Zeichner, K. M., & Conklin, H. G. (2005). Teacher education programs. In: M. Cochran-Smith & K. M. Zeichner (Eds). *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 645–736). Mahwah, NJ: Lawrence Erlbaum Associates.

Zumwalt, K., & Craig, E. (2006). Teachers' characteristics: Research on the indicators of quality. In: M. Cochran-Smith & K. Zeichner (Eds), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 157–260). Washington, DC: American Educational Research Association.

TEACHER AUTHORITY, TACIT KNOWLEDGE, AND THE TRAINING OF TEACHERS

Julian G. Elliott and Steven E. Stemler

ABSTRACT

Given the decline in traditional modes of authority, teachers are increasingly reliant upon their professional authority for ensuring orderly and disciplined classrooms. Rather than being vested in teachers generally, by virtue of their specific role, in loco parentis, professional authority is largely acquired through the demonstration of the individual teacher's expertise. Such expertise incorporates subject and pedagogical knowledge, together with skill in relation to classroom interpersonal dynamics. A key difficulty in relation to interpersonal management is that much of the knowledge involved is tacit and thus not easily made explicit. The chapter examines this issue and identifies some key teacher interpersonal behaviors that can be identified and practised by the novice.

"Our youths love luxury; they have bad manners, contempt for authority and disrespect for older people. Children nowadays are tyrants, they contradict their parents and tyrannize their teachers."

THE NATURE OF TEACHER AUTHORITY

Socrates' lament about young people in Ancient Greece reminds us that it has never been easy to be a teacher. While society entrusts teachers with the right to exert control and influence over students, the reality is that the teacher–student relationship is always subject to ongoing negotiations tempered by a broad range of social, cultural, and institutional factors (Metz, 1978; Pace & Hemmings, 2007). Despite the fact that social change, with its increasing emphasis upon autonomy and individual freedoms, appears to render the task of the contemporary teacher particularly problematic, we should not imagine (as many current trainees appear to suspect) that there was ever a golden age of compliance and discipline. As Pearson (1983) has shown, adult concerns about childhood misbehavior, and misgivings that perceived decline has been fuelled by excessive liberalism, have been constant themes throughout much of the past century.

Of course, few teachers would wish to engineer the docility and conformity that were widely expected of the child in earlier times. Indeed, adolescent rebellion and challenge towards the adult world reflect important stages of development that subsume the task of identity formation and the need for autonomous functioning. While a grasp of the important underlying psychological bases of much adolescent behavior may help to reassure teachers that challenge to their authority has, to a certain extent, a functional basis, it remains the teacher's task to ensure that students learn in an environment that is conducive to sustained engagement and reflection. In contrast, the apparent increase in problem behavior on the part of younger children appears to have no discernible utility and appears to reflect modern societal pressures and disintegrating familial networks.

Authority exists only in so far that subordinates accept its legitimacy and consent to do what is required of them (Pace & Hemmings, 2007; Weber, 1947). However, it is clear that societal views about the nature and exercise of authority have changed significantly in recent times and ready acceptance of traditional modes of authority has declined in most advanced societies. In this vein, Elliott and Tudge (2007) draw upon Bronfenbrenner's ecological model to demonstrate how powerful global forces interact with individual characteristics to effect change in the nature of social relationships. In their paper, they demonstrate how teachers in the post-Soviet Russian education system have struggled to cope with challenges to their authority. Global (i.e., Western) influences emphasizing the importance of individualism, personal autonomy, and detachment from traditional ties (Inglehart & Welzel, 2005)

have reduced the willingness of Russian students to accept unquestioningly their teachers' authority. While teachers in Western societies have not experienced such a sudden transformation, threats to their authority still appear to be more severe. Rather than the sudden transformation that is being witnessed in much of Eastern Europe, the decline of the authority of teachers in the UK, has been more gradually eroded over the past four decades. Similarly, Pace (2003), in the US, notes that teachers' traditional authority, underpinned by their in loco parentis, role, shifted during the 1970s towards authority that was legitimized by their professional expertise. Such authority, however, has proven difficult to acquire largely because of the teaching profession's low status in the US and the tensions that inevitably emerge from the coercive mechanisms that sustain compulsory schooling.

TEACHER TRAINING IN BEHAVIOR MANAGEMENT

Given the need for teachers to demonstrate high levels of classroom expertise to achieve order in their classrooms, it is hardly surprising that classroom management is typically the primary concern for beginning teachers (Stroot et al., 1999; Pigge & Marso, 1997; Johnson & Birkeland, 2003) and that student teachers have voiced much criticism of the perceived failure of initial training programs to prepare then to cope in their first classrooms (Jones, 2006). However, it is not always appreciated by the novice how difficult it is to offer meaningful tuition. Furthermore, it is a task that has not been helped by the focus and direction of initial teacher training in many countries.

The worldwide standards movement, underpinned by the imperatives that result from high stakes testing, has resulted in a concern that student teachers should acquire high levels of content and pedagogical knowledge. As a result, the emphasis upon developing novice teachers' interpersonal skills for effecting positive classroom management has been comparatively de-emphasized (Stemler, Elliott, Grigorenko, & Sternberg, 2006; Stough, 2006). While such concerns appear to be ongoing in the US (Stough, 2006), in the UK, growing concern about student misbehavior resulted in belated recognition that insufficient attention was being given to this topic in teacher training programs. This has resulted in the articulation of specific competencies in classroom management for novice teachers and the provision of a dedicated website funded by the UK Government's Teacher Development Agency (http://www.behaviour4learning.ac.uk).

Unlike the US, much of the professional training in classroom management in UK has been delegated to school-based mentors rather than taught in detail by university-based specialists. Unfortunately, many skilled mentors encounter difficulty in making explicit the complexities of the social dynamics of classrooms. As a result, they are likely to focus upon those aspects of practice that are more easily described. Thus, teacher input to novices and the associated professional literature is often more concerned with the structural/systemic and pedagogical aspects of schooling than the interpersonal teacher skills conducive to good discipline. For example, as part of a recent UK Governmental Working Party Report on behavior and discipline (Steer, 2005), practical examples of good practice that would promote good behavior were identified. Such an exercise would surely be an invaluable aid for those seeking to promote the professional development of teachers, whether for initial training programs or post-qualification.

The Report focused upon the following 10 aspects of school practice that "... when effective, contribute to the quality of pupil behaviour" (p. 3):

- A consistent approach to behavior management, teaching, and learning. Here, the focus is upon ensuring that all members of staff follow an agreed set of practices in cases where discipline is problematic. High visibility of senior staff around the school is perceived as an important means of helping to achieve this end.
- Effective school leadership that acts to support colleagues, serves as role models and demonstrates high expectations of behavior.
- Good classroom management, learning, and teaching. Here, the Report focuses upon curriculum content, lesson planning and delivery, feedback to students on progress, and the use of appropriate classroom routines.
- The deployment of systems to reward good work and behavior with sanctions available where appropriate.
- Utilizing opportunities to teach students how to manage strong emotions, resolve conflict, work cooperatively, and to be respectful and considerate to others.
- Provide sound provision of staff development and support.
- Provide student pastoral support systems with access to specialist support (e.g., psychologists, mental health practitioners).
- Positive and regular liaison with parents and other agencies.
- Ensure smooth transition between different phases of schooling.
- Provide an organized and attractive school environment that is conducive to personal and social well-being and which minimizes opportunities for disruption of anti-social behavior.

While these recommendations would be seen by most educationalists as both apposite and helpful, one wonders whether they really serve to address the key issues that confront teachers struggling to cope in challenging classrooms and schools. Like the man, late at night, searching for his car keys in the wrong place because, "...the street light is shining here, not where I dropped them" the focus appears to be upon those aspects of teacher practice that are most amenable to description and regulation [involving what is sometimes called bureaucratic authority (Metz, 1978)]. Where there is reference to more profound understandings and knowledge of teacher expertise, specific guidance is either lacking or somewhat superficial. For example, an illustration in a very short section on teacher professional development in the Report provides the following observation:

> Our senior managers recognise that, as the term goes on and we get tired, we sometimes forget to follow through agreed practices. In briefings they gently remind us about simple things like smiling at children, saying good morning and getting to classrooms on time. You can't do this once or twice a year; it has to be every two to three weeks. Then we take a shared whole staff focus for our own behaviour. We might identify a group of children whose behaviour presents problems and all make a point of saying something positive to them when we meet them in lessons, or around school. (p. 11)

Although seemingly trite, many might argue that such guidance represents some improvement upon previous years when the provision of explicit guidance on behavior management was rare. Questions to UK teachers of 10 or 20 years experience about the inputs they received in behavior management during their initial training typically result in derisive comments concerning its sparseness or, in some cases, total absence. Given that there exists an abundance of research on the topic of classroom management (cf. Evertson & Weinstein, 2006), it is, perhaps rather puzzling that this does not appear to have filtered through to documents such as that of the Steer Report.

TACIT KNOWLEDGE

The difficulty for professional development in behavior management is that much expert knowledge is tacit and thus not easily articulated as a set of guiding rules for action (Sternberg & Horvath, 1995; Schon, 1983). For Sternberg, tacit knowledge is conceptualized according to three main features. Firstly, it is acquired without a high degree of direct input from others. Rather, learning takes place not primarily from instruction from others but results from the individual's experience of operating within a given context. In these situations, such knowledge may not be easily

understood or communicated. Secondly, tacit knowledge is essentially procedural in nature; it concerns how best to undertake specific tasks in particular situations. As is the case with procedural knowledge, this often serves to guide action without being easily articulated (Anderson, 1982). Tacit knowledge is more than a set of abstract procedural rules; however, it is context-specific and concerns appropriate action in given situations. Thirdly, tacit knowledge is intricately bound up with one's own goals. Thus, we may be instructed on procedures to adopt in a given situation (e.g., how to react when a student is abusive to the teacher) but our own experiences and goals may lead us to adopt a different approach that we deem to be more effective.

While tacit knowledge has been shown to be related to teachers' professional effectiveness (Grigorenko, Sternberg, & Strauss, 2006), given the complexities involved, it is hardly surprising that expert practitioners can often find it difficult to offer guidance to novices. Thus, student teachers often find their questions to their mentors about interpersonal aspects of behavior management met with responses such as: "I don't know really; it's just experience, I guess." Teachers encountering behavioral difficulties in the classroom may find their managers and mentors seeking to focus attention upon practical aspects of teaching and learning such as lesson planning, pace and task rather than focusing upon more subtle interpersonal forms of communication. This is hardly surprising as many senior teachers will have a strong knowledge base about pedagogy that is more easily rendered explicit and thus offered as expert knowledge.

The foregoing discussion suggests something of an impasse. While we can articulate a number of practices, strategies, and structures that are widely perceived to characterize schools that demonstrate a sense of order, discipline, and sound relationships, it appears very difficult to articulate those more subtle teacher interpersonal practices that appear to characterize the most skilled practitioner. Is the tacit nature of such knowledge so context-bound and wrapped in the personal experience, values, and goals of each individual that meaningful guidance is impossible to offer?

One possible avenue is to try to make teachers' tacit knowledge more explicit. A means of achieving this is through the use of tacit knowledge inventories utilizing a situational-judgment format. These are widely employed in studies of highly domain-specific tacit knowledge (McDaniel & Nguyen, 2001; Cianciolo, Matthew, Sternberg, & Wagner, 2006). In tapping expertise, informants are presented with a number of short vignettes, each of which presents a practical problem that needs to be solved. The respondent is presented with a list of possible responses and is asked to rate the

appropriateness of each using a Likert scale. From the responses of those comprising an expert group, insights and understandings can be derived that may be articulated and passed to others.

On the basis of interviews with expert teachers, Stemler et al. (2006) developed a situational judgment measure of teacher interpersonal skills in relation to significant others: students, colleagues, and parents. Teachers were presented with a number of scenarios in which a difficulty or challenge was presented. From these, they were asked to rate each of a number of responses that were provided that incorporated one of seven strategies: *avoid, comply, confer, consult, delegate, legislate, and retaliate.* The aim was to highlight those responses that were identified as being particularly appropriate or inappropriate. This information could then form a basis for teacher development programs.

In a follow-up study, Elliott, Stemler, Grigorenko, and Sternberg (2007) employed the measure with 257 trainee and 168 experienced teachers. The goal of this investigation was to examine whether the responses of the novices, garnered in the first week of their professional training, would become more like those of their experienced peers when retested at the end of their training year. Surprisingly, there appeared to be little change over this period, despite the fact that a high proportion of their time was spent working alongside experienced colleagues in schools.

In endeavoring to explain this rather puzzling finding Elliott et al. (2007) offered a number of possible reasons. Firstly, it is possible that such knowledge is only acquired over a prolonged period of time, and a period of 9 months between the test sessions was insufficient for this to be registered. However, a counter argument is that successful student teachers are typically considered to have made significant professional strides in their behavior management as they engage in school-based professional practice. It is surprising, therefore, that such gains were not reflected by the quality of their situational judgment responses.

Another explanation may center upon a gap between teachers' knowledge of the most appropriate response in any given situation and their actual behavior. Some teachers are apt to state, for example, that while it is not wise to shout at recalcitrant or noncompliant children they sometimes find themselves doing this all the same. The reasons why teachers may pursue such an approach – catharsis, frustration, annoyance – while understandable, run counter to their more profound professional understandings. Here, then, is an issue primarily of teacher self-regulation.

A further possibility is that teacher experience and expertise may be more related to the execution of the preferred strategy than to the original

selection itself. Thus, it is possible that what marks out the more skilled teacher is not primarily the selection of the strategy itself (e.g., to avoid the child who is seeking attention by being disruptive, to confront the colleague who seeks to undermine at every opportunity) but his or her ability to undertake the necessary behaviors effectively. Thus, the novice teacher may try to confront a child and find subsequently him or herself embroiled in a massive confrontation whereas a more skilled colleague may adopt the same strategy and succeed as intended.

Finally, it may be that teacher expertise lies not in their reactions to problematic situations but elsewhere. The seminal work of Kounin (1970) indicated that teachers adjudged to be highly skilled in relation to classroom management differed from their less effective colleagues not in their response to major acts of indiscipline but, rather, in their ability to prevent difficulties from occurring in the first place. Similarly, Stough, Palmer, and Leyva (1998) found that whereas novice teachers tended to be reactive, experienced teachers were more likely to be able to articulate the preventive and anticipatory measures that they had taken to limit behavior problems.

The notion that skilled teachers prevent problems rather than merely react to them highlights the importance of sensitivity to classroom contexts. Doyle (2006) points out that key to teacher success is the ability to understand how events in their classrooms are likely to play out and, in the light of this, to monitor and guide activities accordingly. He argues, therefore, that skilled management cannot be simply reduced to a series of rules for behavior as cognitive aspects such as comprehension and interpretation also play an important role. Student teachers lack the body of experience that enables them to read classroom dynamics in this way and thus providing guidance for action will often prove insufficient. So where does this leave the teacher educator? Is it only possible to frame guidance for classroom management in relation to pedagogic practices and the operation of appropriate classroom routines? Such aspects, of course, can be relatively easily taught as explicit procedures (Berliner, 1988).

While the tacit and contextualized nature of classroom practices renders it difficult to articulate a set of practices and techniques that can be embraced by novice teachers, it would be incorrect to state that such learning must be wholly acquired on the basis of the individual's reflection on extensive practice. There are a number of behaviors that, we would contend, are characteristic of skilled teachers and which can be made explicit in a relatively accessible fashion. The following section explores some of those that we have found have proven most helpful to our students.

KEY TEACHER INTERPERSONAL SKILLS

For many teacher trainers, the work of Kounin and his colleagues has proven seminal. In helping teachers to signal high levels of expertise, and thus develop a high level of professional authority Kounin (1970) and Kounin and Doyle (1975) highlighted the importance for good discipline of a number of crucial teacher behaviors. While knowledge of these is often tacit, we would argue that they can be explicitly identified, modelled and taught. Elements identified in Kounin's work that are, perhaps, most closely allied to professional authority are *withitness* and *overlapping*.

Withitness

Withitness involves not only a high awareness on the part of the teacher about everything that is taking place in the classroom but also a concomitant ability to signal that awareness to the students. A failure to demonstrate such awareness can often lead to a rapidly deteriorating classroom environment. Observing a novice practitioner in the classroom, it is striking that they often appear to fail to pick up on subtle cues and messages that the more experienced teacher is alert to. In one study of Dutch classrooms (van Tartwijk, 1993), they were almost twice as common for experienced as for student teachers.

There are many reasons that might explain a failure to demonstrate withitness. Firstly, teachers may not have been introduced to the importance of this in their professional training. This becomes increasingly likely as teacher training shifts to school-based models and inputs from university-based specialists in behavior management with a knowledge of the literature decline. Secondly, scanning the classroom environment places significant demands upon the teacher's cognitive load (Feldon, 2007). Overload occurs when the individual is swamped by excessive demands involving their internal cognitions and the processing of external stimuli (Sweller, 1989). As teachers become more experienced, they typically need to expend less mental effort as many of their procedures become increasingly automatized. The novice, however, is overloaded by having to devote much of his or her energy towards consideration of pedagogical and procedural aspects. The need to focus one's mind on these may necessitate a degree of visual withdrawal. To illustrate this point, consider someone giving a public lecture. As they reach a very complex or challenging part of their talk that requires particular concentration they will often instinctively disengage

from their audience by looking away. It is as if they need to maximize their processing power by freeing themselves from their immediate social environment with all its myriad distractions. Experienced teachers have a significant advantage over the novice in that many aspects of their teaching, for example, framing appropriate questions, explaining difficult concepts, are likely to place fewer cognitive demands upon them. In addition, they appear more skilled in adjudging which are important and unimportant stimuli (Sabers, Cushing, & Berliner, 1991). Thus, they will typically be freer to scan the classroom environment, will make better use of environmental cues (Feldon, 2007) and be more able to send subtle signals to the students. Thirdly, demonstrating a high level of withitness is demanding and even the most skilled teachers are unlikely to be unable to maintain sufficient energy levels all of the time. Novice teachers tend to find teaching very physically demanding and thus are particularly likely to struggle to maintain high levels of vigilance. As a result, they may engage with a subset of the class and appear oblivious to other events taking place simultaneously. Finally, a failure to demonstrate withitness is often a feature of those teachers who lack confidence in their ability to manage their students' behavior. In such circumstances, it is tempting to avoid scrutiny of the classroom in its entirety (i.e., the large group) and, instead, focus upon isolated individuals, or small groups, particularly those who are proving responsive to one's efforts. This form of professional myopia, while highly counterproductive, can be very seductive as, to the teacher concerned, it may serve to reduce the likelihood of confrontation and thus reduce their underlying level of anxiety.

Overlapping

A second key skill identified by Kounin is overlapping. Here, we use the term to describe the teacher's ability to undertake, or manage, two or more events taking place simultaneously. Such events may involve students (e.g., several children all trying to gain the teacher's attention at the same time) or other sources requiring action (e.g., a wasp entering the classroom at the same time that a technological aid is failing to work). As with withitness, managing this situation (or at least, appearing to the students to be managing the situation) not only helps the current lesson to progress more smoothly, but also conveys more subtle messages about teacher expertise. Of course, such behaviors are also rendered more difficult for novice teachers because of cognitive overload.

It is important to stress the more profound message about teacher expertise that is signaled by withitness and overlapping. Their primary value is not merely that such behaviors enable the teacher to spot and manage potential problems in an efficient manner but, more importantly because their skilled use demonstrates a high level of teacher skill. Students perceive this as indicative of the teacher's professional expertise and, as a result, their propensity for future misbehavior is reduced.

Non-Verbal Behavior

Another crucial aspect of classroom management that can be relatively easily identified and made explicit is teacher non-verbal behavior (Robertson, 1990). This can be seen as being signaled by means of five channels (Harper, Wiens, & Matarazzo, 1978), space, body, face, visual behavior, and voice.

The teacher's use of space, and visual behavior, in the classroom sends out powerful messages about their confidence and sense of professional authority (Reynolds, 1992). The more the teacher facilitates visual links with the students while projecting a powerful voice, the more his or her behavior is likely to be perceived as dominant (van Tartwijk, 1993). As was the case for the related behaviors of withitness and overlapping, however, searching out visual contact with students is often less evident on the part of novice teachers (van Tartwijk, 1993).

The skilled teacher typically shows high levels of awareness and use of body language (Neill, 1991). Relaxed body positions are associated with high status and assurance whereas teachers who lack confidence are more likely to adopt tense, rigid postures. Their arms may be crossed in front of their bodies or, alternatively, they may wave their hands vigorously in front of them. Hand movements to the face, or grooming behaviors, are often perceived by observers as indicative of anxiety or uncertainty, while putting hands on hips and drawing up and stiffening the body can appear aggressive and hostile.

Skilled teachers are more likely to respond to perceived misbehavior by sending out unobtrusive messages (e.g., eye contact, facial expression, slowly moving towards the source of the problem, or making small gestures). By doing so, they avoid disrupting the lesson by diverting other students' attention (Erickson & Mohatt, 1982) or by inviting an unhelpful response from the student(s) in question who may otherwise feel a perceived need to save face by responding to the teacher's more public signal in a challenging fashion.

For the skilled teacher, the voice is a powerful tool that is used to maximize student engagement and response. For the novice, it is often a window that can betray their emotions and uncertainties. At the most fundamental level, the teacher's voice is a powerful means of sustaining student alertness, interest and engagement. Shouting, vocal hesitations and stammers, monotone delivery, rising pitch, particularly when there are overt signs of challenge, are all aspects that may serve to increase the likelihood of student disengagement and confrontation. What some, even experienced teachers, fail to grasp is that, in challenging situations, a lowered voice, but one signaling a strength of intent and purpose, carries a far greater air of authority.

CONCLUSIONS

It is important to stress that the articulation of teacher interpersonal skills, such as those identified above, must be seen as much more than the provision of a list of tips for teachers. While their exercise is likely to help resolve problems in the 'here and now,' of far greater importance is the overall message about the teacher's expertise that is signaled by their regular use. Students gradually build up a picture of a teacher that is informed by a myriad of subtle, often seemingly unimportant, teacher behaviors. Teachers who are perceived as demonstrating high-level skills are less likely to be confronted by discipline and challenge and thus are less likely to need to react subsequently to inappropriate behavior.

In this chapter, we have endeavored to argue that novice teachers (indeed, all teachers) need to understand that their authority rests not in traditional or bureaucratic, but in professional modes. Professional authority is conveyed to students by an overall demonstration of expertise that consists of subject knowledge, pedagogical ability, and skill in managing complex interpersonal dynamics. While much interpersonal expertise is tacit and contextualized, and thus difficult to communicate it is argued that there exist a number of elements that can be articulated by trainers and profitably drawn upon by both novice and experienced teachers alike.

REFERENCES

Anderson, J. R. (1982). Acquisition of cognitive skill. *Psychological Review, 89*, 369–406.
Berliner, D. C. (1988). *The development of expertise in pedagogy*. Charles W. Hunt Memorial Lecture, New Orleans, LA: American Association of Colleges of Teacher Education.

Cianciolo, A. T., Matthew, C., Sternberg, R. J., & Wagner, R. K. (2006). Tacit knowledge, practical intelligence and expertise. In: K. A. Ericsson, N. Charness, P. J. Feltovich & R. R. Hoffman (Eds), *The Cambridge handbook of expertise and expert performance* (pp. 613–632). Cambridge, UK: Cambridge University Press.
Doyle, W. (2006). Ecological approaches to classroom management. In: C. M. Evertson & C. Weinstein (Eds), *Handbook of classroom management: Research, practice and contemporary issues* (pp. 97–125). London: Lawrence Erlbaum Associates.
Elliott, J. G., Stemler, S. E., Grigorenko, E. L., & Sternberg, R. J. (2007). *The socially skilled teacher and the development of tacit knowledge*. Durham, UK: School of Education, Durham University.
Elliott, J. G., & Tudge, J. (2007). The impact of the west on post-Soviet Russian education: Change and resistance to change. *Comparative Education, 43*, 93–112.
Erickson, F., & Mohatt, G. (1982). Cultural organization of participation structures in two classrooms of Indian students. In: G. Spindler (Ed.), *Doing the ethnography of schooling*. New York: Holt, Rinehart & Winston.
Evertson, C. M., & Weinstein, C. (Eds). (2006). *Handbook of classroom management: Research, practice and contemporary issues*. London, UK: Lawrence Erlbaum Associates.
Feldon, D. E. (2007). Cognitive load and classroom teaching: The double-edged sword of automaticity. *Educational Psychologist, 42*(3), 123–137.
Grigorenko, E. L., Sternberg, R. J., & Strauss, S. (2006). Practical intelligence and elementary-school teacher effectiveness in the United States and Israel: Measuring the predictive power of tacit knowledge. *Thinking Skills and Creativity, 1*, 14–33.
Harper, R. G., Wiens, A. N., & Matarazzo, J. D. (1978). *Nonverbal communication: The state of the art*. New York: Wiley.
Inglehart, R., & Welzel, C. (2005). *Modernization, cultural change and democracy: The human development sequence*. Cambridge, UK: Cambridge University Press.
Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a sense of success: New teachers explain their career decisions. *American Educational Research Journal, 40*, 581–617.
Jones, V. (2006). How do teachers learn to be effective classroom managers?. In: C. M. Evertson & C. Weinstein (Eds), *Handbook of classroom management: Research, practice and contemporary issues* (pp. 885–907). London: Lawrence Erlbaum Associates.
Kounin, J. S. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehart & Winston.
Kounin, J. S., & Doyle, P. H. (1975). Degree of continuity of a lesson's signal system and the task involvement of children. *Journal of Educational Psychology, 66*, 554–562.
McDaniel, M. A., & Nguyen, N. T. (2001). Situational judgement tests: A review of practice and constructs assessed. *International Journal of Selection and Assessment, 9*(1–2), 103–113.
Metz, M. H. (1978). *Classrooms and corridors: The crisis of authority in desegregated secondary schools*. Berkeley, CA: University of California Press.
Neill, S. (1991). *Classroom nonverbal interaction*. London: Routledge.
Pace, J. (2003). Managing the dilemmas of professional and bureaucratic authority in a high school English class. *Sociology of Education, 76*, 37–52.
Pace, J. L., & Hemmings, A. (2007). Understanding authority in classrooms: A review of theory, ideology and research. *Review of Educational Research, 77*, 4–27.
Pearson, G. (1983). *Hooligan: A history of respectable fears*. London: Macmillan.

Pigge, F., & Marso, R. (1997). A seven year longitudinal multi-factor assessment of teaching concerns development through preparation and early years of teaching. *Teaching and Teacher Education, 13*, 225–235.

Reynolds, A. (1992). What is competent beginning teaching? A review of the literature. *Review of Educational Research, 62*, 1–35.

Robertson, J. (1990). *Effective classroom control*. London: Hodder and Stoughton.

Sabers, D., Cushing, K. S., & Berliner, D. C. (1991). Differences among teachers in a task characterized by simultaneity, multidimensionality and immediacy. *American Educational Research Journal, 28*, 63–88.

Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Steer, A. (2005). *Learning behaviour: The report of the practitioners' group on school behaviour and discipline*. London, UK: Department for Education and Skills.

Stemler, S. E., Elliott, J. G., Grigorenko, E. L., & Sternberg, R. J. (2006). There's more to teaching than instruction: Seven strategies for dealing with the practical side of teaching. *Educational Studies, 32*, 101–118.

Sternberg, R. J., & Horvath, J. (1995). A prototype view of expert teaching. *Educational Researcher, 24*(6), 9–17.

Stough, L. M. (2006). The place of classroom management. In: C. M. Evertson & C. Weinstein (Eds), *Handbook of classroom management: Research, practice and contemporary issues* (pp. 909–923). London: Lawrence Erlbaum Associates.

Stough, L. M., Palmer, D. P., & Leyva, C. (1998, February). Listening to voices of experience in special education. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.

Stroot, S., Fowlker, J., Langholz, S., Stedman, P., Steffer, L., & Valtman, A. (1999). Impact of a collaborative peer assistance and review model on entry-year teachers in a large urban school setting. *Journal of Teacher Education, 50*, 27–41.

Sweller, J. (1989). Cognitive technology: Some procedures for facilitating learning and problem solving in mathematics and science. *Journal of Cognitive Psychology, 81*, 457–466.

van Tartwijk, J. (1993). *Sketches of teacher behavior: The interpersonal meaning of nonverbal behavior in the classroom*. Utrecht, The Netherlands: W.C.C. [in Dutch].

Weber, M. (1947). *The theory of social and economic organization (translated from 1925 original)*. New York: Free Press.

THE IMPACT OF NO CHILD LEFT BEHIND ON SPECIAL EDUCATION TEACHER SUPPLY AND THE PREPARATION OF THE WORKFORCE

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ABSTRACT

For decades, special education has been plagued by shortages of fully qualified teachers. The No Child Left Behind Act (NCLB) was designed to address the problem of teacher shortage by easing entry and promoting alternative routes (ARs). However, the law was not specific to special education, and the logic on which it is based fits the special education context poorly. Nonetheless, ARs have proliferated in special education. In this chapter, we consider the impact of NCLB generally and AR preparation specifically on special education teacher (SET) shortages. We describe the population of SETs, review research on special education ARs, and consider the problem of diversifying the workforce. We also review research on teacher attrition and policies designed to reduce it.