

Information for the September 25, 2015 TeachingWorks Journal Club Meeting

We will discuss the following two articles in this meeting:

1. Pendergast, M., May, L., Bingham, G., & K.S. Kurumada (2015). Acquiring responsive practices: Preservice teachers learn to conduct interactive read-alouds. *Action in Teacher Education*, 37(1): 65-81.

2. Reeves, T.D. and S.L. Honig (2015). A classroom data literacy intervention for pre-service teachers. *Teaching and Teacher Education*, 50: 90-101.

In addition, bibliographic information is below for other relevant articles published in the following journals between April 15, 2015 and August 15, 2015.¹

Action in Teacher Education

American Educational Research Journal

Educational Evaluation and Policy Analysis

Elementary School Journal

Journal of Education for Teaching: International Research and Pedagogy

Journal of Teacher Education

Teachers College Record

Teaching and Teacher Education

Urban Review

--

Annamma, S.A. (2015). Whiteness as property: Innocence and ability in teacher education. *The Urban Review*, 47(2): 293-316.

In this article, I empirically examined the dispositions of teachers in juvenile justice surrounding young women of color with disabilities to inform what improvements can be made in teacher education. I utilized Critical Race Theory (CRT) and focused on the tenet of whiteness as property as a lens to provide a robust racial analysis of the dispositions of teachers. Findings indicated that instead of a status that elicited support, ability became another thing to surveil, perpetuating a commitment to whiteness as property. An implication that arose directly from these findings was that teachers need training in understanding theories of race, racism, and inequities that recognize the historical legacy of whiteness as property. This training could lead to a change in teacher dispositions and practices that may disrupt the School to Prison Pipeline.

Anthony, G., Hunter, J. & R. Hunter (2015). Prospective teachers development of adaptive expertise. *Teaching and Teacher Education*, 49: 108-117.

This article responds to calls for graduating teacher standards that reflect a vision of teachers as adaptive experts. Drawing on prospective teachers' reflections of their learning within a mathematics classroom inquiry course, we examine the development of expertise as characterized by shifts in teacher focus from self to student and from simple to increasingly complex understandings about teaching and learning. We argue that the instructional dynamics linked to practice-based pedagogies within our teacher education program, inclusive of opportunities to experiment, risk-take, and engage directly with learner outcomes, supported the development of prospective teachers' professional stance aligned to adaptive expertise.

¹ For the September 25, 2015, TeachingWorks journal club we considered the following journals: *Action in Teacher Education* (Spring 2015, 37(1); Summer 2015, 37(2)); *American Educational Research Journal* (June 2015, 52(3); August 2015 52(4)); *Educational Evaluation and Policy Analysis* (June 2015, 37(2)); *Elementary School Journal* (June 2015, 115(4)); *Journal of Education for Teaching: International Research and Pedagogy* (2015, 41(2); 2015; 41(3)); *Journal of Teacher Education* (May/June 2015, 66(3)); *Teachers College Record* (117(5), 117(6), 117(7)); *Teaching and Teacher Education* (July 2015, 49; August 2015, 50); *Urban Review* (June 2015, 47(2)).

Barrio, B.L., Lindo, E.J., Combes, B.H. & K.A. Hovey (2015). Ten years of Response to Intervention: Implications for general education teacher preparation programs. *Action in Teacher Education*, 37(2): 190-204.

Despite the almost universal adoption of Response to Intervention (RTI) in school districts across the United States, recent research report feelings of inadequacy on the part of general education (GE) teachers. In this study, the authors conducted a systematic review of the literature to examine research focusing on the teaching, learning, implementation, and evaluation of RTI in GE teacher preparation during the last decade (2003–2013). A total of 10 publications were identified through electronic and hand searches. Results reveal a longstanding gap in the literature on how GE preservice teachers can understand and apply RTI in their classrooms. More studies and recommendations are needed to help GE preservice and in-service teachers use RTI effectively with struggling students.

Beauchamp, G., Burden, K. & E. Abbinett (2015). Teachers learning to use the iPad in Scotland and Wales: A new model of professional development. *Journal of Education for Teaching*, 41(2): 161-179.

In learning to use a new technology like the iPad, primary teachers adopt a diverse range of experiential, informal and playful strategies contrasting sharply with traditional models underpinning professional development which emphasise formal courses and events led by "experts" conducted in formal settings such as the school. Since post-PC devices like the iPad have been linked with transformational educational learning, there is an imperative to better understand how teachers can be encouraged to use them more effectively. Despite their growing popularity in schools, there is little research to indicate how and under what circumstances teachers learn to integrate these technologies into their daily practices. This paper uses data collected from two national studies of iPad use in Scotland and Wales to propose a new model of professional development. This model reflects findings that the teachers reject traditional models of sequential, or staged, professional development (often led by external providers or "experts"), in favour of a more nuanced and fluid model where they learn at their own pace, in a largely experiential fashion, alongside their pupils in a relationship which reverses the traditional power nexus. The model has the potential to inform professional development for both trainee and serving teachers in learning to use the iPad in the primary classroom.

Bialka, C.S. (2015). Deconstructing dispositions: Toward a critical ability theory in teacher education. *Action in Teacher Education*, 37(2): 138-155.

When attending to dispositions, or educators' assumptions and beliefs about teaching, learning, and students, teacher educators must develop a discourse that examines disability in terms of power and privilege. This article synthesizes literature related to critical race theory (CRT) and disability theory to elucidate the need for a critical ability theory in teacher education. Combining the tenets of CRT and disability theories provides a lens for viewing how power and privilege affect public and private conceptions of what it means to have a special need. Because recognition of privilege and identity serve as the cornerstones of dispositional development, prospective teachers should be asked to examine their dispositions through this lens. This article offers a novel way to explore the dispositions construct, as previous literature has not examined the ways that privilege and identity intersect with disability and teacher dispositions.

Bråten, I. and L.E. Ferguson (2015). Beliefs about sources of knowledge predict motivation for learning in teacher education. *Teaching and Teacher Education*, 50: 13-23.

The purpose of this study was to provide new understanding concerning the theory-practice gap in teacher education. Participants, who were 96 Norwegian student teachers, were found to believe more in practically-derived than in theory-based sources of knowledge about instruction and student learning and to be more motivated for learning from practice than from theory in teacher education. Moreover, stronger beliefs in theory-based sources of knowledge were related to higher motivation to learn from theoretically-oriented coursework and stronger beliefs in practically-derived sources were related to higher motivation to learn from teaching practice. Theoretical and educational implications of the findings are discussed.

Brown, C.P., Bay-Borelli, D.E. & J. Scott (2015). Figuring out how to be a teacher in a high-stakes context: A case study of first-year teachers' conceptual and practical development. *Action in Teacher Education*, 37(1): 45-64.

High-stakes education reforms across the United States and the globe continue to alter the landscape of teaching and teacher education. One key but understudied aspect of this reform process is the experiences of first-year teachers, particularly those who participated in these high-stakes education systems as students and as a teachers-in-training. This article employs Holland, Lachicotte, Skinner, and Cain's conception of figured worlds to understand how such reforms affected two first-year teachers' conceptions of themselves as educators and what it is they were to teach their students. It concludes with suggestions for teacher-educators and mentors to help novice and preservice teachers succeed in these high-stakes contexts so that they can work toward becoming educators who attend to their students' individual needs and teach them how to be active and reflective citizens.

Bruce, D.L. and M.M. Chiu (2015). Composing with new technology: Teacher reflections on learning digital video. *Journal of Teacher Education*, 66(3): 272-287.

This study explores teachers' reflections on their learning to compose with new technologies in the context of teacher education and/or teacher professional development. English language arts (ELA) teachers (n = 240) in 15 courses learned to use digital video (DV), completed at least one DV group project, and responded to open-ended survey questions. The data examined connections they made between print and DV composing, the best and most frustrating aspects of DV, content they still wanted to learn, and its relevance in their classrooms. The findings demonstrate high engagement with DV, the use of transmediation in making connections between print and DV, the reporting of both enjoyment and frustration with DV, and perceived curricular value with DV in the classroom. Implications include the need for teachers to have practical experiences with DV and opportunities to reflect on content and pedagogical applications.

Cheruvu, R., Souto-Manning, M., Lenci, T. & M. Chin-Calubaquib (2015). Race, isolation, and exclusion: What early childhood teacher educators need to know about the experiences of pre-service teachers of color. *The Urban Review*, 47(2): 237-265.

Historically, in the United States, early childhood teacher education has been a discursive space dominated by White, English-monolingual, middle class perspectives. By and large, this space has remained unexamined even as the field acknowledges the need for more early childhood teachers of color. This study seeks to gain insights into the perspectives of pre-service teachers of color as they navigate this Eurocentric space. To do so, it addresses the following question: In what ways does early childhood teacher education shape the experiences of pre-service teachers of color? By looking closely at the perspectives of four pre-service teachers of color in predominantly White private institutions of higher education in large urban centers, this study seeks to address the pressing need to illuminate the experiences of students of color in early childhood pre-service teacher education programs, especially regarding the ways in which they negotiate becoming teachers in such a normed space while battling both socially-imposed and self-internalized deficit conceptions of their own identities as individuals and developing teachers.

Coffey, H.M., Fitchett, P.G. & A.A. Farinde (2015). It takes courage: Fostering the development of critical, social justice-oriented teachers using museum and project-based instruction. *Action in Teacher Education*, 37(1): 9-22.

Through course readings, museum visits, focus group discussions, and reflections on clinical observation experiences, preservice teachers developed a fictitious educational setting (Courage High School) that incorporates critical, social justice practices and privileges the experiences and cultural backgrounds of all K-12 students. Participants presented a model for this school and how it would benefit specific student needs. From our classroom experiences, the authors developed recommendations for how future educators problematized ideas of courage, race, and diversity in developing Courage High School. The authors suggest that using museums as experiential pedagogical tools and offering authentic learning opportunities can encourage a critical, social

justice orientation to teaching and may inspire future teachers to enact courage in their teaching practice.

Daniel, S.M. (2015). Engaging youth and pre-service teachers in immigration deliberations. *Journal of Education for Teaching*, 41(3): 321-323.

In this report of innovative teacher practice, the author describes an arts-based event which brought together adolescent refugee and immigrant students and pre-service teachers to deliberate about immigration policies and attitudes in the United States.

Dotger, B.H. (2015). Core pedagogy: Individual uncertainty, shared practice, formative ethos. *Journal of Teacher Education*, 66(3): 215-226.

Attention to the core practices of teaching necessitates core pedagogies in teacher preparation. This article outlines the diffusion of one such pedagogy from medical to teacher education. The concept of clinical simulations is outlined through the lens of “signature pedagogies” and their uncertain, engaging, formative qualities. Implemented in five different teacher preparation programs, simulation data highlight design principles and resulting outcomes for general scholastic and subject-specific problems of practice.

Dunkake, I. and C. Schuchart (2015). Stereotypes and teacher characteristics as an explanation for the class-specific disciplinary practices of pre-service teachers. *Teaching and Teacher Education*, 50: 56-69.

This paper explores the importance of class-related stereotypes for the discipline practice of pre-service teachers and whether stereotypes and discipline practice are related to their students' outward appearance. Pre-service teachers were asked to assign adjectives to photographs of children from the lower and middle social classes and to choose disciplinary actions for photographs of disruptive situations involving children from these classes. Results show that 40% of pre-service teachers treated children unfairly based on class affiliation, of these 50% punished lower-class children more harshly. The unfair treatment of lower-class children was linked to class-related stereotypes and to indicators of social identity.

Ebersöhn, L., Loots, T., Eloff, I. & R. Ferreira (2015). In-service teacher training to provide psychosocial support and care in high-risk and high-need schools: School-based intervention partnerships. *Journal of Education for Teaching*, 41(3): 267-284.

This article uses a South African case study to argue that postcolonial, emerging economy societies in transition often contain schools characterised as high risk and high need. Such schools require teachers to adapt to roles other than facilitating learning, such as psychosocial support and care, and which requires additional professional development. In the absence of structured teacher professional development programmes, alternatives are required to assist teachers. The paper describes a nine-year partnership between higher education researchers and teachers in high-risk and high-need schools in three South African provinces. The participatory reflection and action (PRA) study served as platform for a school-based intervention to assist in-service teachers to adapt to their additional responsibilities. Thematic analysis was used to identify the ways in which teachers' adaptation to high risk benefitted from the programme, and self-determination theory is used to argue for a dynamic and interconnected relationship between the teachers' demonstrated pathways to psychosocial support and care. The article argues that in socio-politically transforming societies where need is high for in-service teacher training and formal structures for teacher professional development may be limited, partnerships between researchers and teachers appear to be useful platforms for school-based interventions to support teacher resilience.

Engin, M. (2015). Written artefacts in post-conference feedback sessions: The running commentary as a support for teacher learning. *Journal of Education for Teaching*, 41(3): 254-266.

Written artefacts often form a significant part of teacher education activities and play a crucial role in the dialogue between tutor and student teacher in a post-observation feedback session. However, although the dialogue of feedback sessions has been extensively researched, the role of the artefact has been less explored. This research examines how the written artefact of a running commentary guides or constrains the pedagogical conversation between tutor and



student teachers, as well as how it represents the power and authority of the tutor and the teacher education establishment. The article concludes with implications for pre-service teacher education practice.

Gardiner, W. and J. Lorch (2015). From “outsider” to “bridge”: The changing role of university supervision in an urban teacher residency program. *Action in Teacher Education*, 37(2): 172-189.

This qualitative research study investigated a faculty liaison (FL) model, an alternative to traditional field supervision implemented in an urban teacher residency (UTR) program. In the FL model, professors teaching in the UTR program were assigned to school sites rather than individual teacher candidates to observe and provide feedback, evaluate teacher candidate performance, and connect coursework and classroom practice. Results indicate strong support for the continuation of the FL model in lieu of traditional supervision. Specifically, the FL model supported teacher candidate learning, both in the field and in university coursework; and enhanced school-university collaboration. The authors provide an analysis into the FL model and recommendations for integrating full time faculty into school-based portions of teacher education.

Glenn, W.J. (2015). Understanding unfamiliar literary aesthetics: White preservice teachers examine race through story. *Action in Teacher Education*, 37(1): 23-44.

Reading and reflecting upon ethnically unfamiliar literature can provide opportunities for teacher candidates to critically examine assumptions of self and other relative to racial, cultural, and linguistic identities. However, ethnically unfamiliar literatures can be difficult for readers to understand and appreciate due to the aesthetics they embody. This study addresses the struggles White preservice English teachers’ experience in making sense of unfamiliar ethnicities in narrative forms and how this frustration might be mediated through explicit attention to and study of the aesthetic elements of ethnically unfamiliar texts. Findings reveal a keen interest in understanding and engaging with multicultural literature among participants coupled with a persistent hesitation to include it and related conversations of race in their instruction. Participants opened themselves to learning more about others but struggled to implicate themselves in the transfer of new knowledge to teaching practice. The study’s findings contribute to the conversations of scholars in teacher education, multicultural studies, and young adult literature by offering an approach to teaching multicultural literature to preservice teachers that encourages complex, racially informed responses to ethnically unfamiliar texts and revealing potential tensions that may emerge in the process.

Gunn, A.C., Berg, D., Hill, M.F. & M. Haigh (2015). Constructing the academic category of teacher educator in universities’ recruitment processes in Aotearoa, New Zealand. *Journal of Education for Teaching*, 41(3): 307-320.

An examination of recruitment materials and interviews with personnel involved in the employment of teacher educators to positions in university-based New Zealand initial teacher education (ITE) courses reveals three constructions of teacher educator as academic worker: the professional expert, the dually qualified, and the traditional academic. However, this study’s analysis shows how these constructions allow universities to pursue a bifurcated approach for the employment of teacher educators, an approach that maintains binaries within teacher education and hinders development in the field. Furthermore, as the spectre of a major cultural shift in the provision of New Zealand ITE arises, the extent to which the professional expert and traditional academic constructions of teacher educator might serve the scope of work required of postgraduate ITE going forth is questioned.

Helgevoid, N., Næsheim-Bjørkvik, G. & S. Østrem (2015). Key focus areas and use of tools in mentoring conversations during internship in initial teacher education. *Teaching and Teacher Education*, 49: 128-137.

Internship is assumed to have an impact on student teachers’ learning. In this paper, mentoring conversations during internship in two different conditions are analysed through ‘thin descriptions’. Comparisons between a Business-As-Usual condition and a Lesson Study approach condition show differences between focus areas and tools present. These differences are discussed with a point of departure in activity theory where mediating tools is a central



concept, arguing that teacher education institutions and mentor teachers need to collaborate in developing useful tools stimulating student teachers to make enquiries into the core issues of teaching.

Hyatt, D. and J. Meraud (2015). Teacher education in France under the Hollande government: Reconstructing and reinforcing the republic. *Journal of Education for Teaching*, 41(3): 218-234.

Successive republican governments in France have constructed a complex educational context, which is rhetorically committed to a myth of provision of educational equality of opportunity whilst in practical terms it is characterised by a system focused on the production and reproduction of elites. This article aims to consider the political drivers and levers that are transforming French teacher education during the current challenging economic, social and cultural context. It uses a relatively new methodological approach to the analysis of policy evolution and development by applying a critical analysis of discourse, which considers the ways in which teacher education policy is "reproduced and reworked." This is achieved through the discourse analysis of a policy speech made in October 2013 by the then Minister of Education, Vincent Peillon, contextualised by comparisons with reforms enacted by the previous Sarkozy government (masterisation). The article, therefore, utilises a systematic framework that allows analysis at the levels of contextualisation and deconstruction of the text and so highlights developments to date in the arguably unique approach of the Hollande government, driven by the relationship between the republican state and the education system in France. The article also considers how reaction following the Charlie Hebdo attacks of January 2015 afforded opportunities to assert new validity for the teacher education policy espoused within Peillon's speech.

Jovés, P., Siqués, C. & M. Esteban-Guitart (2015). The incorporation of funds of knowledge and funds of identity of students and their families into educational practice. A case study from Catalonia, Spain. *Teaching and Teacher Education*, 49: 68-77.

This article illustrates how students' 'funds of identity' can be used pedagogically to enrich the 'funds of knowledge' approach. The concept 'funds of identity' emphasizes students' interests through the incorporation of their creative works within the pedagogical space conducted by the teacher. Students invest their identities in the creation of some artifacts, which become educational resources used by teachers in class to affirm students' identities and foster their academic development. The paper shows how a teaching unit using the funds of identity approach is created and discusses about the significance of working through study groups for teacher development.

Juárez, B.G. and C. Hayes (2015). On being named a black supremacist and a race traitor: The problem of white racial domination and domestic terrorism in U.S. teacher education. *The Urban Review*, 47(2): 317-340.

This article is concerned with the preparation of future teachers and the continued Whiteness of teacher education. Using the critical race theory methodology of counter-storytelling, this article presents a composite story to highlight and analyze how race and racism influence the preparation of future teachers in ways that typically sustain rather than challenge the Whiteness of education despite widespread self-reports of successful multicultural teacher education. While a great deal has been written about the need to better prepare future teachers for the multicultural realities of contemporary public schools, less examined is the modus operandi of race-based dominance in teacher education. This article seeks to use an examination of the intersections of White racial domination and the daily business of teacher preparation as a learning tool for pushing forward endeavors to prepare all teachers to successfully teach all students.

Kenny, A., Finneran, M. & E. Mitchell (2015). Becoming an educator in and through the arts: Forming and informing emerging teachers' professional identity. *Teaching and Teacher Education*, 49: 159-167.

This article examines student experience and identity formation within an arts education module (involving music, drama and visual arts) on an initial teacher education programme in Ireland. Student reflections (n = 106) and interview data (n = 33) are analysed to explore the complex nature of becoming an arts educator within a general-education model. Using student voice, findings are presented through a series of dualisms to problematise teacher development and

identity-building in and through arts education. Findings reveal the importance of practical and reflective arts experiences to shape emerging teacher identities but also to inform the values and approaches to teaching the arts in schools.

Kim, Y., Turner, J.D. & P.A. Mason (2015). Getting into the zone: Cases of student-centered multicultural literacy teacher education. *Action in Teacher Education*, 37(2): 102-119.

The purpose of this article is to report our preliminary work on student-centered teacher preparation to promote school success among culturally and linguistically diverse learners. The authors believe that teacher education programs need to be very purposeful in their approach to multicultural literacy teacher education. Drawing upon Vygotskian perspective on learning, the authors chose two cases from the beginning of their teacher education program and during student teaching, which often marks the end of teacher education program. The authors explain the potential of a student-centered approach they experienced and its implications for teacher education programs.

Klieger, A. and A. Oster-Levinz (2015). The influence of teacher education on mentor teachers' role perception in professional development schools. *Journal of Education for Teaching*, 41(2): 115-127.

Apprenticeship and professional development schools (PDSs) are two models for teacher education. The mentors that are the focus for this research completed their initial teacher training through one of these models and now mentor in PDSs. The paper reports on how the way in which they were trained as student teachers influenced their role perceptions. The findings suggest that mentor teachers who were trained via the PDSs model have a broader conceptual understanding of their role perception.

Knight, R. (2015). Postgraduate student teachers' developing conceptions of the place of theory in learning to teach: 'More important to me now than when I started'. *Journal of Education for Teaching*, 41(2): 145-160.

Integrating theoretical knowledge within teacher education has often been portrayed as difficult, with previous studies reporting student teachers' ambivalence, or even scepticism, about the value of research findings and theory to classroom practice. Moreover, the nature of teachers' professional knowledge is itself uncertain and highly complex. This paper reports on the developing conceptions held by a group of postgraduate student teachers about the relationship of theory to classroom practice in learning to teach. The data are drawn from a small-scale longitudinal case study. They capture participants' preconceptions about theory before beginning training and subsequent developments through the course and into the first teaching post. The research finds these students to be far from naïve at the outset, entering training open to a range of forms of learning, with a positive view of the potential contribution of theory to practice. Alongside a growing appreciation of the complex, situated and contested nature of theory, the data suggest that theory comes to be increasingly valued over time. As newly qualified teachers, the participants not only see theory as integral to their practice, but recognise the important, largely unanticipated, role of the university in this process. As a result of these insights, potential considerations for course design are offered, at a time when teacher education in many countries is becoming more school-based and new forms of partnership are being developed.

Koenen, A.-K., Dochy, F. & I. Berghmans (2015). A phenomenographic analysis of the implementation of competence-based education in higher education. *Teaching and Teacher Education*, 50: 1-12.

After one decade of Competence-Based Education (CBE), the need arises to investigate the experiences and implementation of CBE in contemporary higher education. A phenomenographic analysis using interviews was conducted with three different groups of stakeholders, namely curriculum coordinator, teachers and students at 26 different educational institutions, providing three different types of educational programmes (ICT and Media, Management, Teacher Education). Results suggest that CBE is emerging and that the majority of the institutions designed their education through a mix of traditional and competence-based teaching and assessment methods. Nevertheless, some obstacles appeared as restrictions to succeeding in the further implementation of CBE.

Maskit, D. and L. Orland-Barak (2015). University–school partnerships: Student teachers’ evaluations across nine partnerships in Israel. *Journal of Education for Teaching*, 41(3): 285-306.

This article presents and discusses the findings of a study which focused on student teachers’ evaluation of their practice teaching in the context of a university-school partnership model integrated for the first time into the academic programme of a university teacher education department in Israel. A questionnaire was developed to examine the contribution of the major curricular components of the partnership for student teachers’ experience of learning to teach, as evaluated by the student teachers themselves. The questionnaire was delivered to 119 student teachers placed in 9 selected school-university partnerships. The findings of the study underscore the added value of supporting different kinds of mentoring frameworks within university-school partnerships. The international significance of the study is discussed with a focus on implications for emergent tensions, dilemmas and connections between local and global forms of university-school partnerships.

McGriff, M. (2015). Teacher identity and EL-focused professional learning in a suburban middle school. *Action in Teacher Education*, 37(1): 82-98.

Suburban middle schools have been affected by a growing enrollment of English language learners and by the need to demonstrate that this population of students is meeting prescribed academic proficiency benchmarks. These developments necessitate cogent, English learner–focused professional learning across content areas. Using Gee’s perspective on identity, this article examines the engagement of one suburban middle school teacher in a professional learning series focused on English learner (EL) content area literacy. It highlights the impact of school-based structures and teacher discourse on professional learning, and it suggests potentially potent mediators of EL-focused professional learning in a suburban middle school setting. Overall, the study informs teacher educators’ efforts to optimize EL-focused professional learning. The article also offers a critique of Gee’s identity framework as a lens for analyzing teacher identity.

Michalsky, T. and B. Kramarski (2015). Prompting reflections for integrating self-regulation into teacher technology education. *Teachers College Record*, 117: 050307.

Background: Technology represents a major topic in educational research. Nevertheless, a gap in the research remains concerning how teachers can bring technology into the classroom. This study focuses on the technological pedagogical content knowledge (TPCK) framework, which aims to consolidate the multidisciplinary professional knowledge related to technology, pedagogy, and content that teachers need so that they can teach and students can learn effectively using technology tools.

Purpose: The goal of the present study was to investigate the value of modification reflection prompts (“think ahead”) as a complementary reflective framework during the teacher preparatory program, beyond the more traditional judgment reflection prompts (“think back”). In particular, we examined how preservice science teachers may capitalize on learning from modification prompts versus judgment prompts versus both (“think back” and “think ahead”), compared with learning from generic prompts (“stop and think”) based on the IMPROVE model oriented to TPCK. We examined these four treatments’ effects on preservice teachers’ actual design of science lessons and development of their own self-reflection abilities.

Participants: Participants were 199 first-year preservice science teachers in their preparatory programs at a university in central Israel.

Research Design: We created a quasi-experimental opportunity for four groups of preservice science teachers to systematically contemplate ready-made TPCK-oriented lesson designs. Each used one of four different reflective methods (the independent variable): modification, judgment, combined modification+judgment, or generic prompts. Then we examined the differential contribution of these treatment methods to the two dependent variables: (1) preservice teachers’ skills for designing actual science lessons and (2) their judgment-type and modification-type self-reflection ability regarding the planning, monitoring, and evaluation phases of their lesson-design process.

Data Collection and Analysis: Data were scored by coding schemes and were analyzed by multivariate analysis of variance and follow-up analyses of variance with repeated measures.



Findings: Results indicated that preservice teachers who contemplated a combination of both judgment and modification reflections in treatment improved more in their lesson-design skills and in their self-reflection ability (of both types at the three phases), compared with preservice teachers who contemplated only a single type of reflective prompt (generic or only judgment or modification). Lasting effects (after a semester without the IMPROVE model, prompts, or TPACK focus) revealed that the combined approach continued to significantly outperform the single approaches.

Recommendations: The current study reinterprets the instructional-reflective framework of teacher education programs to include modification reflection too as a means of developing preservice teachers' capacity to integrate technology in their lesson designs.

Milner, H.R. and J. Laughter (2015). But good intentions are not enough: Preparing teachers to center race and poverty. *The Urban Review*, 47(2): 341-363.

Drawing from principles of critical race theory, the authors consider the curriculum of teacher education as a potential policy and practice site for centering the interconnections of race and poverty in the preparation of teachers. Several macro-level recommendations are advanced that might influence practices in teacher education and ultimately in P-12 classrooms. These policies suggestions include (1) Reform the curriculum of teacher education to emphasize a deeper study of race; (2) Reform the curriculum of teacher education to emphasize a deeper study of poverty; and (3) Reform the curriculum of teacher education to emphasize a deep study of the nexus between race and poverty. The authors conclude with the observation that although teachers and teacher educators tend to have good intentions, those intentions too often fail to meet the needs of Black and Brown students or students living in poverty.

Mizala, A., Martinez, F. & S. Martinez (2015). Pre-service elementary school teachers' expectations about student performance: How their beliefs are affected by their mathematics anxiety and student's gender. *Teaching and Teacher Education*, 50: 70-78.

We examine whether the expectations of pre-service elementary school teachers about students' achievement, and their beliefs regarding student need for academic support, are influenced by future teachers' mathematics anxiety or by student gender and socioeconomic status. We found that mathematics anxiety can negatively influence pre-service teachers' expectations about students, and that future mathematics teachers' expectations of mathematics achievement are lower for girls than for boys. These effects are independent, as we did not find significant interaction effects between pre-service teacher's mathematics anxiety and student gender. Our results also suggest that mathematics anxiety could affect the capacity of pre-service teachers to develop inclusive learning environments in their classrooms.

Montecinos, C., Walker, H. & F. Maldonado (2015). School administrators and university practicum supervisors as boundary brokers for initial teacher education in Chile. *Teaching and Teacher Education*, 49: 1-10.

The study examines school administrators' perspectives on a central problem of the school-based component of initial teacher preparation: the distance between schools and universities. Data obtained through in-depth interviews and focus groups with administrators (N = 51) from 36 schools were analyzed using Wenger's (2000) theory of inter-organizational learning. Findings suggest that an expansion of the roles supervisors and school administrators have traditionally played in the practicum may help reduce this gap. As brokers for their respective institutions they can coordinate actions by gaining access to the meanings each community assigns to practices and acknowledging the competence each brings to the practicum.

Paakkari, L., Tynjälä, P., Torppa, M., Villberg, J. & L. Kannas (2015). The development and alignment of pedagogical conceptions of health education. *Teaching and Teacher Education*, 49: 11-21.

This study examined the development and alignment of conceptions of health education as a subject, and of its teaching and learning, among Finnish health education student teachers (n = 20). Longitudinal phenomenographic data (essays, interviews) were collected at two time points during health education studies, and at one time point after the participants had gained 1–3 years of work experience. The proportion of participants expressing the most sophisticated

pedagogical conceptions decreased during teacher training, but increased after the gaining of work experience. Moreover, fewer than half of the participants expressed pedagogical conceptions that advanced in broad alignment with regard to the subject, the teaching, and the learning. Some methodological considerations and suggestions for teacher training are presented.

Page, T.M. (2015). Common pressures, same results? Recent reforms in professional standards and competences in teacher education for secondary teachers in England, France and Germany. *Journal of Education for Teaching*, 41(2): 180-202.

Over the last decade, the introduction of professional standards and competences in initial teacher education for secondary teachers in England, France and Germany has provided the cornerstone of education reform in all three countries. The precise number and specific content of a measurable set of skills for teachers have offered challenges for policy makers, teacher educators, student teachers and teachers alike. The concept of standardised teacher education feeds into the idea that there is some convergence towards a uniform teacher ideal. However, an examination of the skills required of teachers in each of the three countries in this study reveals distinct education systems where path divergence is more evident.

Paolucci, C. (2015). Changing perspectives: Examining the potential for advanced mathematical studies to influence pre-service teachers' beliefs about mathematics. *Teaching and Teacher Education*, 49: 97-107.

This study considers the potential for advanced mathematical studies to impact pre-service teachers' beliefs about mathematics. Results show that, after completing a degree which includes advanced mathematical studies, many prospective teachers' beliefs still reflect limited interpretations of key terminology and do not value the theoretical and conceptual network underpinning the rules and procedures of secondary mathematics. Many of their beliefs about the nature of mathematics also fail to recognise its capacity to stimulate analytical thought and creativity. In cases where pre-service teachers showed evidence of well-developed beliefs, the study explores the role of their advanced mathematical studies in this development.

Pendergast, M., May, L., Bingham, G., & K.S. Kurumada (2015). Acquiring responsive practices: Preservice teachers learn to conduct interactive read-alouds. *Action in Teacher Education*, 37(1): 65-81.

As U.S. schools continue to grow more culturally and linguistically diverse, it is important for teacher–educator programs to include pedagogy that promotes engaging learning opportunities for all children. One way these learning opportunities can occur is through interactive read-alouds. Interactive read-alouds provide the teacher and child an opportunity to interact with the text and one another. This article examines how a teacher–educator emphasis on interactive read-alouds guides preservice teacher attention. The authors followed 20 preservice teachers during their first literacy methods course. Analysis of the data yielded two general themes. First, the larger teacher preparation, community-based context drew preservice teacher attention to culturally and linguistically responsive read-aloud practices. Second, preservice teachers tended to blend sociolinguistic awareness with pedagogy when discussing read-alouds.

Reeves, T.D. and S.L. Honig (2015). A classroom data literacy intervention for pre-service teachers. *Teaching and Teacher Education*, 50: 90-101.

This pretest-posttest study investigated 64 pre-service teachers' perceptions of the impact of a 6-h data literacy intervention, which involved scoring classroom assessments, and analyzing, interpreting, and making decisions based on the data. The study also examined changes in participants' self-reported attitudes and beliefs and objectively-measured data literacy during the intervention. Participant reports suggest that the intervention increased the pre-service teachers' knowledge and skills related to data literacy. Pretest-posttest changes were also observed in three attitudes/beliefs (d s ranged from .34 to .46) and data literacy ($d = .60$). Findings contribute to the small and nascent body of scholarship concerning pre-service data literacy interventions.

Schieble, M., Vetter, A. & M. Meacham (2015). A discourse analytic approach to video analysis of teaching: Aligning desired identities with practice. *Journal of Teacher Education*, 66(3): 245-260.



The authors present findings from a qualitative study of an experience that supports teacher candidates to use discourse analysis and positioning theory to analyze videos of their practice during student teaching. The research relies on the theoretical concept that learning to teach is an identity process. In particular, teachers construct and enact their identities during moment-to-moment interactions with students, colleagues, and parents. Using case study methods for data generation and analysis, the authors demonstrate how one participant used the analytic tools to trace whether and how she enacted her preferred teacher identities (facilitator and advocate) during student teaching. Implications suggest that using discourse analytic frameworks to analyze videos of instruction is a generative strategy for developing candidates' interactional awareness that impacts student learning and the nature of classroom talk. Overall, these tools support novice teachers with the difficult task of becoming the teacher they desire to be.

Schneider, J.J. (2015). iText, but idon't teach with it: An essay on i-literacy in teacher education. *Action in Teacher Education*, 37(2): 120-119.

In this article, the author explores her observations of preservice teachers' technological literacy as it is often enacted across iterations of a writing methods course. Using personal examples and classroom anecdotes, the author argues that the construct of digital natives is flawed and, instead, the author positions preservice teachers as instructional-technology learners rather than instructional-technology experts (i.e., natives). Within the context of teacher education, the author calls for explicit instruction in multimedia literacy and technology-mediated teaching with the goal that preservice teachers develop insider knowledge of multimedia literacy and the ways in which digital texts and devices work. To this end, the author positions technological-literacy learning as parallel to early language learning as well as second-language acquisition, suggesting that preservice teachers understand technology and digital products from behind the screen before they are expected to engage in instructional-technology strategies in front of the screen.

Soslau, E. (2015). Development of a post-lesson observation conferencing protocol: Situated in theory, research, and practice. *Teaching and Teacher Education*, 49: 22-35.

Since student teaching experiences are paramount, teacher educators' development of their own field-instruction practice should be studied. This self-study analyzes the five-year development process of my self-created post-lesson observation conferencing protocol. Story line methodology and personal/practical narrative inquiry were used to juxtapose key events with changes to the protocol over time. Through the analysis, gaps between my developing theoretical understandings and my actual practice were identified. The recognition of these misalignments resulted in two outcomes, (a) additional improvements to the protocol and my practice (b) production of a conceptual framework and protocol for conferencing with student teachers.

Storms, S.B. (2015). Social justice in practice? Exploring teacher candidates' commitment toward change agency through action research. *Action in Teacher Education*, 37(2): 156-171.

Scholars have criticized teacher education programs for using action research (AR) to improve candidates' technical skills rather than promote its emancipatory goals. The author argues candidates who conduct critical AR promote its emancipatory goals and indicate a commitment to act as change agents for social justice through education. This qualitative study explores how candidates' AR projects reflect (or not) critical AR. The author analyzed course assignments, student interviews, and her observation notes from a graduate-level AR course to discover how students' AR projects demonstrate a commitment toward change agency. Candidates' AR projects reveal that the majority explored cultural and institutional factors that may affect schooling. Additionally, students reported actions taken during and after the AR course that show a developing commitment to incorporate democratic practices into the teaching and learning process. Their reasons for research topics posed appeared to be practical and emancipatory. Implications for future research and teaching AR courses are discussed.

Sun, J. and E.A. van Es (2015). An exploratory study of the influence that analyzing teaching has on preservice teachers' classroom practice. *Journal of Teacher Education*, 66(3): 201-214.

We designed a video-based course to develop preservice teachers' vision of ambitious instruction by decomposing instruction to learn to attend to student thinking and to examine how particular



teaching moves influence student learning. In this study, we examine the influence that learning to systematically analyze ambitious pedagogy in the course has on preservice teachers' classroom practice. Analysis of preservice teachers' videos from the Performance Assessment for California Teachers Teaching Event reveals that they engaged in more student-centered practices compared with a cohort of candidates who did not participate in the course—creating opportunities to see student thinking, noticing student thinking during instruction, and pursuing student ideas to learn more about their thinking. We also found that their probing of student thinking focused primarily on correct answers and procedural fluency. These findings have implications for defining a pedagogy of teacher preparation to develop beginning teacher competency.

Sun, P., Yuan, R. & L. Teng (2015). Understanding L2 French teaching strategies in a non-target language classroom context. *Journal of Education for Teaching*, 41(3): 324-328.

This research explored the congruence and disparity between teachers' and students' attitudes towards French as a second language (L2) teaching strategies in a non-target language classroom context in the USA. The findings suggest students' and teachers' attitudes towards the direct and indirect teaching strategies were generally consistent, but not in terms of the collaborative teaching strategies. The findings also indicate that the beginner and elementary level students held different preferences for all the three teaching strategies. The underlying reasons could be learners' different language proficiency levels, and how well teachers execute these different teaching strategies in class. This study concludes with some implications for foreign language teacher education.

Tang, S.Y.F., Wong, A.K.Y. & M.M.H. Cheng (2015). The preparation of highly motivated and professionally competent teachers in initial teacher education. *Journal of Education for Teaching*, 41(2): 128-144.

Education systems around the world need to recruit highly motivated individuals to become teachers and prepare professionally competent teacher education graduates to take up these broadened and deepened roles and responsibilities with a deep and lasting engagement to the profession. This article reports on a mixed-methods study that examines types of teaching motivation in relation to various facets of professional competence and planned engagement in future teaching. One hundred and thirty-two student teachers of a postgraduate diploma in education programme participated in the quantitative survey of whom seven were interviewed. The quantitative data analysis shows the positive association between "intrinsic-altruistic motivation constellation" and selected facets of professional competence, with "intrinsic-multifaceted and stimulating job nature" as the most distinctive type of teaching motivation. To complement the quantitative findings, the qualitative data analysis reveals two professional orientations of the "intrinsic-altruistic motivation constellation," namely (1) student-centred orientation and (2) subject-centred orientation. In addition, three types of professional development aspirations are identified: "classroom engaged careerists," "highly engaged persisters" and "pessimists." The study provides insights into the design of appropriate ITE practices to support professional learning in the light of student teachers' motivations. It also suggests the importance of matching career opportunities and beginning teachers' professional development aspirations and supporting "pessimists" in the face of the stringent job market.

van Dinther, M., Dochy, F. & M. Segers (2015). The contribution of assessment experiences to student teachers' self-efficacy in competence-based education. *Teaching and Teacher Education*, 49: 45-55.

Earlier research argues that educational programmes based on social cognitive theory are successful in improving students' self-efficacy. Focussing on some formative assessment characteristics, this qualitative research intends to study in-depth how student teachers' assessment experiences contribute to their self-efficacy. We interviewed 15 s year student teachers enrolled in a competence based teacher educational programme. Thematic content analysis results reveal that the assessment characteristics 'authenticity' and 'feedback' exert a positive influence on student teachers self-efficacy during all phases of the portfolio competence assessment. The results provide a fine-grained view of several types of self-efficacy information connected with these assessment phases.

Verberg, C.P.M., Tigelaar, D.E.H. & N. Verloop (2015). Negotiated assessment and teacher learning: An in-depth exploration. *Teaching and Teacher Education*, 49: 138-148.

Opportunities for negotiation in formative assessment may benefit teachers' professional development. Detailed analysis of nine assessment dialogues involving pairs of nursing teachers in secondary vocational education showed that the amount of negotiation was limited. Assessment dialogues provided ample opportunities for negotiation (based on expressed disagreement), but more than half of these opportunities were neglected and hence not used to negotiate learning implications. Participants found it difficult to confront a colleague. Possible reasons for this, also methodological, are discussed with a view to future training, formative assessment and research.

Warren, C.A. and B.K. Hotchkins (2015). Teacher education and the enduring significance of "false empathy". *The Urban Review*, 47(2): 266-292.

The concept "False Empathy" posited by critical race theory luminary Richard Delgado (Calif Law Rev 84(1):61-100, 1996) easily obscures White teacher's good intentions to be effective educators of racially, culturally, and linguistically diverse students. It is argued here that critical race theory is useful for isolating and explaining how race and racism intersect the teaching and learning process. Thus, equipping White teacher candidates with the requisite skills needed to become even more aware of perspectives and behaviors reflective of false empathy. This paper explores how practicing White female teachers' conceptions and expressions of empathy in two separate studies suggest evidence of false empathy. Findings demonstrate that false empathy may show up in three phases of classroom interaction: pre-contact, contact, and post-contact. Implications and recommendations for teacher preparation are discussed.

Willemse, T.M., ten Dam, G., Geijsel, F., van Wessum, L. & M. Volman (2015). Fostering teachers' professional development for citizenship education. *Teaching and Teacher Education*, 49: 118-127.

This article reports of a research project with eleven schools for primary and secondary education in which teachers were involved in collaborative inquiry-based curriculum development for citizenship education. Its main purpose was to get a better grasp of teachers' understanding of citizenship education, what teachers consider the professionalism needed for citizenship education and how this professionalism could be encouraged. The results show an increase of teachers' awareness of citizenship education and its implicit presence in their practices. According to teachers enhancing pedagogical professionalism and practical wisdom with respect to teaching citizenship education takes time, room for experimenting, and the possibility to collaborate and exchange ideas among colleagues.

Wilson, P.H., Sztajn, P., Edgington, C. & M. Myers (2015). Teachers' uses of a learning trajectory in student-centered instructional practices. *Journal of Teacher Education*, 66(3): 227-244.

The growing national attention to students' learning trajectories (LTs) renews the opportunity to explore the ways that teachers may use students' thinking in their instruction. In this article, we examine teachers' learning of two frameworks, one for students' thinking in a particular domain and one for broad student-centered instructional practices, in the context of an elementary grades mathematics professional development setting. As a part of a retrospective analysis of a design experiment, we analyzed 19 lessons of teachers who participated in 60 hr of professional development designed to support their learning of one LT and one framework about student-centered instructional practices. Our findings describe the ways in which teachers brought together these frameworks to enact instructional practices that elicit and use students' mathematical thinking in classroom instruction. We conclude by arguing that LTs can serve as a referent for student-centered instructional practices, bridging guidelines for student-centered instruction with domain-specific understandings of students' thinking for teachers.

Zeichner, K. and C. Peña-Sandoval (2015). Venture philanthropy and teacher education policy in the US: The role of the New Schools Venture Fund. *Teachers College Record*, 117(6).

Background & Purpose: This article focuses on the growing role of venture philanthropy in shaping policy and practice in teacher education in the United States. Our goal is to bring a



greater level of transparency to private influences on public policy and to promote greater discussion and debate in the public arena about alternative solutions to current problems. In this article, we focus on the role of one of the most influential private groups in the United States that invests in education, the New Schools Venture Fund (NSVF), in promoting deregulation and market-based policies.

Research Design: We examine the changing role of philanthropy in education and the role of the NSVF in developing and promoting a bill in the U.S. Congress (the GREAT Act) that would create a system throughout the nation of charter teacher and principal preparation programs called academies. In assessing the wisdom of the GREAT Act, we examine the warrant for claims that education schools have failed in their mission to educate teachers well and the corresponding narrative that entrepreneurial programs emanating from the private sector are the solution.

Conclusions: We reject both the position that the status quo in teacher education is acceptable (a position held by what we term “defenders”) and the position that the current system needs to be “blown up” and replaced by a market economy (“reformers”). We suggest a third position (“transformers”) that we believe will strengthen the U.S. system of public teacher education and provide everyone’s children with high-quality teachers. We conclude with a call for more trenchant dialogue about the policy options before us and for greater transparency about the ways that private interests are influencing public policy and practice in teacher education.

Pendergast, M., May, L., Bingham, G., & Kurumada, K. S. (2015). Acquiring responsive practices: Preservice teachers learn to conduct interactive read-alouds. *Action in Teacher Education*, 37(1), 65-81. <http://dx.doi.org/10.1080/01626620.2014.969851>

Abstract:

As U.S. schools continue to grow more culturally and linguistically diverse, it is important for teacher–educator programs to include pedagogy that promotes engaging learning opportunities for all children. One way these learning opportunities can occur is through interactive read-alouds. Interactive read-alouds provide the teacher and child an opportunity to interact with the text and one another. This article examines how a teacher–educator emphasis on interactive read-alouds guides preservice teacher attention. The authors followed 20 preservice teachers during their first literacy methods course. Analysis of the data yielded two general themes. First, the larger teacher preparation, community-based context drew preservice teacher attention to culturally and linguistically responsive read-aloud practices. Second, preservice teachers tended to blend sociolinguistic awareness with pedagogy when discussing read-alouds.

Summary Prepared by Crystal Wise

Purpose of the Study

The purpose of this study was to examine what preservice teachers attended to while learning to conduct interactive read-alouds in a teacher education program focused on culturally and linguistically responsive practices. Pendergast, May, Bingham, and Kurumada aimed to address the issue that there is a limited amount of research on teacher education programming that prepares to teach culturally and linguistically responsive practices, particularly during read-aloud instruction. Through a sociocultural lens, this study investigated “how interactive read-alouds help preservice teachers develop culturally and linguistically relevant pedagogical practices” (p. 66).

The researchers chose to focus on interactive read-alouds for their potential to inspire rich language and literacy experiences for children. The authors used Barrentine’s (1996) definition of an interactive read-aloud, which describes it as a book reading that “encourages children to interact verbally with the text, peers, and the teacher during the book reading” (p. 66). The authors propose that teacher education programs can better prepare teachers for the linguistically and culturally diverse settings in which they will likely teach by designing programs that focus on building preservice teachers’ linguistic awareness, understanding of language, and instructional language in a culturally and linguistically diverse community-based setting.

Research Question

“What is the nature of preservice teacher attention when interactive read-alouds are emphasized?” (p. 66)

Research Participants

There were two groups of research participants in this study. The first group included 20 preservice teachers; 15 identified as female and 5 identified as male; 12 identified as White, 6 identified as African American, 1 as Asian American and 1 chose not to identify with a racial/ethnic group. The 20 preservice teachers were enrolled in a postbaccalaureate teacher education program that focused on using culturally relevant teaching in urban, high-needs settings. The study was conducted while the teachers were enrolled in their first literacy methods course, which was taught by two of the researchers. The duration of this course was six weeks.

The second group of participants included 20 elementary-grade students whose ages ranged from 5 to 8. The children and their families were refugees from Bhutan, Burma/Myanmar, Eritrea, Iraq, Liberia, and Somalia. Most of the students were English Language Learners (ELLs), but the authors indicate that they could understand their tutors. These students were enrolled in a summer camp for “recently resettled refugee children” (p. 69).

Research Context

Each preservice teacher worked with one elementary student during the literacy methods course to form a tutor-tutee relationship. The preservice teachers pre-planned lessons that included the following literacy components: shared reading, interactive teacher read-alouds, language experience, guided reading, word work, and language play (Hoffman et al., 2009, as cited in Pendergast, May, Bingham, & Kurumada, 2015). There were 12 tutoring sessions.

The preservice teachers participated in lectures and discussion on interactive read-alouds as part of the literacy methods course. The researchers, who also served as course instructors, focused on what they viewed as important aspects of interactive read-aloud, such as “the significance of text selection, allowing for children’s spontaneous contributions, the importance of teacher modeling of own comprehending” (p. 70). The preservice teachers also watched and responded to instructional online videos of expert teachers performing interactive read-alouds. The preservice teachers were also enrolled in a mathematics methods course and classroom management course at this time and had previously taken a six-hour course on culturally responsive pedagogy.

Data Collection

The data set for this study included field notes that were taken during researcher observations of the interactive read alouds and the debriefing portion of class that related to interactive read-alouds. These debriefing sessions featured discussions of lessons, instructional strategies, highlights of effective teaching practices, and the opportunity for the preservice teachers to ask questions or express concerns. Theoretical, methodological and personal notes were also taken. Videos of the preservice teachers conducting interactive read-alouds with their tutee and their responses concerning the success and effectiveness of the read-alouds were collected. A course assignment in which the preservice teachers reflected on the verbal and nonverbal interactions found in a transcription of a small portion of an interactive read-aloud (hereafter, *instructional conversation assignment*) was also collected. End of the course one-on-one semi-structured interviews were also conducted with each preservice teacher.

Data Analysis

The first phase of analysis employed Charmaz’s (2006) grounded theory methods for data analysis. The researchers acknowledged their active involvement in instruction, data collection, analysis, and findings. To begin data analysis, open coding was completed for all video recordings, field notes, daily teaching reflections, and the instructional conversation assignment. The information gathered from these notes informed the one-on-one interview questions.

During the second phase of analysis, the interviews were the focus of analysis. The preservice teachers’ responses to each question were sorted and coded using subject matter topics (i.e., pacing, student engagement, read-aloud as modeling and/or instruction). From there, the researchers engaged in an iterative and recursive process to analyze this data in conjunction with the field notes, reflections, and the instructional conversation assignment.

Findings

The researchers found two themes related to the nature of preservice teacher attention when interactive read-alouds are emphasized:

1. The importance of the larger context of teaching and learning
2. Preservice teachers’ blending of instructional sociolinguistic features and pedagogy when discussing interactive read-alouds (p.72)

The researchers found that the preservice teachers attended to the importance of the larger context of teaching and learning in the following ways:

- The preservice teachers used the knowledge that they were experiencing in the classroom management course to influence their interactive read-alouds with the tutees (p. 72). For example, “all of the preservice teachers discussed classroom management in their interviews, with 75% of the preservice teachers using the language that was taught in their classroom management course” (p. 72). “All preservice teachers noted their child’s interests in particular topics and genres and worked to create and extend lessons based on the child’s enthusiasm” (p. 72). Additionally, 80% of the preservice teachers shared that they increase their tutees’ engagement by “giving them an active role in the read-aloud” (p. 72).
- The preservice teachers’ understanding of interactive read-alouds was influenced by the experience of having the literacy course situated in a community setting where they also received



guidance from instructors and were able to self-reflect (p. 74). For example, initially some preservice teachers attributed their tutee's silence to their English speaking skills, however as the tutees became more familiar with the tutors, the tutees became "less guarded" (p. 73). The preservice teachers also used the literacy course content to become more strategic about book selection and how to prepare for potential cultural elements that may be unfamiliar to their tutee. Nine preservice teachers commented that the opportunity to toggle between learning the literacy teaching methods and performing the interactive read-aloud and receiving feedback on it was beneficial.

- The preservice teachers demonstrated a broad awareness of the "interrelatedness of language, teaching, and learning," but they also attended to the instructional language they used during interactive read-alouds (p. 76). For example, the preservice teachers responded to the vocabulary needs of their multilingual tutees and considered wait time and pacing to provide their tutees the opportunity to translate the information. The preservice teachers also shifted in their instructional language during interactive read-alouds; initially they engaged the tutee with questions, but as they learned more about interactive read-alouds they incorporated more "think alouds" and "I wonder" statements to increase student engagement. Preservice teachers also used prosody and different voices for characters during the interactive read-aloud to increase their tutee's enthusiasm for the read-aloud.

Conclusion

This study suggests that an emphasis on interactive read-alouds in literacy methods courses in teacher education programs can help to focus the preservice teachers' attention on the "linguistic demands of a teacher read-aloud and how comprehension strategy instruction can be used to scaffold student engagement" (p. 77). The researchers also found that the teacher education program's course on culturally and linguistically responsive pedagogy and the emphasis on student engagement and community-based settings contributed to the preservice teachers' success with the interactive read-alouds. The researchers also believe that the structure of the program afforded the preservice teachers the opportunity to attend to not only scaffolding vocabulary and comprehension instruction during the interactive read-aloud, but also sociolinguistic features such as the use of wait time and prosody (p. 77).

Implications

Pendergast et al. believe that, because interactive read-alouds are commonplace in elementary classrooms and have a substantial amount of research to support their potential effectiveness in developing children's language and literacy skills, more educational research is needed to better understand how to support teachers in learning to conduct quality interactive read-alouds. Additionally, Pendergast et al. urge teacher education programs to employ a synergistic structure amongst program components in which preservice teachers can gain access to teaching in linguistically and culturally diverse settings to interact with children in focused and productive ways (p. 78). The researchers of this study are optimistic about the progress that can be made as more teacher education programs create more cohesion and collaboration between the field and courses.

Reeves, T. D., & Honig, S. L. (2015). A classroom data literacy intervention for pre-service teachers. *Teaching and Teacher Education*, 50, 90-101. <http://dx.doi.org/10.1016/j.tate.2015.05.007>

Abstract:

This pretest-posttest study investigated 64 pre-service teachers' perceptions of the impact of a 6-h[our] data literacy intervention, which involved scoring classroom assessments, and analyzing, interpreting, and making decisions based on the data. The study also examined changes in participants' self-reported attitudes and beliefs and objectively-measured data literacy during the intervention. Participant reports suggest that the intervention increased the pre-service teachers' knowledge and skills related to data literacy. Pretest-posttest changes were also observed in three attitudes/beliefs (ds ranged from .34 to .46) and data literacy ($d = .60$). Findings contribute to the small and nascent body of scholarship concerning pre-service data literacy interventions.

Summary Prepared by Nell Duke

Purpose of the Study

The purpose of this study was to examine the impact of instruction in data literacy in the context of a pre-service course on assessment. In this case, data literacy was operationalized as the ability to score, analyze, interpret, and make instructional decisions based on summative classroom assessment data. In a broader discussion of data literacy, the authors explain that

Data literacy is applied to practice during data-driven decision-making, or the data use process. Marsh's (2012, p. 5) [sic] outlined a model of the components of this process: 1) "accessing or collecting data," 2) "filtering, organizing, or analyzing data into information," 3) "combining information with expertise and understanding to build knowledge," 4) "knowing how to respond and taking action or adjusting one's practice," and 5) "assessing the effectiveness of these actions or outcomes that result." (p. 91).

They note that the Council of Chief State School Officers (2012), the Interstate Teacher Assessment and Support Consortium (2011), and the National Council for Accreditation of Teacher Education (2008, 2010) call for development of data literacy.

The authors review research indicating that many in-service teachers have limited skill and confidence in analyzing, interpreting, and making instructional use of data. Research on pre-service teacher education coursework and syllabi suggests limited attention to data literacy. Only four peer-reviewed studies, it is reported, have described data literacy instruction for pre-service teachers, and apparently no studies have examined its impact in a pre-test/post-test design. Studies of efforts to improve data literacy with in-service teachers are more plentiful, but present a complex picture of effects. Based on the literature, the authors identified four characteristics that should be included in the design of data literacy interventions: collaboration, presence of an expert facilitator, "presence of a clear and specific process for data use and reflection embedded in a protocol" (p. 93), and "close alignment of the intervention with individual classroom contexts" (p. 93). The authors sought to include these characteristics in their intervention.

Research Questions

The research questions for the study were:

1. "To what extent do pre-service teachers report that the data literacy intervention increased their knowledge/skills (e.g., data analysis skills)?"
2. To what extent do pre-service teachers report changes in their attitudes toward and beliefs about data and assessment over the course of the intervention?"
3. To what extent do pre-service teachers demonstrate changes in their data literacy over the course of the intervention?"
4. What are pre-service teachers' perceptions of the intervention?" (p. 91)

Research Participants

Participants were 64 pre-service teachers in an elementary teacher preparation program, 46 of

whom completed both a pretest and a posttest. On the basis of having provided informed consent, the 64 were drawn from a larger group of 85 pre-service teachers across two cohorts. Participants were enrolled in a course on assessment in the semester just prior to student teaching. Information collected at pretest indicated that the mean age of participants was 24.1 (SD=5.6), with 90% female, 88 % white, 8% African American, 6% Hispanic/Latino, and 4% two or more races.

Research Context

The six-hour data literacy intervention occurred in the last two three-hour class sessions of the assessment course. Prior to the intervention, pre-service teachers had participated in the following course activities:

- Receiving instruction in “scoring student work, summarizing item- and test-level data (tabularly, graphically, statistically), and disaggregating data by subgroup and content standard/behavioral objective” (p. 93)
- Designing and constructing a traditional assessment
- Designing and constructing a “performance summative assessment” (p. 93)
- Collaboratively revising their assessments
- Completing a two-week full-time clinical experience during which they administered the assessments and collected student work that was later used during the data literacy intervention sessions.

For the first session of the data literacy intervention, pre-service teachers worked on scoring the assessments they had developed and administered, entering the scores into researcher-designed Microsoft Excel spreadsheets, analyzing students’ incorrect responses, and “double-scoring of performance assessments to examine rubric quality and reliability issues” (p. 94). The second session of the data literacy intervention involved pre-service teachers in analyzing and interpreting the data gleaned from the assessments, in part using graphical representation within Microsoft Excel. Students were assigned to interpret the performance of three individual students and the class as a whole, articulating strengths and weaknesses, errors/misconceptions, instructional decisions, and feedback options. “For each inference/decision, students needed to cite evidence (qualitative, tabular, graphical, or statistical)” (p. 94).

Data Collection

Surveys were administered prior to and following the data-literacy intervention (the authors refer to these as the *pretest* and *posttest*). The pretest consisted of demographic questions and two existing instruments: the Conceptions of Assessment III—Abridged’s (COA-III) nine assessment belief scales (Brown, 2006) and the Survey of Educator Data Use’s data attitude and belief scales (SEDU; Wayman, Cho, & Shaw, 2009), with four added researcher-composed items about pre-service teachers’ beliefs about their efficacy with data. The COA-III was scored on a 6-point scale, the SEDU and added items on a 4-point scale. The posttest consisted of these two instruments plus 23 additional researcher-composed items on a 5-point scale regarding pre-service teachers’ perceptions of their knowledge/skills around data analysis, data interpretation, and data-based decision making. There were also six open-ended questions that asked for evaluations of the intervention and 17 dichotomous items about participation in various data-literacy-related activities. Finally, the second cohort of participants were administered 13 items—7 multiple choice and 6 constructed response—that were designed to directly assess their skill in data literacy (e.g., in interpreting graphs and comparing scores across groups and time-points).

Data Analysis

Quantitative analyses involved examination of the reliability of the instrumentation, generation of descriptive statistics, and generation of inferential statistics regarding “whether participants [sic] agreement reports of each intervention impact were significantly non-neutral (one-sample *t*-tests); how the attitude/belief and objective data literacy measures changed over time (dependent samples *t*-tests); and, how concurrent learning experiences were related to participant reports of impact, and [sic] changes in attitudes, beliefs, and objectively-measured data literacy (bivariate *r* correlations)” (p. 96).

Qualitative analyses of the six open-ended questions involved a constant-comparative approach, with the authors citing Glaser and Strauss (1967). The authors provide the example that the following two

responses to the question “Please comment on the most useful aspect of the scoring/data literacy experience” were grouped together: “I feel that it was useful to be able to ask questions and ask for help,” and “Being able to ask questions as I thought of them while we were scoring and analyzing everything.” The researchers identified categories and subthemes and, when constant-comparative analyses were complete, quantified responses by type.

Findings

The scales measuring attitudes and beliefs about assessment showed no statistically significant differences for nine of twelve subscales, although this may be due in part to some high ratings at pretest. The three subscales for which there were statistically significant differences were the COA-III's Assessment is Valid scale ($p < .05$), the COA-III's Assessment Makes Students Accountable scale ($p < .05$), and the SEDU's Data-Self-Efficacy scale ($p < .01$). The effect sizes in d were .35, .34, and .46, respectively. With regard to participants' perception of the impact of the intervention, 22 out of 23 items had mean ratings at or above 4 (“agree”) on a five-point scale, with all means statistically higher than 3/“neutral.” The measure of participants' data literacy skill found statistically significantly higher scores at posttest than pretest ($p < .001$), with a “sizable” effect of $d = .60$.

To examine whether the effects might be attributable to experiences students had related to data literacy beyond those in the data literacy intervention, the researchers created a “concurrent learning experience index by taking the mean of the 17 concurrent learning experience items (KR-20 = .90)” (p. 95). This index was statistically unrelated to 20 out of 23 items on perceptions of the intervention impact, attitude/belief gain scores, and data literacy skill.

Results with respect to pre-service teachers' perceptions of the intervention are summarized in the table below (p. 98).

Table 5
Summary of pre-service teacher perceptions of the intervention.

Survey item					
Please comment on the most useful aspect of the scoring/data literacy experience.					
Response category	Use of Excel to manage and analyze data	Feedback from faculty	Use of graphs to interpret data	Opportunity to learn how to interpret data	Step by step guidance
Number of responses	13	11	7	7	7
Please comment on the least useful aspect of the scoring/data literacy experience.					
Response category	Repetitiveness	Collaboration with peers	Slow pace	Feedback step unnecessary	Use of class time for scoring
Number of responses	9	8	7	2	2
Please comment on what it was like to work with your peers during the scoring/data literacy experience.					
Response category	Helpful (no reason given)	Helpful to get peer feedback	Helpful to compare data	Working with peers was not helpful	Working with peers was not necessary
Number of responses	14	14	6	15	2

Conclusion

The authors conclude that the data literacy intervention positively impacted pre-service teachers' attitudes and beliefs toward assessment, their data literacy skills, and their feelings of self-efficacy related to data. They argue that the results of the analyses involving the concurrent learning experience index “impl[y] that the measured concurrent learning experiences could plausibly explain a few of the intervention impacts, but that it is less plausible that such maturational factors explain the other reported intervention impacts or the pretest-posttest changes” (p. 96).

The authors conclude that the pre-service teachers perceived several features of the intervention to be useful, including the tools for data management, analysis, and interpretation (e.g., researcher-developed Excel documents); the “step-by-step guidance provided during the intervention” (p. 99); and the coaching from faculty members. They note that participants reported mixed views of the experience of collaborating with peers around data literacy tasks and of the appropriateness of the pacing of the intervention.

Implications

The authors state that their findings provide guidance regarding the content of data literacy interventions in the U.S. and abroad. They also suggest directions for future research, including improving



instrumentation for data literacy research, using “stronger (randomized or non-equivalent comparison) designs to help control for other internal validity threats besides maturation such as testing or history” (p. 100), examining impacts on other teacher and student outcomes, “identify[ing] intervention design and implementation factors that are maximally effective and support transfer of training to new teacher practice” (p. 100), examining how data literacy develops during student teaching, and investigating data literacy with other types of assessments, such as large-scale and non-achievement assessments.