The Role of Motivational Characteristics in Taiwanese Sixth Graders' Avoidance of Help Seeking in the Classroom

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Abstract

This study explored how Taiwanese upper-elementary-school students' motivational characteristics were related to their decisions regarding avoidance of help seeking in the classroom context. Two hundred and ninety-eight sixth-grade students completed a self-report survey assessing their attitudes and behaviors related to help avoidance, achievement goal orientations, perceptions of the classroom goal structure, implicit theories of intelligence, and affective experiences in school. Students' overall grades from fifth grade were collected from their school records. Results suggested that children's mastery-focused motivation, such as perceptions of a mastery goal structure, incremental theory of intelligence, and mastery goal orientations, were negatively associated with their attitudes toward avoidance of help seeking. In terms of help-avoidance behaviors, in addition to the negative relations of mastery-focused motivational components to this outcome variable, I found that the entity theory of intelligence and performance-avoidance goal orientation positively predicted students' help-avoidance behaviors. The significant interaction between mastery classroom goal structure and mastery goal orientation on students' attitudes toward help avoidance indicated that the negative association between mastery goal orientation and reported attitudes toward help avoidance was stronger among students who scored higher on the mastery classroom goal structure scale. With regard to the documented profiles of students holding different views of intelligence, in general, incremental theorists displayed the most adaptive help-seeking tendencies. Implications for education and future research are discussed.

Over the past decade, the concept of self-regulated learning has sparked considerable interest among researchers in education in examining the characteristics of a self-regulated learner. Help seeking has been considered an adaptive strategy that

self-regulated learners employ to enhance their learning (Karabenick, 1998; Nelson-Le Gall, 1985; Newman, 2000; Ryan, Patrick, & Shim, 2005; Ryan, Pintrich, & Midgley, 2001; Zimmerman & Martinez-Pons, 1988). Students sometimes encounter ambiguity and difficulty in their schoolwork. The ability to use others as a resource to cope with the situation is critical for them to carry out the academic task (McCaslin & Good, 1996). To implement this strategy, the student must not only be able to detect the need for help (metacognition) but also be willing to ask for assistance (motivation) (Ryan, Gheen, & Midgley, 1998; Ryan & Pintrich, 1997). Nevertheless, although students' ability to monitor their performance and determine their need for help increases as they develop into adolescents (Nelson-Le Gall, Kratzer, Jones, & DeCooke, 1990; Newman, 1994; Newman & Schwager, 1995), many upper-elementary students tend to avoid seeking help with their academic work when needed (Good, Slavings, Harel, & Emerson, 1987; Newman, 1990; Newman & Goldin, 1990).

Students avoid help seeking when they notice the need for help but do not actively seek it. This decision reflects an individual's intention to cease or avoid academic engagement. When students do not secure help when they need it, they are at a great disadvantage for learning and performance (Ryan & Pintrich, 1997; Ryan et al., 2001). Hence, it is important to investigate factors that may be linked to this intentional goal-directed act. Given that by early adolescence most students have the metacognitive capacity to determine when they need help and know how to obtain it, it is likely that many decide not to seek help for motivational and social reasons (Newman, 2000; Ryan et al., 2005). Developmental characteristics of young adolescents include increased self-consciousness, concern about peer acceptance, and sensitivity to social comparison. In comparison with younger children, early adolescents may experience greater fear of embarrassment from seeming incompetent in the eyes of classmates (Bowerman & Kinch, 1969; Eccles et al., 1993; Nicholls, 1990). According to Newman (1994), a student's decision to seek help is filtered through a motivational-affective system. Clearly, for a fuller understanding of early adolescents' avoidance of help seeking, it is necessary to consider multiple motivational factors.

Prior studies on help seeking in the classroom context have explored the relations of such motivational components as perceived competence (Newman, 1994; Ryan & Pintrich, 1997) and self-efficacy (Ryan et al., 1998) to students' help-seeking tendencies. Recently, researchers have begun to investigate the role of achievement goals in student help seeking (e.g., Karabenick, 2004; Ryan et al., 1998, 2005). Yet, whereas individuals' implicit theories of intelligence have been regarded as antecedents to achievement goals (Dweck, 1999; Dweck & Leggett, 1988; Molden & Dweck, 2000), to date, no researchers have examined how this factor is linked to help-seeking patterns, let alone the joint contributions of implicit theories of intelligence and achievement goals to an explanation of help avoidance. To extend the understanding of the relations between important motivational characteristics and help seeking, in the present study I attempted to explore how Taiwanese upper-elementary students' personal goal orientations, perceptions of the classroom goal structure, and implicit theories about intelligence were related to their decision regarding avoidance of help seeking. In particular, the primary purpose of this study was to determine the role of implicit theories of intelligence in young adolescents' reluctance to seek academic help. I expected that consideration of implicit views of intelligence within which individuals interpret achievement situations would help to address issues regarding help avoidance that cannot be explained in terms of achievement goals alone.

Moreover, because the majority of the research investigating help avoidance among young adolescents has been conducted in Western societies (for review, see Ryan et al.,

2001), it remains unclear whether the research findings are applicable to other cultural contexts. Cross-cultural studies on children's development and learning have shown differences in achievement-related behaviors between Asian and Western students (Stevenson, Stigler, Lee, & Lucker, 1985; Sue & Okazaki, 1990). Because people from Asian cultures hold different beliefs and values than do those from Western cultures (Markus & Kitayama, 1991; Triandis, 1994), their varied socialization experiences may lead them to interpret and perceive help seeking differently. Whereas Western students may perceive academic help seeking as a dependent behavior that conflicts with the cultural emphases on independent mastery and self-reliance, Asian students socialized with an emphasis on an interdependent sense of self may interpret such behavior as instrumental in fostering learning. By examining students' avoidance of help seeking in the Taiwanese classroom context, I hope to clarify such speculation.

Achievement Goals and Help Seeking

As an organizing framework through which a variety of cognitive and affective responses to achievement situations can be interpreted (Ames, 1992; Dweck & Leggett, 1988; Nicholls, 1984), achievement goal orientations are important to understanding individuals' avoidance of help seeking (Ryan et al., 2005). To date, most achievement goal theorists have identified three distinct types of goal orientations: mastery, performance approach, and performance avoidance (e.g., Church, Elliot, & Gable, 2001; Elliot & Harackiewicz, 1996; Skaalvik, 1997; Urdan, 2004). Mastery goals encourage individuals to increase their competence or achieve task mastery. Performance-approach goals focus students on demonstrating their ability relative to others or proving their self-worth. Performance-avoidance goals lead students to avoid appearing to be incompetent or less able than others.

Students with a mastery goal orientation have been found to be more likely to manifest adaptive help seeking (Butler & Neuman, 1995; Newman & Schwager, 1995; Ryan & Pintrich, 1997). As for the relations of performance goal orientations to avoidance of help seeking, a stronger relation to help avoidance has been found for a performance-avoidance goal orientation than a performance-approach goal orientation (Middleton & Midgley, 1997). The closer tie to performance-avoidance goals would be expected, given that the goal to avoid seeming incompetent resonates with competence concerns about help seeking (i.e., I worry about requesting help because others might think I am stupid) (Karabenick, 2004; Ryan et al., 2001). In terms of help seeking, it appears that the avoidance aspect of performance goal orientations may be more detrimental. Despite existing findings regarding the stronger association of a performance-avoidance goal orientation to help avoidance, however, Taiwanese students holding a performance-approach goal orientation may be so desperate to be the best students in the class that they may not seek any kind of help at all, given the competitive atmosphere within this classroom context (Shih, 2005). Accordingly, I hypothesized in the present study that, regardless of their focus on approach versus avoidance motivations, Taiwanese students with performance goal orientations would likely avoid seeking academic help when needed. Goal theory posits that the achievement goals that individuals pursue in achievement situations depend both on stable personal orientations and contextually determined responses to goal structures (Urdan, 2001). Thus, it is also important to explore the role of achievement goal structures in students' tendencies to avoid help seeking in the classroom.

Students' Perceptions of the Classroom Goal Structure, and Help Avoidance

In comparison with other theories of motivation, achievement goal theory posits a

greater role of the achievement context in shaping the motivation of individuals. As such, it holds direct implications for educators (Urdan, 2001). Although teachers may foster or discourage students' help seeking through how they structure classes, much less is known about the influence of achievement goal structures than that of students' goal orientations (Midgley, 2002). Goal structure has been defined as the emphasis on achievement goals conveyed by a constellation of instructional strategies and policies such as the types of tasks assigned, grading procedures, the degree of autonomy students experience, and grouping practices within the learning environment (Turner et al., 2002; Urdan & Midgley, 2003; Wolters, 2004). Most research has focused on two types of goal structures. A mastery goal structure communicates to students that understanding, intellectual development, and improvement are the reasons for involvement in schoolwork. In contrast, teachers may communicate to students that outperforming others and getting extrinsic rewards are the reasons for engaging in academic behavior through creating a performance goal structure in the classroom (Turner et al., 2002; Urdan, 2004; Urdan & Midgley, 2003).

Previous research (Ames, 1983; Newman, 1991; Ryan et al., 1998) has suggested that students' help-seeking tendencies may vary as a function of their perceptions of the classroom goal structure. A perception of a mastery goal structure is related to an increased willingness to solicit academic help, whereas a perception of a performance classroom goal structure is associated with increased help avoidance. When students perceive an emphasis on effort and understanding in the learning environment, they are more inclined to request help to gain mastery. By contrast, in classes that emphasize demonstrating ability relative to others, students are more likely to avoid seeking the help they need with their work. More recently, however, Turner et al. (2002) found that elementary school children's reluctance to seek help is inversely related to mastery goal structure but not to perceived emphasis on performance goals in the classroom. The inconsistent findings indicate that there is some ambiguity regarding the effects of performance goal structure on students' help-seeking patterns. Indeed, in his review of research on achievement goal structures, Urdan (2001) maintained that the effects of perceived performance goal structure on student motivation may be particularly complex. Therefore, I predicted that a perception of a mastery goal structure would be positively associated with students' willingness to ask for help. However, the mixed findings in the existing literature concerning the relation of performance goal structure to help seeking precluded a precise prediction of this relation.

A number of goal theorists (Ames, 1992; Church et al., 2001; Urdan, 2001) have argued that classroom goal structures reflect students' subjective experiences (i.e., students' individual perceptions and interpretations) rather than the objective environment itself. Depending on the prior experiences they bring to the classroom, students may interpret specific treatments or interventions quite differently. Because students' perceptions and interpretations mediate the effects of instructional practices and policies, their perceptions of the classroom environment (i.e., the "psychological environment") are critical in understanding how classroom goal structures influence motivation and behavior (Church et al., 2001; Ryan et al., 1998; Urdan, 2001). Given that students' help-seeking tendencies may in large part be influenced by both their perceptions of the classroom goal structure and personal goal orientations, my study was intended to examine the independent and joint contributions of personal and contextual goals to an explanation of children's avoidance of help seeking. Also, the potential interactive effects between perceived classroom goal structures and personal goal orientations on help avoidance were investigated. Students enter a classroom context

with various goal orientations that have developed over the years through socialization processes. Their personal goals may or may not be congruent with goals embedded in a classroom milieu (Newman, 1998). The examination of the interactive influence of personal goal orientations and classroom goal structures on help seeking would help to identify specific combinations of personal and contextual goals that may be related to children's help avoidance.

Implicit Theories of Intelligence and Avoidant Help-Seeking Tendencies

As mentioned previously, the primary reason that underlies young adolescents' avoidance of help seeking may involve competence concerns. Competence concerns refer to the individual's reluctance to seek help because of worries about embarrassment from looking dumb in the eyes of others (Newman, 1990; Ryan et al., 2005). Continued failure following help seeking is especially likely to threaten the student's sense of self-worth because of the implication of low ability (Covington & Beery, 1976; Newman & Goldin, 1990). Hence, Ryan et al. (2001) pointed out the importance of considering factors related to competence concerns and to help avoidance. A crucial factor that surprisingly has been overlooked in the literature on avoidance of help seeking appears to be students' implicit theories of intelligence.

Serving as the background assumptions that guide how people interpret and react to achievement situations, implicit theories refer to one's deeply held, but rarely articulated, thoughts about the nature of intelligence (Dweck, 1999; Dweck & Leggett, 1988; Hong, Chiu, & Dweck, 1995; Molden & Dweck, 2000). Entity theorists believe that intelligence is a fixed, permanent entity. They are likely to perceive the achievement situation as one that tests their ability. Accordingly, negative performance outcomes are likely to be interpreted by entity theorists as indicators of intellectual inadequacy. In contrast, incremental theorists believe that intelligence is malleable and can be increased. They are oriented toward developing their intellectual ability instead of diagnosing it. Therefore, incremental theorists are less likely than entity theorists to make negative ability inferences following failure (Dweck & Leggett, 1988; Henderson & Dweck, 1990). Presumably, each implicit theory with its allied pattern of achievement motivation may constitute a self-system linked to differential vulnerability in failure situations. Holding an entity view of intelligence is likely to set students up for a sense of contingent self-worth (i.e., the idea that one's worth is dependent on one's successes and is undermined by failure). Because entity theorists believe that achievement situations carry important information about the self, avoiding failures and attaining successes are necessary for them to maintain their sense of worth (Burhans & Dweck, 1995; Molden & Dweck, 2000; Mueller & Dweck, 1998).

Previous research (Stone, 1998) has shown that entity and incremental theorists may even ascribe different meanings to the same goal. Regardless of whether they begin the task from a stance of approach or one of avoidance, entity theorists' concerns about protection of self-worth are likely to lead them to adopt an avoidance strategy. In contrast, incremental theorists are presumably not vulnerable to the threat to competence that might result from performance setbacks. Failures are thus unlikely to inspire such an avoidance strategy as help avoidance. Hence, I hypothesized that an entity view of intelligence would positively predict help avoidance, whereas the incremental theory would be inversely related to help-seeking avoidant orientation. Further, students' affective experiences have been shown to be important determinants of their academic engagement (Roeser, Eccles, & Strobel, 1998). Given that affective experiences in the classroom may influence students' feelings about seeking help when faced with difficulties (Ryan et al., 2005), this study was also intended to explore whether young adoles-

cents' positive affect as well as anxiety experienced in school would vary as a function of their implicit theories of intelligence. I predicted that students with an incremental view of intelligence would report higher levels of positive affect and lower levels of negative affect than would entity theorists.

Taiwanese Children's Implicit Theories of Intelligence

Owing to the predominant cultural norm, Taiwanese students are likely to hold both entity and incremental theories, the two seemingly contradictory beliefs about intelligence, at the same time (Hong, 2001). In Chinese culture, exertion of effort is highly valued. Taiwanese students are taught to believe that effort and hard work are the keys to academic success and promising career opportunities. The culturally prescribed belief in hard work encourages Taiwanese students to adopt the view that effort enhances ability. Put differently, Taiwanese students are socialized to become incremental theorists (Salili & Hau, 1994). However, at the same time, these students may also believe that intelligence is a fixed entity. The belief that people with high ability would not need much effort to succeed is reflected in a popular Chinese saying that "hard work may compensate for ineptitude." Within the Taiwanese classroom context, endorsement of an incremental view of intelligence may coexist with a belief in an entity view (Hong, 2001). Through studying children's beliefs about intelligence in this context, I hoped that the question regarding the effects of different theories of intelligence, in particular, the belief combination noted above, on students' academic help seeking could be answered.

The Present Study

Based on the above review, I designed the present study to explore how Taiwanese upper-elementary students' motivational characteristics, including personal goal orientations, perceptions of the classroom goal structure, and implicit theories of intelligence, were related to their decision regarding avoidance of help seeking in the classroom. When investigating individuals' help-seeking patterns, researchers normally use either attitudes about help seeking (Butler, 1998; Newman & Goldin, 1990; Ryan et al., 2005) or help-seeking behaviors (Ryan et al., 1998; Turner et al., 2002) to represent the variables of interest. Yet, for a thorough examination of young adolescents' tendencies to avoid help seeking, I included both attitudes and behaviors related to help avoidance in the present study. The inclusion of both measures within one study was inspired by Ryan and Pintrich's (1997) work. In their study, the role of attitudes toward help seeking in predicting early adolescents' help-seeking behaviors was explored, based on Fishbein and Ajzen's (1975) theory that attitudes bring forth behavioral intentions and, in turn, actual behavior. According to Ryan and Pintrich (1997), help-avoidance behaviors involve instances when a student needs help but does not seek it, whereas attitudes refer to perceived threat and benefits associated with help seeking in the classroom. Despite the possible shared variance, attitudes as well as behaviors related to help avoidance are two distinct constructs with differential conceptualizations. By examining the relations of motivational components to the two variables separately, I expected that the role of children's motivational characteristics in their avoidance of help seeking would be more precisely determined.

Because the aim of this study was to investigate the effects of motivational factors on young adolescents' avoidance of help seeking, it was necessary to rule out the confounding effects that might have stemmed from variables such as gender or achievement. Previous research (Newman & Goldin, 1990) has documented the roles of gender and achievement in students' reluctance to seek help with schoolwork. Because of differing socialization experiences for boys and girls, girls are more likely than boys to

report worries that teachers might think they are stupid when they ask a question about mathematics. As a result, girls tend to be more hesitant than boys about asking for help. With regard to the relation between achievement and help seeking, researchers have found that the lower the achievement, the greater is the child's reluctance to ask questions. Low achievers learn not to request assistance in order to avoid embarrassment in the classroom (Eccles & Wigfield, 1985; Weinstein, 1985). On the basis of these findings, both gender and students' grades were taken into consideration when the data were analyzed.

In sum, the present study attempted to address the following research questions: Do children's perceptions of the classroom goal structure, implicit theories of intelligence, and personal goal orientations predict their (*a*) attitudes toward help avoidance after controlling for grades and gender and (*b*) their help-avoidance behaviors after controlling for grades and gender? (*c*) Do children's attitudes and behaviors related to help avoidance, personal goal orientations, perceptions of the classroom goal structure, affective experiences, and academic achievement differ according to their implicit theories of intelligence?

Method

Participants

The participants were 298 sixth-grade Taiwanese students from 11 classes in four elementary schools. Participating schools and classes were drawn at random from the northern part of Taiwan. All of the school principals granted initial consent for data to be collected in their schools. The 143 girls (48%) and 155 boys ranged in age from 10 years, 3 months to 12 years, 7 months (M = 11 years, 6 months). The school districts were primarily middle class in terms of socioeconomic status. Three of the schools were located in the outskirts of a large city. One school was near the city center. All of the participants were Taiwanese. Guidelines for the proper treatment of human subjects were followed.

Procedure

The data were collected at the beginning of the year in sixth grade (September). Students were required to fill out a few questionnaires (described in detail below) during regular class time. It took participants approximately 30 minutes to complete the whole survey. Two research assistants were in each class for the data collection. They assured students of the confidentiality of their self-reports and encouraged them to respond to the items as accurately as possible. One of the trained research assistants read the items aloud, and the other one walked around to check skipped items and ensure quality responses.

Measures

Participants were instructed to respond to all items on five-point Likert scales ranging from 1 (not at all true of me) to 5 (very true of me). A Chinese version of this self-report survey was employed. To ensure adequate translation, the guidelines of the International Test Commission (Hambleton, 1994) were followed. All questionnaires were translated into Chinese and then back-translated into English. Table 1 displays reliability information (i.e., internal consistency reliability coefficients and 95% confidence intervals for reliability coefficients) and sample items of all measures used in the present study.

Achievement goals. Students' goal orientations were assessed by scales adapted from Elliot and Church's (1997) achievement goals questionnaire. Although Midgley et al. (1998) developed similar scales assessing students' achievement goal orientations, I used Elliot and Church's questionnaire because they emphasized the importance of separating approach from avoidance (Elliot, 1997, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996). I expected the important and functional differences between approach and avoidance performance goals to

TABLE 1. Scales, Number of Items, Cronbach's Alpha, and Sample Items for Measures

Scale	No. of Items	Cronbach's α (95% CI)	Sample Items
Mastery goals	6	.81 (.78 ~ .84)	I want to learn as much as possible from this class. I desire to completely master the material presented in this class.
Performance-approach goals	6	.84 (.81 ~ .86)	It is important to me to do better than the other students. My goal in this class is to get a better grade than most of the students.
Performance-avoidance goals	6	.70 (.65 ~ .74)	I worry about the possibility of getting a bad grade in this class. I often think to myself, "What if I do badly in this class?"
Mastery goal structure	7	.85 (.83 ~ .87)	My teacher recognizes us for trying hard. My teacher really wants us to enjoy learning new things.
Performance goal structure	7	.78 (.75 ~ .81)	My teacher tells us how we compare to other students. My teacher lets us know which students get the highest scores on a test.
Entity theory	3	.81 (.77 ~ .84)	Your intelligence is something about you that you can't change very much. You can learn new things, but you can't really change your basic intelligence.
Incremental theory	3	.73 (.68 ~ .77)	You can always greatly change how intelligent you are. No matter who you are, you can change your intelligence a lot.
Perceived threat regarding help seeking	3	.69 (.63 ~ .74)	I worry about what other kids might think when I ask a question in math. I think the teacher might think I am dumb when I ask a question about the schoolwork.
Perceived benefits from teachers	3	.80 (.77 ~ .83)	Asking the teacher questions makes the class more interesting for me. Asking the teacher in reading (math) class helps me learn.
Perceived benefits from peers	3	.72 (.67 ~ .76)	Asking other kids questions facilitates friendship. Asking other kids questions facilitates homework completion.
Neglecting the need for help	4	.76 (.73 ~ .80)	If the schoolwork is too hard for me, I just don't do it rather than ask for help. If I need help to do a math problem I skip it.
Repressing the need for help	4	.71 (.66 ~ .75)	Sometimes I want to ask a question about something I don't know in reading (math) class, but I don't ask it. I don't ask for help in math, even if the work is too hard to solve on my own, because I am too shy to ask questions.
Adaptive help seeking	3	.72 (.67 ~ .76)	I like to ask my teacher questions in reading (math) class. If I need help in math, I ask someone to give me hints rather than the answer.
Positive affect	4	.90 (.89 ~ .92)	I am often happy when I am at school. I often feel proud about myself when I am at school.
School anxiety	4	.83 (.80 ~ .86)	I often feel anxious when I am at school. I often worry about my performance when I am at school.

NOTE.—CI = 95% confidence intervals for the reliability coefficients.

be reflected in their questionnaire. This questionnaire is composed of three six-item scales for each of the achievement goals in the trichotomous model. Three scores representing mastery, performance-approach, and performance-avoidance goals for each student were created. To test the validity of the questionnaire, I conducted a principal-components factor analysis with oblimin rotation on the 18 items. Three factors were extracted from the analysis. Factor 1 accounted for 28.69% of the total variance and consisted of the six mastery goal items. The second factor accounted for 16.08% of the total variance and comprised the six performance-approach goal items. Factor 3 accounted for 12.88% of the total variance and comprised the six performance-avoidance goal items. Together, the three factors accounted for 57.65% of the total variance.

Perceived classroom goal structures. Students' perceptions of the goal structure in the classroom were assessed by scales adapted from the Patterns of Adaptive Learning Survey (PALS) (Anderman & Midgley, 2002). The mastery goal structure scale is composed of seven items, and the performance goal structure scale includes seven items as well. The results of a principal-components factor analysis revealed that these items formed two distinct factors. The factor solution accounted for 49.37% of the total variance. The factor of the mastery goal structure accounted for 28.03% of the total variance, whereas the factor of the performance goal structure accounted for 21.34% of the total variance.

Implicit Theories of Intelligence Scale. Students' implicit theories of intelligence were assessed by the scale adapted from the Implicit Theories of Intelligence Scale for Children (Dweck, 1999). The scale is composed of two three-item subscales of the entity and incremental theories. Two distinct factors emerged after all items had been entered into a factor analysis. The factor solution accounted for 69.92% of the total variance. The entity theory accounted for 37.23% of the total variance, whereas the incremental theory accounted for 32.69% of the total variance.

Attitudes toward help avoidance. The questionnaire assessing children's attitudes toward help avoidance was based on the work of Newman (1990), Newman and Goldin (1990), and Ryan and Pintrich (1997). Children were asked about their perceptions of potential benefits and threats associated with seeking help with schoolwork. Perceived threat to self-worth stemming from help seeking reflects that the request for help is construed as evidence of incompetence and therefore will incur unfavorable judgments from others (3 items). Items concerning perceived potential benefits were differentiated between students' perceptions of benefits from peers (3 items) and benefits from teachers (3 items). Because this questionnaire was designed to measure students' attitudes toward help avoidance, items representing potential benefits associated with help seeking were reverse coded. Results of a principal-components factor analysis showed that perceptions of threat associated with negative judgments from others emerged as a distinct factor accounting for 17.13% of the total variance. Perceived benefits of help from peers and perceived benefits of help from teachers emerged as two distinct factors. The factor of perceived benefits of help from peers accounted for 19.08% of the total variance, whereas the factor of perceived benefits of help from teachers accounted for 24.95%. Together, the three factors accounted for 61.16% of the total variance. A composite score of children's attitudes toward help avoidance was computed by summing the three primary subcomponents of the measure ($\alpha = .72$).

Help-avoidance behaviors. Children's help-avoidance behaviors were assessed by the questionnaire adapted from the questionnaires of Newman and Goldin (1990), Ryan and Pintrich (1997), and Turner et al. (2002). Three indicators of help-avoidance behaviors were included: (*a*) avoidance of help seeking on schoolwork by neglecting

the need for help (4 items), (*b*) avoidance of help seeking on schoolwork by repressing the need for help (4 items), and (*c*) endorsement of adaptive help seeking on schoolwork when needed (3 items). The subcomponent concerning endorsement of adaptive help seeking was reverse coded because the questionnaire was intended to measure students' help-avoidance behaviors. A principal-components factor analysis revealed that these items formed three distinct factors. The factor solution accounted for 59.51% of the total variance. The factors of avoidance of help seeking by neglecting the need for help and avoidance of help seeking by repressing the need for help accounted for 23.67% and 18.35% of the total variance, respectively. The factor of endorsement of help seeking when needed accounted for 17.49% of the total variance. The composite scale of help-avoidance behaviors was computed by summing all items of the three subcomponents ($\alpha = .69$).

As noted earlier, Ryan and Pintrich (1997) provided support for the distinction between attitudes toward help avoidance and help-avoidance behaviors. For a confirmation of the need to differentiate these related variables into two constructs, I nevertheless performed canonical correlation analysis to compute redundancy coefficients of the two variables. Results of redundancy analysis suggested that the variable of help-avoidance behaviors accounted for 32% of the total variance of attitudes toward help avoidance. The variable of attitudes toward help avoidance explained 34% of the total variance of help-avoidance behaviors. In other words, for either variable, the proportion of variance of the variable that could not be explained by the other variable was greater than 65%, indicating the conceptual distinctiveness of these two measurement constructs. Table 2 shows factor loadings for these two variables.

Affective experiences. Two scales were adapted to measure students' positive affect (4 items) and anxiety (4 items). The positive affect that students experienced in school was assessed by a scale adapted from Pintrich's (2000) Positive Affect Scale. This scale concerned feeling happy, having fun, feeling proud of oneself, and being in a good mood during school. A principal-components factor analysis yielded a single factor accounting for 77.60% of the total variance. The anxiety scale was constructed to measure such negative affect as anxiety that children experienced in school. A single factor of anxiety accounted for 66.55% of the total variance.

Grades. Students' overall grades from fifth grade were collected from their school records. The grading system in Taiwan for all classrooms assigned points (on a 100-point scale) on classroom tasks. I averaged scores in different subjects (e.g., math, language arts) to represent the overall final semester grades. Before data analysis, collected scores were standardized (converted into *T* scores) within each classroom to help account for variations in teachers' grading policies.

Results

Hierarchical Regressions Predicting Attitudes toward Help Avoidance

Descriptive information and correlations for study variables are displayed in Table 3. Table 4 shows results from the regressions predicting students' attitudes toward help avoidance. I used hierarchical regressions because this procedure would help to determine (*a*) the predictive power of each group of variables (e.g., perceived classroom goal structures, implicit theories of intelligence, and personal goal orientations); (*b*) the unique relation between each predictor variable within each group and the dependent variable; and (*c*) the strongest predictors across groups of variables (Midgley & Urdan, 1995, 2001; Wolters, 2004). In these analyses, gender and grades were entered first in the regression model, for it was crucial to ensure that the relation between a given set of predictor variables and the dependent variable was not con-

TABLE 2. Factor Loadings for "Attitudes toward Help Avoidance" and "Help-Avoidance Behaviors" Questionnaires

Item	Attitudes toward Help Avoidance		
	Factor Loading		
	Perceived Threat	Benefits (Teachers)	Benefits (Peers)
The teacher might get mad at me.	.80		
The teacher might think I'm dumb.	.79		
Other kids might think I'm dumb.	.76		
Asking the teacher questions makes me proud of myself.		.78	
Asking the teacher questions makes the class interesting.		.75	
Asking the teacher questions helps me learn.		.71	
Asking other kids questions facilitates friendship.			.82
Asking other kids questions facilitates homework completion.			.80
Asking other kids questions helps me learn.			.73
	Help-Avoidance Behaviors		
	Factor Loading		
	Neglecting the Need	Repressing the Need	Adaptive Help Seeking
If I need help to do a math problem, I skip it.	.81		
If the schoolwork is too hard, I just don't do it.	.79		
When I don't understand my math work, I often guess.	.75		
If the schoolwork is too hard, I put down any answer.	.69		
I don't ask for help, because I am too shy.		.83	
When I don't understand my math work, I keep quiet.		.73	
Because I'm supposed to know the answer.		.65	
Because it's just too much of a bother.		.62	
I like to ask my teacher questions in class.			.82
If I need help, I ask someone to give me hints.			.79
I ask for help so I can keep working.			.78

founded with gender or achievement-level differences. In doing so, the explanatory power that a set of related predictors had as a group, after accounting for any variance explained by gender and grades, was expected to be determined (Midgley & Urdan, 1995). For the remaining variables, the order of entry was assigned according to theoretical considerations. Predictors that were presumed to be causally prior were given higher priority of entry (Tabachnick, & Fidell, 1996). As mentioned previously, individuals' perceptions of the classroom goal structure and implicit theories of intelligence have been regarded as antecedents to their personal goal orientations (Church et al., 2001; Dweck, 1999; Molden & Dweck, 2000). These two sets of predictors were therefore entered in the regression models prior to the entry of personal goals. Moreover, because perceived classroom goal structures may shape motivation within the individual (Urdan, 2001), I gave children's perceptions of the classroom goal structure the highest priority of entry across these groups of motivational variables.

In the first step of the analysis, gender and grades were entered. These variables failed to predict students' attitudes toward help avoidance. Results from step 2 indicated that adding both mastery and performance goal structures increased the amount of variance explained by 33% for attitudes toward help avoidance, $F(4, 294) = 36.03$, $p < .001$. Mastery goal structure negatively predicted children's attitudes toward help avoidance, $\beta = -.54$, $p < .001$. Adding the entity and incremental theories of intelli-

TABLE 3. Descriptive Statistics and Correlations for Study Variables ($N = 298$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Mastery goal	. . .											
2. Performance-approach goal	.51**	. . .										
3. Performance-avoidance goal	−.04	.25**	. . .									
4. Mastery goal structure	.43**	.28**	.02	. . .								
5. Performance goal structure	.43**	.67**	.34**	.40**	. . .							
6. Entity theory	−.25**	−.05	.33**	−.22**	.11*	. . .						
7. Incremental theory	.41**	.34**	.01	.33**	.03	−.26**	. . .					
8. Attitudes toward help avoidance	−.45**	−.25**	.11*	−.59**	.10	.23**	−.43**	. . .				
9. Help-avoidance behaviors	−.34**	−.16**	.37**	−.30**	.09	.38**	−.33**	.53**	. . .			
10. Positive affect	.46**	.34**	−.18**	.38**	.03	−.27**	.38**	−.45**	−.39**	. . .		
11. School anxiety	−.26**	−.03	.46**	−.19**	.07	.42**	−.18**	.29**	.54**	.41**	. . .	
12. Grades	.20	.16**	−.09	.11*	.06	−.34**	.20**	−.06	−.25**	.13**	−.23**	. . .
M	3.66	3.07	2.74	3.81	3.12	1.77	3.29	2.49	2.34	2.72	2.02	88.62
SD	.87	.85	.76	.84	.82	.89	.96	.69	.67	1.12	.96	8.26

*$p < .05$.
**$p < .01$.

TABLE 4. Summary of Hierarchical Regression Analyses Predicting Attitudes toward Help Avoidance and Reported Help-Avoidance Behaviors ($N = 298$)

	Attitudes[a]			Behaviors[b]		
Variable	*B*	*SE B*	β	*B*	*SE B*	β
Step 1:						
Grades	−.05	.06	−.05	−.27	.06	.25***
Gender	.06	.12	.03	−.17	.11	−.09
Step 2:						
Grades	−.07	.05	−.01	−.25	.06	−.23***
Gender	−.04	.10	.01	−.20	.11	−.11
Mastery structure	−.53	.05	−.54***	−.25	.06	−.25***
Performance structure	−.08	.05	−.09	.02	.06	.03
Step 3:						
Grades	.09	.05	.08	.13	.06	−.12*
Gender	.02	.09	.01	−.18	.10	−.09
Mastery structure	−.46	.05	−.47***	−.16	.06	−.16**
Performance structure	−.05	.05	−.06	.01	.06	.01
Entity theory	.10	.05	.10	.25	.06	.24***
Incremental theory	−.25	.05	−.24***	−.18	.06	−.18***
Step 4:						
Grades	.10	.05	.09	−.08	.06	−.08
Gender	.04	.09	.02	−.11	.09	−.06
Mastery structure	−.42	.05	−.42***	−.12	.06	−.13**
Performance structure	−.07	.07	−.08	−.02	.07	−.02
Entity theory	.04	.06	.04	.16	.06	.16**
Incremental theory	−.22	.05	−.22***	−.14	.06	−.14**
Mastery goal	−.19	.06	−.19***	−.13	.06	−.13**
Performance-approach goal	.06	.07	.06	−.07	.07	−.07
Performance-avoidance goal	.10	.05	.10	.30	.06	.29***
Step 5:						
Grades	.09	.05	.09	−.09	.06	−.09
Gender	.05	.09	.03	−.12	.10	−.06
Mastery structure	−.45	.05	−.46***	−.11	.06	−.12*
Performance structure	−.05	.07	−.05	−.04	.07	−.04
Entity theory	.02	.06	.02	.15	.06	.14**
Incremental theory	−.23	.05	−.23***	−.13	.06	−.13**
Mastery goal	−.19	.06	−.19***	−.14	.06	−.15**
Performance-approach goal	.06	.07	.06	−.05	.07	−.05
Performance-avoidance goal	.09	.05	.09	.31	.06	.30***
Mastery structure X mastery goal	−.18	.06	−.19***	.07	.06	.08
Mastery structure X performance approach	.09	.06	.09	−.06	.07	−.06
Mastery structure X performance avoidance	−.05	.05	−.06	−.07	.05	−.07
Performance structure X mastery goal	.02	.06	.01	.01	.06	.01
Performance structure X performance approach	−.04	.06	−.05	.06	.07	.07
Performance structure X performance avoidance	.09	.05	.09	−.11	.06	−.10

NOTE.—Gender coded 0 = girl, 1 = boy. Attitudes = attitudes toward help avoidance; Behaviors = help-avoidance behaviors.

[a] $R^2 = .01$, $p > .05$ for step 1; change in $R^2 = .32$, $p < .001$ for step 2; change in $R^2 = .07$, $p < .001$ for step 3; change in $R^2 = .04$, $p < .001$ for step 4; change in $R^2 = .02$, $p < .001$ for step 5.

[b] $R^2 = .07$, $p < .001$ for step 1; change in $R^2 = .06$, $p < .001$ for step 2; change in $R^2 = .09$, $p < .001$ for step 3; change in $R^2 = .09$, $p < .001$ for step 4.

*$p < .05$.

**$p < .01$.

***$p < .001$.

gence in step 3 increased the amount of variance explained for attitudes toward help avoidance by 7%, $F(6, 292) = 31.99$, $p < .001$. Mastery goal structure remained a significant predictor in the regression model. Also, the incremental theory negatively predicted students' attitudes toward help avoidance, $\beta = -.24$, $p < .001$. In

step 4, mastery, performance-approach, and performance-avoidance goal orientations were entered in the equation. Adding these variables increased the amount of variance explained in attitudes toward help avoidance by 4%, $F(9, 289) = 24.43$, $p < .001$. In addition to mastery goal structure and incremental theory, personal mastery goal orientation emerged as a negative predictor of children's attitudes toward help avoidance, $\beta = -.19$, $p < .001$.

In the final step of the model, I included six variables representing the two-way interactions between classroom goal structures and personal goal orientations. I created interaction terms by first centering the predictors around their respective means and then multiplying pairs of centered predictors (Aiken & West, 1991; Jaccard, Turrisi, & Wan, 1990). In comparison with evaluating interactions by creating groups based on median splits, this procedure is statistically more robust (Aiken & West, 1991). Adding the interaction terms to the final equation increased the amount of variance explained by approximately 2%, $F(15, 283) = 15.22$, $p < .001$. Results from this final step revealed that the interaction between mastery classroom goal structure and mastery goal orientation significantly predicted students' attitudes toward help avoidance, $\beta = -.19$, $p < .001$. To probe the nature of the interaction, children were separated based on whether their scores on perceived mastery goal structure were greater than or less than zero (Aiken & West, 1991). Students' attitudes toward help avoidance were then regressed onto personal mastery goal orientation, after controlling for implicit theories of intelligence. Results showed that within the group of students who perceived an emphasis on mastery goals in the classroom, those who espoused a mastery goal orientation were less likely to hold attitudes toward help avoidance, $\beta = -.32$, $p < .001$. In contrast, for students scoring lower on mastery goal structure, personal mastery goal orientation failed to predict their attitudes toward help avoidance.

Hierarchical Regressions Predicting Help-Avoidance Behaviors

Results of the hierarchical regressions predicting children's reported help-avoidance behaviors are also presented in Table 4. Gender and grades were entered in the first regression model and accounted for a significant portion of the variance, $F(2, 296) = 10.57$, $p < .001$. Children's prior academic achievement negatively predicted their help-avoidance behaviors, $\beta = -.25$, $p < .001$. Adding the two types of classroom goal structures in step 2 increased the amount of variance explained for help-avoidance behaviors by 6%, $F(4, 294) = 10.56$, $p < .001$. Mastery goal structure was a negative predictor of children's reported help-avoidance behaviors, $\beta = -.25$, $p < .001$, while accounting for students' prior achievement. In step 3, the entity and incremental theories of intelligence were entered in the regression model. Adding the implicit theories of intelligence increased the amount of variance explained in help-avoidance behaviors by 9%, $F(6, 292) = 13.63$, $p < .001$. Grades and mastery goal structure remained significant predictors of help-avoidance behaviors. Additionally, both entity and incremental theories of intelligence emerged as significant predictors in this analysis. The entity theory positively predicted children's reported help-avoidance behaviors, $\beta = .24$, $p < .001$, whereas the incremental theory was a negative predictor, $\beta = -.18$, $p < .001$.

In step 4, personal goal orientations were included in the model. Adding these variables increased the amount of variance explained by 9% for help-avoidance behaviors, $F(9, 289) = 14.34$, $p < .001$. Results from this step indicated that, in addition to mastery goal structure and implicit theories of intelligence, personal mastery and performance-avoidance goals significantly predicted students' help-avoidance behaviors. Mastery goal orientation nega-

tively predicted help-avoidance behaviors, $\beta = -.13$, $p < .01$, whereas performance-avoidance goal orientation was a positive predictor, $\beta = .29$, $p < .001$. In the final step, the two-way interactions between classroom goal structures and personal goal orientations were added to the model. Adding these interaction terms, however, did not result in a significant increase in the amount of variance explained for the reported help-avoidance behaviors.

Mean Differences among Students Holding Different Implicit Theories

To determine the differences in key variables of interest among students endorsing different views of intelligence, I identified children as entity theorists, incremental theorists, and combined theorists (i.e., those who held both entity and incremental theories simultaneously). Based on the method that Butler (1998) employed to examine students who were oriented primarily toward one type of concern (a student was selected as expressing a particular type of concern only if he or she was above the mean on one concern and below the mean on the other concern), scores on the implicit theories of intelligence scale identified children who endorsed a certain view of intelligence. Using this criterion, students who scored above the mean on both entity and incremental theories were identified as combined theorists. In total, 224 out of 298 students met this rigorous definition, including 69 entity theorists, 119 incremental theorists, and 36 combined theorists. Table 5 presents the means and standard deviations of the dependent variables according to children's views of intelligence.

As Table 3 displays, children's personal goal orientations, perceptions of the classroom goal structure, attitudes and behaviors related to help avoidance, affective experiences, as well as their achievement were correlated with one another and thus were used as dependent variables in the multivariate analysis of variance (MANOVA) to explore whether students with different views of intelligence varied in these outcome measures. Before the MANOVA was run, preliminary ANOVAs had been performed to compare students of the four elementary schools on each of the variables examined. Using the Bonferroni method to correct for inflated probability levels associated with significance when conducting multiple tests (familywise $\alpha = .05$), I found no significant difference among students at the four schools. Additionally, *t* tests were performed to determine gender differences on the same variables. The Bonferroni method was also employed when making this comparison. Again, no gender difference in any of these investigated variables was found. Consequently, school and gender were not included as independent factors in the subsequent analyses.

The assumption for the MANOVA had been examined before the analysis was performed. Because cell sizes for the independent variables were unequal, I conducted Box's *M* test first to check for homogeneity of covariance matrices. The result was not significant ($F = 1.49$, $p > .05$), indicating confirmation of this assumption (Tabachnick & Fidell, 1996). MANOVA revealed significant effects for implicit theories about intelligence, Wilks's $\lambda = .63$, $F(20, 424) = 5.52$, $p < .001$. The effect size was calculated by means of the eta-squared value (η^2), which represented the proportion of variance of the dependent variables that was attributable to the main effects (Tabachnick & Fidell, 1996). The eta squared value for the main effects was .21. Results of the univariate analyses of the main effects of implicit theories of intelligence are reported below.

Attitudes and behaviors related to help avoidance. The univariate test indicated significant effects on students' attitudes toward help avoidance, $F(2, 221) = 15.79$, $p < .001$, $\eta^2 = .13$. Post hoc Tukey analysis showed that incremental theorists ($M = 2.28$) scored significantly lower on attitudes toward help avoidance than did entity and combined theorists (M's = 2.82 and 2.56, respectively). In terms of help-avoidance

TABLE 5. Differences among Students with Different Implicit Theories of Intelligence

	Implicit Theories of Intelligence						
	Entity (n = 69)		Incremental (n = 119)		Combined (n = 36)		F
	M	SD	M	SD	M	SD	(Univariate Analyses)
Attitudes toward help avoidance	2.82_a	.71	2.28_b	.64	2.56_c	.55	15.79***
Help-avoidance behaviors	2.75_a	.65	2.14_c	.59	2.43_b	.69	21.22***
Mastery goal	3.24_a	.79	4.02_c	.73	3.61_b	.88	22.18***
Performance-approach goal	2.89_a	.79	3.25_b	.82	3.45_b	.74	6.74**
Performance-avoidance goal	2.96_a	.66	2.60_b	.69	3.02_a	.71	8.57***
Mastery structure	3.47_a	.71	4.05_b	.85	3.63_a	.79	12.04***
Performance structure	3.01_a	.69	3.24_a	.81	3.31_a	.67	3.06
Positive affect	2.21_a	1.01	3.23_b	1.15	2.53_a	1.04	19.60***
School anxiety	2.51_a	1.07	1.77_b	.82	2.39_a	1.09	14.91***
Grades	86.67_a	9.10	91.89_b	5.21	86.74_a	9.00	14.34***

NOTE.—Different subscripts denote significant differences ($p < .05$) on means according to Tukey's criteria.
** $p < .01$.
*** $p < .001$.

behaviors, results of the univariate analysis of the effects of the implicit theories about intelligence were significant as well, $F(2, 221) = 21.22$, $p < .001$, $\eta^2 = .16$. Post hoc analysis suggested that incremental theorists ($M = 2.14$) scored significantly lower on help-avoidance behaviors than did combined theorists ($M = 2.43$). Moreover, combined theorists were significantly less likely to report help-avoidance behaviors than were entity theorists ($M = 2.75$).

Achievement goal orientations. Results of the univariate analysis showed significant effects on children's personal mastery goal orientations, $F(2, 221) = 22.18$, $p < .001$, $\eta^2 = .17$. Tukey analysis indicated that incremental theorists ($M = 4.02$) reported significantly higher levels of mastery goal orientation than did combined theorists ($M = 3.61$). Additionally, combined theorists scored significantly higher on mastery goal orientation than did entity theorists ($M = 3.24$). The univariate test also revealed significant effects on performance-approach goal orientation, $F(2, 221) = 6.74$, $p = .001$, $\eta^2 = .06$. Post hoc analysis suggested that incremental ($M = 3.25$) and combined ($M = 3.45$) theorists were significantly more performance-approach oriented than entity theorists ($M = 2.89$). In regard to performance-avoidance goal orientation, the univariate analysis yielded significant results, $F(2, 221) = 8.57$, $p < .001$, $\eta^2 = .07$. Both entity ($M = 2.96$) and combined ($M = 3.02$) theorists scored significantly higher on performance-avoidance orientation than did incremental theorists ($M = 2.60$).

Perceptions of the classroom goal structure. Results of the univariate analysis of the main effects of implicit theories of intelligence were significant for mastery goal structure, $F(2, 221) = 12.04$, $p < .001$, $\eta^2 = .10$. Tukey analysis showed that incremental theorists ($M = 4.05$) reported significantly higher perceptions of a mastery goal structure than did entity ($M = 3.47$) and combined ($M = 3.63$) theorists. As to performance goal structure, the main effects of implicit theories about intelligence did not reach significance at the univariate level.

Affective experiences. The univariate test revealed significant effects on students' positive affect, $F(2, 221) = 19.60$, $p < .001$, $\eta^2 = .15$. Post hoc analysis indicated that incremental theorists ($M = 3.23$) had significantly higher levels of positive affect than did entity ($M = 2.21$) and combined ($M = 2.53$) theorists. In terms of the anxiety that children experienced in school, the uni-

variate analysis yielded significant results as well, $F(2, 221) = 14.91$, $p < .001$, $\eta^2 = .12$. Both entity ($M = 2.51$) and combined ($M = 2.39$) theorists reported significantly higher levels of anxiety than did incremental theorists ($M = 1.77$).

Grades. The univariate analysis indicated significant effects on students' academic achievement, $F(2, 221) = 14.34$, $p < .001$, $\eta^2 = .12$. Tukey analysis suggested that incremental theorists ($M = 91.89$) got significantly higher grades than did entity ($M = 86.67$) and combined ($M = 86.74$) theorists.

Discussion

The present study contributes to an understanding of early adolescents' avoidance of help seeking in a cultural context other than Western societies, namely, the Taiwanese classroom context. This study extends previous examination of help avoidance by thoroughly exploring the role of children's implicit theories about intelligence in their decision to ask for academic help, which provides insight into the psychological mechanisms that may account for individuals' reluctance to seek help with schoolwork. Below I discuss several interesting findings.

Motivational Components and Avoidance of Help Seeking

The current study theoretically differentiates the individual's avoidance of help seeking into attitudes toward help avoidance and help-avoidance behaviors, and my findings substantiate the differentiation. Results of hierarchical regression analyses predicting attitudes versus behaviors are somewhat different. For attitudes toward avoidance of help seeking, only mastery-focused motivational characteristics are negatively associated with this predicted variable. These findings complement previous evidence regarding the positive correlation between mastery-oriented motivation and adaptive help seeking (Butler & Neuman, 1995; Newman & Schwager, 1995; Ryan & Pintrich, 1997). By contrast, in addition to the negative relations of mastery-focused motivational components to help-avoidance behaviors, my data show that the entity theory of intelligence and performance-avoidance goal orientation positively predict students' help-avoidance behaviors. Whereas mastery-focused motivational processes may alleviate students' avoidant help-seeking tendencies, the entity theory of intelligence and performance-avoidance goal orientation, underlain by fear of failure, may intensify children's engagement in avoidance of help seeking.

Results of the present study replicate previous findings in that performance-approach goals were unrelated to help avoidance (Middleton & Midgley, 1997). Further, in line with Turner et al.'s (2002) finding that elementary school children's help avoidance was not related to perceived emphasis on performance goals in the classroom, the present research failed to find a link between students' perceptions of a performance goal structure and help avoidance. For Taiwanese students, the approach dimension of performance goals may not be associated with their avoidance of help seeking as long as the emphasis on performance does not bring forth competence concerns or fear of failure.

The design of this study allows an exploration of the interaction between perceived contextual goal structures and personal goal orientations. Results of the regression analyses suggest that, for students who perceive an emphasis on mastery goals in the learning context, those who also adopt mastery goal orientations are less likely to report attitudes toward avoidance of help seeking. Consistent with prior findings that the fit between contextual and personal goals can influence students' attitudes toward learning and school success (Eccles & Midgley, 1989; Harackiewicz & Sansone, 1991; Wentzel, 1996), when students with mastery goal orientations are placed in a context that stresses learning and mastery, the negative effects of the personal goals on

their attitudes toward help avoidance are reinforced. Put another way, the congruence between personal mastery goal orientation and mastery classroom goal structure should optimize a student's help seeking.

Interestingly, I did not find a tendency for the mastery classroom goal structure to moderate the influence of students' personal mastery goals on their help-avoidance behaviors. A closer look at the effects of perceived mastery goal structure on both attitudes as well as behaviors related to help avoidance suggests that the relative strengths of mastery goal structure in predicting these outcome variables are different. The effects of mastery goal structure on attitudes toward help avoidance are much stronger ($\beta = -.46$, $p < .001$) than influences of the same goal structure on help-avoidance behaviors ($\beta = .12$, $p < .05$) after controlling for other significant predictors. It may be that the effects of mastery classroom goal structure were not strong enough to moderate the influences of personal goal orientations on children's help-avoidance behaviors. Instead, personal performance-avoidance goals had relatively stronger effects on predicting children's engagement in help-avoidance behaviors. The strong connection between the avoidance orientation and students' avoidance behaviors, even after accounting for other significant contributors in the regression models, clearly has implications for the importance of addressing the individual's avoidance-oriented motivation.

Profiles of Students with Different Implicit Theories

In addition to the investigation of the relations of an array of motivational components to students' tendencies to avoid help seeking, this study documents similarities and differences on these psychological factors to create profiles for students holding different views of intelligence. Results of MANOVA corroborate findings emerging from the hierarchical regression analyses. In general, incremental theorists display the most adaptive achievement-relevant profile. Combined theorists tend to show similar patterns of learning to those of entity theorists. It appears that the influences of an entity view of intelligence on the combined theorists' achievement striving are stronger than those of an incremental view.

With regard to attitudes and behaviors related to help avoidance, incremental theorists score significantly lower on both scales than do entity and combined theorists. Incremental theorists' orientations toward developing intellectual ability may lead them to engage in such effective self-regulatory strategies as help seeking when encountering difficulty in academic tasks. In contrast, entity theorists' "permanent-ability" concerns may result in avoidance of help seeking, for asking for help with schoolwork can be perceived as an indication of incompetence (Molden & Dweck, 2000). In effect, findings of the present study suggest that children who hold an entity view of intelligence, regardless of whether it coexists with an incremental view, are more inclined to avoid seeking help when facing difficulty in schoolwork.

The differences in achievement goal orientations among students with different implicit theories of intelligence also reflect how meaning systems formed by these different beliefs affect the selection and implementation of these goals. As expected, incremental theorists pursue mastery goals to increase their current level of ability. Both entity and combined theorists nonetheless avoid challenging mastery goals because these goals tend to involve the risk of failure at some point, which may pose the threat of revealing incompetence (Dweck & Leggett, 1988; Hong, Chiu, Dweck, Lin, & Wan, 1999). Not surprisingly, children who feel that some global fixed ability is at stake tend to hold performance-avoidance goals. One noteworthy finding is that both incremental and combined theorists are significantly more performance approach oriented than are entity theorists. This is somewhat unexpected because, at first glance, incremen-

tal theorists seem unlikely to embrace performance goals that encourage them to document their personal levels of attributes. Yet, as indicated previously, children with different theories about intelligence may perceive the same type of goal differently. For incremental theorists, tasks involving performance goals may become opportunities from which they can receive valuable information about their present proficiency in an area (Molden & Dweck, 2000).

The differential effects of holding an incremental versus entity view about intelligence also apply to these children's affective experiences and academic achievement. By putting individuals' self-worth on the line and raising their concerns with failures, holding the belief that intelligence is a fixed permanent entity is not only anxiety provoking but is also detrimental to achievement. All in all, the profiles documented in the current study provide a complete picture of the relations among implicit theories of intelligence and a variety of Taiwanese children's achievement-related characteristics. Students' patterns of learning, including help-seeking tendencies, tend to vary as a function of their views about intelligence.

Implications for Classroom Practice

The implications of this study for classroom practice are profound. To decrease early adolescents' concerns about help seeking and engagement in help-avoidance behaviors, instruction must address a number of motivational components. Rather than the salience of a single factor, it is the combination and interaction of various motivational elements that influence young adolescents' help-seeking patterns. Results of the present research call for educators to create a mastery goal structure in learning contexts. In classrooms where teachers emphasize personal improvement and encourage students to use self-referenced standards, adolescents' concerns about avoidance of help seeking decrease (Newman, 1998; Ryan et al., 2001). According to my findings, the effects of mastery goal structure on reducing such concerns are reinforced when students' personal goal orientations are consistent with this type of perceived goal structure. In contrast, because adolescents are vulnerable to perceptions of threat to competence, teacher practices that highlight ability comparisons among students could foster students' concerns about negative judgments for seeking help with academic work and, in turn, lead to engagement in help-avoidance behaviors (Ryan & Pintrich, 1997).

The role of students' implicit theories about intelligence in their help-seeking tendencies also deserves attention. Previous research (Bergen, 1991; Dweck & Leggett, 1988) on experimental manipulation of students' theories of intelligence has revealed the possibility for educators to work directly with the individual's view about intelligence, implying that these motivational characteristics are not fixed dispositions that cannot be altered. It is likely that guiding students to change their beliefs about intelligence from a fixed view to a malleable one may set them free from a sense of contingent self-worth and thus may facilitate adaptive help seeking in a challenging intellectual environment (Hong et al., 1995).

Limitations and Future Research

Although results of my study provide insights into teacher practices, several limitations need to be addressed in future research. First, in addition to achievement goals, individuals' social goals might influence classroom behaviors. Help seeking inevitably involves social interactions between students and their classmates and teachers. Individual differences in help seeking are likely to be determined by students' social competence and desire for social affiliation (Newman, 1998; Ryan & Pintrich, 1997). Future research should explore the role of students' social motivation (perceptions of social competence and social goal orientations) in their help seeking in the classroom. Moreover, there is a need to

know more about how the social aspects of the classroom environment affect students' help-seeking tendencies. Classrooms vary in the messages that teachers communicate to students about relating and respecting peers as well as the affective support that teachers provide (Ryan & Patrick, 2001; Turner et al., 2002). It would be informative to examine how these messages and affective support influence students' reluctance to seek help. Future research should include a scale assessing perceived social support on the student survey.

Second, in addition to competence concerns, autonomy concerns, that is, the perception of help seeking as a dependent behavior, may impede young adolescents' help seeking in the classroom (Butler, 1998). Future research should investigate reasons for help avoidance and the likely differential effects of these reasons on students' achievement striving. For instance, if help avoidance is born out of autonomous concerns, then when students ultimately do request help, they are likely to ask for the type of help that will support their own autonomy in the future, namely, the adaptive type of help (Ryan et al., 2001).

Third, as Urdan (2001) indicated, teachers and students often view the same classroom activity in very different ways. In the future, researchers could include teachers' reports of their beliefs about intelligence and instructional practices and messages, as well as teacher ratings of student help seeking, to provide cross-validation of students' perceptions of the classroom experience and reported classroom behaviors. Such research has the potential to help teachers create a classroom that fosters adaptive help seeking.

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