Contested Definitions of Excellent Teaching

An Analysis of the Discourse of Quality

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Concern over the quality of teaching in American public schools has existed for as long as the schools themselves (Cruickshank, 1992). Currently policy makers in the U.S. and around the world are heavily focused on educational improvement efforts centered around increasing the quality of teaching in schools (Wang, Odell, Klecka, Spalding, & Lin, 2010), because individual teachers are responsible for a significant portion of the variance in student achievement scores—at least seven percent (Darling-Hammond & Youngs, 2002) and as much as thirty percent (Hattie, 2004; Hay/McBer, 2000). A general assumption of many stakeholders is that reform of teacher education will be the best way to improve teacher quality, and with it student learning (Chen, Brown, Hattie, & Millward, 2012; Chingos & Peterson, 2011; Cochran-Smith & Fries, 2001; Khan & Saeed, 2010; National Center for Research on Teacher Education, 1988; Sykes, Bird, & Kennedy, 2010; Wang et al., 2010). However, if teacher education programs are indeed to be reformed in order to promote teaching excellence, they will first need to determine what excellence in teaching means.

Statement of the Problem

Hattie (2004) argues that "excellence in teaching is the single most powerful influence on [student] achievement"; however, very little consensus exists on what exactly quality or excellence in teaching entails (Getzels & Jackson, 1963; Kane, Sandretto, & Heath, 2004). Existing

research does not easily lend itself to clarifying the issue either. Gage (1963a) argued that "Too much educational psychology makes the teacher *infer* what he needs to do from what he is told about learners and learning" (p. 133), rather than establishing concrete guidelines for what teachers ought to do in the classroom. Much research on instruction is really research on learning theory, and, as Yamamoto (1969) noted, "theories of learning are not theories of teaching" (p. 356). Studies of teacher quality are often concerned primarily with presage variables like teacher candidate SAT/ACT scores, GPA, or the educational background (Calabria, 1960; Zumwalt & Craig, 2008), while scholarship under the category of teacher effectiveness focuses almost entirely on a very narrow definition of teacher effectiveness based upon a perceived causal relationship between teacher action and student standardized test scores (Dunkin & Biddle, 1974; Goe, Bell, & Little, 2008). However, these are fairly narrow bases for establishing definitions of excellent teaching—many other perspectives exist, including those that move outside the realm of traditional process-product teacher effectiveness research (Dunkin & Biddle, 1974) to include definitions of teaching which measure excellence not just in terms of student achievement on standardized tests, but also upon more interpretive and personal outcomes. This article attempts to bring these various definitions to light.

Methodology

This analysis attempts to draw out specific definitions of excellent teaching from a broad survey of research and theoretical scholarship in education. Taking a cue from Borko & Putnam (1996) in their discussion of learning to teach, the author did not limit the review to studies based upon any single research methodology, but explored the ideas and concepts of excellent teaching which have emerged from a wide variety of research paradigms. As Zeichner & Liston (1990) noted, the various stakeholders in education "typically read, discuss, debate and cite work only within a particular reform tradition and frequently dismiss and/or ignore ideas outside of their own particular subcommunity" (p. 25). This article attempts to make manifest fundamental ideologies and assumptions from across various paradigms which could help to inform the current debate about excellent teaching.

The author initially surveyed the literature contained in the four *Handbooks of Research on Teaching* (1963; 1973; 1986; 2001) and the three *Handbooks of Research on Teacher Education* (1990; 1996; 2008), searching for references to quality teaching, excellent teaching, effective teaching, and other key words that emerged as the reading continued.

After the initial survey of the handbooks, the author then continued by analyzing secondary studies which were cited within the chapters of the handbooks and were related to excellent teaching. Lastly the author followed citations within the secondary studies to a third set of tertiary literature relating to excellent teaching. As the author read, he utilized the constant comparison and open coding methods (Strauss & Corbin, 1994) to develop themes of excellent teaching from the literature, which were then distilled into single-sentence definition statements.

Definitions of Excellent Teaching

The definitions discussed below are listed in no particular order, though they could certainly be further sorted based upon the types of learner outcomes to which they seem to give primacy, the research traditions upon which they seem to be based, and the degree to which they depend or are independent of context, to name just a few possible taxonomies. The author invites readers to sort them in any way that will help them make further sense of what has proven to be a complex and conflicting field.

1. Excellent teaching is sequential, consistent, highly organized, prepared, and well-planned.

In this view of excellent teaching, the key actions of the teacher involve planning and sequencing learning activities. McKeachie (1963) argued that organization was an essential element in helping students better acquire information. Many early writers, such as Russell & Fea (1963) on reading, Meckel (1963) on composition and literature, and Carroll (1963) on foreign languages advocated for sequential learning experiences with predetermined progressions as indicative of quality teaching. This particular view of teaching excellence resulted in highly defined lesson planning formats and procedures such as those developed by Hunter & Russell (1981), and the view of "systematic teaching" described by (Rosenshine & Stevens, 1986). In general, advocates of sequential planning are measuring the quality of teaching by its ability to improve student academic achievement. Other discussants of this viewpoint include Danielson (2007), Feldman (1997), Hay/McBer (2000), and Rohrkemper (1989).

2. Excellent teaching is the application of the proper instructional treatments to identified academic problems.

This definition of excellent teaching uses a medical metaphor involving teachers diagnosing student learning difficulties and treating

those difficulties with research-based instructional interventions (Doyle, 1979). These treatments tend to be based upon teaching behaviors such as those identified by Dunkin & Biddle (1974) and Brophy & Good (1986), and focus on the question of "which skills to use and when to use them" (Katz, 1981, p. 22). Howey & Zimpher (1989) in their overview of teacher preparation programs indicate that significant elements of this definition were manifest in the preservice teacher education program at the University of Toledo. Schussler, Stooksberry, & Bercaw (2010) also overview this definition in their discussion of the intellectual domain of teaching. Excellent teaching as application of proper instructional treatments is further explored in Doyle (1990), Britzman (2003), and Danielson (2007).

3. Excellent teaching is controlling and managing the classroom and class time to create a safe and learning-oriented environment.

Brophy & Good (1986) noted that time allocation to academic tasks and effective pacing were among the most replicated links to increased student achievement, establishing a convincing argument that excellent teaching is excellent classroom management. Calabria (1960) also noted that control and discipline were essential elements of quality teaching. This definition is fully developed in Doyle's (1986) overview of research on the impact of classroom management. Stronge, Ward, & Grant (2011) further explored the concept of management as effective teaching under the domain of Learning Environments. Hay/McBer's (2000) study of teacher effectiveness also supports this definition, detailing the importance of time and resource management in effecting student achievement. According to Howey & Zimpher (1989), the Luther College teacher preparation program emphasizes this theory of effective teaching. Other scholarship exploring management as quality teaching include Rosenshine & Stevens (1986), Shulman (1986), Kennedy (1998), Leinhardt (2001), Minor, Onwuegbuzie, Witcher, & James (2002), and Danielson (2007).

4. Excellent teaching is communicative, exemplifying excellent presentation and demonstration skills.

This definition of excellent teaching views teachers primarily as transmitting information and knowledge to students, and, therefore, argues that the transmission must be as clear and efficient as possible. According to Feldman (1997), the second highest correlate with student achievement from student evaluations was teacher clarity. This corresponds with Cruickshank's (1992) assertion that good teaching is clear teaching, and with Brophy & Good's (1986) finding that "clarity of

presentation is a consistent correlate of achievement" (p. 362). Howey & Zimpher's (1989) description of teacher preparation programs at the University of Wisconsin-Eau Claire and Ball State University include significant elements of this understanding of excellent teaching. Other literature relating to this definition include Murray (1991), Hay/McBer (2000), Minor et al. (2002), Kane et al. (2004), Danielson (2007), and Stronge et al. (2011).

5. Excellent teaching is setting and communicating high expectations for all students.

Probably the most influential study leading to this view of excellent teaching is Rosenthal & Jacobson's (1968) *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development* which indicated that teacher expectations seem to have a direct impact upon student behavior and achievement. The argument for such a definition is that students will perform at the level at which teachers expect them to perform: if teachers believe that their students will be unable to achieve and communicate that belief to their students, either tacitly or explicitly, students will be unlikely to achieve. As a corollary, if teachers believe their students can accomplish rigorous and difficult tasks and succeed in communicating that belief to their students, then those students have a greatly increased chance of achieving at a high level. These ideas seemed to be further corroborated by Brophy & Evertson (1981) and Hay/McBer (2000) which included *high expectations* as one of the major categories of behavior characterizing excellent teaching. Minor et al. (2002) and Noddings (2001) also discussed the importance of teacher expectations of students, but argued that such expectations were usually a result of an even more important factor—relationships between students and teachers (this view is discussed further in definition 8 below).

6. Excellent teaching is skilled questioning, utilizing a variety of cognitive levels and reacting to and teaching from student responses.

Another view sees excellent teaching as the ability to ask the right kinds of questions and adjust those questions to student responses. According to Hay/McBer (2000), "Effective teachers ask a lot of questions and involve the pupils in class discussion" (p. 14); this allows them to react to student learning and provide direct feedback, something that both Hattie (2004) and McKeachie (1963) saw as essential. Questioning well includes not just the content and phrasing of the question, but also the wait time given between asking the question and providing further prompting or cuing; the involvement of high percentages of the class

in the questioning process, including historically underrepresented populations; and teaching students to self-question and ask their own follow-up questions of the instructor (Menges & Austin, 2001; White & Tisher, 1986). Such skills, coupled with the disposition for intellectual curiosity, open dialogue, and mutual respect were essential elements for the excellent teaching for which Freire (1998) advocated. Brophy & Good (1986), Rosenshine & Stevens (1986), Minor et al. (2002) all add perspective to this definition of excellent teaching.

7. Excellent teaching is reflective and flexible, constantly changing and adapting to new contexts and learners.

This view of teaching draws its inspiration from the thinking of Dewey (1910, 1933) and, more recently, Schon (1987). According to Menges & Austin (2001), excellent teaching is discursive, adaptive, interactive, and reflective. Kane et al. (2004) saw reflection as the concept which could integrate all aspects of quality teaching; it was "the hub of the teaching excellence wheel" (p. 303). The National Board for Professional Teaching Standards highlights reflection under Core Competency 4, "Teachers think systematically about their practice and learn from experience" (Porter, Youngs, & Odden, 2001, p. 266). Feiman-Nemser (2001) concurred, noting that one of the most important habits which new teachers could pick up was "wondering about teaching" (p. 25). Hattie (2004) argued that excellent teachers "tend not make hard and fast plans, but rather adapt pacing and instruction depending upon context and learners" (p. 27). This ability is what Stronge et al. (2011) referred to as the Instructional Differentiation Subdomain in their cross-analysis of teacher effectiveness research. Teaching that embodies this definition gives teachers the abilities of "detecting and remediating error and confusion [which] are skills of considerable magnitude" (Fenstermacher, 1978, p. 174). Based upon descriptions in Howey & Zimpher (1989) and Zeichner & Liston (1990), teacher preparation programs at Michigan State University, particularly in their Teacher as Decision Maker Program, the University of Indiana, and the University of Florida all emphasize significant elements of this view of teaching excellence. Other scholarship that helps to further illuminate this view of quality teaching includes Clark & Yinger (1977), Berliner (1986), Corno & Snow (1986), Borko & Putnam (1996), Munby, Russell, & Martin (2001), Minor et al. (2002), and Danielson (2007).

8. Excellent teaching is highly interactive and cooperative, building a community of learners working toward common purposes through caring and trusting relationships.

Probably one of the most influential advocates of this view of excel-

lent teaching was the Brazilian educator Paulo Freire, who argued in most of his works for pedagogy based upon a dialogue of equals working toward common purposes (Freire, 1993, 1996, 1997, 2000, 2011). Kane et al. (2004) "suggest[ed] that teaching at all levels is primarily about building relevant interpersonal relationships with students" (p. 296), and Hay/McBer (2000) noted that creating trust was essential to establishing an effective classroom. Based upon Howey & Zimpher's (1989) description, Luther College emphasizes this perspective in their teacher preparation program. Other scholarship which contains explorations of this view of excellent teaching includes Slavin (1983), Brophy & Good (1986), Stallings & Stipek (1986), Boyle-Baise & McIntyre (2008), Wang et al. (2010), and Chen et al. (2012).

9. Excellent teaching is building connections between and within subjects, contexts, and experiences.

This definition seems to have its roots in the writings of John Dewey on the role of experience in education (Dewey, 1910, 1938), and is fully embodied in the movement for interdisciplinary instruction and integrated thematic curriculum (see Jacobs, 1986, 1989, 1991; Vars, 1987; Beane, 1991, 1997; Brandt, 1991; Burnaford, Beane, & Brodhagen, 1994; Wraga, 1993; among many others). Hattie (2004) argued that one of the major differences between expert teaching and novice teaching is that "Experts possess knowledge that is more integrated, in that they combine new content knowledge with prior knowledge [and] can relate current lesson content to other subjects in the curriculum" (p. 26). In Kane et al.'s (2004) study, 16 out of 17 participants emphasized making connections as an essential component of excellent teaching. In *Profiles of Preservice Teacher Education: Inquiry into the Nature of Programs*, Howey & Zimpher (1989) noted that the University of Wisconsin at Eau Claire heavily emphasized the ability students to develop connections as a part of their teacher education program.

10. Excellent teaching is inclusive of multiple perspectives and empowering of diverse populations and cultures.

As with definition seven, above, the work of Paulo Freire heavily emphasizes this particular view of excellent teaching (Freire, 1993, 1996, 1997, 2000, 2011). From this perspective, excellent teaching must be culturally responsive (Wang et al., 2010) and should prompt action to address issues of power differential and social justice (Apple, 1979; Giroux, 1979). Zeichner & Liston (1990) discuss this view under the heading of the social reconstruction tradition in teacher education reform, and many other scholars have analyzed the ways in which some version of

social and cultural empowerment have impacted the views of excellent teaching proposed by various teacher education reforms (Kennedy, 1998; Britzman, 2003; K. Zeichner, 2006; Schussler et al., 2010).

11. Excellent teaching is enthusiastic and expressive of excitement about the content.

Though not as heavily cited with scholarship in the field, the view that excellent teaching is the expression of enthusiasm about content and the classroom environment still has its supporters. Kane et al. (2004) found that 15 of their 17 participants ranked enthusiasm as an important aspect of excellent teaching, and research by Murray (1991) showed that teacher enthusiasm was one of two causal variables which could be directly related to student achievement. According to Patrick et al. (2000), "when a teacher exhibits greater evidence of enthusiasm, students are more likely to be interested, energetic, curious, and excited about learning" (p. 233). These studies seemed to indicate that teacher enthusiasm led to increased student engagement with classroom content via heightened intrinsic motivation, which, in turn, led to higher academic outcomes.

12. Excellent teaching embodies moral and ethical action and decision-making.

As Charters (1963) noted, teachers transmit values to their students, both directly and indirectly, and so this definition argues that in order for teaching to be excellent, it must both encourage and exemplify moral and ethical action. This vision of excellence in teaching is probably best articulated in Fenstermacher and Richardson's (2005) overview of "good" teaching, by which they mean teaching that is morally and ethically defensible. Kane et al. (2004) also argue that excellent teaching must include both integrity and honesty, and Schussler et al. (2010) stress that teaching must include activities and content which are "morally worthwhile" (p. 351). Other scholarship which can further illuminate this perspective on excellent teaching includes Fenstermacher (1986), Danielson (2007), and Hansen (2008).

Discussion

Determining these varying categories is more than simply an academic exercise. The definitions of excellent teaching that particular stakeholders subscribe to are based upon their personal understandings of the purposes of education, and these understandings shape not just their discourse but also their practice (Eisner, 1984; Jackson, 1986; Lefstein,

2005). Though the process-product research (Dunkin & Biddle, 1974) that dominated the study of teaching in the second half of the twentieth century conceptualized teaching as a *science* that should be studied and understood in the same way as more traditional experimental sciences, others scholars have disagreed (Eisner, 1984; Highet, 1951). Eisner (1984) argued that teaching was as much an art as a science, and therefore could be analyzed and understood quite differently depending upon which of those two lenses were used to examine it.

Lefstein (2005) described conflicting visions of *technical* and *personal* teaching. *Technical* teaching is conceptualized as "a technical method, which can be 'identified, disseminated and universally adopted" (Lefstein, 2005, p. 334). *Personal* teaching is "viewed primarily as a relationship, which is constituted by how teachers and students interact holistically" (p. 347). The first five definitions listed above fall quite clearly into Lefstein's (2005) *technical* category, while definitions six through ten more closely align with the *personal* category. The final two definitions could span either of Lefstein's (2005) visions. Identifying vision is important.

The question of "*What constitutes excellent teaching?*" is really a question about the goal or goals of education itself. Each of the definitions above would seem to be undergirded by particular assumptions about the purposes of education. For example, if the major purpose of education is seen as the transmission of particular academic content from one who has it, the teacher, to one who lacks it, the student, a purpose described by Jackson (1986) as the *mimetic* tradition of teaching, definition number four above, *Excellent teaching is communicative, exemplifying excellent presentation and demonstration skills*, would likely be the most representative conception of excellent teaching. However, if the major purpose of education is accepted as producing in each student "a transformation of one kind or another…a qualitative change often of dramatic proportion, a metamorphosis" (Jackson, 1986, p. 120), a goal that Jackson (1986) described as the *transformative* tradition of teaching, then definition four would be unlikely to produce such a result, and would, therefore, not be excellent in that situation. Rather, a conception of excellent teaching such as number seven above, *Excellent teaching is highly interactive and cooperative, building a community of learners working toward common purposes through caring and trusting relationships*, might be more representative of excellence based upon transformative goals.

Unfortunately, empirical research cannot answer the question of what the purpose of education ought to be. As Labaree (1997) argued

> Goal setting is a political, not a technical problem. It is resolved through
> a process of making choices and not through a process of scientific in-

vestigation. The answer lies in values (what kind of schools we want) and interests (who supports which educational values) rather than apolitical logic. (p. 40)

These are questions of value, not of fact, and, as Hume's Law states, "an 'ought' cannot be deduced from an 'is'" (Grice & Edgley, 1970, p. 89). This article has attempted to make manifest of variety of these value positions within the scholarship of teaching.

Conclusion

Like Munby, Russell, and Martin (2001), the author recognizes the "complexity involved in rendering the field [of teaching] into neat and exclusive categories" (p. 878), and the framework of definitions discussed above is certainly just one way to understand a very broad field of scholarship on excellent teaching. What is clear is that very little consensus exists as to what characterizes or defines teaching excellence. Metcalf (1963) noted that "not much is known about the relationship between how a teacher teaches and the learning that results" (p. 938). Fifty years later the field may know more, but no agreement exists on exactly what is known. Given the wide variability in definitions and understandings of excellent teaching, it is no wonder that a number of scholars have determined that excellent teaching is essentially unknowable, at least from a research standpoint, and have, therefore, advocated that the educational research community focus on more easily identified and studied input variables like teacher personality or educational background (Watson, 1963).

However, the author believes that understanding of the various competing visions of teaching excellence holds significant value, particularly as it connects to the field of teacher education. According to Katz & Raths (1982), "Teacher education courses and the individuals who staff them have been the objects of scorn by many for years" (p. 8), and, as Leinhardt (2001) noted, "learning to teach is difficult, and learning to teach well seems to be almost a matter of chance" (p. 337). This may be because, as the National Center for Research on Teacher Education (1988) noted, "We know relatively little about what goes on in different teacher education programs" (p. 27), and, therefore, it is difficult to isolate successful elements in any given program. Darling-Hammond (2001) concurred, pointing out that teacher "training is very different from place to place, producing very distinct conceptions of adequate teaching and teacher knowledge" (p. 758). The author believes that these various institutions would benefit from making explicit the definition of excellent teaching to which they subscribe. As teacher education

programs work to prepare teachers for the challenges of 21st century education, the programs they create will have to be shaped by their fundamental beliefs regarding what embodies the very best in teaching (Darling-Hammond & Bransford, 2005). Munby et al. (2001) noted that very little research exists on conceptual or theoretical frameworks in teacher education, and Katz & Raths (1982) concluded that "the goals to which instructors [in teacher education programs] address their efforts are not related to those attributes these same instructors believe to be essential in becoming or being a competent/successful teacher" (p. 14). Additionally, some researchers, like Futrell (2010) question whether current reforms of teacher education programs are actually aligned with the reform agenda of public P-12 education or with the goals of the public in general (Fenstermacher, 1978). Further work on identifying the underlying definitions of quality teaching that are held by different teacher education programs might help to relieve these disconnects.

References

Apple, M. (1979). On analyzing hegemony. *Journal of Curriculum Theorizing, 1*(1), 10–27.

Beane, J. (1991). The middle school: The natural home of integrated curriculum. *Educational Leadership, 49*(2), 9–13. Retrieved from http://eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ432772

Beane, J. (1997). *Curriculum integration: designing the core of democratic education*. New York, NY: Teacher's College Press.

Berliner, D. C. (1986). In pursuit of the expert pedagogue. *Educational Researcher, 15*(7), 5–13.

Borko, H., & Putnam, R. (1996). Learning to teach. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 673–708). New York, NY: MacMillan. Retrieved from http://psycnet.apa.org/psycinfo/1996-98614-019

Boyle-Baise, M., & McIntyre, D. J. (2008). What kind of experience? Preparing teachers in PDS or community settings. In Marilyn Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre, & K. E. Demers (Eds.), *Handbook of research on teacher education: Enduring questions in changing contexts* (3rd ed., pp. 307–330). New York, NY: Routledge.

Brandt, R. (1991). On interdisciplinary curriculum: A conversation with Heidi Hayes Jacobs. *Educational Leadership, 49*(2), 24–26. Retrieved from http://eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ432776

Britzman, D. P. (2003). *Practice makes practice, revised edition*. Albany, NY: SUNY.

Brophy, J., & Evertson, C. M. (1981). *Student characteristics and teaching.* New York, NY: Longman.

Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 328–375).

New York, NY: MacMillan.

Burnaford, G., Beane, J., & Brodhagen, B. (1994). Teacher action research: Inside an integrative curriculum. *Middle School Journal, 26*(2), 5–13. Retrieved from http://eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ494654

Calabria, F. (1960). Characteristics of effective teachers. *Educational Research Bulletin, 39*(4), 92–100. Retrieved from http://www.jstor.org/stable/10.2307/1474961

Carroll, J. B. (1963). Research on teaching foreign languages. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 1060–1100). Chicago, IL: Rand McNally.

Charters, W. W. J. (1963). The social background of teaching. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 715–813). Chicago, IL: Rand McNally.

Chen, J., Brown, G. T. L., Hattie, J. a. C., & Millward, P. (2012). Teachers' conceptions of excellent teaching and its relationships to self-reported teaching practices. *Teaching and Teacher Education, 28*(7), 936–947. doi:10.1016/j.tate.2012.04.006

Chingos, M. M., & Peterson, P. E. (2011). It's easier to pick a good teacher than to train one: Familiar and new results on the correlates of teacher effectiveness. *Economics of Education Review, 30*(3), 449–465. doi:10.1016/j.econedurev.2010.12.010

Clark, C., & Yinger, R. (1977). Research on teacher thinking. *Curriculum Inquiry, 7*(4), 279–304.

Cochran-smith, M., Feiman-Nemser, S., McIntyre, D. J., & Demers, K. E. (2008). *Handbook of research on teacher education* (3rd ed.). New York, NY: Routledge.

Cochran-Smith, M., & Fries, M. K. (2001). Sticks, stones, and ideology: The discourse of reform in teacher education. *Educational Researcher, 30*(8), 3–15. doi:10.3102/0013189X030008003

Corno, L., & Snow, R. E. (1986). Adapting teaching to individual differences among learners. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 605–629). New York, NY: MacMillan.

Cruickshank, D. (1992). Be good! Start by being clear. *The Clearing House, 65*(5), 311–314. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/00098655.1992.10114232

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Darling-Hammond, L. (2001). Standard setting in teaching: Changes in licensing, certification, and assessment. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 751–800). Washington, DC: American Educational Research Association.

Darling-Hammond, L., & Youngs, P. (2002). Defining" highly qualified teachers": What does" scientifically-based research" actually tell us? *Educational Researcher* (December), 13–25. Retrieved from http://www.jstor.org/stable/10.2307/3594491

Dewey, J. (1910). *How we think*. Boston, MA: D.C. Heath & Co.

Dewey, J. (1933). *How we think*. Chicago, IL: Henry Regnery.

Dewey, J. (1938). *Experience and education*. New York, NY: McMillan.

Doyle, W. (1979). Classroom tasks and student abilities. In P. L. Peterson & H. J. Walberg (Eds.), *Research on teaching: Concepts, findings, and implications.* Berkeley, CA: McCutchan.

Doyle, W. (1986). Classroom organization and management. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 392–431). New York, NY: MacMillan.

Doyle, W. (1990). Themes in teacher education research. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 1–24). New York, NY: MacMillan.

Dunkin, M., & Biddle, B. (1974). *The study of teaching*. New York, NY: Holt, Rinehart & Winston.

Eisner, E. W. (1984). The art and craft of teaching. In J. Reinhartz (Ed.), *Perspectives on effective teaching and the cooperative classroom* (pp. 19–31). Washington, DC: National Education Association.

Erickson, F. (1986). Qualitative methods in research on teaching. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 119–161). New York, NY: MacMillan.

Feiman-Nemser, S. (2001). Helping novices learn to teach: Lessons from an exemplary support teacher. *Journal of Teacher Education, 52*(1), 17–30. doi:10.1177/0022487101052001003

Feldman, K. (1997). Identifying exemplary teachers and teaching: Evidence from student ratings 1. In *Effective teaching in higher education: Research and practice*, pp. 368–395.

Fenstermacher, G. (1978). A philosophical consideration of recent research on teacher effectiveness. *Review of Research in Education, 6*(1978), 157–185. Retrieved from http://www.jstor.org/stable/10.2307/1167245

Fenstermacher, G. D. (1986). Philosophy of research on teaching: Three aspects. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 37–49). New York, NY: MacMillan.

Fenstermacher, G. D., & Richardson, V. (2005). On making determinations of quality in teaching. *Teachers College Record, 107*(1), 186–213. doi:10.1111/j.1467-9620.2005.00462.x

Freire, P. (1993). *Pedagogy of the city*. New York, NY: Continuum.

Freire, P. (1996). *Letters to Cristina*. New York, NY: Routledge.

Freire, P. (1997). *Pedagogy of the heart*. New York, NY: Continuum.

Freire, P. (2000). *Pedagogy of the oppressed: 30th anniversary edition*. New York, NY: Continuum.

Freire, P. (2011). *Education for critical consciousness*. New York, NY: Continuum.

Futrell, M. H. (2010). Transforming teacher education to reform America's P-20 education system. *Journal of Teacher Education, 61*(5), 432–440. doi:10.1177/0022487110375803

Gage, N. L. (1963a). Paradigms for research on teaching. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 94–141). Chicago, IL: Rand McNally.

Gage, N. L. (1963b). Handbook of research on teaching. Chicago, IL: Rand Mc-

Nally.

Getzels, J. W., & Jackson, P. W. (1963). The teacher's personality and characteristics. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 506–582). Chicago, IL: Rand McNally.

Giroux, H. A. (1979). Review: Paulo Freire's *Approach to Radical Educational Reform*. *Curriculum Inquiry, 9*(3), 257–272.

Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness?: A research synthesis*. Washington, DC.

Grice, G. R., & Edgley, R. (1970). Symposium: Hume's Law. *Proceedings of the Aristotelian Society, Supplemental Volumes, 44*, 89–119.

Hansen, D. (2008). Values and purpose in teacher education. In Marilyn Cochran-Smith, S. Feiman-Nemser, D. J. McIntyre, & K. E. Demers (Eds.), *Handbook of research on teacher education: Enduring questions in changing contexts* (3rd ed., pp. 10–26). New York, NY: Routledge.

Hattie, J. (2004). It's official: Teachers make a difference. *Educare News, 144*(February), 24–31.

Hay/McBer. (2000). *Research into teacher effectiveness: a model of teacher effectiveness.* Norwich, UK.

Highet, G. (1951). *The art of teaching.* New York, NY: Taylor Francis.

Houston, W. R. (1990). *Handbook of research on teacher education*. New York, NY: MacMillan.

Howey, K., & Zimpher, N. L. (1989). *Profiles of preservice teacher education: Inquiry into the nature of programs*. Albany, NY: State University of New York Press.

Hunter, M., & Russell, D. (1981). *Planning for effective instruction: Lesson design. Increasing your teaching effectiveness*. Palo Alto, CA: The Learning Institute.

Jacobs, H.H. (1986). The interdisciplinary concept model: Theory and practice. *Gifted Child Quarterly, 30*(4), 159–163. Retrieved from http://gcq.sagepub.com/content/30/4/159.short

Jacobs, H.H. (1989). The growing need for interdisciplinary curriculum content. (Heidi Hayes Jacobs, Ed.), *Interdisciplinary curriculum: Design and implementation*, 1–11. Retrieved from http://cfi.sharepointsite.net/Accountability Overview/Interdisciplinary Curriculum.pdf

Jacobs, Heidi Hayes. (1991). Planning for curriculum integration. *Educational Leadership, 49*(2), 27–28. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10886638

Kane, R., Sandretto, S., & Heath, C. (2004). An investigation into excellent tertiary teaching: Emphasising reflective practice. *Higher Education, 47*(3), 283–310. doi:10.1023/B:HIGH.0000016442.55338.24

Katz, L. G. (1981). A matrix for research on teacher education. *The South Pacific Journal of Teacher Education, 9*(1), 19–30. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/0311213810090102

Katz, & Raths, J. D. (1982). The best of intentions for the education of teachers. *Action in Teacher Education, 4*(1), 8–16. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/01626620.1982.10519084

Kennedy, M. (1998). *Learning to teach writing: Does teacher education make a*

difference? New York: Teacher's College Press.

Khan, S. H., & Saeed, M. (2010). Evaluating the quality of BEd programme: Students' views of their college experiences. *Teaching and Teacher Education, 26*(4), 760–766. doi:10.1016/j.tate.2009.10.011

Lefstein, A. (2005). Thinking about the technical and the personal in teaching. *Cambridge Journal of Education, 35*(3), 333–356.

Leinhardt, G. (2001). Instructional explanations: a commonplace for teaching and location for contrast. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 333–357). Washington, DC: American Educational Research Association.

McKeachie, W. J. (1963). Research on teaching at the college and university level. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 1118–1164). Chicago, IL: Rand McNally.

Meckel, H. C. (1963). Research on teaching composition and literature. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 966–1006). Chicago, IL: Rand McNally.

Menges, R. J., & Austin, A. E. (2001). Teaching in higher education. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 1122–1156). Washington, DC: American Educational Research Association.

Metcalf, L. E. (1963). Research on teaching the social studies. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 929–965). Chicago, IL: Rand McNally.

Minor, L., Onwuegbuzie, A., Witcher, A. E., & James, T. L. (2002). Preservice teachers' educational beliefs and their perceptions of characteristics of effective teachers. *The Journal of Educational Research, 96*(2), 116–127. Retrieved from http://heldref-publications.metapress.com/index/B874843281KJ0066.pdf

Munby, H., Russell, T., & Martin, A. K. (2001). Teachers' knowledge and how it develops. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 877–904). Washington, DC: American Educational Research Association.

Murray, H. G. (1991). Effective teaching behaviors in the college classroom. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Volume 7.). New York: Agathon Press.

National Center for Research on Teacher Education. (1988). Teacher education and learning to teach: A research agenda. *Journal of Teacher Education, 39*(6), 27–32. Retrieved from http://jte.sagepub.com/content/39/6/27.short

Patrick, B.C., Hisley, J., & Kempler, T. (2000). "What's everybody so excited about?": the effects of teacher enthusiasm on student intrinsic motivation and vitality. *The Journal of Experimental Education, 68*(3), 217-236.

Porter, A., Youngs, P., & Odden, A. (2001). Advances in teacher assessments and their uses. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 259–297). Washington, DC: American Educational Research Association.

Richardson, V. (2001). *Handbook of research on teaching* (4th ed.). Washington, DC: American Educational Research Association.

Rohrkemper, M. M. (1989). Self-regulated learning and academic achievement: a Vygotskian view. In D. H. Schunk & B. Zimmerman (Eds.), *Self-regu-*

lated learning in academic achievement: Theory, research, and practice (pp. 143–167). New York, NY: Springer-Verlag.

Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 376–391). New York, NY: MacMillan.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom: Teacher expectation and pupils' intellectual development*. New York, NY: Rinehart & Winston.

Russell, D. H., & Fea, H. R. (1963). Research on teaching reading. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 865–928). Chicago, IL: Rand McNally.

Schon, D. (1987). *Educating the reflective practitioner: toward a new design for teaching and learning in the professions*. San Francisco, CA: Jossey-Bass.

Schussler, D. L., Stooksberry, L. M., & Bercaw, L. A. (2010). Understanding teacher candidate dispositions: Reflecting to build self-awareness. *Journal of Teacher Education, 61*(4), 350–363. doi:10.1177/0022487110371377

Shulman, L. (1986). Paradigms and research programs in the study of teaching: a contemporary perspective. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 3–36). New York, NY: MacMillan.

Sikula, J. (1996). *Handbook of research on teacher education* (2nd ed.). New York, NY: MacMillan.

Slavin, R. E. (1983). When does cooperative learning increase student achievement? *Psychological Bulletin, 94*(3), 429–445. doi:10.1037//0033-2909.94.3.429

Stallings, J. A., & Stipek, D. (1986). Research on early childhood and elementary school teaching programs. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 727–753). New York, NY: MacMillan.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology: an overview. In N. K. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (p. 273–). London, UK: Sage.

Stronge, J. H., Ward, T. J., & Grant, L. W. (2011). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student cchievement. *Journal of Teacher Education, 62*(4), 339–355. doi:10.1177/0022487111404241

Sykes, G., Bird, T., & Kennedy, M. (2010). Teacher education: Its problems and some prospects. *Journal of Teacher Education, 61*(5), 464–476. doi:10.1177/0022487110375804

Travers, R. M. (1973). *Second handbook of research on teaching*. Chicago, IL: Rand McNally.

Vars, G. F. (1987). *Interdisciplinary teaching in the middle grades*. Columbus, OH: National Middle School Association.

Wang, J., Odell, S. J., Klecka, C. L., Spalding, E., & Lin, E. (2010). Understanding teacher education reform. *Journal of Teacher Education, 61*(5), 395–402. doi:10.1177/0022487110384219

Watson, F. G. (1963). Research on teaching science. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 1031–1059). Chicago, IL: Rand McNally.

White, R.T., & Tisher, R.P. (1986). Research on natural sciences. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 874–905). New

York, NY: MacMillan.

Wittrock, M. C. (1986). *Handbook of research on teaching* (3rd ed.). New York, NY: MacMillan.

Wraga, W. G. (1993). The interdisciplinary imperative for citizenship education. *Theory and Research in Social Education, 21*(3), 201–31. Retrieved from http://eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ478544

Yamamoto, K. (1969). Analysis of teaching: Another look. In K. Yamamoto (Ed.), (pp. 355–366). Boston, MA: Houghton Mifflin.

Zeichner, K. (2006). Reflections of a university-based teacher educator on the future of college- and university-based teacher education. *Journal of Teacher Education, 57*(3), 326–340. doi:10.1177/0022487105285893

Zeichner, K. M, & Liston, D. (1990). Traditions of reform in U.S. teacher education. *Journal of Teacher Education, 41*(2), 3–20. Retrieved from http://jte.sagepub.com/content/41/2/3.short

Zumwalt, K., & Craig, E. (2008). Who is teacher? Does it matter? *Handbook of research on teacher education* (3rd ed., pp. 404–423). New York, NY: Routledge.