

## Information for the May 15, 2015 TeachingWorks Journal Club Meeting

We will discuss the following two articles in this meeting:

**1. Dicke, T., Elling, J., Schmeck, A., & Leutner, D. (2015). Reducing reality shock: The effects of classroom management skills training on beginning teachers. *Teaching and Teacher Education, 48*, 1-12.**

**2. Zeichner, K., Payne, K.A., and K. Brayko (2015). Democratizing teacher education. *Journal of Teacher Education, 66*(2): 122-135.**

In addition, bibliographic information is below for other relevant articles published in the following journals between February 15, 2014 and April 15, 2015.<sup>1</sup>

*Journal of Teacher Education*

*American Educational Research Journal*

*Elementary School Journal*

*Journal of Curriculum Studies*

*Teachers College Record*

*Educational Evaluation and Policy Analysis*

*Teaching and Teacher Education*

*Journal of Education for Teaching: International Research and Pedagogy*

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Allen, C.D. and W.R. Penuel (2015). Studying teachers' sensemaking to investigate teachers' responses to professional development focused on new standards. *Journal of Teacher Education, 66*(2): 136-149.

Recent research on teacher professional development (PD) underscores the importance of the coherence of PD with standards, curriculum, and assessment. Teachers' judgments of the coherence of PD with larger system goals influence their decisions about what ideas and resources they appropriate from PD. Little research, however, has examined how teachers formulate these judgments and why teachers' judgments vary within the same system and for the same reform. In this article, we use organizational theory's concept of sensemaking to examine teachers' responses to PD related to the Next Generation Science Standards within two schools in the United States. Our study shows that teachers' perceptions of coherence emerge from interactions within PD, associated curriculum materials, and with colleagues and leaders in their schools. Some teachers, we found, were able to manage ambiguity, uncertainty, and perceived incoherence productively, while others foreclosed deep and sustained sensemaking. Our findings suggest the need for PD to engage teachers in sustained sensemaking activity around issues of perceived incoherence to bolster teachers' emergent understandings of standards and improve the likelihood of implementing instructional practices aligned to standards.

Aspfors, J. and G. Fransson (2015). Research on mentor education for mentors of newly qualified teachers: A qualitative meta-synthesis. *Teaching and Teacher Education, 48*: 75-86.

The aim of this meta-synthesis is to deepen the understanding and knowledge of qualitative research focusing on education for mentors of newly qualified teachers. Altogether, 10 studies were included and synthesised. Four common themes emerged in the initial analysis: School and mentoring context, Theory and practice, Reflection and critical thinking and Relationships. Furthermore, three overarching dimensions were found as a final synthesis guiding the further

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<sup>1</sup> For the May 15, 2015, TeachingWorks journal club we considered the following journals: *American Educational Research Journal* (April 2015, **52**(2)); *Educational Evaluation and Policy Analysis* (no new issues since last meeting: March 2015, **37**(1)); *Elementary School Journal* (March 2015, **115**(3)); *Journal of Curriculum Studies* (2015, **47**(2); 2015, **47**(3)); *Journal of Education for Teaching: International Research and Pedagogy* (no new issues since last meeting: 2015, **41**(1)); *Journal of Teacher Education* (March/April 2015, **66**(2)); *Teachers College Record* (**117**(3), **117**(4)); *Teaching and Teacher Education* (May 2015, **48**).



development of mentor education: 1) Contextual dimensions, 2) Theoretical-analytical dimensions, and 3) Relational dimensions. The synthesis stresses the importance of a systematic, long-term and research-informed mentor education that develops mentors' (self-) understanding of teaching and mentoring.

Bieda, K.N., Sela, H., and D. Chazen (2015). "You are learning well my dear": Shifts in novice teachers' talk about teaching during their internship. *Journal of Teacher Education*, 66(2): 150-169.

Against the backdrop of mentor teachers' reasoning about practice, we seek to understand shifts in intern teachers' reasoning about practice during a year in which they take their final methods course in the fall and then do intern teaching in the spring. The data we analyze consist of intern and mentor teacher study group discussions of repeated viewings of an animation representing mathematics classroom practice around the solving of linear equations. Our analysis utilizes Toulmin's framework of argumentation and the construct of professional obligations from the practical rationality of mathematics teaching. The analysis suggests that, in reasoning about practice, in the fall, intern teachers emphasized teachers' obligations to mathematics as a discipline and to students as individuals, but as they moved into teaching, their arguments about practice include greater attention to obligations to the institutional goals of schools and to their class as a whole.

Bocala, C. and K.P. Boudett (2015). Teaching educators habits of mind for using data wisely. *Teachers College Record*, 117(4): 1-20.

**Background:** Institutions of higher education, specifically schools of education, should play a pivotal role in supporting educators' development of data literacy for teaching. While novice teachers are often prepared to use test-based assessment data, they learn these experiences in isolated courses that do not connect to instruction or school improvement. Moreover, once these novice teachers begin working in schools, they are increasingly expected to work with colleagues to apply data literacy skills, yet few preparation programs provide sustained support with using data collaboratively for whole-school improvement.

**Purpose:** This essay describes the habits of mind, or ways of thinking and being, that underlie data literacy courses offered by the Data Wise Project at the Harvard Graduate School of Education. The habits include: shared commitment to action, assessment, and adjustment; intentional collaboration; and relentless focus on evidence. Adding an emphasis on habits of mind expands building data literacy beyond accumulating discrete knowledge and skills or learning a process that becomes routine.

**Research Design:** The authors provide suggestions for instructional design that can be incorporated both in degree-program courses and in ongoing professional development. These suggestions provide opportunities for participants to actively cultivate the three habits of mind.

**Conclusions:** In order to support all educators while learning data literacy for teaching, there is a need to bridge the resources of an institution of higher education with the instructional capacity of professional development providers and the authentic experiences of school-based practitioners.

Cash, A.H., Cabell, S.Q., Hamre, B.K., DeCoster, J., and R.C. Pianta (2015). Relating prekindergarten teacher beliefs and knowledge to children's language and literacy development. *Teaching and Teacher Education*, 48: 97-105.

The current study examines the associations between teachers' beliefs and knowledge and children's learning during the prekindergarten year. This study describes the degree to which 262 prekindergarten teachers' beliefs and knowledge regarding children's language and literacy skills are related to learning over the prekindergarten year. Teacher beliefs were not predictive of children's skill development. However, teachers' knowledge of language positively predicted children's gains in expressive vocabulary skills. In addition, teachers' knowledge of literacy predicted children's gains in print knowledge. Understanding these associations is important as the field continues to develop mechanisms for evaluating and training early childhood educators.

Clark, S.K., Byrnes, D., and R.R. Sudweeks (2015). A comparative examination of student teacher and intern perceptions of teaching ability at the preservice and inservice stages. *Journal of Teacher Education*, 66(2): 170-183.



This study investigates how the culminating teacher preparation program (TPP) experience (either student teaching assignment or internship) influences the perceptions teachers report about their ability to perform instructional tasks required of teachers. A multivariate ANOVA test (N = 502) was conducted to compare perceptions of student teachers (those who taught 15 weeks) and interns (those who taught a full academic year) at two points in time—once at the conclusion of their TPP and again after their first year of teaching. Results indicate that overall, student teachers report higher perceptions of their ability to perform instructional tasks than interns do at both the preservice and inservice teacher stages. Interns reported higher scores at the inservice stage on only the mathematics subscale, suggesting that there is some change in self-efficacy as teachers gain teaching experience. Findings suggest that the student teaching context provides more modeling and verbal support and produces teachers with higher perceptions of teaching ability than those who complete an internship.

Cochran-Smith, M., Villegas, A.M., Abrams, L., Chavez-Moreno, L., Mills, T., and R. Stern (2015). Critiquing teacher preparation research: An overview of the field, part II. *Journal of Teacher Education*, 66(2): 109-121.

This is the second of a two-part article intended to offer teacher educators a cohesive overview of the sprawling and uneven field of research on teacher preparation by identifying, analyzing, and critiquing its major programs. The article discusses research on teacher preparation for the knowledge society and research on teacher preparation for diversity and equity, the second and third programs of research the authors identified through their massive review of research on initial teacher education, 2000-2012. Guided by their “Research on Teacher Preparation as Historically Situated Social Practice” theoretical/analytic framework, the authors describe the multiple clusters of studies comprising each of these programs of research and examine the social practices in which researchers engaged within one cluster selected from each. This article also suggests new directions for research on teacher education based on lacunae in the literature and on our analysis of the strengths and weaknesses of the existing field.

Dicke, T., Elling, J., Schmeck, A., and D. Leutner (2015). Reducing reality shock: The effects of classroom management skills training on beginning teachers. *Teaching and Teacher Education*, 48: 1-12. Being unprepared to deal with classroom disturbances is a major cause of beginning teachers' reality shock. However, a lack of options remains to learn dealing with such disturbances. In this study, the longitudinal effects of classroom management training are investigated. Participants (N = 97) were assigned to one of two intervention groups (classroom management training/stress management training) or to a wait control group. Results revealed that the classroom management group was superior in classroom management skills. Both intervention groups were superior to the wait control group regarding well-being. Overall, the training can be a useful supplement to teacher education.

Gerzon, N. (2015). Structuring professional learning to develop a culture of data use: Aligning knowledge from the field and research findings. *Teachers College Record*, 117(4): 1-28.

**Background:** This research review provides an analysis of current research related to school and district data use, with a particular focus on identifying key characteristics of schools and districts with effective “data using cultures.” The research review identifies and analyzes findings in five key areas of practice: communicating professional expectations for data use; providing resources and assistance to make meaning from data; participating in the flow of information for data use; providing professional development on data use knowledge and skills; and providing leadership to nurture a culture of data use.

**Purpose:** The goal of this literature review was to identify key elements that the research identifies as essential to developing a school or district culture of data use. Through the literature review and analysis, this article proposes a conceptual framework for school and district data use practices that can be used to guide professional learning in the area of data use.

**Research Design:** The research design is an analytic essay. The article includes an analysis of current literature on school and district data use, compares key concepts presented in current studies and literature reviews, and offers conclusions based on these findings.



**Conclusions:** This research review provides a conceptual framework of five elements that school and district leaders can use to guide professional learning in data use. The framework provides a “mental map” for addressing the range of knowledge and skills teachers must learn to use data as a routine part of their daily practice. In particular, the Culture of Data Use Framework is designed to help school and district leaders and professional development providers tease apart the specific areas of focus for training and support. The author outlines considerations for professional learning for each of the five framework elements and closes with a set of questions that may help to highlight future research needs in the area of school-level data use.

Ghousseini, H. (2015). Core practices and problems of practice in learning to lead classroom discussions. *The Elementary School Journal*, 115(3): 334-357.

Given the current interest in organizing teacher education around core instructional practices that help preservice teachers enact ambitious aspects of teaching like leading classroom discussions, this article investigates an example from the experience of a preservice teacher as she works on orienting students to each other's ideas. Resulting problems of practice are examined, along with the factors that contribute to their emergence in real time. The study also brings attention to the complexity of this work and the ways in which novice teachers' knowledge, development as learners, and available resources in the contexts of their work contribute to how they approach and manage these problems.

Graue, M.E., Whyte, K.L., and A.E. Karabon (2015). The power of improvisational teaching. *Teaching and Teacher Education*, 48: 13-21.

In this study we examine how improvisation can facilitate understanding how teachers respond to children's multiple resources, interests, experiences, and skills in early childhood programs. Improvisation is conceptualized as a responsive, partnered activity through which teachers and children generate meaning and knowledge together. In our analysis we show improvisation is taken up differently in two classrooms and how it variably provides opportunities for learning. Two cases from a professional development program designed to support culturally and developmentally appropriate early mathematics are used to demonstrate the possibilities improvisation creates in era of increasing standardization of curriculum.

Jamil, F.M., Sabol, T.J., Hamre, B.K., and R.C. Pianta (2015). Assessing teachers' skills in detecting and identifying effective interactions in the classroom: Theory and measurement. *The Elementary School Journal*, 115(3): 407-432.

Contemporary education reforms focus on assessing teachers' performance and developing selection mechanisms for hiring effective teachers. Tools that enable the prediction of teachers' classroom performance promote schools' ability to hire teachers more likely to be successful in the classroom. In addition, these assessment tools can be used for teacher training and preparation that contributes to improved student performance. This article summarizes the theoretical and empirical support for a direct assessment of teachers' skill in detecting and identifying effective classroom interactions—the Video Assessment of Interaction and Learning (VAIL). Findings from a study of 270 preschool teachers suggest that the VAIL reliably measures teachers' interaction detection and identification skills. Teachers who can accurately detect effective interactions on video exemplars tend to have more years of education and display more effective interactions with the students in their classroom. Findings are discussed in terms of the implications for teacher selection, preparation, and training.

Jimerson, J.B. and J.C. Wayman (2015). Professional learning for using data: Examining teacher needs and supports. *Teachers College Record*, 117(4): 1-36.

**Background:** In the last few decades, a focus on school accountability at the state and federal levels has created expectations for teachers to attend to data in increasingly structured ways. Although professional learning is often cited as an important facilitator of effective data use, research that focuses on the intersection of professional learning and data use is scarce. Examining teacher perceptions of data use supports, and contrasting assertions of what is desired in data-related professional learning with accounts of the ways in which this professional learning actually happens provide an avenue for exploring these issues and for building a



research base that can inform the work of district and campus leaders as well as support providers.

**Focus of Study:** This study aimed at examining teacher needs specific to data-related professional learning through a lens informed by knowledge-based organizational learning. We were guided by two broad questions: (a) What knowledge and skills do teachers need in order to engage in data-informed practice? (b) How do professional learning supports address these needs?

**Research Design:** The qualitative study draws on document analysis as well as interview and focus group data collected from n=110 participants (teachers, school leaders, and district support staff) in three school districts in central Texas. Flexible a priori coding rooted in our conceptual framework was employed to examine data for themes common across district settings and across school levels (e.g., elementary, middle, high). Code counts were used to further examine areas of professional learning focus and/or apparent imbalance.

**Findings:** Educators articulated professional learning needs related to data use in six main areas: (a) asking appropriate questions of data (to guide analysis and use); (b) accessing and operating district data systems; (c) data literacy/interpretation; (d) fitting data use with day-do-day practice; (e) sharing information via collaboration; and (f) knowledge codification. Of these, data capture via computer data systems was by far the most prominent focus reported by educators in each district. Clear plans for addressing data use capacity through professional learning supports were lacking.

**Recommendations:** Taking into account teacher perspectives on what professional learning for data use was needed and on how such supports were, in reality, structured, we make three recommendations: (a) purposefully embed professional learning for data use in ongoing organizational routines; (b) mitigate the district level silos that separate training-on-computer-systems from professional learning focused on turning data into action at the classroom level; and (c) seek balance in supporting the constellation of knowledge and skills that contribute to data use capacity.

Lee, J. and S.S. Zuilkowski (2015). 'Making do': Teachers' coping strategies for dealing with textbook shortages in urban Zambia. *Teaching and Teacher Education*, 48: 117-128.

Textbooks are a critical component of quality education in developing countries. This article investigates textbook availability and teachers' coping strategies in the face of poor textbook access in Zambia. Driven by change theory, the study concludes that teachers' educational beliefs, teaching approaches and use of alternative materials together determine the strategies used to handle shortages. Teachers need more textbooks, but there is little indication that provision will improve in the near future. We therefore argue for the integration of some of the positive teacher-developed adaptations into teacher training programs, with the goal of improving outcomes in the near term.

Mandinach, E., Friedman, J.M., and E. Gummer (2015). How can schools of education help to build educators' capacity to use data? A systemic view of the issue. *Teachers College Record*, 117(4): 1-50.

**Background:** With the growing emphasis for educators to use data to inform their practice, little has been done to consider the means by which the educators can acquire the requisite data literacy skills. This article provides a context for why schools of education can and must play an important role in preparing teachers to use data.

**Purpose:** This article sought to understand if and how schools of education are preparing teacher candidates to use data effectively or responsibly. The study examined the extent to which schools of education teach stand-alone courses on data-driven decision making or integrate data use concepts into existing courses. It also examined state licensure and certification requirements to determine if and how data use is included in documentation.

**Population:** A stratified randomized sample of schools of education was drawn with 208 institutions responding, representing a 25.7% response rate.

**Research Design:** The survey portion of the study consisted of a stratified randomized sample of all schools or departments of education in the United States. The syllabus review was a voluntary part of the survey. The licensure review was a descriptive analysis of every state's documentation for teacher licensure and certification.



**Findings/Results:** The survey results indicated that a vast majority of the schools of education reported that they offered a stand-alone data course, and even more integrated data use into existing courses. The syllabus review provided a deeper dive into the course offerings and indicated that the courses were more about assessment literacy than data literacy. The licensure review yielded a plethora of skills and knowledge related to data that are included in state requirements. However, there was wide variation across states in their requirements.

**Conclusions:** Even though schools of education reported that they are teaching about data-driven decision making in their teacher preparation programs, the results indicate that the content is more about assessment literacy than data literacy. This finding is consistent with the often observed conflation of the two constructs. Licensure requirements include both data literacy and assessment literacy, but the emphasis is more on assessment than data. With the increasing emphasis by policy makers on the importance of educators using data, it is essential that schools of education begin to incorporate data concepts into their curricula and that states make explicit the data-related skills and knowledge required for teachers for licensure and certification.

Oude Groote Beverborg, A., Slegers, P.J.C., and K. vanVeen (2015). Fostering teacher learning in VET colleges: Do leadership and teamwork matter? *Teaching and Teacher Education*, 48: 22-33.

This study explores teacher learning in Vocational Education and Training colleges, combining organizational and psychological factors, such as transformational leadership, teamwork, and self-efficacy. 447 teachers participated in a survey study. Multilevel structural equation modeling was used to test 7 hypotheses derived from previous research. The results show that transformational leadership has direct and indirect effects on teacher learning as mediated by teamwork processes. Moreover, the impact of teamwork processes on teacher learning was mediated by self-efficacy. The study contributes to research on workplace learning by giving insight into the role organizational and psychological factors play in stimulating teacher learning.

Seglem, R. and A. Garcia (2015). "So we have to teach them or what?": Introducing preservice teachers to the figured worlds of urban youth through digital conversation. *Teachers College Record*, 117(3): 1-34.

**Background:** Extant literature contends that it can be difficult for White preservice teachers to develop culturally relevant curriculum for the diverse students whom they will encounter in classrooms. Though there is a significant body of research about culturally responsive pedagogy, teacher education programs have struggled with how to best reconcile the needs of students of color with the experiences and misconceptions of White teachers.

**Purpose/Focus of Study:** Using a figured world framework, we explore how social interaction made possible through digital tools shaped the actions and identities of 16 preservice teachers. Research Design: This qualitative case study focuses on 3 preservice teachers from Illinois to illustrate the cumulative and different process of change that each went through during his or her interactions with 10th-grade students from Los Angeles. Beginning with a holistic coding of the corpus of data, we looked at chat room transcripts, preservice teacher reflections, and writing samples from approximately 3 months of interaction between the two groups for this study. Coding the data in multiple cycles, we explored how preservice teachers' digital interactions with urban high school students contributed to preservice teachers' figured worlds.

**Findings:** Providing preservice teachers with virtual access to urban youth's figured worlds allowed these future teachers to better understand the cultural artifacts of these students' worlds. In doing so, they were forced to acknowledge the importance of maintaining the belief that all students, including those from urban backgrounds, can and want to engage in rigorous learning. The project also provided the preservice teachers with an opportunity to learn more about the discourse of these students, giving preservice teachers insights about how to navigate the language of their students' cultures, to evaluate their students' academic language needs, and to instruct their students about shifting their language use to communicate across settings and purposes. Finally, opportunities to interact with urban youth allow preservice teachers to begin to develop identities that are more culturally responsive in nature.

**Conclusions:** The results we explore in this article highlight the potential that virtual spaces offer for developing constructive dialogue between urban youth and preservice teachers, which can lead to reflective, culturally relevant teachers.



Zeichner, K., Payne, K.A., and K. Brayko (2015). Democratizing teacher education. *Journal of Teacher Education*, 66(2): 122-135.

In this article, the authors argue that teacher education needs to make a fundamental shift in whose knowledge and expertise counts in the education of new teachers. Using tools afforded by cultural historical activity theory (CHAT) and deliberative democracy theory, they argue that by recasting who is considered an expert, and rethinking how teacher candidates and university faculty cross institutional boundaries to collaborate with communities and schools, teacher education programs can better interrogate their challenges and invent new solutions to prepare the teachers our students need. Drawing on examples from joint-work among universities, schools, and communities in a variety of teacher education programs, they highlight the possibilities and complexities in pursuing more democratic work in teacher education.

Zhang, Z. (2015). Chinese and Canadian teachers implement a hybrid Sino-Canadian curriculum: A multiliteracies perspective. *Teaching and Teacher Education*, 48: 106-116.

This paper reports one part of an ethnographic case study on a Sino-Canadian transnational education programme in southern China. The framework of multiliteracies pedagogy elucidates data collected from classroom observations and teacher interviews. Key findings relate Chinese and Canadian teachers' efforts to nurture emerging global citizens' multilayered linguistic and cultural identities in response to the school's hybrid Sino-Canadian curriculum. Data also intimate literacy teachers' power negotiations pertaining to modality, regional/international languages, the school's imbalanced emphasis on English curricula, and local and global accountability models by building in multiple literacy practices and modes of representations to cater to students' diversified needs.

Dicke, T., Elling, J., Schmeck, A., & Leutner, D. (2015). Reducing reality shock: The effects of classroom management skills training on beginning teachers. *Teaching and Teacher Education, 48*, 1-12.

*Abstract:*

*Being unprepared to deal with classroom disturbances is a major cause of beginning teachers' reality shock. However, a lack of options remains to learn dealing with such disturbances. In this study, the longitudinal effects of classroom management training are investigated. Participants (N = 97) were assigned to one of two intervention groups (classroom management training/stress management training) or to a wait control group. Results revealed that the classroom management group was superior in classroom management skills. Both intervention groups were superior to the wait control group regarding well-being. Overall, the training can be a useful supplement to teacher education.*

Summary prepared by Kiel McQueen

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### **Background (Context)**

Dicke, Elling, Schmeck, and Leutner (2015) report on the effects of a classroom management training on pre-service teachers' perceived classroom management skills and general well-being (i.e. emotional health). Prior literature has argued that beginning teachers struggle with transitioning from pre-service training to in-service teaching (Klusmann, Kunter, Voss, & Baumert, 2012). This transition is often characterized as experiencing "reality" or "praxis" shock when first encountering classroom realities, often manifesting itself in the loss of the ideals and hopes developed during their pre-service training (Friedman, 2000). Moreover, teacher burnout and stress can result from consistent exposure to the challenges of the classroom (Veenman, 1984).

Recent research has shown that beginning teachers' stress is largely induced by student misbehaviors (Evers, Tomic, & Brouwers; Friedman, 2006). Therefore, as the authors argue, providing pre-service teachers with special training on managing their classrooms will assist new teachers in effectively dealing with these challenges (Emmer & Evertson, 2008), thus potentially reducing their stress and increasing their personal well-being. However, little experimental research exists examining whether there is a causal relationship between classroom management training and improved classroom management skills and personal well-being.

### **Research Questions/Methodology**

To determine whether a causal relationship exists, the researchers conducted an experiment with three groups, where one received classroom management training, the second received stress management training, and the third group received no training. Given this, two hypotheses guided the study design and data analysis:

"Hypothesis 1: Beginning teachers who participate in classroom management training will show higher values on indicators of good classroom management skills (see glossary for indicators of classroom management skills) compared to beginning teachers who participate in stress management training or no training, while participants of stress management training will show higher values than the no-training group" (p. 4).

"Hypothesis 2: Beginning teachers who participate in classroom management training will show comparable results on indicators of well-being (see glossary for indicators of well-being) to the participants in stress management training, while both training groups will show higher indicators of well-being than beginning teachers who participate in no training. Overall, we expect our proposed effects to show stability and to still be observable up to one year after the training is conducted" (p. 4).

To test these hypotheses, the researchers sought to recruit teacher candidates who were in the student-teaching phase of their pre-service training. Recruiting candidates at this phase in their training was

significant for several reasons: first, the German student teaching phase allocates approximately 10 hours per week for pre-services teachers to independently teach their lesson; secondly, the hours teaching often increase dramatically, often reaching the point where they teach the same hours as fully-employed teachers; finally, although candidates are assigned mentors, shortages in staff leave often leave supervision neglected. Therefore, the authors argue, these participants are interesting to study because “they are on the one hand officially still only on the threshold of becoming a fully qualified teacher, and yet already have to deal with the full responsibilities [of teaching]” (p. 2).

The researchers recruited 97 German pre-service teachers from separate teacher training colleges. Participants were assigned to a classroom management training (n=36), a stress management training (n=42), or the control/no training group (n=19). No significant differences amongst participants existed. The classroom management and stress management groups each participated in a two-and-a-half day training, consisting of two initial eight-hour sessions and a three-hour follow-up session 12-14 weeks later. Beginning teachers in each group completed a pre-training survey, a post-intervention survey in the follow-up session, and a final survey 10-12 months after the training.

The two initial eight-hour classroom management sessions consisted of seven separate workshops designed by the researchers. These included: (1) classroom organization, (2) rules and procedures, (3) beginning the school year, (4) maintaining management systems, (5) problematic student behavior, (6) interpersonal relationships, and (7) communication. The initial stress management session, based on the German AGIL training (Hillert et al. 2012), was modified to meet the needs of beginning teachers. In particular, the researchers addressed time-management and progressive muscle relaxation (PMR) techniques. This training was selected based on its effectiveness as a stress management intervention for experienced teachers (Lehr et al., 2007).

To measure the effects of the classroom management intervention the researchers examined indicators of classroom management skills and well-being from teacher surveys. Indicators of classroom management skills included: self-efficacy, classroom disturbances, perceived success, target achievement, prosocial success, and positive feedback. Well-being indicators included: emotional exhaustion, engagement, rumination, and quality of sleep. For a detailed description of each indicator, please see the Glossary of Terms.

Data analysis began with the researchers comparing training groups on teacher characteristics and the outcome variables to examine whether possible differences were not due to the trainings. Next, the researchers used repeated measures analyses of variance (RM-ANCOVAs) with Time Wave 1 (pre-training survey) as a covariate. This tested whether a training effect existed for the second and third Time Wave and whether the differences between groups were significant.

## **Finding/Results**

### *The effects of training on indicators of classroom management skills*

Table 1 provides descriptives for the indicators of classroom management, where t1 is the pre-intervention, t2 is the post-intervention, and t3 is 10-12 months following the intervention (note: Likert scales across the questions ranged from 4-6). Results of the RM-ANCOVAs showed statistically significant differences of the classroom management training on post-time waves for self-efficacy in the classroom, and two subscales for perceived success, goal achievement and positive feedback.



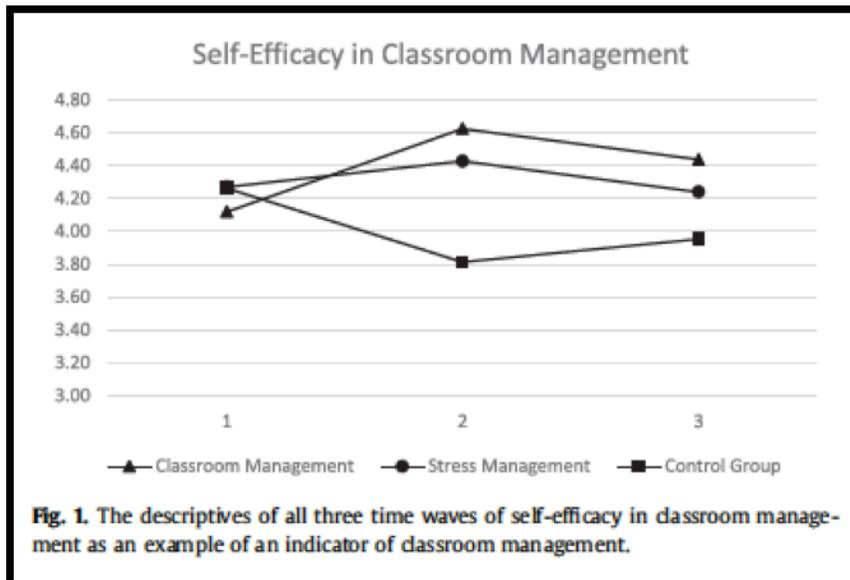
**Table 1**  
Scale names, number of items, reliabilities, and descriptive statistics of all scales regarding classroom management skills.

		No. of items	$\alpha$	M	SD	M	SD	M	SD
Indicators of classroom management skills									
				CMG		SMG		CG	
Self-efficacy in classroom management	8	.91–.93	t1	4.12	.75	4.27	.71	4.26	.79
			t2	4.63	.63	4.43	.78	3.81	.90
			t3	4.44	.79	4.24	.72	3.95	1.18
Classroom disturbances	3	.79–.90	t1	3.41	1.12	2.83	.94	2.23	.85
			t2	3.17	1.56	3.29	1.26	3.30	1.80
			t3	3.21	1.60	3.26	1.17	3.50	1.67
Target achievement	3	.86–.91	t1	2.78	.63	2.76	.72	2.93	1.01
			t2	3.30	.58	3.08	.69	2.19	.67
			t3	3.04	.81	2.97	.72	2.52	1.21
Prosocial success	6	.84–.89	t1	2.51	.50	2.22	.61	2.31	.85
			t2	3.04	.57	2.76	.65	2.20	.70
			t3	2.89	.82	2.65	.45	2.65	1.05
Positive feedback	4	.75–.78	t1	2.20	.91	2.29	.89	2.07	.96
			t2	2.57	.72	2.34	.90	1.42	.80
			t3	2.53	.92	2.28	.79	2.25	1.14

Note.  $\alpha$  = Cronbach's alpha; t1 = Time Wave One (pre-intervention), t2 = Time Wave Two (post-intervention), t3 = Time Wave Three (post-intervention).

Table 1 taken from page 5.

Additionally, a comparison of the stress management training group to the control group revealed significant differences (in favor of the stress management group) in target achievement and self-efficacy. These results indicate that both classroom management and stress management training assist teachers in strengthening their classroom management skills compared to teachers who do not participate in these training.



**Fig. 1.** The descriptives of all three time waves of self-efficacy in classroom management as an example of an indicator of classroom management.

Figure 1 taken from page 7.

*The effects of training on indicators of well-being*

Table 2 provides descriptives for the indicators of well-being across each group (CMG=classroom management group, SMG=stress management group, CG=control group). Results of RM-ANCOVAs indicated statistically significant differences of the classroom management training on emotional exhaustion, rumination, and quality of sleep. In other words, depending on the training, participants reported different levels of emotional exhaustion, rumination, and quality of sleep. The graph below depicts how the levels emotional exhaustion changed in the time following each training. As the researchers predicted, both forms of training had positive effects on teachers self-perceived well-being, but the classroom management training had stronger effects on emotional exhaustion and rumination.

**Table 2**  
Scale names, number of items, reliabilities, and descriptive statistics of all scales regarding well-being.

	No. of items	$\alpha$		M	SD	M	SD	M	SD
Indicators of well-being									
				CMG		SMG		CG	
Emotional exhaustion	4	.82–.90	t1	1.99	.70	2.03	.57	2.05	.57
			t2	1.83	.70	2.28	.79	2.58	.86
			t3	2.13	.71	2.32	.63	2.58	1.04
Engagement	9	.90–.93	t1	2.02	.54	1.90	.50	1.61	.76
			t2	2.20	.50	2.00	.66	1.43	.78
			t3	2.10	.47	1.86	.57	1.51	.94
Quality of sleep	7	.90–.91	t1	1.76	.78	1.57	.71	2.06	.75
			t2	1.66	.67	1.65	.86	1.27	.62
			t3	1.94	.81	1.65	.81	1.44	.71
Rumination	5	.84–.90	t1	1.26	.70	1.51	.61	1.30	.70
			t2	1.17	.69	1.73	.63	1.92	.91
			t3	1.17	.71	1.62	.74	1.90	.89

Note.  $\alpha$  = Cronbach's alpha; t1 = Time Wave One (pre-intervention), t2 = Time Wave Two (post-intervention), t3 = Time Wave Three (post-intervention).

Table 2 taken from page 5.

**Discussion/Conclusions**

The researchers provide evidence that pre-service teachers participating in classroom management trainings have perceived higher classroom management skills over time than all other participants in this study. Additionally, evidence from this study suggests participants assigned to classroom management trainings had less emotional exhaustion and fewer ruminative thoughts than participants in the other two groups. Consequently, the authors argue a focus on classroom management might have more potential to improve beginning teachers' skill and management of stress compared to other focus area (i.e. stress management trainings). However, the authors suggest further research is needed to examine the influence of the duration of classroom management training on perceived management skills and well-being.

Further, the authors conclude that perceived classroom management skills are an important factor in teachers' stress and burnout. Therefore, classroom management trainings focused on the 7 areas described above (i.e. classroom organization, rules and procedures, etc.) should be viewed as a useful supplement to teacher education in facilitating the development of high-quality teachers who are capable of navigating the challenges beginning teachers face when entering their own classroom for the first time.



## Questions

1. When testing for the fidelity of randomization, the researchers explored gender, age, and school type (i.e. primary, secondary, middle, etc.). By not accounting for other what might the researchers have missed when drawing conclusions from their results? What other important school characteristics (percent free or reduced lunch, percent students with iep) might they have included, and why?
2. Given how the researchers were interested in classroom management skills of pre-service teachers, how could the design of this study be improved so that they would not solely rely on self-reported responses from the sample?
3. Considering research on teachers' professional development typically argues against the effectiveness of one-off workshops, does that influence your impression of the results or authors' conclusions? Might one-off workshops be more influential for pre-service teachers compared to in-service teachers?
4. The researchers conducted this experiment during the student-teaching phase for German pre-service teachers. What affordances does the timing of this workshop offer? What constraints might this timing offer? How might we merge the two (affordances and constraints)?

Zeichner, K., Payne, K.A., and K. Brayko (2015). Democratizing teacher education. *Journal of Teacher Education*, 66(2): 122-135.

Abstract:

*In this article, the authors argue that teacher education needs to make a fundamental shift in whose knowledge and expertise counts in the education of new teachers. Using tools afforded by cultural historical activity theory (CHAT) and deliberative democracy theory, they argue that by recasting who is considered an expert, and rethinking how teacher candidates and university faculty cross institutional boundaries to collaborate with communities and schools, teacher education programs can better interrogate their challenges and invent new solutions to prepare the teachers our students need. Drawing on examples from joint-work among universities, schools, and communities in a variety of teacher education programs, they highlight the possibilities and complexities in pursuing more democratic work in teacher education.*

*Summary prepared by Kendra Hearn*

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### **Background**

Zeichner, et al. explicate the tumultuous state of teacher education, and outline three current typical views about the current system. The first is a view held by “defenders” who assert that criticism from those outside of traditional teacher education programs is ill placed and that more attention needs to be paid by policy makers and funders to strengthening the existing system. The second point of view comes from “reformers” who think that the current system, driven largely by colleges and universities, is inadequately preparing teachers and needs radical disruption and innovation driven by market forces. “Transformers,” who propose the third perspective to improving the current system do not wish to relinquish the transformation to deregulation driven by the market economy. These three views on the current conflict in the field serve primarily as a frame for the larger question with which the authors grapple: “whose knowledge counts in teacher education?”

Zeichner et al. write that the current conflict is generated, in part, by the current structure of teacher education which privileges the academy. The authors point out that little success has occurred with coordinating course and field components of teacher education, and that even in our current era of partner or professional development schools, placements sites are typically only leveraged for candidates to try practices that they have learned in their university classes. The traditional college-recommending program model emphasizes taking what is learned academically in the university classroom and applying it into practice.

They caution that early-entry or alternate route programs are not the solution or the best way to democratize teacher education because they often completely eliminate theory from learning to teach and “uncritically glorify practice” (p. 123). This approach results in teachers who can follow teaching scripts but who lack professional vision, cultural competences, and adaptive expertise.

To begin grappling with the question of whose knowledge counts in teacher education, the authors outline the current epistemology or “theory of knowledge” of teaching in an explicit effort to advocate for a democratized approach to teacher education. Such an approach would require the academic, the practitioner, and those in the community to equally value one another’s contribution to teacher education. The authors leverage a few theories and concepts, such as hybridity theory, third space theory and cultural history activity theory to conceptualize how this democratization or leveled distribution of knowledge would function.

They are careful to warn that power differentials in teacher education will never be completely eliminated, but that leveling the hierarchies that privilege university knowledge about teaching over school or community-based knowledge to incorporate more participants and perspectives about good teaching and how teachers should learn is advantageous to teacher education

### **Cultural History Activity Theory (CHAT)**

The authors advocate for new spaces in university teacher education where, in a non-hierarchical way, academic, school-based, and community-based knowledge come together coherently to support teacher learning.

To help conceptualize this kind of collaboration, they borrow from CHAT, which holds two key ideas:

- (1) Knowledge is distributed across systems
- (2) People's habits of mind and behavior are shaped by the cultural norms and practices to which they are exposed in the settings where they develop (p. 124)

CHAT provides a framework and a way of thinking about how to bring together sources of knowledge that are valuable for learning to teach. CHAT also draws on activity theory which states that interns' learning occurs in a "changing mosaic of interconnected activity systems" (Engeström, 2001, p. 147). Activity theory takes into account the learning communities, work distribution, and rules (explicit and implicit) that affect individual and group activities. Engeström's notion expands on Vygotsky's zone of proximal development (ZPD) in that it is not only an individualistic account or perspective of learning, but expands towards a view of learning by engaging in activity systems that push and pull or enable and constrain.

Importantly, the various activity systems in which novices are placed are rich with affordances for learning to teach, but are also wrought with constraints. Unfortunately, under the current structure of teacher education, because the activity systems are not in dialogue with one another, the novice teacher is left to be the sole mediator of these various sources of knowledge. However, according to the authors, the natural tensions and contradictions that are exposed by engaging the activity can be the very transformational practices, tools, and learning activities that would expand candidates' learning. This requires centering the activity of teacher learning in those spaces of conflict and contradiction between the university, school, and community's knowledge about and practice of teaching. Zeichner et al. write that there exists expansive opportunity for collaboration around the contradictions which can remediate novice teachers' learning, as well as afford the opportunity to examine novice's learning in multiple spaces.

Fostering these kinds of hybrid spaces is contingent upon **deliberative democracy**. Deliberative democracy is the valuing of mutual respect among participants in the various spaces.

If the knowledge and expertise about teaching is co-located in the university, the school, and the community, then the key problem of teacher education is to figure out how to access and mediate that knowledge on behalf of teacher candidates. When thinking of how to provide access or how to mediate these activity systems, "horizontal expertise", "knotworking", and "boundary-crossing/boundary-zones" and help conceptualize the hybrid relationships necessary for deliberative democratization of teacher education to work effectively.

**Horizontal expertise** requires the ability to work across domains and outside of one's own organization to articulate new goals, practices, and tools to coordinate work. Sometimes this is referred to as being a "T-shaped person", or someone who knows his/her own field, organization, or discipline well, but who is able to work across organizational spaces to engage in joint problem solving and develop innovative solutions to shared dilemmas. According to the authors, the best examples in teacher education programs entail classroom teachers having an active role in the planning, instruction and evaluation activities related to a teacher education course.

Horizontal expertise is also a useful conceptual tool for university personnel to use to analyze partnerships and the joint-work with school-based partners. It can help to avoid the "two-worlds" pitfall that often plagues the loose and often conflicting relationship between universities and schools in traditional teacher education programs.

**Knotworking** is defined by Engeström (2008) as a "rapidly pulsating, distributed, and partially improvised orchestration of collaborative performance between otherwise loosely connected actors and activity systems. Knotworking is characterized by a movement of tying, untying, and retying together seemingly

separate threads of activity” (p. 194). This concept is helpful for thinking about democratized teacher education in that each activity system in which teacher learning occurs holds different goals, interests, values, and practices, but can be mediated through the knots. Knotworking iterates that there is no one locus of control.

**Boundary-crossing/Boundary Zones** is used by Max (2010) to describe the space where elements from two activity systems contact one another. This contact reduces the possibility that the teacher candidate will be a passive learner merely visiting a space. Instead, the boundary zone creates a flexible space where joint work can occur.

### **Third space**

Zeichner et al. write that third space or hybrid space is not a physical space at all. It is also more than moving the players in teacher education (i.e. teacher educators, teacher candidates, etc.) into each other’s spaces, because this in and of itself will not change the way knowledge about teaching is used. It certainly will not level traditional hierarchies or democratize teacher education. In fact, a third space is a utopian state that is never fully achieved, but those working towards third spaces reach reasonable agreements about certain elements that results in new and creative solutions to....?.

### **Examples of teacher education programs that engage schools and teachers while implementing elements of a democratized approach**

The authors provide the following examples of teacher education programs that engage schools and teachers while implementing elements of a democratized approach:

#### *Cognitive Guided Instruction in Mathematics Project (University of Wisconsin – Madison)*

Researchers at UW-Madison collaborated with local teachers to develop strategies for teaching elementary mathematics. The project relied on the expertise of the academics and the teachers that resulted in new approaches to teaching addition and subtraction that would not have been produced by either group alone.

#### *School-based methods instruction (University of Washington – Seattle)*

Some of UW’s elementary methods classes are taught in Seattle-area public schools. In doing so, the course instructors intentionally and strategically attempt to connect academic and school-based expertise. Course instructors make these connections by organizing opportunities to observe classroom teachers using a particular strategy; having teaching candidates plan and rehearse lessons using strategies then actually teach students in the school using the same strategies; and debriefing their teaching with peers, professors and teachers in the school.

#### *Teachers in Residence Program (University of Wisconsin-Milwaukee) and Faculty Associate (Simon Fraser University, Canada)*

The authors write that at these programs practitioners are engaged in sustained efforts to involve expert teachers in program planning, instruction, and ongoing evaluation and renewal.

#### *Michigan State University*

During the student teaching semester, mentor teachers felt that the university related course assignments were a disruption to their curricula and practices. At the same time the university professors felt that the mentor teachers were promoting ineffective practices and limiting interns’ “learning-to-teach opportunities” (p. 127). The innovation that came about as a result of collaborative problem-solving in this boundary-space of contradiction and tension was a hybrid solution of helping teacher candidates develop their ability to effectively facilitate a classroom discussion. They also co-created a rubric, which was a “boundary-crossing object” or tool to help communicate using shared language in the two activity spaces.

An important lesson to be learned from the MSU partnership is for teacher educators to not be too quick to abandon collaboration because of different visions or approaches. Instead, the authors write that collaborators must seek to leverage the tools of deliberative democracy (i.e. horizontal expertise, knotworking, boundary spaces) to innovate new, creative solutions.

### **Examples of teacher education programs that engage community-based educators and contexts while implementing elements of a democratized approach**

Zeichner et al. write that eliciting and leveraging the involvement of non-dominant communities in teacher education has not been a staple practice in college-recommending or early entry programs. They write that this is a massive lost opportunity, particularly given the limited success our education system has had with effectively educating disadvantaged and underserved populations.

Teacher candidates who have opportunities to learn in boundary spaces in the communities outside of school, are able to integrate different points of view, perspectives, and forms of knowledge that increase their potential to become a “community teacher” (p. 129). Murrell (2001) defines a community teacher as “one who possesses **contextualized knowledge** of the culture, community, and identity of the children and families he or she serves and draws on this knowledge to create the core teaching practices necessary for effectiveness in diverse settings” (p. 52). Importantly, the knowledge gained is contextualized and cannot be supplanted in a university classroom room disconnected from the communities in which the teacher candidates will learn.

#### *Multicultural Apprenticeships at the Ohio State University*

OSU partners with Mt. Olivet, an African American church community in Columbus, which situates the adults as experts holding the essential knowledge that teacher candidates need to learn to be able to teach. An OSU professor and a Mt. Olivet leader both facilitate teacher candidates’ fieldwork. The collaboration provides a unique opportunity for candidates to practice building relationships with youth and adult community members.

#### *University of Washington’s Elementary and Secondary Teacher Education Program (ELTEP and STEP)*

The program has made concerted design efforts to create opportunities for interns to learn in and from members of the community to better prepare them to work in diverse schools. In the first quarter of the ELTEP program, interns were placed in community-based organizations (CBOs) that may have included community centers to culturally focused programs. The placements were connected to coursework and projects in university courses the interns also took during the same quarter. Zeichner, et al. indicate that a 3 year longitudinal research study on the program revealed that teacher candidates had more expansive learning opportunities as a result of their placements in CBOs that helped them more deeply understand students and their communities; develop more nuanced understandings of diversity; examine school from an out-of-school point of view; and enact the relational aspect of teaching (McDonald, Bowman, & Brayko, 2013; McDonald et al., 2011). The most significant contributing factor to these learnings was the CBO educator’s expertise with building and sustaining relationships with children and families across boundaries. This was a school that the CBO educators routinely used to advocate for students in various contexts and distinctly different from those skill set of teacher educators.

Some dilemmas were observed, such as the unevenness of some CBOs experts’ abilities and variation in their skill at articulating their knowledge, which resulted in ‘uneven’ experiences amongst teacher candidates – a phenomenon common in school-based placements. Another was that teacher candidates often bore the burden of “boundary crossing” because the partnership was not completely level in all instances. These challenges are significant here because they replicate, but do not resolve similar problems in traditional teacher education programs.

UW has since shifted its emphasis from CBO placements to any placement that would focus on engaging parents, community leaders, and CBO educators as mentors of teacher candidates. This shift gave birth to a community-family-politics (CFP) strand of the program that allows teacher candidates to interact with community experts across all four quarters of the program.

#### **Sustaining the approach as “the way business is done”**

The authors call on the field of teacher education to attend to how to sustain hybrid spaces and the inclusion of other voices towards a long-term commitment. They warn that the aforementioned examples are fragile under budget restrictions and other pressures. CHAT as a framework can help mitigate exposure to temporal effects of individuals’ wills to continue the work, changes in faculty staffing, or

fluctuating resources. They argue that CHAT could help the work of involving others in teacher education become systemic.

### **Implications**

The authors develop multiple implications. These include:

- University academics cannot be the only frame for discourse about teacher education where school-based and community educators are simply invited in to “participate” in a university-owned program.
- Incorporating others as equal experts in the education of teachers needs to be more than a special project contingent upon temporary funding.
- This is an epic cultural shift that will be difficult for teacher education especially given its relatively low status at research universities, defunding of public schools, decline of state funding for public universities that prepare most teachers.

### **Policy and Practice**

- Policy incentives should be provided to encourage teacher education programs to create hybrid, third space programs with shared responsibility for teacher education.
  - What is most important is not the structure but the quality of the knowledge and power of the relationships in such arrangements.
- Teacher education programs (college recommending and early-entry) should create more opportunities for community members, schools, or universities to plan, implement, and evaluate the program in an on-going, sustained manner.