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ABSTRACT

Recognizing that inexperienced teachers may differ substantially from experienced teachers in their perceptions of student control, a study examined both preteachers' and experienced teachers' strategy selections when confronted with student misbehavior scenarios that reflected particular situational determinants. Subjects, 522 prospective and experienced elementary and secondary school teachers enrolled in communication classes in large eastern and western universities, completed a survey that included four student misbehavior scenarios. Respondents selected those strategies they would use to gain student compliance in the scenarios reflecting misbehavior type (active/passive) and intensity (frequent/occasional). Using pro- and antisocial Behavior Alteration Techniques (BAT) factors as variables, four significant multivariate effects resulted. Experienced teachers reported using more pro- and antisocial strategies than did prospective teachers. Both groups relied on antisocial BATs for active misbehaviors and prosocial for passive; both groups used pro- and antisocial strategies for frequent, as opposed to occasional, misbehaviors. Antisocial BATs were used more frequently by male teachers. (Tables of data and a figure are included, and 42 references are attached.) (NKA)

EXPERIENCED AND PROSPECTIVE TEACHERS' COMPLIANCE-GAINING MESSAGE SELECTIONS ON "COMMON" STUDENT MISBEHAVIORS

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Abstract

Research has examined either prospective or experienced teachers' reported use of Behavior Alteration Techniques (BATs). In extension, this study differentiates between both preteachers' and experienced teachers' cognitive schemes for classroom management. Respondents selected those strategies they would use to gain student compliance in misbehavior scenarios reflecting misbehavior type (active/passive) and intensity (frequent/occasional). Employing pro and antisocial BAT factors as criterion variables, four significant multivariate effects resulted. Experienced teachers reported using more pro and antisocial strategies than did prospective teachers. Both relied on antisocial techniques for active misbehaviors and prosocial for passive; both pro and antisocial for frequent, as opposed to occasional, misbehaviors; and males were associated with more antisocial techniques. Implications are discussed in terms of design alternatives to the standard selectionist approach.

EXPERIENCED AND PROSPECTIVE TEACHERS' COMPLIANCE-GAINING MESSAGE SELECTIONS ON "COMMON" STUDENT MISBEHAVIORS

The realities of actually dealing with students often destroy teachers' ideal images of their chosen profession. Overestimating students' natural desire to learn coupled with a dedication to foster such learning, beginning teachers often report surprise and anxiety when they encounter student apathy, reluctance or active resistance (Applegate, Flora, Johnston, Lasley, Mager, Newman, & Ryan, 1977; Ryan, 1974). Numerous of studies have examined the developmental changes of preservice, beginning and experienced teachers as they attempt to adapt to the demands of the classroom (Driscoll, 1983; Hoy, 1967, 1969; Jones, 1982; Page & Page, 1981; Roberts & Blankenship, 1970). Such research objectifies a primary teacher frustration: The practice of teaching is often far removed from teacher traini g.

An overwhelming challenge to all teachers is practicing effective classroom management skills. Recognizing that students' time spent on-task is the single best predictor of learning (Denham & Lieberman, 1980; McGarity & Butts, 1984; Rosenshine, 1979; Woolfolk & McCune-Nicolich, 1984), the teacher must direct attention to those learning activities and control strategies that elicit and maintain students' academic engagement time. Of all the potential concerns of beginning teachers, classroom management skills have been consistently identified as their primary inadequacy and consequently, their major source of frustration

(Applegate & Lasley, 1979; Driscoll, 1983). Instructional communication researchers have identified a number of message-based strategies which can contribute to a well-managed classroom (Kearney, Plax, Richmond, & McCroskey, 1984; 1985). Such strategies or Behavior Alteration Techniques are designed to influence student on-task compliance essential for cognitive learning (Richmond, McCroskey, Kearney, & Plax, in press).

The Research Problem

Recognizing that prospective or inexperienced teachers may differ substantially from experienced teachers in their perceptions of student control, the present investigation builds upon prior research which examined either preteachers' or experienced teachers' reported use of Behavior Alteration Techniques on common student misbehaviors. Unable to provide direct comparisons between each teacher group, neither Kearney & Plax (1987) nor Plax, Kearney and Tucker (1986) could provide strong interpretable claims that distinguished preteachers from experienced teachers in their compliance-gaining message choices. Nevertheless, those researchers provided comparative assertions by concluding that preteachers, as opposed to experienced teachers, were inadequately prepared to strategically handle common student misbehaviors in the classroom. Consequently, this study was conducted with a modified and extended design allowing for the assessment of both preteachers' and experienced teachers' strategy selections when confronted with student misbehavior scenarios which reflected particular situational determinants.

Theoretical Framework

Guiding the work of constructionists in interpersonal communication theory and research as well as many of the cognitivists in the instructional arena, is a common assumption that individuals rely on cognitive structures or schemes to assist them in their interpretation of and adaptation to their environment (Apolegate, 1982; Clark & Delia, 1977; Delia, 1977; Greeno, 1980; Piaget, 1954, 1963, 1970; Rumelhart & Ortony, 1977). In explanation, individuals impose upon their surroundings a highly selective perceptual filter or "scheme" that functions to organize and make sense of environmental stimuli Initially, a given scheme may reflect a rather simple, crude pattern, insufficient for interpreting potentially discriminating features of a given phenomenon. Over time, however, the same scheme may develop into a rather complex organizing system. In other words, schemes constantly change to meet the demands of actual events individuals encounter. Individuals interaction with their environment stimulates the continual restructuring of cognitive schemes. Moving from initial simplified schemes of understanding to more sophisticated, complex structures enables individuals to be potentially more effective at adaptation.

From this theoretical position, the development of well-integrated, complex schemes for understanding classroom management is essential for effective adaptation to the classroom environment. Significantly, beginning teachers are often retained or terminated on the basis of their ability to effectively manage

students (Hoy, 1968). Because a given scheme acts as an explanation of what should occur in the classroom, it is important for teachers to develop a thorough understanding of what students are like; how they behave; what kinds of problems to expect; what strategies are available for managing discipline; which strategies are most and least effective when handling specific student misbehaviors; and which situational cues are relevant to message choice selections (see for instance, Tardif, 1985).

According to Piaget (1954, 1963, 1970), individuals may develop existing schemes in three ways: Activity, social transmission and equilibration. Applying these methods of scheme development to teachers' cognitive structures for classroom management, all three emphasize the opportunity for active interaction with the classroom environment. Specifically, activity requires that teachers have direct exposure to actual student misbehaviors. Social transmission enables teachers to refine or expand existing management schemes by observing and imitating management techniques employed by their more experienced, successful colleagues or by sharing experiences with others through dialogue. Finally, equilibration reflects an innate tendency for individuals to seek balance or equilibrium when confronted with environmental features that do not "fit" existing cognitive structures. Teachers who attempt to apply a scheme for classroom control that is met with increased, as opposed to decreased, student disruptions are compelled to modify their initial management scheme in an effort to restore an equilibrated state.

In their development of classroom management schemes then, prospective teachers may have initial schemes that potentially constrain their ability to adapt effectively to the classroom. With little or no opportunity for activity, social transmission or disequilibrating experiences, new teachers may be limited in their understanding of classroom management. Having had limited contact with actual student misbehaviors, new teachers may rely on their own personal experiences as students themselves. Such reflected experiences are not only restricted in their representativeness of all student misbehaviors, but potentially distorted as well. In terms of social transmission, many teachers are offered only limited preservice training in classroom management skills (Plax et al., 1986). Finally, new teachers lack sufficient classroom management experiences to "test out" their existing schemes for handling student disruptions. Consequently, there is little or no opportunity for disequilibration to occur.

Having no "need" or "opportunity" then, for modifying existing classroom management schemes, beginning teachers may enter the classroom with inappropriate, over-simplified schemes for handling student behavior. In contrast, experienced teachers have had numerous opportunities for scheme development. Exposure to repeated incidents of student misbehaviors; obtaining directional feedback from colleagues and administrators; and encountering student resistance to their compliance-gaining attempts, experienced teachers may have developed more integrated and sophisticated schemes for classroom management.

In support of this interpretation, a number of studies point to developmental differences in teachers' approach to student discipline. First, preteachers and experienced teachers fail to prioritize student discipline similarly. Whereas experienced teachers overwhelmingly (95%) maintain that discipline should be a primary discouraging factor in decisions to enter the profession, less than half of the preteachers sampled believed discipline problems should be criterial in their career decisions (Page & Page, 1981). Of the 1,981 elementary and secondary teachers surveyed, student apathy and discipline continue to be the most serious problems classroom managers face (Metropolitan Life Survey, 1984). To lend further support for the disparity between preteachers' and experienced teachers' perceptions of student discipline, teachers who leave the profession cite conflicts with students and the resulting anxiety associated with their inadequacy to handle those conflicts as a primary reason for their disassociation (Applegate & Lasley, 1979).

Second, inexperienced and experienced teachers' control orientations differ substantially. According to Hoy (1967), teacher training programs typically socialize prospective teachers with a humanistic control orientation. An orientation that stresses the importance of teacher confidence and trust toward students, the humanistic perspective advocates the use of supportive, helpful control techniques. Adopting a classroom management scheme of permissiveness, beginning teachers often enter the classroom ill-equipped to meet the disciplinary

challenges of their students. Developmental research on teachers socialization (Hoy, 1967; 1969; Jones, 1982; Roberts & Blankenship, 1970), indicates that inexperienced teachers gradually adopt an increasingly more custodial or authoritarian scheme not unlike that of many experienced teachers.

Third, the literature suggests that teachers' concerns about teaching differ developmentally. Primary to preteachers are concerns about whether students like them or their ability to respond accurately to students' questions. Student teachers turn their concerns toward the actual task of teaching (e.g., lecturing, activities). Experienced teachers' concerns are more student-centered, focusing attention on learning outcomes (Fuller, 1969; Fuller & Brown, 1973; Fuller, Watkins, & Parsons, 1973). Additionally, Staton-Spicer and Bassett (1979) found that teachers' communication concerns followed a similar pattern. These authors reasoned that new teachers are learning and familiarizing themselves with their teaching role. This process of role acquisition requires selective attention to particular aspects of those collective behaviors that define their emerging teacher role. Stated differently, beginning teachers may be confronted with specific classroom situations that demand restructuring of their initial schemes. Active interaction with the classroom environment may initiate disequilibration of prior schemes and thus, focus attention to specific teacher concerns. In this way, such concerns become "constructive frustrations" (Fuller, 1970, p. 11) in teachers' adaptative attempts to control their environment.

Compliance-Gaining: Prospective and Experienced Teachers

Specific to the research on prospective and experienced teachers' compliance-gaining message choices, Plax, Kearney and Tucker (1986) found that preteachers' strategy selections were restricted to 2 of the available 22 techniques: Self-Esteem and Teacher Feedback. In contrast, Kearney and Plax (1987) reported that experienced teachers relied on a number of additional techniques to control common student misbehaviors. Taken together, the results of both studies suggest that preteachers' schemes for classroom management reflect rather limited, oversimplified interpretations of compliance-gaining. Experienced teachers, however, hold management schemes that suggest the diversity and complexity of techniques potentially available and effective for gaining students' compliance.

Moreover, prospective teachers were unable to discriminate among potentially relevant situational determinants of misbehavior type (active/passive) and intensity (moderate/severe) in their message choices (Plax, Kearney, & Tucker, 1986). Predicting that experienced teachers would be able to differentiate between the same situational determinants in their strategy selections, Kearney and Plax (1987) found that experienced teachers would be more likely to use a variety of prosocial-type BATs with passive misbehaviors, but rely more heavily on antisocial techniques with active misbehaviors. These authors reasoned that active misbehaviors, which operate more

overtly to disrupt learning, trigger immediate teacher attempts to obtain control. Consequently, experienced teachers may be compelled to occasionally resort to antisocial techniques which can be interpreted as primarily desist-oriented. In contrast, passive misbehaviors, which are generally covert or suspended, may require reward-based BATs in an effort to elicit or encourage on-task compliance.

However, experienced teachers were only minimally influenced by misbehavior intensity in their strategy selections (Kearney & Plax, 1987). Expecting more frequently occurring misbehaviors to elicit antisocial compliance-gaining attempts and more isolated, occasional incidences of student disruption to evoke prosocial message selections, these authors found a partial reversal effect. That is, experienced teachers reported a tendency to employ antisocial techniques with moderate or infrequent, as opposed to more severe or frequently occurring disruptive students. Projected use of prosocial techniques was not affected by misbehavior intensity. Reasoning that teachers may be ineffectual at gaining the compliance of repeated resistors, these authors suggested that teachers may choose to direct their attempts toward occasionally misbehaving students by punishing their deviant lapses of noncompliance.

Summary and Rationale

Both Kearney and Plax (1987) and Plax, Kearney and Tucker (1986) suggest that preteachers may differ substantially from experienced teachers in their strategy choices. Building upon that research, this study was designed to extend earlier plans of

investigation and provide comparative data between sample teachers from each population. Guided by the principles of cognitive scheme development, we argue that prospective teachers' underdeveloped and simplified cognitive schemes for classroom management restrict their ability to selectively discriminate among the situational determinants of misbehavior type and intensity. In contrast, experienced teachers who have had numerous opportunities to refine and expand initial schemes for classroom control should be able to more flexibly differentiate among the same situational determinants in their compliance-gaining message choices.

Anticipating only negligible effects for the situational determinant of misbehavior intensity, however, the design of this investigation was modified to operationalize "intensity" to reflect greater extremes in the misbehaviors described in the scenarios for both the Kearney and Plax (1987) and Plax, Kearney and Tucker (1986) studies. Relying on the criticisms discussed in both studies, redundant adjectives and phrases that highlight discernment between occasional and frequently occurring misbehaviors were included to redefine misbehavior intensity. In this way, intensity should allow for a more meaningful discrimination of strategy selections for both teacher populations.

In correspondence with the Plax, Kearney and Tucker (1986) and Kearney and Plax (1987) studies, probes were made also of the potential contributors of teachers and students' gender in prospective and experienced teachers' compliance-gaining message

selection. Even though students' gender was not a significant determinant for either prospective or experienced teachers' strategy choices, experienced teachers' sex contributed meaningfully to reported BAT use. Male teachers reported a greater reliance on antisocial and expert-based techniques, whereas females selected more prosocial strategies to gain student compliance. Unable to sample a sufficient number of male preteachers, Plax, Kearney and Tucker (1986) did not report any teacher gender effects.

Based on the results of prior research as well as principles of cognitive scheme development, the following research hypothesis was generated:

> The situational determinants of misbehavior type (active/passive) and intensity (frequent/occasional) as well as teachers' and students' gender and teacher type (prospective/experienced) will significantly influence compliance-gaining message selections.

Methods

Participants were 552 prospective and experienced elementary and secondary teachers enrolled in communication classes from large Eastern and Western universities. The undergraduate prospective teacher sample (N = 222; 33 males, 189 females) represented anticipated levels of instruction primarily in elementary levels. All were fourth-year students who had no teaching experience beyond a required 3-hour observation of elementary instruction. Content coursework required for certification reflected typical classes in theory, instructional methods and specialized content areas. The graduate experienced

teacher sample (N = 330: 64 males, 265 females) represented instruction across all grade levels. Years taught for the experienced teacher sample ranged from 2 to 21.

The procedures and instruments employed were similar to those used by Plax, Kearney and Tucker (1986) and Kearney and Plax (1987). All participants completed a packet of survey materials which included 4 student misbehavior scenarios followed by instruments tapping likelihood of technique use. Participants were told that the purpose of the study was to examine experienced (or prospective) teachers' use of classroom management techniques.

Stimulus Materials

Although modifications were made in the manipulation of misbehavior intensity, each of the four scenarios reflected the same treatments employed in Plax et al. (1986) and Kearney and Plax (1987). Specifically, each misbehavior illustrated student misbehaviors common across all grade levels (Bellon, Doek, & Handler, 1979). Two were identified as active (talking out-of-turn and overactivity) and two as passive (inattention and apathy) misbehavior types. In terms of the manipulation of intensity, the same two misbehaviors of apathy and overactivity were labeled severe or frequent and inattention and talking out-of-turn were considered moderate or infrequent. In an effort to enhance respondents' sensitivity to these conditions, however, forceful language and phrases were inserted to emphasize discriminations between "frequently occurring" and "isolated incidents." In previous studies, a severely intense scenario was

operationalized as: "She sits passively in class each day." In the present study, this condition was rewritten to include: "She sits passively in class day after day . . . ." Debriefing interviews substantiated that both samples perceived the distinctions created by the manipulations.[1] Participants were instructed to "imagine that the student in each situation is in the grade level you normally [expect to] teach." (See Figure 1 for the actual scenarios employed).

Insert Figure 1 about here

As in the Plax et al. (1986) and Kearney and Plax (1987) studies, each scenario also reflected mixed-gender roles. As a result, participants responded to two male and two female students engaging in one of the four scenarios. Gender roles were rotated for each of the four scenarios so that half the prospective teachers (N = 110) and experienced teachers (N = 185) received male passive-frequent, female active-occasional, male active-frequent and female passive-occasional. The other half of the preteachers (N = 113) and experienced teachers (N = 146) received female passive-frequent, male active-occasional, female active-frequent and male passive-occasional.

Measuring Instrument

Following each stimulus misbehavior scenario, participants were provided with separate sets of multiple Behavior Alteration Messages (BAMs) representing each of the 22 Behavior Alteration

Techniques (BATs) generated by Kea ney, Plax, Richmond and McCroskey (1984). Participants were asked to rate on a 1 - 7 scale "how likely you would be to use each of the 22 message-based categories to influence the particular student in that situation." Higher scores indicated greater likelihood of use. Both samples responded to the questionnaire four times, assessing their likelihood of use for each of the four misbehavior scenarios.

Prior research employing the 22-BAT typology has consistently reported the relative independence of each of the categories. Arguing that a teacher-generated typology was most appropriate for defining the categories, no apriori deductive theoretical framework was imposed for reasoning any interdependence among the strategies. Moreover, no attempt was made to build either empirical or conceptual redundancy across the the BAT categories. Nevertheless, the results of previous research has evidenced a prosocial and antisocial response trend across techniques (Kearney, Plax, Richmond, & McCroskey, 1984, 1985; McCroskey, Richmond, Plax, & Kearney, 1985; Plax, Kearney, McCroskey, & Richmond, 1986; Richmond, McCroskey, Kearney, & Plax, in press). Interpretations of such data have considered particular BAT groupings as conceptual clusters. Empirically, Plax, Kearney and Downs (1986) operationally defined these BAT groupings as either pro or antisocial. This illustrates a clear inconsistency between the assumed "independence" of the 22 BATs and both the theoretical and/or empirical "interdependence" of prosocial or antisocial BAT types referenced across all previous BAT studies.

In order to sift through the ambiguity surrounding the independence of the BATs and determine the appropriate approach for analyzing the present data set, factor analytic procedures were employed to examine the possible existence of prosocial and antisocial structures. Initially, 8 default factor analyses (eigenvalue > 1.0) were computed for responses from each sample within each of the 4 conditions. Results indicated 5, 6 or 7 factor solutions. However, factors 1 and 2 accounted for most of the variance across all solutions obtained. Moreover, these first two factors were consistently interpretable as pro and antisocial. Subsequent analyses with 2-factor extractions produced stable factors with all items loading on their respective factor. An examination of item loadings across the 8 two-factor solutions revealed that only 4 items failed to approach a liberal 50/30 criterion. With the elimination of Reward from Teacher, Punishment from Teacher, Teacher-Student Relationship: Positive and Personal Student Responsibility, recomputing the 2-factor solutions supported a prosocial and antisocial interpretation. Additional oblique analyses indicated the relative independence of the two factors. Table 1 reports the results of the two-factor solutions for each treatment condition with each sample.

Insert Table 1 about here

Examination of Table 1 illustrates a fairly consistent pattern of item loadings for prosocial and antisocial factors for

both prospective and experienced teachers in each condition. Prosocial included 11 BATS: Immediate Reward from Behavior (#1), Deferred Reward (#2), Reward from Others (#4), Self-Esteem (#5), Responsibility to Class (#15), Normative Rules (#16), Altruism (#18), Peer Modeling (#19), Teacher Modeling (#20), Expert Teacher (#21) and Teacher Feedback (#22). Antisocial included 7 BATs: Punishment from Teacher (#7), Punishment from Others (#8), Guilt (#9), Teacher/Student Relationship: Negative (#11), Legitimate-Higher Authority (#12), Legitimate-Teacher Authority (#13) and Debt (#17). Moreover, alpha reliabilities obtained for each solution ranged from .74 to .88. Thus, substantial within treatment and across sample validity was obtained for an interpretable prosocial and antisocial factor solution. In terms of this study, then, two criterion variables of prosocial and antisocial reported BAT use were employed in the test of the hypothesis. Table 2 reports the means and standard deviations for each treatment condition by sample for each criterion measure.

Insert Table 2 about here

Results

In order to test differences across prosocial and antisocial BAT selections as a function of student misbehavior type (active/passive), intensity (frequent/ occasional), teachers' and students' gender, and teacher type (prospective/experienced), a

2 X 2 X 2 X 2 X 2 "doubly multivariate repeated measures analysis of variance" (Norusis, 1985) was computed. Within this multivariate design, summed scores across prosocial and antisocial factors were analyzed as criterion measures, whereas both misbehavior type and intensity were classified as within-subjects factors and gender (teachers' and students') and teacher type as predictors.

An examination of the resulting analyses indicated no significant complex interaction effects at alpha above .05. However, 4 significant complex main effects included teacher type, student misbehavior type, misbehavior intensity, and teacher sex. The complex main effect for student sex was nonsignificant.

The complex main effect for teacher type (prospective/experienced) accounted for 7% of the variance in the model (Wilks = .9297, Approx. F = 19.40 with 2/513 df, $p < .0001$). Following from this analysis, both simple main effects were significant. Specifically, experienced teachers reported a greater likelihood of using prosocial strategies (overall $\bar{X}$ = 45.8) than did prospective teachers ($\bar{X}$ = 40.8; F = 9.02 with 1/514 df, $p < .003$). Moreover, experienced teachers reported greater use of antisocial techniques ($\bar{X}$ = 17.1) than did preteachers ($\bar{X}$ = 12.5; F = 38.18 with 1/514 df, $p < .0001$).

The complex main effect for misbehavior type (active/passive) accounted for 16% of the variance in the model (Wilks = .8392, Approx. F = 49.16 with 2/513 df, $p < .0001$). Both simple main effects were significant as well. Both teacher samples reported greater likelihood of using prosocial techniques with passive

(overall $\bar{X}$ = 44.38) than with active misbehavior types ($\bar{X}$ = 42.24; F = 16.19 with 1/514 df, $p < .0001$). In contrast, both samples reported that they would use more antisocial strategies with active ($\bar{X}$ = 15.97) than with passive misbehavior types ($\bar{X}$ = 13.60; F = 82.71 with 1/514 df, $p < .0001$).

The complex main effect for misbehavior intensity (frequent/occasional) accounted 5% of the variance in the model (Wilks = .9540, Approx. F = 12.37 with 2/513 df, $p < .0001$). Again, both simple main effects were significant. Both teacher samples reported greater likelihood of using more prosocial strategies with frequent ($\bar{X}$ = 43.17) than with occasional misbehavior intensities ($\bar{X}$ = 41.68; F = 7.75 with 1/514 df, $p < .01$). Moreover, both samples reported using more antisocial techniques with frequent ($\bar{X}$ = 14.77) than with occasional misbehaviors ($\bar{X}$ = 13.55; F = 20.39 with 1/514 df, $p < .0001$).

The complex main effect for teacher gender accounted for 3% of the variance in the model (Wilks = .9747, Approx. F = 6.66 with 2/513 df, $p < .001$). Only one significant simple main effect resulted: Males from both samples reported a greater likelihood of using antisocial techniques ($\bar{X}$ = 16.3) than did females ($\bar{X}$ = 13.67; F = 13.2 with 1/514 df, $p < .0001$).

Discussion

Unlike prior research which examined either prospective or experienced teachers' compliance-gaining strategy selections, this study extends that research and provides comparative data on both samples. Specifically, preteachers' and experienced teachers'

responded to four common student misbehaviors in scenarios that reflected the situational determinants of misbehavior type (active/passive) and intensity (frequent/occasional). Based on principles of cognitive scheme development, we expected experienced teachers, who potentially hold well-integrated, sophisticated schemes for classroom management, to selectively attend to both situational factors in their message selections. Having had little or no opportunity for activity, social transmission, or equilibration for developing complex cognitive schemes for control, we expected prospective teachers to ignore these same situational determinants in their strategy choices.

An overall test of the repeated measures model indicated no significant complex interaction effects. However, four significant complex main effects were obtained. Specific to the overriding concern of this study, experienced teachers reported that they would use significantly more prosocial and antisocial Behavior Alteration Techniques (BATs) than did prospective teachers. Plax, Kearney and Tucker (1986) and Kearney and Plax (1987) concluded that experienced, as opposed to prospective, teachers report greater flexibility across the diversity of techniques available for managing student behaviors in the classroom. Our results provide a similar basis for this claim. Moreover, eliminating 4 BATs and collapsing the remaining techniques into two criterion variables offer greater measurement reliability and further substantiate this distinction. Because the variance accounted for was only 7%, however, we must temper our conclusion until further research supports this comparison.

Additionally, the magnitude of this teacher effect may have been influenced by both samples reporting a greater reliance on prosocial, as opposed to antisocial, compliance-gaining techniques. In explanation, responses to a strategy check list, commonly referred to as a "selection" procedure, may have been contaminated by a social desirability or social appropriateness bias. That is, teachers could have underreported the use of negative strategies and overreported the use of positive techniques in an effort to represent themselves as "good" teachers.

The complex main effect for the situational determinant of misbehavior type (active/passive) accounted for 16% of the variance in the model. Both teacher samples reported a greater likelihood of using prosocial BATs with passive student misbehaviors, but greater use of antisocial techniques with active misbehaviors. These findings are consistent with those obtained by Kearney and Plax (1987) on experienced teachers. These authors reasoned that because active misbehaviors are more immediately disruptive to the entire learning environment, teachers may resort to desist attempts evidenced in more antisocial, as opposed to prosocial, techniques. Additionally, teachers may attempt to elicit student participation from passive resistors by encouraging their compliance through prosocial techniques.

The complex main effect for misbehavior intensity (frequent/occasional) accounted for 5% of the variance in the overall model.

Specifically, both samples reported that they would use more prosocial and antisocial BATs for frequently occurring, as opposed to occasional, misbehaviors. Unable to elicit cooperation from repeated resistors, teachers may resort to a diversity of techniques evidenced across both pro and antisocial BATs. Based on the principle of functional utility, teachers may continue to search for any available strategy that works.

Even though Kearney and Plax (1987) reported a similar effect for misbehavior intensity, their results indicated that experienced teachers relied more on antisocial BATs with moderate or occasional misbehaviors. No differences were obtained with prosocial technique selections. Based on the recommendations of those researchers, the manipulation of intensity in this investigation was modified to highlight teachers' discriminations between frequently occurring and occasional misbehaviors. Consequently, teachers in this study may have reported more accurately those strategies they would employ with each intensity. Because the effect size was unsubstantial in both studies, however, future research should re-examine prospective and experienced teachers' reported technique use by presenting sequentially, a series of repeated resistance to teachers' influence attempts. This procedure would allow for a more valid indicator of teachers' responses to persistent occurrences of misbehavior intensity.

Finally, the complex main effect for teacher gender, accounting for only 3% of the variance in the overall model,

indicated that male teachers reported a greater likelihood of using antisocial BATs, but females did not simultaneously report a greater reliance on prosocial compliance-gaining techniques. Unlike the Kearney and Plax (1987) study which found stereotypic preferences for both sexes and obtained substantial variance accounted for (20%), the results of this study suggest that teacher sex is minimally predictive of strategy choices. Perhaps the addition of prospective teachers as well as the small sample size of representative males, minimized the effect size obtained in this study.

An important difference from previous studies is the factor structures obtained for Behavior Alteration Techniques based on responses from two separate samples (prospective and experienced teachers) within each of the four treatment conditions. Whereas prior research employing the BAT measure (Kearney et al., 1984) treated each of the 22 techniques as separate and independent strategies, our series of factor analyses revealed a relatively stable, interpretable pro and antisocial 2-factor solution. Because participants' BAT selections were anchored to <u>specific</u> misbehavior scenarios, as oppused to misbehaviors <u>generally</u>, valid and reliable prosocial and antisocial response trends may have been more likely. Future studies employing the BAT instrument within an "anchored" design, should examine participants' responses for similar factor structures. Moreover, those research designs which focus on students', as opposed to teachers', perceptions may find particular strategies to cross over from

their respective pro and antisocial factors evidenced in these data. For instance, the BATs of Normative Rules, Responsibility to Class, Peer and Teacher Modeling may be considered "prosocial" by teachers, but students themselves may define the use of such compliance-gaining attempts as "antisocial."

Finally, the design of this study relied on a selectionist approach to ascertain teachers' likelihood of using each technique. Employing a strategy choice paradigm may have limited the potential influence of the situational variables examined and minimized differences between prospective and experienced teachers' reported use of each technique. For instance, Burleson, Wilson, Waltman, Goering, Ely and Whaley (1988) argued that the selection procedure suffers from a type of social desirability bias known as the item desirability effect. Instead, these researchers found that the alternative "construction procedure" was much less susceptible to this bias. That is, without a preformulated strategy checklist, respondents were no more likely to generate or "construct" socially appropriate "prosocial" strategies than socially inappropriate "antisocial" messages to gain the compliance of another.

In conjunction with the present study, research is underway which examines prospective and experienced teachers' compliance-gaining message "constructions" as a function of the situational determinants of misbehavior type and intensity. According to Burleson et al. (1986), the burdensome, repetitious, and complex task of selecting from an available list of 22

strategies across multiple situations is reduced substantially when employing this alternative procedure. Instead, respondents generate those messages they would use to gain the compliance of the misbehaving student. By coding these responses into the Behavior Alteration Technique typology, three issues are addressed: First, is the PAT typology representative of those messages/strategies teachers construct? Second, do preteachers and experienced teachers continue to report a reliance on primarily prosocial techniques to gain student compliance? And third, do preteachers and experienced teachers differ substantially in their message constructions as a function of relevant situational determinants?

Footnotes

[1]In terms of the perceived realism of each scenario, both Kearney and Plax (1987) and Plax, Kearney and Tucker (1987) reported that experienced and prospective teachers were able to imagine themselves easily in each of the four conditions. Feedback from both samples in the present study further substantiated the perceived realism of the scenarios.

[2]Because available power techniques and tables do not address adequately complex k-group multivariate designs with large samples (Stevens, 1980), no estimates are reported for any of the nonsignificant complex effects computed in the present study. Following from Cohen's (1977) notion of effect size, estimates for nonsignificant simple effects produced within the MANOVA model were about .995 for a medium effect at alpha = .05 and a sample of 500.

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Figure 1.
Student Misbehavior Scenarios

Passive/Frequent

Situation 1: *Linda is completely turned off by school. She sits passively in class day after day, making little or no effort at all to participate in class or do homework. How likely would you be to employ each of the following strategies in order to get Linda to more actively contribute and work on class assignments?

Active/Occasional

Situation 2: Jim loves to talk with his friends. Even though he normally limits his socializing time with friends to recess (or break), once in a while he distracts you and others in class with his talking. On those rare occasions when he is talking out of turn, how likely would you be to employ each of the following strategies in order to get Jim to work constructively on the class assignment?

Active/Frequent

Situation 3: Pam is persistently restless and overactive in your class. She is always dominating the class by asking a lot of questions and seems to be continually looking for an argument. Her behavior is distracting to you, the class, and the lesson. How likely would you be to employ each of the following strategies in order to get Pam to settle down and work constructively in class on the assignment?

Passive/Occasional

Situation 4: Even though Mike typically pays attention to your lectures and instructions, sometimes he fails to listen actively to you. Instead, he may be doodling, daydreaming or resting his head on the desk. On those infrequent occasions when he is not paying attention, how likely would you be to employ each of the following strategies to get Mike to pay attention and work on the task?

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*In order to rotate student gender roles, each scenario was rewritten to substitute Bill for Linda, Virginia for Jim, Tim for Pam, and Carolyn for Mike.

Table 1
Factor Analysis of Experienced and Prospective Teachers' Responses to the BAT Questionnaire

*BATs	EXPERIENCED TEACHERS								PROSPECTIVE TEACHERS							
	Pass/Freq		Act/Occ		Act/Freq		Pass/Occ		Pass/Freq		Act/Occ		Act/Freq		Pass/Occ	
	Anti	Pro	Pro	Anti	Pro	Anti	Pro	Anti	Anti	Pro	Fro	Anti	Pro	Anti	Pro	Anti
1	-.03	.36	.63	-.11	.52	-.00	.60	-.07	.04	.28	.48	.03	.39	.03	.51	.09
2	-.00	.24	.55	-.06	.52	.07	.65	.01	.02	.32	.49	.09	.47	.01	.44	.06
4	.15	.42	.68	.24	.65	.11	.63	.31	.14	.46	.56	.16	.60	.20	.59	.24
5	-.19	.49	.71	-.06	.58	-.08	.71	-.03	-.11	.24	.54	-.16	.46	-.06	.52	-.18
7	.62	-.07	-.03	.74	-.08	.75	-.00	.71	.60	-.03	-.04	.57	-.05	.66	-.04	.72
8	.66	.02	.04	.73	.07	.68	.02	.79	.73	-.09	.06	.68	.03	.60	-.00	.78
9	.54	.22	.28	.53	.29	.52	.35	.55	.48	.18	.21	.38	.21	.35	.24	.59
11	.71	-.03	.02	.60	.00	.60	.06	.67	.67	.05	.08	.76	.07	.57	.10	.74
12	.57	.12	.16	.57	.17	.59	.20	.65	.62	.20	.06	.62	.07	.66	.14	.58
13	.60	.04	.02	.63	.06	.68	.08	.62	.69	.10	.12	.62	-.02	.64	.12	.68
15	.28	.50	.58	.25	.67	.17	.60	.30	.16	.52	.44	.18	.61	.13	.62	.18
16	.39	.54	.56	.38	.58	.31	.57	.42	.27	.58	.56	.30	.59	.26	.59	.22
17	.61	.19	.23	.55	.21	.50	.23	.60	.56	.29	.21	.58	.23	.43	.24	.45
18	.20	.58	.47	.26	.55	.20	.68	.24	.19	.51	.45	.20	.55	.10	.66	.09
19	.27	.59	.64	.32	.64	.30	.66	.31	.11	.68	.57	.23	.58	.26	.66	.21
20	.42	.42	.48	.38	.47	.32	.43	.45	.19	.46	.53	.28	.59	.13	.53	21
21	.13	.46	.51	.25	.49	.15	.46	.26	.04	.56	.64	.06	.56	.05	.57	.07
22	-.15	.37	.56	-.03	.56	-.13	.59	.03	-.08	.28	.45	-.15	.42	-.08	.45	-.00
Eigenvalues:																
	4.64	2.44	5.68	2.82	5.27	2.80	6.40	2.74	4.40	2.46	4.74	2.64	4.47	2.59	5.26	2.85
Variance:																
	25.8	13.6	31.6	15.6	29.3	15.6	35.6	15.2	24.2	13.6	26.3	14.7	24.8	14.4	29.2	15.8
Interfactor Correlations:																
	.19		.27		.25		.33		.19		-.24		.22		-.26	
Alpha Reliabilities:																
	.81	.76	.82	.86	.82	.85	.84	.88	.81	.74	.80	.81	.75	.81	.83	.84

*For BAT labels, see Methods section, p. 18.

Table 2
Means and Standard Deviations for Prospective and Experienced Teacher Reported BAT Use*

Condition	Prospective $\bar{X}$	Prospective s.d.	Experienced $\bar{X}$	Experienced s.d.
Prosocial BATs				
Passive-Frequent	42.13	10.22	45.94	10.93
Active-Occasional	39.28	12.47	42.97	14.81
Passive-Occasional	40.60	12.75	43.85	17.10
Active-Frequent	40.29	12.21	44.30	14.17
Antisocial BATs				
Passive-Frequent	11.43	5.69	15.73	8.03
Active-Occasional	12.49	6.33	16.72	8.75
Passive-Occasional	10.67	5.28	14.32	7.48
Active-Frequent	13.67	6.52	18.23	9.26

*Responses to prosocial BAT use could potentially range from 11 to 77; antisocial BAT use could range from 7 to 49.