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Why Models Matter: An Alternate View on Professional Growth in Teaching

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> Procedural routines appear to be the sine qua non of teaching.
> (Kagan, 1992, p. 162)

> Understanding of subject matter is a sine qua non in teaching.
> (Feiman-Nemser & Parker, 1990, p. 40)

These contrasting perspectives on teaching provide a convenient point of departure for my response to Kagan's review. How researchers frame teaching inevitably colors both the questions they choose to study and the models they create for teacher preparation. Kagan proposes a model of learning to teach that reflects the importance she places on mastery of procedural routines. Another body of research, either specifically excluded or otherwise omitted from her review, depicts teaching as centrally concerned with helping all students learn worthwhile content, within the context of a multicultural and pluralistic society. These studies do not necessarily support Kagan's developmental model; their findings complicate the narrative constructed by Kagan and cast doubt on the adequacy of her recommendations for teacher education.

The existing literature on learning to teach does not lead inexorably towards Kagan's conclusions, nor is the evidence across competing discourse communities of researchers on teacher education as clear and convincing as she suggests. Kagan's review reflects one sector of the teacher education community. But there are other sectors. Some researchers on teacher education see the process of learning to teach through the lens of subject matter; others view teaching and learning to teach from an explicitly moral and ethical stance. The evidence, when considered in its entirety, is mixed. Ultimately, discussions of teacher education are informed as much by normative concerns as by empirical findings. The vision for teacher education held by many researchers differs from Kagan's. Many see teacher education as preparing prospective teachers not to adapt to existing conditions but to challenge current practices and to work for change. To claim, however, that research supports a developmental model, while excluding studies that challenge this model, misrepresents the full body of research on professional growth among preservice teachers.

Why These Studies?

My first concern involves the decision rules Kagan used to select specific studies on professional growth among preservice and first-year teachers. She states that she

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looked for "empirical studies of growth among preservice and beginning teachers published or presented between 1987 and 1991." She further defines *professional growth* as "changes over time in the behavior, knowledge, images, beliefs, or perceptions of novice teachers." Beyond this description, however, the reader has little access to Kagan's decision making. This set of 40 studies is certainly not exhaustive; numerous other studies also fit the author's criteria but were not included in her review (e.g., Ball, 1989; Britzman, 1991; Clift, 1987, 1988; Comeaux & Gomez, 1990, 1991; Crow, 1987; Feiman-Nemser & Parker, 1990; Feiman-Nemser, McDiarmid, Melnick, & Parker, 1989; Gomez & Stoddard, 1990; McDiarmid, 1990; Powell, 1991). This list raises questions about the author's approach. For example, why are the reports of research from Shulman's Knowledge Growth in a Profession study (Grossman & Richert, 1988; Shulman, 1987; Wilson & Wineburg, 1988) and the studies on Knowledge Utilization in Learning to Teach conducted by Feiman-Nemser and Buchmann (1989) explicitly excluded? Kagan states that these studies were excluded because they are treated in earlier reviews of the literature, yet she does include other research also reported in those earlier reviews (Bullough, 1989; Clandinin, 1989; Hollingsworth, 1989). If reviewers adopt a decision rule, they should follow it consistently. Why is my study included while other studies arising from the Knowledge Growth in a Profession research were specifically excluded (e.g., Wilson & Wineburg, 1988)? Why does the author fail to include the set of studies of learning to teach conducted under the auspices of the National Center for Research on Teacher Education (NCRTE)? The exclusion of these latter studies is particularly troubling as the mission of the NCRTE mirrors the focus of this review—to study the processes involved in learning to teach in a variety of different preparation programs.

The lack of information about Kagan's decision rules raises the question of what a different set of studies might demonstrate about the processes involved in learning to teach. A significant number of the studies omitted from this review use teachers' growth in their understanding of subject matter, or the development of pedagogical thinking or pedagogical content knowledge, as their starting point. By producing a generic review of professional growth, Kagan fails to attend to the different challenges faced by teachers of different subject matters at various grade levels. In essence, the missing paradigm of subject matter, so long absent from research on teaching (Shulman, 1986), is still missing in Kagan's review. The omission of these studies from the review also weakens the author's claim that "the studies reviewed here had to articulate across diverse, privately defined research agendas." This claim is further weakened by the fact that more than a quarter of the studies Kagan does cite were conducted by two investigators, Bullough and Hollingsworth. Bullough (1989), in fact, uses Ryan's (1986) stages of teacher development, which were in turn informed by Fuller's (1969) developmental model as part of the conceptual framework of his study. While the 40 studies Kagan includes represent valuable additions to the understanding of learning to teach, her review does not cover as broad or as diverse a territory as she indicates.

My second concern involves the lack of a critical perspective on the studies that are included. If readers are to accept Kagan's model or to act on her recommendations, they must feel comfortable with the quality of the evidence she presents. Part of the purpose of a scholarly review, then, is to cast a critical eye on the methods employed by different researchers, to uncover the assumptions these researchers brought to

their questions, to critique the kinds of methods used, and to suggest how these particular methods and assumptions shaped the nature of the findings.

In Kagan's review, a study is a study is a study. Her litany of the literature does not distinguish strong designs from weak ones. The findings of each study are taken at face value, and a finding from one study of a few teachers acquires a taken-for-granted quality in the development of her model. In addition, Kagan fails to help the reader understand how the particular methods used by the researchers affect the nature of their findings. For example, a study she uses to support student teacher's difficulties in turning from concerns about self uses the journal of one student teacher as a data source (Wodlinger, 1990, as cited in Kagan). However, Richert's (1990) research on structures that promote reflection found that asking teachers to reflect privately in journals was more likely to result in reflections on issues related to self. When beginning teachers reflected with peers on a portfolio of lesson plans and samples of student work, they were much more likely to reflect on ways to teach content to particular students. In other words, Wodlinger's findings can also be read as an artifact of the method used to collect data.

All the World's a Stage

While my initial concerns focus on the methods used to identify and critique studies, I am more concerned with the author's advocacy of a stage theory of teacher development. Kagan concludes that teachers need to focus first on acquiring managerial and instructional routines before they are able to reflect on the ethical or content-related dimensions of teaching. "The first step in [acquiring procedural knowledge] is the development of standardized procedures for handling class management and discipline. After these are in place, novices turn their attention to instruction." From this description of the first stage of teacher development, Kagan goes on to recommend that teacher education programs focus on "procedural, not theoretical knowledge."

Kagan also concludes that teachers should reflect, not on the moral and ethical implications of classroom practices, but rather on their own biographies. She agrees with Berliner that, "until extensive classroom experience has been acquired, there may be too little in the minds of preservice teachers about what actions might be realistic, relevant, appropriate, moral, and so forth" (Berliner, 1988, pp. 63–64, as cited in Kagan).

What's wrong with this model? Why shouldn't teacher educators focus exclusively on teaching routines early in teacher education and save critical inquiry, reflection on the goals of mathematics or literacy instruction, and discussions of the ethical and moral implications of teachers' routinized actions for later?

First, I would argue that other literature on learning to teach challenges the developmental model Kagan proposes. In the studies of the Knowledge Growth in a Profession research, we found preservice secondary teachers wrestling with issues related to the teaching of subject matter—asking themselves about the purposes for teaching English, history, or math to high school students—well before they had established classroom routines (Grossman & Richert, 1988; Shulman, 1987; Wilson & Wineburg, 1988). It is not that these teachers ignored issues of self, identity, and classroom survival but that these concerns did not prevent them from reflecting deeply on issues related to the content of teaching. Other work on beginning teachers also reveals how beginning teachers agonize over how to teach academic content,

even as they struggle with management concerns (Shulman & Colbert, 1988). While Gore and Zeichner (1990) conclude that critical reflection is not easy, they do report instances in which preservice teachers grapple with the ethical dilemmas of teaching. Richert's (1990) work provides additional evidence that preservice teachers are capable of reflecting on ethical and instructional issues.

Other studies of professional growth among preservice and first-year teachers suggest that teacher education course work can help prospective teachers focus on issues related to teaching and learning of academic content or on ethical dimensions of teaching (Ball, 1989; Comeaux & Gomez, 1991; Feiman-Nemser, McDiarmid, Melnick, & Parker, 1989; Florio-Ruane, Mosenthal, Denyer, Harris, & Kirschner, 1990; Grossman, 1990; Ritchie & Wilson, in press). The part of my study not addressed directly in Kagan's review establishes how an English methods course influenced graduates' beliefs and knowledge about the teaching of English. While the course addressed a number of theoretical issues about the teaching and learning of English, connecting those theories to practical implications, graduates did not grumble that the course work was "too theoretical." Nor was there evidence that the preservice teachers needed to establish classroom routines before they were able to consider alternative approaches to the teaching and learning of writing and literature.

An additional problem with stage theories is that they imply that earlier stages lead naturally to later stages. But there is no evidence that having developed classroom routines that work, teachers will necessarily begin to question those routines. In fact, there is evidence that suggests otherwise: As preservice teachers master the routines of teaching, many become satisfied with their teaching and less likely to question prevailing norms of teaching and learning (Feiman-Nemser & Buchmann, 1985, 1989). As a study excluded from Kagan's review concludes, "By concentrating on the interactive side of classroom teaching, however, student teachers may learn to manage pupils and classrooms without learning to teach" (Feiman-Nemser & Buchmann, 1989, p. 367). Additional studies of experienced teachers indicate that neither procedural knowledge nor experience alone leads teachers to address thorny issues associated with alternative approaches to the teaching and learning of math or history (e.g., Cohen & Ball, 1990; Marks, 1990; Wilson & Wineburg, 1991).

Why Models Matter

Kagan suggests that managerial routines in classrooms are neutral and nonproblematic. Classroom control, she maintains, can be divorced from considerations of teaching and learning. Once teachers establish control, they can turn their attention to content and student learning. If only teaching were this simple! For better or worse, classroom management and instruction are eternally married. How teachers manage classrooms enables or constrains the possibilities of teaching, classroom discourse, and student learning. How teachers manage classrooms must depend on their ultimate goals for students. Management is not neutral but carries within it its own implicit theories of instruction (Edelsky, Draper, & Smith, 1983), as well as assumptions about schooling as a form of social control (Britzman, 1986).

Researchers and practitioners are currently struggling to find new models for teaching conceptual understanding to all students. The recent National Council of Teachers of Mathematics (NCTM) frameworks for the teaching of math argue that all students should be engaged in mathematical thinking (NCTM, 1989a, 1989b) while

the English Coalition Conference report advocates that all students be encouraged to construct meaning from texts and to author their own texts (Lloyd-Jones & Lunsford, 1989). Recent work in cognitive psychology challenges hierarchical models of learning in which skills instruction must precede higher order thinking (Resnick, 1987). Research on teaching children of poverty questions the efficacy of skills-based remedial models and explores programs that engage children of poverty in conceptual learning of math and literacy (Knapp et al., 1991; Means, Chelemer, & Knapp, 1991). These frameworks all challenge prevailing norms of instruction. In most instances, they run counter to experiences prospective teachers have had in schools (Grossman, 1990; Ritchie & Wilson, in press). They also pose serious implications for how classrooms and schools are organized; many of them suggest alternative ways of arranging social relationships in the classroom and of organizing instruction (Knapp et al., 1991; Resnick, 1987).

If prospective teachers are to meet the challenges of these frameworks, they will need to struggle simultaneously with issues of management, social roles and routines in classrooms, instruction, and learning. In their study of teaching advanced skills to children of poverty, Knapp and his colleagues investigated the relationship between classroom management and the kinds of instruction children received in math and literacy. They concluded,

> Ultimately choices about management approach affect the kind of academic learning experience available to children. . . . On the whole we were struck by how often the academic learning environment was set by management choices made with little thought to academics, rather than vice versa. (Knapp et al., 1991, p. 41)

If teacher educators emphasize management first with prospective teachers, they run the risk of encouraging just this kind of thinking.

Another critical issue facing teacher education concerns the moral and ethical imperatives of teaching in an increasingly pluralistic society (Britzman, 1986, 1991; Gore & Zeichner, 1991; Sirotnik, 1990). How do teacher educators prepare prospective teachers to address the ethical issues that will inevitably confront them? Ironically, this very question was raised by the authors of a study included in Kagan's review (Gore & Zeichner, 1991). In their article, Gore and Zeichner explicitly reject the kinds of developmental models proposed by Kagan. While they conclude that reflecting on the ethical and political issues of classrooms is not easy or natural for student teachers in this society, Gore and Zeichner nonetheless believe that teacher educators must focus students' attention on these very issues.

> We should not succumb to the widely accepted myth that a focus on the critical domain of rationality during preservice teacher education is "premature" or inevitably part of the process of political indoctrination. . . . We reject the view, however, that the "critical" is somehow separate from the "technical" and "practical" classroom-based reality of student teachers and that, when broaching the critical, teacher educators are necessarily violating alleged "laws" of student teacher development. (p. 124)

Just as cognitive psychology no longer supports the division of skills and higher order thinking, so teacher education must help prospective teachers see the interdependence of management and educational goals. If teachers want students to construct their own understandings of texts and to engage in grand conversations (Eeds

& Wells, 1989), how do they organize routines for teaching reading? How do current routines, in which teachers tightly control discourse to keep students on task, influence students' engagement with texts? Similarly, do classroom routines involved in checking math homework aid or thwart students' construction of their own mathematical explanations (Putnam, Lampert, & Peterson, 1990)? How do the ways in which teachers organize classrooms provide unequal access to learning for girls or students of color? How can teachers provide the best possible learning environment for special education students who spend all or part of their day in regular education classrooms?

I am not arguing that these are easy questions for novices—only that they are necessary ones. Nor are these questions that prospective teachers' own experiences in schools equip them to raise on their own (Gore & Zeichner, 1991). But a body of literature not included in Kagan's review suggests that preservice teachers are indeed capable of wrestling with such questions.

In the final analysis, it comes down to what we want and expect of future teachers. If we want future teachers to reproduce the schools we have now, if we want them to replicate existing models of teaching and learning, then Kagan's model makes a kind of sense. Teacher educators can prepare future teachers to get along and survive in schools as they are and to acquire routines for managing classroom activity without questioning their implications for learning. In doing so, teacher preparation will continue to contribute to the inherent conservatism of schooling (Lortie, 1975).

If, however, as teacher educators, we want to change prevailing practices, to challenge the lessons learned during prospective teachers' apprenticeships of observation, then we need an entirely different kind of teacher education, as John Dewey observed long ago. According to Dewey, "to place the emphasis [in teacher education] upon the securing of proficiency in teaching and discipline puts the attention of the student-teacher in the wrong place, and tends to fix it in the wrong direction" (Dewey, 1904/1965, p. 147). According to Dewey, such apprenticeship models of teacher education have as their goal early mastery of the procedural aspects of teaching, thus "perpetuating current types of educational practice, with simply incidental improvement in details" (1904/1965, p. 171).

I am not claiming that teachers do not need to learn about managing classrooms; of course they do. Learning to manage a class full of 30 students is inevitably challenging and, from the front of the classroom, possesses vivid and unarguable salience. But the question, as Dewey noted, is where teacher education fixes students' attention and how it manages the balance between the technical aspects of teaching and its intellectual and moral demands.

If our goal is not helping prospective teachers attain immediate mastery of classroom routines but preparing prospective teachers to ask worthwhile questions of their teaching, to continue to learn from their practice, to adopt innovative models of instruction, and to face the ethical dimensions of classroom teaching, then we must place our emphasis elsewhere. Research suggests that teacher education can provide frameworks for thinking about the teaching of subject matter that can influence what teachers will later learn from classroom experience. Teacher education can also help raise the questions regarding ethical and moral issues that will not necessarily arise from experience alone but which will frame how prospective teachers think about and continue to learn from their work in classrooms. I do not believe that prospective teachers are incapable of this challenge. Just as classroom teachers are learning to

regard their students as thinkers, so must teacher educators learn to honor the capacities of their students as pedagogically critical thinkers. Just as the thinking curriculum of the future promises to weave together skills and content (Resnick & Klopfer, 1989), so the teacher education curriculum must integrate management skills with substantive and ethical concerns. By assuming that prospective teachers have "too little in their minds" to think about such issues, we sell our students, and ultimately our schools, short.

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