other one as well. Moreover, all values which positively related to mastery approach goals were also positively related to the two social goals. Mastery approach goals are therefore likely to be encouraged along with both social goals, while performance approach goals are not. Maybe teachers perceive the encouragement of performance approach goals and the other three goals as mutually exclusive. Since all four goals are relevant for high achievement (Wentzel, 1993b), the exclusivity of performance approach goals may have contributed to associations of performance approach goals with negative student outcomes in past research.

Research examining students who pursued mastery as well as performance approach goals showed that a combination of both goals may benefit students' performance most (e.g.,

Barron & Harackiewicz, 2001; Conley, 2012; Elliot, 2005). Sometimes, performance approach goals may be necessary to motivate students to immerse themselves in the topic of study. Deeper knowledge of the topic may then trigger intrinsic motivation and mastery approach goals, which may have not been formed without prior pursuit of performance approach goals. Since past research has shown that students can internalise endorsed classroom goals (Anderman & Anderman, 1999), it could be advantageous if teachers do not perceive mastery and performance approach goals as two dichotomous constructs, but rather as different components of a single motivational force. Lee, McInerney, Liem, and Ortiga (2010) argued that such a view allows the two academic goals to coexist in one classroom and to be adopted simultaneously by students.

Interestingly, no values were found to be negatively correlated with any achievement goals. This was unexpected as a study examining correlations between values and goals of students found negative relations between certain values, for example hedonism and academic goals (Liem et al., 2008). However, as teachers aim for high achievement for their students, it is likely that they endorse values like hedonism in a way that benefits motivation, for example through deriving pleasure from understanding subject matter or working cooperatively with peers. Students, on the other hand, might have related hedonism to pleasures unrelated to learning. The lack of negative correlations of basic values to academically relevant goals supports Boekaerts and colleague's (2006) suggestion that the mutual exclusiveness of values or trans-situational goals is questionable. Therefore, teachers could aim to impart multiple goals for learning, which has arguably stronger impacts on students' achievement motivation in the classroom (Dowson & McInerney, 2003).

Two values, namely creativity and hedonism, were correlated positively to all four academically relevant classroom goals. They may be important values to endorse when aiming for a multiple goal intervention in an individualistic society like Australia. Creativity encourages independent thinking and productivity, while hedonism focuses on satisfying oneself through pleasure or fun (Schwartz & Bardi, 2001). Both, creative self-expression and pleasant arousal are thought to constitute an intrinsic source of motivation, which is known to increase students' interest, engagement and performance (McInerney & McInerney, 2010; Schwartz & Bardi, 2001).

Limitations and Future Directions

The current study is a small scale pilot study sampling high school teachers from schools of one regional area in Far North Queensland. While results can give educators a glimpse of the relationship between teachers' value priorities and goals in Australian classrooms, more research with larger sample sizes is needed if findings are to be generalised. Furthermore, it has been shown that teachers may hold different achievement goals for different students, depending on factors like gender or ethnicity (Weinstein, 2002). Future research needs to explore how context influences correlations between teachers' values and goals.

This study has found correlations between a great number of values and compliance goals, which are essential for behaviour management. Future research needs to determine the extent to which successful behaviour management practices are correlated with the endorsement of particular values. Such a study could inform frameworks for successful behaviour management practices.

In regards to the study's validity, it has to be noted that measurement error is inevitable when measuring mental constructs such as values and goals (Field, 2009). It is likely that reported correlations are attenuated estimates of the true correlation because

measurement error tends to attenuate correlations between constructs (Gronhoj & Thogersen, 2009). Further, the cross-sectional research design does not permit for conclusions about cause and effect relationships (Field, 2009). This study can only hypothesise that values are precursors of classroom goals based on prior research on students' achievement motivation (Liem et al., 2012). Alternatively, values endorsed in classrooms may also arise from teachers' selection of particular achievement goals. Importantly though, this study's findings revealed that a connection exists.

Finally, attitudinal measures, like those used in this study, do not provide direct evidence of specific behaviour and are often criticised as not being reliable in this respect (Creswell, 2012; Muijs, 2004). For instance, teachers' explicit recollection of goal and value endorsement may overlook implicit passive incidences of endorsements. Even though there is some evidence that value priorities assessed by the Portrait Values Questionnaire relate to actual behaviour (Schwartz & Bardi, 2001), this study's analyses do not determine how teachers' self-reported classroom goals and values are translated into practice. Observational studies of classroom situations as well as data about students' perception of endorsed goals and values are needed to extend our findings.

Practical implications

We believe this study provided initial empirical data showing a relationship between values endorsed by Australian teachers and their classroom goals, with the caveat that, because values may be one of many predictors of classroom goals, further research is conducted to support our findings. Several reported correlations differed from correlations found in student samples or overseas teacher samples. Hence, this study advanced findings of previous research which cannot be used to draw conclusions about Australian teachers. A key finding was that teachers' academic classroom goals were related to specific value dimensions, while social goals were related to the endorsement of a greater number of values across several value dimensions. This suggests that teachers with various value preferences aim to foster social goals in students, while the endorsement of academic goals depends more on teachers' specific value endorsement. Thus, schools could benefit from examining their hidden value curriculum in order to maximise teachers' communication of academic learning goals which are important for high achievement.

Moreover, negative correlations between endorsed values and classroom goals were not found. Therefore, it could be hypothesised that different value preferences are not likely to oppose the encouragement of multiple classroom goals by teachers. Wentzel (2000) argued that multiple goals for learning promote continued student engagement and achievement motivation. This study built on Wentzel's research by examining how four academically relevant classroom goals link to teachers' value preferences. Most values were related to several classroom goals. Notably, creativity and hedonism were positively correlated with all four classroom goals and, thus, could be useful values to emphasise in Australian schools.

Potential implications arise from this study for higher education institution programs training pre-service teachers. As Snook (2003) has argued, teachers can never be value free; their values are being reflected by their subject matters, their explanations and their behaviours. Teachers can stimulate the development of specific values throughout the life span. They are excellent "advertising executives". And given that social constructivism processes are explicitly and implicitly utilised in pre-service teacher programs through learning and assessment activities, there is great scope for teacher educators to stimulate pre-service teachers' awareness of their own values and the values' antecedents in moral philosophy, through the teaching of ethics (Boon, 2011). Moreover, during the teaching of

educational psychology within the pre-service teaching programs, teacher educators must explicitly and exhaustively point out, illustrate and demonstrate that teachers' behaviours clearly and unambiguously communicate teachers' values and beliefs about students and their potential. They can do this by describing research showing that stereotypes and preconceived ideas are commonplace in everyone's thinking (Fine, 2006) and need to be actively examined and reflected upon, while high expectations and beliefs have been particularly beneficial, for example, in raising minority student outcomes (e.g., Gore, Ladwig, Griffiths & Amosa, 2007) and thus enhancing teacher effectiveness and quality.

Finally, this study's findings have the potential to stimulate practicing teachers' reflections about the values and goals they communicate in their classroom. Such self-knowledge and self-management are characteristics thought to be central to quality teaching (Lovat, 2005). It can help teachers design learning environments that maximise students' achievement motivation through the conscious endorsement of values which link to productive goals and goals which link to beneficial values.

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Appendix A: Questionnaire Subscales

Variable	Item
Creativity	1. Thinking up new ideas and being creative is important to him/her.
	15. S(he) likes to be curious and to try to understand all sorts of things.
Power	2. It is important to him/her to be rich.
	13. It is important to him/her to be in charge and tell others what to do.
	24. S(he) always wants to be the one who makes the decisions.
Social concern	3. S(he) thinks it is important that every person in the world be treated equally.
	6. It is important to him/her to listen to people who are different from him/her.
	19. S(he) wants everyone to be treated justly, even people s(he) doesn't know.
Stimulation	4. S(he) thinks it is important to do lots of different things in life.
	11. S(he) likes to take risks.
	20. It is important to him/her to have an exciting life.
Conformity	5. S(he) thinks people should follow rules at all times, even when no-one is watching.
	12. It is important to him/her always to behave properly
	18. S(he) believes s(he) should always show respect to his/her parents and to older people.
Humility	7. S(he) thinks it is important NOT to ask for more than what s(he) has.
	23. It is important to him/her to be humble and modest.
Hedonism	8. S(he) seeks every chance s(he) can to have fun.
	16. Enjoying life's pleasure is important to him/her.
	22. Having a good time is very important to him/her.
Independence	9. S(he) likes to be free to plan and to choose his/her activities for him/herself.
	21. It is important to him/her to be independent.
Benevolence	10. It's very important to him/her to help the people around him/her.
	14. It is important to him/her to be loyal to his/her friends.
	17. It is important to him/her to respond to the needs of others.
Mastery approach goals	5. I encourage my students to learn something new even when they don't have to.
	6. I encourage my students to find things in learn in class that are hard.
	11. I encourage my students to learn things because it's a challenge.
	16. I encourage my students to really understand what they are studying.
Performance approach goals	4. I encourage my students to show me how smart they are.
	8. I encourage my students to learn things in order to get a good grade.
	9. I encourage my students to do better than their peers in class.
	15. I encourage my students to volunteer to make presentations in front of the class.
	19. I encourage my students to volunteer to show their work in front of the class.
Pro-social goals	1. I encourage my students to share what they have learned with their peers.
	2. I encourage my students to be nice to a peer when something bad has happened to him/her.
	10. I encourage my students to help their peers when they have a problem.
	12. I encourage my students to help peers solve a problem once they have figured it out themselves.
	17. I encourage my students to help their peers to learn new things.
Compliance goals	3. I encourage my students to think about how their behaviour will affect other students.
	7. I encourage my students to keep promises that they have made to their peers.
	13. I encourage my students to be quiet when others are trying to study.
	14. I encourage my students to keep working even when they are tired.
	18. I encourage my students to keep working even when other kids are goofing off.