Journal of Classroom Interaction, ISSN 0749-4025. © 2007-2008, Vol 42.2, pages 21-30

Teachers' Attributions and Strategies for Student Misbehavior

Pamela Hodges Kulinna
ARIZONA STATE UNIVERSITY, USA

ABSTRACT

Student misbehaviors can threaten the effectiveness of a class learning environment. To understand misbehaviors and teachers reactions to it, one must examine teacher attributions, or beliefs about the causes of behavior. Participants in this study were 199 physical education teachers. Their attributions and strategy use were examined via survey methodology. Teachers most commonly attributed students' misbehavior to home and student factors, not teacher or school factors. Their strategy use was somewhat inconsistent with those beliefs and varied by grade level taught, but not by gender, experience, or self-rated management ability.

INTRODUCTION

Eliciting and maintaining class order is a primary concern of teachers (Doyle, 1984). Student misbehavior is a threat to class order and is therefore of great importance to understand. Although not a complete picture, much is known about the kinds and frequency of student misbehaviors. A wide range of misbehaviors occur in class and many occur on a daily basis (Kulinna, Cothran, & Regualos, 2006; Wheldall & Merrett, 1988). The most common behaviors (e.g., talking, not paying attention) are relatively minor, although minor does not equate to non-problematic. Teachers report spending too much time on handling student misbehavior (Houghton, Wheldall, & Merrett, 1988) and dealing with those misbehaviors is a leading contributor to teacher burnout (Bibou-Nakou, Stogiannidou, & Kiosseoglou, 1999). A solid knowledge base also exists about what teachers do in their classes with regard to rules, routines, and strategies.

What we know less about, however, is how teachers make sense of these student behaviors, specifically, to what do teachers attribute students' misbehaviors. This is a critical question as how one sees the cause of behavior will influence one's reaction to that behavior. Poulou and Norwich (2000) explained it this way:

> Teachers' ideas about the causes of students' behavior in turn affect the attitudes they adopt towards their students, their dispositions, and the eventual decisions to help them overcome their difficulties. The extent to which they believe they are capable of influencing students' performance, affects their enthusiasm and persistence in working with them. (p. 560)

For example, a teacher who believes that a student's misbehavior is caused by problems at home may feel no "ownership" of the problem and therefore be less likely to explore teacher-focused intervention strategies, like the use of different teaching styles or a critical examination of their class environment. Or the teacher may take some ownership of the problem and decide to involve parents in the intervention, since the teacher believes that the behavior is influenced primarily by home factors.

Although a relatively large body of literature exists with regard to attribution and student academic achievement, a relatively small number of investigations have examined teachers' causal attributions for student behavior problems. In general, these findings are consistent—teachers most often attribute student misbehavior to out-of-school and individual student issues. This finding holds true cross-culturally, with similar results reported in England and Turkey (Atici & Merry, 2001; Turnuklu & Galton, 2001), China and Australia (Ho, 2004), as well as the United States (Hughes, Barker, Kemenoff, & Hart, 1993) and Greece (Mavropoulou & Padeliadu, 2002).

These attribution patterns are important, because attributions affect actions. For example, Georgiou (1999) found that parents' attributions for their child's school success were related to different parent actions. Students' attributions for success and failure may vary by subject matter and can influence their class involvement (Boekaerts, Otten, & Voeten, 2003). With regards to teachers, their attributions for student academic failure influenced their emotional reactions and strategies with the child (Georgiou, Christou, Stavrinides, & Panaoura, 2002) as well as their decisions about referrals for special educational services (Hughes et al., 1993). It seems

critical to examine this attribution-action link as teachers' attributions for student behavior will likely influence their actions toward the student.

Due to its importance, an investigation was designed with the purpose of examining teachers' attributions and strategies for student misbehavior. The specific research questions that guided this investigation were: (a) To what factors do physical education teachers attribute student misbehavior? (b) What management strategies do physical education teachers use when dealing with student misbehaviors? and (c) Do attributions or strategies vary based on the seriousness of the misbehavior or teacher characteristics like grade level, sex, and self-rated management ability?

The results of this study should provide insights into teacher decision making and classroom management strategies. Examining teacher attributions and strategy use can also serve as a point of reflection for other educators. By knowing what strategies teachers are currently using in schools, pre-service and in-service programs can be developed that will provide guidance on exemplary use of those strategies and/or the use of alternative strategies. Insights may also be gained into the role of context on teachers' management attributions and strategies due to the focus on multiple grade levels and a unique subject matter area.

METHOD

Participants

The participants were 199 physical education teachers representing K-12 grade levels. Physical education teachers were chosen for two primary reasons. Physical education provides one of the few academic content areas that have subject matter experts at all grade levels. A second reason is that physical education represents a unique context in schools, and a context that is consistently under-represented in the research base. The context is also important to understand because different subject matter areas can have varying levels of student misbehavior with physical education and music being the two most difficult areas to maintain class control (Turnuklu & Galton, 2001).

There were 103 teachers at the elementary level and 92 teachers at the secondary level and four teachers reported teaching at multiple levels. Participants included male (n = 0) and female (n = 112) teachers (seven teachers did not report their gender) who reported their ethnic background as Caucasian (80.9%), African-American (12.4%), multiracial/other (4.1%), Hispanic (2.1%), and Asian (.5%). Experience levels varied with 18.1% of the group having one to three years of teaching experience, 56.7% of the teachers indicated 4-20 years experience, while 23.1% reported more than 20 years experience (four teachers did not report years of teaching experience). Teachers indicated they taught in a variety of school districts ranging from small, rural schools with a largely Caucasian enrolment to large, urban schools that served a primarily African-American student body.

Teachers were recruited from professional development conferences in two states in the United States. All participants received a standard briefing from one of the investigators regarding the purpose of the study. If still interested after the introduction to the study, teachers were given a packet including an informed consent statement and the survey. Teachers completed the anonymous survey on their own time while at the conferences and returned the completed survey at the end of the day.

Instrument Design

The Behavior Attribution Survey (BAS) has three distinct sections. The first section provides teachers with short descriptions of three different students who exhibit a range of misbehaviors (i.e., mild, moderate and severe). Teachers indicate their perceptions of the likelihood that student behaviors are related to out-of-school, student, teacher, and school influences. In the second section of the survey, they report the strategies they use for children at the three levels of misbehaviors. The final section asks teachers a variety of demographic questions as well as asks them to rate their own management ability on a five-point scale from "very good" to "poor."

The three scenarios used in the first section of the BAS were developed from earlier work using the *Physical Education Classroom Management Instrument (PECMI).* In the original PECMI study, 59 different student misbehaviors were identified as occurring in schools and categorized as mild, moderate or severe. A panel of experts in physical education pedagogy classified the misbehaviors into the categories showing a high level of agreement among the experts with the classifications (See Kulinna, Cothran, & Regualos, 2003 for full details). In a second study (Kulinna et al., 2006) over three hundred teachers completed the PECMI with regard to how often those 59 behaviors happened in their classes. From those reports, the most commonly occurring mild, moderate, and severe misbehaviors were calculated. For this study, the top four occurring misbehaviors in each severity category were used to construct a description of a hypothetical child that exhibited all four top ranked misbehaviors. (See Appendix A).

Teachers were asked to report the likelihood that four different factors (out-of school, student, teacher, and school) had on influencing each child's behavior. A full description of the four factors (out-of school, student, teacher, and school) is also provided in Appendix A. Teachers rated the likelihood of influence on a five-point scale ranging from 1

= very unlikely factor to 5 = very likely factor.

Teachers were also asked how many male and female students they had per class that fit each hypothetical child's description and how frequently this type of student behavior occurred in a class (daily, weekly, monthly, or almost never). Finally, the teachers were asked to rank order out-of school, student, teacher, and school factors from most probable influence to least probable influence for the three child behavior scenarios.

In the second section, teachers again responded to the same three descriptions of misbehaving children and were asked how often they used different management strategies to address student behavior. The 27 strategies were drawn from a review of other investigations focused on class management (e.g., Henkel, 1991; Lewis & Lovegrove, 1987). A wide variety of strategies were included and teachers re-

TABLE 1

Factor Loadings for Use of Strategies Across Behavior Type Scenarios

Strategies	I	II	III	IV	V	VI	VII	VII
Remove/Refer								
Remove the student from class	**.72**	--	--	--	.15	--	--	--
Put the student in time-out	**.61**	.30	--	--	--	-.40	.12	.17
Send to the principalís office	**.60**	-.26	--	.15	.19	.19	.10	.28
Detention	**.57**	-.11	.11	.20	.12	--	.30	--
Contact the parents	**.51**	--	.40	-.11	--	.34	-.37	--
Ignore the behavior	**-.46**	.16	--	.30	--	.12	.29	.13
Positive Action								
Distract student with positive behavior	--	**.72**	.13	--	--	.28	--	--
Draw attention to positive models	-.20	**.71**	--	--	--	--	--	--
Catch students being good and give praise	--	**.67**	.22	-.18	.35	--	--	-.15
Remove access to favorite activity	.42	**.48**	.29	--	-.14	--	--	.27
Give more attention/care to student	.17	**.44**	.11	-.25	.22	.33	.24	--
Behavior Modification								
Give bonus points for good behavior	--	.10	**.77**	--	--	.12	.14	--
Reward student with free time or activities	--	.20	**.76**	.13	.10	--	.17	--
Develop a student contract	.21	.13	**.48**	.11	.28	.24	--	-.16
Punishment								
Corporal punishment (e.g., paddling)	.17	--	--	**.80**	--	.16	.16	.13
Have a direct discussion with student	.32	.38	--	**-.59**	--	.21	--	.12
Ask for a teacher aide	.25	.14	--	**.53**	.28	.18	.35	-.18
Experts								
Consult with school nurse or counselor	.12	--	--	--	**.79**	.14	--	--
Consult an expert outside of school	--	.14	.16	.35	**.60**	.28	--	.11
Talk with the classroom teacher(s)	.18	.46	--	-.23	**.56**	-.13	.13	--
Peers								
Assign a peer helper	--	.12	.16	.11	--	**.75**	.18	--
Ask other students to help with the student	-.11	.18	--	--	.20	**.67**	.20	.15
Keep Busy								
Have student write or copy papers	.18	--	--	.14	--	.15	**.73**	--
Make them run a lap or do push-ups	--	--	.26	--	-.16	.20	**.70**	--
Threaten								
Use peer pressure, e.g., group reward	-.21	--	.29	--	.19	--	.26	**.65**
Lower student grade	.35	--	--	-.10	--	-.15	-.11	**.60**
Yell at the student	.33	-.13	-.15	.30	-.16	.13	--	**.60**

TABLE 2

Teachers' Attributions for Student Misbehavior by Scenario Type

Attributions	*Scenario*		
	Child #1 Mild *M(SD)*	Child #2 Moderate *M(SD)*	Child #3 Severe *M(SD)*
Out of School	3.65 (1.09)	3.92 (.90)	4.18 (.89)
Student	3.66 (.93)	3.72 (.85)	3.81 (.95)
Teacher	3.01 (1.02)	3.04 (1.09)	2.85 (1.16)
School	2.91 (1.05)	2.89 (.98)	2.86 (1.16)

sponded to how often they used each strategy on a five-point scale ranging from 1 = never use to 5 = always use. In addition, teachers were asked to write in other strategies they would recommend.

Instrument Analysis

Internal consistency and content related evidence. Internal consistency reliability was assessed using Cronbach alpha coefficients. Reliability coefficients were calculated for the two subscales (i.e., attributions and strategies) as well as the overall BAS instrument. Content-related evidence for the severity classifications was assessed in a previous study. Twenty-seven experts from 17 states organized items on the *PECMI* by severity of disruption (i.e., mild, moderate, severe). The experts' ratings were consistent with the severity classifications (Kulinna et al., 2003). Teacher participants in this study did not indicate that there were any additional strategies that they used not included on the instrument.

Construct validity issues. In teachers' responses to the frequency of use of the 27 strategies for dealing with student misbehavior for three different types of students (child 1-mild misbehaviors, child 2-moderate misbehaviors, child 3-severe misbehaviors), a question related to validity was raised--does a coherent conceptual framework underlie the strategies, regardless of child type?

To determine if there was an underlying coherent conceptual framework, the 27 strategies, regardless of respondent and child scenario type, were analyzed (N = 440 responses from teachers on the 3 different scenarios with complete data sets) using a principal components factor analysis, followed by varimax rotation, maintaining factors with eigenvalues greater than one. Factor scores, using the regression method, were computed for all cases.

Data Analyses for Teacher Responses

Repeated measures ANOVAs (RM-ANOVAs) were performed using factor scores that were on a standard unit of measurement (M = 0, SD = 1). These analyses compared the teacher profiles on these factors by various independent variables, thus, these are profile analyses.

Attributions. RM-ANOVAs were used to investigate if teachers' attributions differed by severity level (i.e., mild, moderate, severe) or by frequency of occurrence. RM-ANOVAs were also used to investigate if teachers' attributions varied by gender, teaching level, experience, or self-rated management ability.

Management strategies. RM-ANOVAs were used to determine if strategies used varied by child behavior severity level for each of the 27 management strategies. RM-ANOVAs were also used to investigate if strategies used varied by teacher characteristics (i.e., gender, teaching level, experience, or self-rated management ability).

Student sex differences and rankings. Paired t-tests were used to investigate whether teachers reported boys or girls more troublesome for each of the three child behavior scenarios. Ranking data from the most probable to least probable influence (i.e., out-of-school, student, teacher, school) for each of the three scenarios were also recoded to create variables representing the frequency each strategy

TABLE 3

Teachers' Attributions for Student Misbehavior by Teaching Level

Attributions		*Teaching Level*		
		Elementary *M(SD)*	Middle *M(SD)*	High *M(SD)*
Out of School				
	Child #1	3.40 (1.16)	3.80 (1.04)	4.05 (.74)
	Child #2	3.79 (.94)	3.91 (.93)	4.17 (.74)
	Child #3	4.08 (.93)	4.17 (.93)	4.42 (.73)
Student				
	Child #1	3.72 (1.01)	3.57 (.82)	3.62 (.83)
	Child #2	3.75 (.87)	3.67 (.70)	3.78 (.96)
	Child #3	3.90 (.92)	3.62 (.85)	3.83 (1.11)
Teacher				
	Child #1	3.09 (1.01)	2.89 (1.08)	2.92 (.86)
	Child #2	3.15 (1.03)	2.96 (1.18)	2.89 (1.04)
	Child #3	2.89 (1.17)	2.91 (1.15)	2.64 (1.05)
School				
	Child #1	2.95 (1.04)	2.96 (1.09)	2.81 (1.05)
	Child #2	2.96 (.96)	2.95 (1.01)	2.69 (.98)
	Child #3	2.83 (1.14)	2.89 (1.24)	2.94(1.09)

Note. Child #1 = mild misbehaviors,
Child #2 = moderate misbehaviors,
Child #3 = severe misbehaviors

was chosen. A Friedman Analysis of Variance by Ranks was conducted to see if there was an inherent order in the ranking of attributions among teachers.

RESULTS

Instrument

The strategies ($\alpha = .93$) and attribution ($\alpha = .78$) subscales as well as the overall BAS instrument ($\alpha = .89$) showed adequate levels of internal consistency reliability. Thus, the two subscales and overall instrument demonstrated that it produced internally consistent scores in this population of teachers.

Factor analysis. Construct validity of the instrument was supported by the eight factors that emerged accounting for 61.2% of the total variance. These factors support the presence of a coherent conceptual framework that fit the data across severity types. The KMO measure of sampling adequacy was acceptable at .78. Due to the inherent lack of independence of the responses due to ignoring sources of ratings, an oblique rotation was also obtained, which resulted in eight factors. Factor scores from the oblique solution correlated highly (*r*'s ranged from .85 to .99) with the factor scores from the orthogonal solution. Therefore, only the orthogonal solution is reported in Table 1.

Teacher Responses

Attributions. RM-ANOVA results suggested teachers' attributions varied by behavioral scenario (see Table 2 for attributions by scenario type). For scenario one ($F(3, 191)$ 37.79, $p < .01$; partial eta squared; $\eta_p^2 = .17$) teachers attributions were similar for student and out-of-school fol-

lowed by teacher and school. For the moderate behaviors (F(3, 191) 63.00, p <.01; η_p^2 = .25), teachers' top attribution was out-of-school, followed by student, teacher and school. Finally for severe behaviors (F(3, 189) 98.64, p <.01; η_p^2 = .34), out-of-school factors were again the top attribution, followed by student with lower attributions for teacher and school. Overall, student misbehaviors were attributed to out-of-school (M = 3.90, SD = .77), student (M = 3.73, SD = .74), teacher (M = 2.96, SD = .90) and school (M = 2.89, SD = .88) factors on a 1-5 Likert-like scale (5 = very likely a factor and 1 = very unlikely a factor).

Severity level also contributed to the reported frequency of occurrence (F(2, 185) = 51.05, p < .01, η_p^2 = .216). With scenario one (mild) reported the most frequently (M= 1.63, SD = .90) followed by scenarios' two (moderate; M = 1.90, SD = 1.04) and three (severe; M = 2.35, SD = 1.10) respectively, (with 1 = daily and 4 = almost never) and all three scenarios significantly different from each other in occurrence. Thus, teachers indicated that all types of student misbehaviors occurred on a daily or weekly basis.

Differences were found among teaching levels for teachers' attributing student misbehaviors to out-of-school factors (F(2, 184) 4.88, p <.01; η_p^2 = .05) with high school teachers attributing misbehavior to out-of-school the most frequently for each scenario, followed respectively by middle school and elementary teachers, with Tukey post hoc tests identifying significant differences between elementary and high school teacher attributions (see Table 3 for attributions by teaching level). There were no differences found by teaching level for student, school or teacher factors. In addition, there were no observed differences in student behavior attributions between genders, or among teaching experience, or self-rated management ability of the teacher participants.

Management strategies. Teachers reported using a wide range of the 27 possible strategies. Use of the strategies differed by scenarios (i.e., mild, moderate or severe) for 74% (i.e., 20 strategies). For example, teachers used the strategy of time-out differently for the three severity levels, F(2,189) = 77.64, p <.01, with significant differences across behavior scenarios with mild (M = 2.79, SD = 1.00), moderate (M = 3.08, SD = .99) and severe (M = 3.68, SD = 1.20), again with 1 = never use and 5 = always use. The most frequently used strategy across all three scenarios was "direct discussion." Teachers' reported frequency of strategy use by scenario type is available in Table 4.

RM-ANOVA results indicated differences were present in strategies used by teacher characteristics. For scenario three, teachers' reported using different strategies by teaching level (F(2, 134) = 6.35, p < .01; η_p^2 = .09). Interestingly, Tukey post hoc tests indicated that differences were present between elementary teachers and both groups of secondary teachers, with elementary teachers reporting more strategies used. Similarly, differences were present by level for scenario two (F(2, 134) = 5.59, p < .01; η_p^2 = .07), with Tukey post hoc tests identifying elementary and high school teacher differences. Differences were not observed by teaching level for strategies used with scenario one behaviors. Finally, there were no gender, experience or self-rated management ability differences identified in strategies used.

Student sex differences and rankings. Paired t-test (e.g., number of boys similar to scenario one vs. number of girls similar to scenario one) results showed that teachers reported more boys as troublesome similar to scenario one t(183) 5.66, p < .01, scenario two t(179) 2.58, p < .01, and scenario three t(178) 6.37, p < .01.

The Friedman Analysis of Ranks was not significant suggesting that there was no underlying order to the rankings of most (i.e., 1) to least probable (i.e., 4) influence on students' behavior (i.e., student, out-of-school, teacher, school). There was a trend, however, where teachers ranked out-of-school as the most probable influence for scenario 1 (48.2% of the time), scenario 2 (46.7%), and scenario 3 (60.8%).

DISCUSSION

The results of this investigation are important on three fronts. The first area of importance is the development of the Behavior Attribution Survey. The insights gained into teachers and class management is the second front. Finally, the results are foundational work in a little understood, yet important topic and therefore provide insights into teacher decision making and class management contexts.

The Behavior Attribution Survey produced reliable and valid scores in this population of K-12 physical education teachers. Other researchers interested in this topic now have a psychometrically sound instrument to use. Future use of the instrument should include confirming the factor structure with a new group of teachers. Another key area of focus should be the examination of student behaviors in different contexts. More work is needed to explore if teacher attributions also differ by grade level and school settings both within and outside of physical education. The BAS can also serve as a model for the development of instruments in different subject matters that would allow for cross subject matter comparisons.

Specific to the results of the survey, it appears that student misbehavior patterns in physical education are similar to student misbehavior patterns in general education settings (Wheldall & Merrett, 1988) in that mild behaviors occur more frequently. Like their classroom counterparts, teachers also report that they have more boys than girls that misbehave. Overall, teachers' attributions for student misbehav-

TABLE 4

Frequency of Teachers' Use of Management Strategies by Behavior Scenario Type

	Mild	*Moderate*	*Severe*
Strategy	*M(SD)*	*M(SD)*	*M(SD)*
Direct discussion	4.14 (.84)	4.25 (.80)	4.39 (.78)
Catch being good	3.78 (.98)	3.75 (1.0)	3.81 (1.0)
Positive models	3.64 (.88)	3.38 (.10)	3.22 (1.2)
Classroom teacher	3.54 (1.2)	3.56 (1.2)	3.86 (1.3)
Distract w/ positive behavior	3.20 (.98)	3.24 (.95)	3.12 (1.1)
More attention	3.11 (.87)	3.07 (.92)	3.29 (1.0)
Contact parents	2.96 (.97)	3.15 (.94)	3.80 (1.1)
In-school experts	2.93 (1.1)	2.90 (1.2)	3.44 (1.2)
Time out	2.79 (1.0)	3.10 (1.0)	3.70 (1.2)
No favorite activity	2.78 (1.1)	2.88 (1.2)	3.16 (1.2)
Rewards	2.74 (1.1)	2.69 (1.1)	2.68 (1.2)
Lower grades	2.65 (1.2)	2.74 (1.2)	3.03 (1.4)
Bonus points	2.58 (1.2)	2.60 (1.2)	2.58 (1.2)
Ignore	2.56 (1.0)	2.25 (1.0)	1.60 (1.0)
Peer pressure	2.56 (1.0)	2.60 (1.1)	2.37 (1.3)
Help others	2.48 (1.1)	2.28 (1.1)	2.09 (1.1)
Student contract	2.46 (1.1)	2.47 (1.2)	2.66 (1.2)
Peer helper	2.38 (1.1)	2.18 (1.1)	2.12 (1.1)
Remove access to favorite activity	2.22 (.92)	2.55 (1.0)	3.50 (1.1)
Yell	2.09 (.95)	2.16 (1.0)	2.36 (1.1)
Outside expert	2.09 (1.1)	2.08 (1.1)	2.27 (1.2)
Detention	2.02 (1.0)	2.18 (1.1)	2.55 (1.3)
Principal's office	2.00 (.90)	2.16 (1.0)	3.04 (1.1)
Writing	1.78 (.96)	1.87 (1.0)	1.85 (1.2)
Exercise	1.74 (1.1)	1.86 (1.1)	1.93 (1.3)
Teacher's aide	1.71 (1.0)	1.62 (1.0)	1.85 (1.2)
Corporal punishment	1.20 (.70)	1.22 (.80)	1.23 (.76)

Note: n = 191-198; Strategies are listed in descending order for mild misbehavior

ior were out-of-school, student, teacher, and school factors. This finding is also similar to prior work in general education (Poulou & Norwich, 2000).

One of the unique aspects of this investigation is the ability to examine grade level differences in teacher attributions. High school teachers tended to attribute behavior to out-of-school factors more frequently than did elementary teachers. It seems plausible that high school students may, in fact, face more out-of-school pressures than do elementary students. It may also be, however, that high school teachers have less time with students than do elementary teachers so they see fewer student factors at work or perhaps high school teachers are less willing to accept responsibility for their role in student behavior as they believe older students should be held more accountable for their actions. Clearly more research into these grade level differences is needed.

Although there were grade level differences, the general trend at all school levels was for teachers to attribute misbehavior problems to external to the teacher factors, like home and student. Mavropoulou and Padeliadu (2002)

suggest four reasons for this. The first is that teachers do not have the time or skills to reflect on the consequences of their own teaching. A second possibility is that teachers may see their primary duty as curriculum goal enforcers, not student behavior enforcers. It may also be that with several years of teaching experience, teachers begin to believe they have mastered teaching skills and are doing a good job. As a consequence, misbehavior is seen as a student issue as the teacher's self-belief is that of a well-run classroom. Finally, teachers may simply be reflecting the political and social realities of schools in which teachers are disempowered and feel they have low control over all issues in their teaching lives.

Teachers used a wide variety of strategies, with all the strategies being used at least sometimes. It is interesting to look more closely at the five top ranked strategies for each scenario. For all scenarios, direct discussion was the most frequently used strategy. Teachers also report using more positive than punitive strategies, a pattern also noted by Poulou and Norwich (2000). Beyond that, some differences begin to emerge. For both the mild and moderate scenarios, teachers' top five strategies are the same. Only in the severe scenario do teachers report using different options like contact parents, use a peer helper, and time out as their most common strategies. Once again, grade level seems to be a powerful influence, as elementary level teachers used more strategies than high school teachers (for scenarios 2 & 3) and more than middle school teachers (scenario 3).

It is unclear why elementary teachers use more strategies. It may be that elementary teachers need more strategies to meet the widely varied developmental levels of their elementary students. Elementary physical education teachers are typically responsible for students in kindergarten through sixth grade which represents a great spectrum of developmental differences. Perhaps strategy use is influenced by the political and contextual differences between elementary and secondary teachers, as elementary physical education teachers primarily work alone and have the ability to set their own management policies. In contrast, secondary teachers are likely to work in departments with other physical education teachers and therefore standardized policies are necessary.

Teachers' strategy selection is also intriguing because for the most part, it is not a clear match with their attributions. It would seem logical that if a teacher believed that home was the primary influence on a child's behavior, contacting parents would be a primary strategy, yet its highest rank is fourth in the severe scenario. Do teachers believe parental involvement is ineffective when compared to other strategies? Perhaps teachers believe parental involvement is effective, as the strategy did rank in the top ten for all three scenarios, but teachers find it too time-consuming or otherwise problematic to use. Miller, Ferguson, and Moore (2002) report that pupils and teachers generally disagree over contacting parents, with students rating the strategy as much more effective than their teachers. The teachers' strategy use is somewhat consistent in that the top ranked factor of strategies, remove/refer, is the most commonly used and does reflect a focus on external to the teacher solutions like parents, principal, and detention. Additional research is needed to explore why teachers use certain strategies and how those strategies are related to their beliefs about teaching, students, and parents.

REFERENCES

Atici, M., & Merry, R. (2001). Misbehavior in British and Turkish primary classrooms. *Pastoral Care, 19*(2), 32-39.

Bibou-Nakou, I., Stogiannidou, A., & Kiosseoglou, G. (1999). The relation between teacher burnout and teachers' attributions and practices regarding school behavioral problems. *School Psychology International, 20*, 209-217.

Boekaerts, M., Otten, R., & Voeten, R. (2003). Examination performance: Are students' causal attributions school-subject specific? *Anxiety, Stress, & Coping, 16*, 331-342.

Doyle, W. (1984). How order is achieved in a classroom: An Interim report. *Journal of Curriculum Studies, 16*, 259-277.

Georgiou, S. (1999). Parental attributions as predictors of involvement and influences of achievement. *British Journal of Educational Psychology, 69*, 409-429.

Georgiou, S.N., Christou, C., Stavrinides, P., & Panaoura, G. (2002). Teacher attributions of student failure and teacher behavior toward the failing student. *Psychology in the Schools, 39*, 583-595.

Henkel, S.A. (1991). Teachers' conceptualizations of pupil control in elementary school physical education. *Research Quarterly for Exercise and Sport, 62*, 52-60.

Ho, I.T. (2004). A comparison of Australian and Chinese teachers' attributions for student problem behaviors. *Educational Psychology, 24*, 375-391.

Houghton, S., Wheldall, K., & Merrett, F. (1988). Classroom behavior problems which secondary school teachers say they find most troublesome. *British Educational Research Journal, 4*, 297-312.

Hughes, J.N., Barker, D., Kemenoff, S., & Hart, M. (1993). Problem ownership, causal attributions, and self-efficacy as predictors of teachers' referral decisions. *Journal of Educational and Psychological Consultation, 4*, 369-384.

Kulinna, P. H., Cothran, D., & Regualos, R. (2003). Development of an instrument to measure student disruptive behaviors. *Measurement in Physical Education and Exercise Science, 7,* 25-41.

Kulinna, P. H., Cothran, D., & Regualos, R. (2006). Teachers' reports of student misbehavior in physical education. *Research Quarterly for Exercise and Sport, 77*, 32-40.

Lewis, R., & Lovegrove, M. N. (1987). The teacher as disciplinarian: How do students feel? *Australian Journal of Education, 31*, 173-186.

Mavropoulou, S., & Padeliadu, S. (2002). Teachers' causal attributions for behavior problems in relation to perceptions of control. *Educational Psychology, 22*, 191-202.

Miller, A., Ferguson, E., & Moore, E. (2002). Parent's and pupils' causal attributions for difficult classroom behavior. *British Journal of Educational Psychology, 72*, 27-40.

Poulou, M., & Norwich, B. (2000). Teachers' causal attributions, cognitive, emotional, and behavioral responses to students with emotional and behavioral difficulties. *British Journal of Educational Psychology, 70*, 559-581.

Turnuklu, A., & Galton, M. (2001). Students' misbehaviors in Turkish and English primary classrooms. *Educational Studies, 27*, 291-305.

Wheldall, K., & Merrett, F. (1988). Which classroom behaviors do primary school teachers say they find most troublesome? *Educational Review, 40*, 13-27.

Correspondence regarding this article should be addressed to Pamela Hodges Kulinna at Arizona State University. Email may be sent to Pamela.Kulinna@asu.edu

APPENDIX A

Child Descriptions

Child #1. This student can't sit still during lessons. The child doesn't pay attention and doesn't follow directions. Sometimes the student acts inappropriately to get attention.

Child #2. This student talks much of the time during lessons. Sometimes that talking turns into arguing and quarrelling. The child often interrupts conversations.

Child #3. This student plays too rough in class and risks injury to self and others with unsafe actions. Sometimes this student pushes or punches others and in general bullies other students.

Descriptions of the Four Attributions

Out of School. This type of behavior is related to out-of-school factors like family (e.g., parenting skills, one parent family) and community (e.g., drugs, gangs) issues.

Student. This type of behavior is related to child factors like personality, motivation, and social or physical skills.

Teacher. This type of behavior is related to teacher factors like curriculum and methods, caring, or class management.

School. This type of behavior is related to school factors like class size, services for students, or overall school management.