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TEACHER EFFICACY IN CLASSROOM MANAGEMENT AND DISCIPLINE

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A scale for measuring teacher efficacy in classroom management and discipline is presented, along with results from a factor analysis of intercorrelations of items from the scale and items from two other teacher efficacy scales. Data sources included 119 preservice teacher education students and 42 student teachers. Results are presented indicating that classroom management/discipline efficacy is distinct from other types of teacher efficacy, and that the subscales have acceptable internal consistency and test-retest reliability. The data also indicate that efficacy beliefs predict preferences for certain strategies to deal with problems presented in vignettes; however, no relationships were found between self efficacy scores of student teachers and ratings of teaching performance made by university supervisors.

THE concept of self-efficacy was given prominence by Bandura (1977, 1982) and has subsequently been the focus of considerable research in education and elsewhere (e.g., Ames and Ames, 1985; Ashton and Webb, 1986). Perceived self efficacy has been defined by Bandura (1986) as "a judgment of one's capability to accomplish a certain level of performance" (p. 391) and as a "generative capability in which cognitive, social, and behavioral subskills must be organized into integrated courses of action to serve innumerable purposes" (p. 391).

Perceived self efficacy was conceptualized by Bandura as an

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important mediator between an individual's knowledge or skills and behavioral accomplishments. Self-efficacy is a more specific construct than self concept or self esteem, because it describes the individual's self-conception of performance capability, rather than a more global self-evaluation. The greater specificity of the construct may permit better and more direct prediction of behavior. Assuming that an outcome of a behavior is desirable, then an individual who possesses high self efficacy will be more likely to attempt to execute the behavior than an individual with low efficacy. Bandura also argued that self efficacy reflects the degree of strength and generality of skills, rather than performance of isolated components.

For teachers, self-efficacy beliefs might influence numerous aspects of thinking, decision-making, and behavior. For example, a belief that teachers have little impact on student achievement would reduce attempts to try new teaching techniques; conversely, a teacher with high self-efficacy might try a variety of strategies to reach a low achieving student. Whether preactive or interactive decisions are considered, efficacy beliefs could help account for differences in teacher effort, preference for particular discipline strategies, or choice of instructional goals. Indeed, teacher's beliefs about their abilities to influence student outcomes have been identified as predictors of teacher effort, attitudes and perceptions, and of teacher success in promoting student achievement (Ashton and Webb, 1986; Berman, McLaughlin, Bass, Pauly, and Zellman, 1977).

A measure of teacher efficacy developed by Gibson and Dembo (1984) provided the starting point for the present research. These researchers identified two teacher efficacy dimensions. The first one, which they labeled "Personal Teaching Efficacy," consists of teacher beliefs that they know suitable teaching techniques and are able to help students learn, achieve more, do better than usual, and increase retention, among other skills. The second dimension, which was labeled "Teaching Efficacy," reflects the belief that the teacher's impact on students is limited by external influences, such as home and family background. Items measuring the two dimensions were shown to be factorially distinct, and conformed to a conception of efficacy as two complementary beliefs: that the teacher is skillful and that the skills can lead to desirable outcomes. In addition, Gibson and Dembo provided evidence of convergent and discriminant validity for their instrument (hereafter referred to as the GD scales) and also presented some correlations with classroom process measures which indicated that low efficacy teachers were less persistent after incorrect answers and were more

likely to criticize students, whereas high efficacy teachers were more likely to praise correct responses. Other research with these scales has indicated that teaching efficacy is related to pupil control ideology and to bureaucratic orientation, although not to motivational style (Woolfolk and Hoy, 1990).

The rationale for developing a separate self efficacy scale for classroom management and discipline is that the domain is at least partially distinct, both conceptually and behaviorally, from the ability to influence learning or achievement outcomes. In addition, only two items on the Gibson and Dembo (GD) instrument appeared to tap behavior management self-conceptions directly. Because a considerable amount of teacher attention is focused on behavioral outcomes that are not immediately linked to student learning but rather to achieving order and cooperation, an understanding of teacher decision making and behavior may require knowledge of efficacy in management and discipline, in addition to the more global teaching efficacy construct. Rather than regard teachers as high or low in overall teaching efficacy, it may be more informative to examine their efficacy in critical subareas.

The purpose of this study was to determine whether teacher efficacy in classroom management and discipline is distinct from other dimensions of teacher efficacy. Given its existence as a separate construct, then the authors sought to identify a set of items with good internal consistency and test-retest reliability, and to obtain evidence regarding validity.

Methods

Scale Development

Items assessing teacher efficacy about classroom management and discipline were developed based on current conceptualizations in the literature (e.g., Doyle, 1986) which emphasized skills and capabilities that are general and important. In addition, and consistent with the second efficacy factor in the GD scale, additional items were developed to assess belief in the relative strength of external determinants of student behavior compared to teacher influences. Finally, items with high factor loadings from the GD questionnaire were added, in order to examine the factorial distinctiveness of classroom management/discipline efficacy and other aspects of efficacy.

Pilot Study

A pilot study using 40 undergraduate teacher education students as subjects was conducted during the Fall 1988 semester. Each student completed the efficacy questionnaire, along with other instruments as part of another study. Based on the pilot study, the questionnaire was revised, with the final form consisting of 36 items with a 6-point Likert-type response format ranging from strongly disagree to strongly agree.

Administration of the Revised Scale

During the Spring '89 semester the revised questionnaire was administered to a total of 161 respondents, including 119 preservice teacher education students and 42 student teachers nearing the end of their field experience. In order to examine relationships between the efficacy scales and teacher decision making, six vignettes describing various student academic and behavioral problems were also presented to subjects, who were asked to indicate how they would respond to each if they were the teacher. For each vignette, 14 strategies were provided and subjects were asked to indicate their intention to use each strategy, using a 5-point response format ranging from very unlikely to very likely. One week later, a subset of subjects was administered the efficacy questionnaire again, to permit an estimate of its test-retest stability.

Supervisors Ratings

Finally, in order to determine whether teacher self-efficacy is related to teaching performance, 30 student teachers in the area of special education were administered the questionnaire at the end of their student teaching experience in the Spring 1990 semester. The student-teacher supervisors for each of the 30 students completed a rating form assessing teaching and managerial performance on 12 5-point items (Sample items: Executes transitions and activities smoothly; Clear lesson presentations; Deals promptly with inappropriate behavior; Is aware of student behavior; Communicates behavioral expectations clearly). Because the 12 ratings were highly intercorrelated, they were pooled into a composite scale assessing teaching performance. Each supervisor had observed each student teacher on at least six occasions in both regular and special classes.

Results

In order to identify the dimensionality of the efficacy items, factor analytic procedures were used. Initial factoring of the item correlation matrix was done with a principal axis factor analysis, followed by rotation using the varimax criterion. Three factors were retained for rotation, based on Cattell's scree criterion. Data for student teachers and preservice teachers were pooled after preliminary analyses indicated similar patterns of correlation among the items. Rotated factor loadings are presented in Table 1. The first factor (referred to subsequently as the Classroom Management/Discipline factor) contains mainly items related to the teacher's self perception of competence in the area of management and discipline. The second factor consists of items reflecting a belief that influences other than the teacher determine student outcomes. Many of these items are consistent with those found in the second factor of the GD scale which Gibson and Dembo (1984) had named Teaching Efficacy, and some are items which had been added to enhance the factor's definition. Because this second set of factor items reflects the relative influence on student behavior of events or characteristics beyond the teacher's control, the second factor will be referred to as the External Influences factor. The third factor consists of items that were original with the GD scale and which, with one exception (Item 27) were located on their Personal Teaching Efficacy factor.

Subscale scores were generated using unit weights for each item identified in the factor analyses as having a loading of .30 or greater, as indicated in Table 1. Items with negative weights were coded to reverse the scale. For each subject, therefore, three subscale scores were created. Correlation coefficients were calculated among these scores. In addition, internal-consistency coefficients (Cronbach's alpha) were computed. Finally, subscale scores were calculated for a subset of subjects ($n = 33$) who had been re-administered the questionnaire, and the test-retest correlations were obtained for each scale. Results from these analyses are shown in Table 2, and indicate that the subscales have relatively low intercorrelations and moderate estimates of internal-consistency and test-retest reliability.

A second set of subscale scores was generated in order to reflect a combination of the factor analysis results and a conceptualization of the self efficacy domains. Three items (8, 13, and 29) were moved from Factor Scale 1 to 3, because the items were originally part of Gibson and Dembo's (1984) Personal Teaching Efficacy Scale, and

TABLE 1
Factor Loadings for the Teacher Efficacy Items

Item	Factors		
	1	2	3
5. I know what routines are needed to keep activities running efficiently.	.65		
9. I know what kinds of rewards to use to keep students involved.	.65		
28. If students stop working in class, I can usually find a way to get them back on track.	.63		
36. I have very effective classroom management skills.	.63		
26. I can keep a few problem students from ruining an entire class.	.61		
7. I can communicate to students that I am serious about getting appropriate behavior.	.61		
35. I am confident of my ability to begin the year so that students will learn to behave well.	.61		
29. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson ^a	.57		
4. I find it easy to make my expectations clear to students.	.56		
8. If one of my students couldn't do an assignment I would be able to accurately assess whether it was at the correct level of difficulty ^a	.53		
2. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him quickly. ^a	.50		
18. When I really try, I can get through to most difficult students. ^a	.48	.29	.33
13. When a student is having trouble with an assignment, I am usually able to adjust it to his/her level. ^a	.44		.32
11. There are very few students that I don't know how to handle.	.34		
17. I don't always know how to keep track of several activities at once.	-.32		.33
23. Sometimes I am not sure what rules are appropriate for my students.	-.32		.27
31. Teachers have little effect on stopping misbehavior when parents don't cooperate.		.69	
20. A teacher is very limited in what can be achieved because a student's home environment is a large influence on achievement.		.67	
21. I find some students to be impossible to discipline effectively.		.62	
30. Home and peer influences are mainly responsible for student behavior.		.59	
6. There are some students who won't behave no matter what I do.		.59	
10. If students aren't disciplined at home, then they aren't likely to accept it at school. ^b		.58	.32
15. Student behavior in classrooms is influenced more by peers than the teacher.		.55	
12. If a student doesn't feel like behaving, there's not a lot teachers can do.		.50	
34. Compared to other influences on student behavior, teacher's effects are very small.	-.26	.45	
19. I am unsure how to respond to defiant students.	-.30	.43	
3. The hours in my class have little influence on students compared to the influence of their home environment. ^b		.41	
32. The influences of a student's home experiences can be overcome by good teaching. ^b		-.37	
33. Even a teacher with good teaching abilities may not reach many students. ^b		.35	
25. The amount that a student can learn is primarily related to family background. ^b		.30	
16. When a student gets a better grade than usual, it is probably because I found better ways of teaching that student. ^a			.72
1. When a student does better than usual, many times it is because I exerted a little extra effort. ^a			.71
22. When the grades of my students improve, it is usually because I found more effective teaching approaches. ^a			.56
24. If a student masters a new concept quickly this might be because I knew the necessary steps in teaching the concept. ^a			.55
27. If parents would do more with their children at home, I could do more with them in the classroom.			.37

Note. Factor loadings <.25 are omitted. Item numbers are from the 36-item questionnaire.

^a Item from Gibson and Dembo's Personal Teaching Efficacy factor.

^b Item from Gibson and Dembo's Teaching Efficacy factor.

TABLE 2
Subscale Intercorrelations and Summary Statistics (n = 161)

Efficacy Subscale	2	3	Coefficient Alpha	Test-retest r	Mean	S.D.
1. Classroom management/discipline	-.16 (-.20)	.21 (.41)	.81 (.79)	.79 (.75)	4.53 (4.49)	.79 (.75)
2. External influences	—	.04 (.08)	.79 (.78)	.83 (.86)	3.30 (3.34)	.68 (.65)
3. Personal Teaching Efficacy		—	.69 (.68)	.82 (.84)	4.12 (4.24)	.70 (.55)

Note. Decimals omitted from correlation and reliability coefficients. Statistics in parentheses are based on the redefined subscales.

their content is more in keeping with that dimension. For a similar reason Item 27 was moved from Scale 3 to Scale 2. The revised third scale thus consists of 7 items that were on the original Personal Teaching Efficacy scale. One item ("I am unsure how to respond to defiant students") was removed from the second scale and added to the first scale, because it appears to be more conceptually related to Classroom Management/Discipline Efficacy. Item 17 ("I don't always know how to keep track of several activities at once") was placed on Scale 1, even though it is also appropriate for Scale 3, because it reflects the "overlapping" and "withitness" concepts from Kounin's (1970) management research. Items were unit weighted to define the scales and items with negative loadings (17, 19, 23, 32) were coded to reverse their scales. Internal-consistency estimates of coefficient alpha reliability and test-retest correlations were computed, as had been done with the first set of scales. Results of this analysis are in parentheses in Table 2. It is apparent from these results that even with unit weighting and less than optimal item arrangement (at least according to the factor analysis results), the revised scales have acceptable reliabilities and low intercorrelations.

In order to determine whether teacher efficacy predicts preference for teaching strategies, correlations were computed between the set of teacher efficacy subscales and the subjects' responses to the vignettes. Factor analysis of the intercorrelations among the preferences for the 14 teaching strategies had identified three general response dimensions. The first, labeled Reductive Strategies, consists of teacher behaviors such as using time out, warning the student, desists, and consequences. The second cluster of strategies includes such teacher behaviors as talking with the student to encourage more effort, praise, modifying the assignments or teaching approach, giving extra attention, and having the student develop

a plan for change. This set of strategies is mainly concerned with establishing or increasing desirable behavior, and was labeled Positive Strategies. The third set of strategies consists of teacher attempts to obtain more information, to refer the student, and to enlist peer support for the student. This set was labeled External Support. Strategy preferences were pooled across vignettes after an examination of results indicated consistency of preference for strategies across vignettes. Correlations were then calculated between the efficacy scale factors and the strategy preferences yielding correlations as follows: For Classroom Management/Discipline Efficacy, the correlation with Positive Strategies was $.30$ ($p < .05$, $df = 155$), with Reductive Strategies, $r = .00$, and with External Strategies, $r = .09$ (NS). For the External Influences Scale, the correlations with the strategy preferences were, respectively, $-.20$ ($p < .05$), $.08$ (NS), and $-.03$ (NS). For Personal Teaching Efficacy, the correlations were, respectively, $.32$ ($p < .05$), $.11$ (NS), and $.20$ ($p < .05$). Thus, the efficacy subscales were correlated with teacher preferences for positive strategies, but not with preferences for reductive strategies. Personal Teaching Efficacy was positively correlated with preference for External Strategies.

For the sample of 30 special education student teachers, it was expected that a significant positive correlation would be obtained between managerial efficacy and the composite supervisor rating. However, the actual correlation was $-.06$, indicating no relationship between the student teachers' self perceptions and their supervisors' assessments. Personal Teaching Efficacy ($r = .02$) and External Influences ($r = -.10$) were not significantly correlated with supervisors' assessments either.

Discussion

The factor structure obtained in this study supports the conception of teacher efficacy as more differentiated than the two factor model used by Gibson and Dembo (1984). A well defined factor consisting mainly of items with managerial or discipline content was obtained. The two factors reported by Gibson and Dembo (1984) are represented by Factors 2 and 3 in this data set, providing a replication of their findings, as well as an extension.

The Classroom Management/Discipline factor contains a few items that do not represent, a priori, managerial or discipline content. These items originated with Gibson and Dembo (1984) and

were part of their Personal Teaching Efficacy factor. The fact that these items loaded on Factor 1 rather than on Factor 3, which consists of original Personal Teaching Efficacy items, indicates either sampling errors or some factorial overlap. The small number of such items and the fact that they are not among those with the highest factor loadings indicates that the presence of these items is not a serious limitation to concluding that there is a distinct factor for Classroom Management/Discipline efficacy. Also, removing these items from the Classroom Management/Discipline scale and including them on the Personal Teaching Efficacy scale did not change substantially the scale reliabilities and test-retest correlations. The correlation of two factor scales (1 and 3) was increased slightly (from .21 to .41) by the scale redefinition, but this degree of correlation seems reasonable given the likelihood that the two types of teacher efficacy are not completely distinct domains of expertise.

The attempt to use the efficacy measures to predict preference for teaching strategies was partly successful. That the Classroom Management/Discipline efficacy and the Personal Teaching efficacy subscales are positively correlated with preference for Positive strategies, and that the External Influences factor subscale is negatively correlated with preference for Positive strategies, are consistent with both theory and other research (Ashton and Webb, 1986; Dembo and Gibson, 1985) on self efficacy. However, the positive correlation of Personal Teaching Efficacy with the External Support strategies was not anticipated because low efficacy or beliefs in one's skills and abilities was thought to be inversely related to preference for use of external sources to deal with student problems. One possible explanation for the positive correlation is that even though the support strategies rely on persons external to the teacher, agreement with the use of such resources still reflects an attempt by the teacher to effect positive changes.

The apparent lack of relationship of the efficacy scales with the student teacher supervisor assessments was unexpected. It is possible, of course, that the supervisors' judgments were not valid, but because the supervisors had observed the student teachers extensively, we are inclined to accept their assessments. Given that assumption, it may be useful to inquire why some student teachers who experience more managerial/behavior difficulties possess relatively high Classroom Management/Discipline self-efficacy. It may be that for these teachers, high self efficacy is a form of denial and permits them to avoid the negative feelings that an honest self assessment could produce. It may also reflect a lack of feedback and/or comparative assessment that would encourage a more real-

istic estimate of efficacy. We can only speculate that unrealistically high self-efficacy might impede a teacher from making changes that would result in stronger teaching performance in the long run.

It should be noted that the small number of subjects relative to the total number of items may have produced instability in the factor structure. Caution should be exercised in interpreting the study's results, both with respect to specific items and their loadings, as well as correlations of the efficacy scales with other measures.

Much research in recent years has demonstrated the importance of the self efficacy concept for understanding teachers' and students' conceptions of themselves and their work in classrooms. The purpose of this research was to extend the teacher self efficacy construct to the domain of classroom management and discipline. It is hoped that by using a more differentiated conception of teaching efficacy, better research might be done ultimately on questions such as how teaching efficacy mediates skilled performance in establishing classroom order and cooperation, what role efficacy plays in teacher development or in persistence in dealing with misbehaving students, and how teacher decisions and emotions are affected by efficacy beliefs.

REFERENCES

- Ames, C. and Ames, R. (Eds.). (1985). *Research on motivation in education. Vol. II: The classroom milieu*. Orlando, FL: Academic Press.
- Ashton, P. and Webb, R. (1986). *Making a difference: Teachers' sense of efficacy and student achievement*. New York: Longman.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122–147.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Berman, P., McLaughlin, M., Bass, G., Pauly, C., and Zellman, G. (1977). *Federal programs supporting educational change*. Santa Monica, CA: Rand Corporation (ERIC Document No. 140432).
- Dembo, M. and Gibson, S. (1984). Teachers' sense of self efficacy: An important factor in school improvement. *The Elementary School Journal*, 86, 173–184.
- Doyle, W. (1986). Classroom organization and management. In Wittrock, M. (Ed.), *Handbook of Research on Teaching*. (3rd edition) (pp. 392–431). New York: Macmillan.

- Gibson, S. and Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569–582.
- Kounin, J. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehart, and Winston.
- Woolfolk, A. E. and Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology*, 82, 81–91.