



NTACT

National Technical Assistance Center on Transition

Professional Development for Transition

Annotated Bibliography

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What is Professional Development for Transition?

Professional development (PD) is not new to education, however, it is an emerging area of focus within transition. Few studies have been published that specifically offer empirical evidence of the effectiveness of approaches to PD for secondary and transition practitioners. Therefore, this annotated bibliography includes a review of research-based features of PD as evidenced through a broader lens of educational research.

The body of research surrounding PD is diverse and varied, however common threads are evident within published literature describing essential features of PD, which has been defined as *a multifaceted approach for producing gains in educator knowledge and skills directly tied to improved practices and ultimately leading to student achievement and outcomes* (Sindelar, Brownell, & Billingsley, 2010). Designing PD that stands up to this definition requires that there is a focus on ensuring the PD is sustained, intensive, cohort-based, and takes place on the job (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). Others have noted that a community of learners engaged over time in the formal study of instructional strategies will significantly impact student achievement (Joyce & Showers, 2002). For transition PD we have identified and will review empirical research associated with established features of PD:

1. *Content focus* is relevant and aligns with educators' knowledge and beliefs
2. *Active learning* opportunities exist
3. *Team-based* participation among educators
4. *Sustained duration* of PD.

(Darling-Hammond & Baratz-Snowden, 2007; Desimone, 2009).

Why is Professional Development for Transition Planning Important?

In terms of actual practices, both secondary special educators and vocational rehabilitation (VR) counselors have reported possessing a general understanding of transition planning and mandates. Over the past two decades, teachers have consistently rated their level of involvement in transition and IEP planning as moderate

to high but among other essential domains (e.g., interagency collaboration, career development, working with families) they do not feel sufficiently prepared (Benitez, Morningstar, & Frey, 2009; Knott & Asselin, 1999). VR counselors have rated their preparation for career planning as high, however, they tended to rate the frequency with which they engage in career planning and preparation as considerably lower (Plotner, Trach, & Strauser, 2012). Moreover, secondary practitioners are less likely to implement established evidence-based practices and predictors (EBPPs) often due to a lack of training (Mazzotti & Plotner, 2016). Such findings reinforce conclusions that when it comes to transition planning and services, professional development and advanced training strongly influences the implementation of transition planning and services (Morningstar & Benitez, 2013). As evidenced from past research that secondary educators have the skills needed to plan for, but not deliver transition services. Recent studies are emerging examining the impact of transition PD (Flannery, Lombardi, & Kato, 2015). However, the paucity of empirical evidence within transition necessitates a wider annotation of PD research.

What Does the Literature Say About Professional Development for Transition Planning?

The purpose of this annotated bibliography is to summarize relevant research to update practitioners and professional development providers about designing effective and impactful professional development models. Few studies were found specific to transition professional development; therefore, we included a wider review of PD models, limiting our review to studies illustrating the five essential features of PD within education. Given that PD is multifaceted, many of the PD interventions incorporate multiple elements. The remainder of this paper summarizes four studies in the area of transition-focused education, followed by 14 studies of professional development across a range of educational practices.

References

- Benitez, D., Morningstar, M.E., & Frey, B. (2009). A multistate survey of special education teachers' perceptions of their transition competencies. *Career Development for Exceptional Individuals, 32*, 6-16. DOI: 10.1177/0885728808323945
- Darling-Hammond, L. & Baratz-Snowden, J. (2007). A good teacher in every classroom: Preparing the highly qualified teachers our children deserve. *Educational Horizons, 85*, 111-132
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*, 181-199.
- Flannery, K. B., Lombardi, A., & Kato, M. M. (2015). The impact of professional development on the quality of the transition components of IEPs. *Career Development and Transition for Exceptional Individuals, 38*, 14-24.

- Joyce, B., & Showers, J. (2002). *Student achievement through staff development* (3rd edition). Alexandria, VA: Association for Supervisors and Curriculum Development.
- Knott, L., & Asselin, S. B. (1999) Transition competencies: Perception of secondary special education teachers. *Teacher Education and Special Education, 22*, 55-65
- Mazzotti, V. L., & Plotner, A. J. (2016). Implementing secondary transition evidence-based practices a multi-state survey of transition service providers. *Career Development and Transition for Exceptional Individuals, 39*, 12-22.
- Morningstar, M.E., & Benitez, D. (2013). Teacher training matters: The results of a multistate survey of secondary special educators regarding transition from school to adulthood. *Teacher Education and Special Education, 36*, 51-64. DOI: 10.1177/0888406412474022.
- Plotner, A.J., Trach, J.S., & Strauser, D.R. (2012). Vocational rehabilitation counselors' identified transition competencies: Perceived importance, frequency and preparation. *Rehabilitation Counseling Bulletin, 55*, 135-143.
- Sindelar, P. T., Brownell, M. T., & Billingsley, B. (2010). Special education teacher education research: Current status and future directions. *Teacher Education and Special Education, 33*, 8-24.
- Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Dallas, TX. National Staff Development

Transition-Focused Professional Development

Doren, B., Flannery, K. B., Lombardi, A. R., & Kato, M. M. (2012). The impact of professional development and student and teacher characteristics on the quality of postsecondary goals. *Remedial and Special Education, 34*, 215-224.

Researchers analyzed 137 IEPs belonging to 18 teachers to determine if the quality of IEPs improved after completing a professional development intervention that included training and a Professional Learning Community (PLC). Results indicated participating in professional development was linked to improvements in the quality of written postsecondary goal in the IEPs for employment and postsecondary education/training goals. However, teachers did not become fluent in developing postsecondary goals consistently rated at the highest levels or met all of identified quality indicators for transition IEPs.

- Content for training targeted on developing measurable postsecondary goals with initial training focused on several components of transition IEPs: why there is a need for postsecondary goals, transition services, PLAAFP, course of study, and annual IEP goals.
- The professional development comprised critical features of research-based practices:
 - Consistent training with small groups of teachers
 - Two half-day training sessions with four monthly extended learning and practice sessions
 - Practice interspersed over a four-month period of time
 - Active learning and problem-solving activities during training sessions
 - Use of teacher experiences and knowledge throughout training and extended learning
 - Professional learning communities in which a coach facilitated discussion of (a) finding transition assessments, (b) identifying community programs and post-school options, (c) developing and monitoring annual goals, and (d) reviewing of all transition components.
 - Structure of PLC sessions focused on problem solving through discussion, critical analysis of documents, and peer feedback
- Active learning strategies included: applied activities in which teachers self-evaluated postsecondary goals of from their IEPs, revised reflecting quality indicators, and received feedback from peers and trainers.

Flannery, K. B., Lombardi, A., & Kato, M. M. (2015). The impact of professional development on the quality of the transition components of IEPs. *Career Development and Transition for Exceptional Individuals, 38, 14-24.*

The authors conducted a pretest-posttest group experimental design to evaluate the effects of professional development (PD) with 27 special education teachers focusing on the required transition components of an Individual Education Program (IEP). In order to evaluate the efficacy of the PD, the authors examined 302 IEPs (pre and post PD). Results indicated statistically significant improvements in several areas including postsecondary goals for employment (i.e., goals after services, transition assessment, compliant); postsecondary goals for education (i.e., measurable, compliant); postsecondary goals for independent living (i.e., goal occurs after services, measurable, student interests); and course of study (i.e., experiences/activities, courses or skills, experiences/activities and courses or skills).

- Teachers participated in two days of professional development (PD) designed to teach the transition requirements of the IEP
- To ensure cohesive and relevant content, the training was developed with input and guidance from secondary special educators related to measurable postsecondary goals, course of study, present levels of academic and functional performance, and annual IEP goals.
- The 2-day PD included consistent content, scenario examples, active learning with applied practice of review of IEPs, and group discussions.
- Extended learning included six professional learning community (PLC) meetings that were about 90 minutes each.
- Key features of the PLC were the opportunities to (a) engage in extended practice in their school environment, (b) ask additional questions, (c) participate in supportive conversations about their school practices with peers, and (d) receive feedback.

Inge, K. J., Graham, C. W., Erickson, D., Sima, A., West, M., & Cimera, R. E. (2016). Improving the employment outcomes of individuals with traumatic brain injuries: The effectiveness of knowledge translation strategies to impact the use of evidence-based practices by vocational rehabilitation counselors. *Journal of Vocational Rehabilitation, 45, 107-115.*

Researchers compared two methods of professional development (video-based vs. written information) for improvements in vocational rehabilitation counselors' knowledge of supported employment for individual with traumatic brain injury (TBI). Results indicated statistically significant pre- and post-intervention knowledge scores of both groups. Both of the strategies (e.g., pre-recorded YouTube presentations, non-technical briefs) increased participants' knowledge of employment issues related to TBI, and it did not indicate one strategy as more effective.

- Content focus included supported employment for individuals with Traumatic Brain Injury (TBI) with training delivered through two methods for comparison (a) three short (15-20 minute) pre-recorded videos, or (b) three nontechnical written briefs.
- Both groups first completed a pre-test and then once a month for three months, participants received either a link to the webinar or a written brief. At the conclusion of both trainings, participants completed a post-test on their knowledge of employment issues for individuals with TBI.
- Participants worked individually, without collaborating with others or receiving any coaching or personalized or group feedback.

Kim, KH., & Morningstar, M.E. (2007). Enhancing secondary special education teachers' knowledge and competencies in working with culturally and linguistically diverse families through online training. *Career Development for Exceptional Individuals, 30, 116-128.*

This study examined the impact of a self-directed online training module focused on culturally diverse families and teachers' knowledge of and attitudes toward cultural issues of families, as well as, changes in competencies associated with culturally responsive transition practices. Results indicated significant knowledge gain among teachers who participated in online training as compared to the control group who did not receive training. Teacher attitudes and perceived levels of competence did not show significant changes among the two groups.

- Consistent content delivered through a self-directed online module focusing on secondary/transition planning and culturally and linguistically diverse (CLD) students and families.
- The online module consisted of three sessions that included specific learning elements: key points, resources for more information, learning activities targeting critical performance responses, case-based examples requiring reflection and application, and interactive session summaries
- Using a group experimental design (e.g., pre-post-test, control group) researchers investigated the effects of an online training module focused on working with CLD families during transition planning and services on teachers' knowledge, attitudes, and competencies for working with CLD families.

Professional Development Across a Range of Educational Practices

Biancarosa, G., Bryk, A. S., & Dexter, E. R. (2010). Assessing the value-added effects of literacy collaborative professional development on student learning. *The Elementary School Journal*, 111, 7-34.

The authors examined data from a longitudinal study of the Literacy Collaborative (LC) to determine the effects of the introduction of LC professional development in a diverse set of schools. Students in kindergarten through second grade in 17 schools were assessed twice a year using the *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) and *Terra Nova*. Results indicated increasing improvements in student literacy learning over the course of LC implementation. Furthermore, the benefits were sustained through subsequent summers.

- Comprehensive school reform program using school-based literacy coaches to improve elementary children's reading, writing, and language skills.
- PD trained and supported literacy coaches who were teachers selected to lead local instructional improvement efforts. The coaches participated in the Literacy Collaborative (LC) which consisted of a 40-hour course on the comprehensive literacy framework.
- LC was a one-year program; after the first year, trained teachers reduced their teaching time and spend approximately half of their time providing professional development (PD) and coaching to their colleagues.
- After the first year, teachers participated in ongoing courses which offer 10-12 hours of PD each year.
- Site-based PD and coaching: the LC trained and supported the coaches who attended a graduate-level training program while teaching students.
- The program was predicated on a coaching element and involves intensive coaching.
- Intensive coaching included one-on-one time with teachers in classrooms - observing, modeling, and supporting the teachers to develop more skilled practices.
- Coaching utilized a comprehensive approach to literacy instruction that focuses on engaging students with a range of ability levels in reading and writing processes.

Brock, M. E., & Carter, E. W. (2013). Effects of a professional development package to prepare special education paraprofessionals to implement evidence-based practice. *The Journal of Special Education, 49, 39-51*

The purpose of this study was to investigate the effects of a professional development package to prepare special education paraprofessionals to implement the evidence-based practice of time delay and prompting strategies in classrooms. Using a randomized group experimental design, researchers examined the efficacy of a professional development training package to instruct 25 paraprofessionals how to implement time-delay procedures. Results indicated the video modeling plus coaching components were effective; and, coaching alone was more significant than video modeling alone.

- A pre-training workshop was offered to both experimental and comparison groups which focused on teaching participants the steps associated with constant time delay and least-to-most prompting.
- Active participation during the initial 2-hour pre-training workshop included collaborative and active learning (e.g., video demonstrations, participant discussions, role-play activities).
- The experimental group included follow-up training focused on time-delay and simultaneous prompting through three videos introduced during the initial training. Each video included a different exemplar for implementing time delay to teach an academic skill to an elementary school student, a vocational task with a high school student, and a self-help skill to a pre-school student.
- During follow-up trainings, participants watched videos, completed worksheets, and received in-person coaching with modeling and feedback.
- Extended learning included videos mentioned above and one-hour, in-person coaching sessions that occurred 3 to 4 weeks after the initial training workshop and immediately after video modeling for the treatment group.

Browder, D.M., Jimenez, B. A., Mims, P. J., Knight, V. F., Spooner, F., Lee, A., & Flowers, C. (2012). The effects of a "tell-show-try-apply" professional development package on teachers of students with severe developmental disabilities. *Teacher Education and Special Education, 35, 212-227.*

The purpose of this study was to determine the effectiveness of the T-Tell, S-Show, T-Try, and A-Apply (TSTA) method to train teachers to align instruction to grade-level content for students with significant developmental disabilities. Using a within-group experimental design, researchers investigated the effects of a professional development package on special education paraprofessionals ability to implement evidence-based practices. Results indicated participants of the two days of professional development demonstrated increased knowledge of instructional alignment. The group of teachers who practiced applying the skills using products from their classrooms during a 3rd day

of the training were able to use task analytic instruction approaches for literacy-based mathematics, story-based lessons, and inquiry based science modeled in the training and then were able to generalize those skills to their own classrooms.

- Professional development focused on four key strategies (tell-show-try-apply) with different academic content (a) using a story-based lesson for language arts, (b) using a literacy-based lesson for mathematics, and (c) using an inquiry-based science lesson.
 - Story-based lesson for language arts included the following components: adapted books, story-based lesson, and comprehension response.
 - Math lesson included the following components: personal relevance story, graphic organizer, and a task-analysis.
 - Inquiry science included the following components: wonder story, experiment, and KWHL (*Know, Want to know, How will we learn, what we Learned*).
- Active learning and engagement during the professional development included:
 - Providing information on the key findings of the research to date on each topic (T-Tell)
 - Modeling those components for the teachers (S-Show)
 - Teachers use the strategy in a role-play or planning activity (T-Try)
 - Teachers were given specific assignments to apply these strategies with their students (A-Apply).
- Collective participation included teachers modeling strategies with other teachers and participating in the professional development as a group.
- The duration of the training consisted of three, full day on-site trainings (7 hours each)

Brownell, M. T., Lauterbach, A. A., Dingle, M. P., Boardman, A. G., Urbach, J. E., Leko, M. M., ...Park, Y. (2014). Individual and contextual factors influencing special education teacher learning in literacy learning cohorts. *Learning Disability Quarterly, 37, 31-44.*

Using qualitative methodology, the authors evaluated how individual and contextual factors of professional development (PD) influenced special education teachers' learning. The focus of the PD was to (a) increase teachers' knowledge of phonological and orthographic decoding rules, (b) improve teachers' use of instructional and assessment practices in word study and fluency, and (c) assist teachers utilize student assessments to guide instruction.

A major component of the PD revolved around Literacy Learning Cohorts (LLC). Participants were special educators who taught reading to diverse 3rd-5th grade students with reading disabilities. Findings indicated all teachers were able to implement newly acquired strategies; however, integration of the new strategies occurred at various levels for individual teachers. The ability to incorporate new strategies for teaching word study and reading fluency into the teachers' instructional approach was affected by how teachers evaluated their practice with reference to the students' learning needs.

- The PD spanned one year and began with a two and a half-day Professional Development Institute (PDI) that covered several literacy topics.
- Teachers actively engaged in activities such as observing models of effective instruction, practicing Literacy Learning Cohort Strategies (LLC), and using and interpreting two assessments (i.e., CORE and DIBELS)
- The PDI utilized several PD strategies including six monthly cohort meetings where teachers selected strategies to implement based on their students' needs and discussed progress and efforts to implement the identified strategies.
- Another component to the PD was six monthly classroom video observations. After four observations, teachers met with a coach who recommended two to three strategies for improving instruction.

Cantrell, S. C., & Hughes, H. K. (2008). Teacher efficacy and content literacy implementation: An exploration of the effects of extended professional development with coaching. *Journal of Literacy Research, 40*, 95-127.

The purpose of this study was to examine the effects of a yearlong professional development with coaching on sixth and ninth grade teachers' efficacy for literacy instruction by investigating the relationship between teacher efficacy and implementation of a content literacy approach. Using a survey design, researchers interviewed teachers to determine efficacy before and after participation in professional development. Additionally, classroom observations were used to measure teacher's implementation of content literacy practices. Results indicated substantial improvement in teachers' personal and general efficacy for teaching literacy, as well as in teachers' collective efficacy for teaching. Teachers who exhibited higher efficacy prior to participating in professional development were more likely to implement recommended literacy practices.

- Professional development emphasized building teacher efficacy and expertise through reading, writing, and group activities, and supporting teachers' abilities to proficiently use literacy strategies in classrooms.
- Individual and group active learning occurred through reading professional literature, practicing literacy techniques, planning for lessons and units, and reflecting on literacy skills.

- Engagement included modeling of techniques, as well as extensive group work of teams of teachers who explored research, learned literacy-based techniques, and planned instruction and application of techniques with students.
- Monthly coaching visits with teams were held to model, review, and discuss ongoing work, as well as individualized planning sessions.
- Three follow-up meetings throughout the school year were held in addition to the monthly meetings working together to share instructional and student artifacts, explore additional concepts and approaches related to content literacy, and plan for ongoing work.

De Pry, R. L., & Sugai, G. (2002). The effects of active supervision and pre-correction on minor behavioral incidents in a sixth grade general education classroom. *Journal of Behavioral Education, 11*, 155–267.

This study examined the effects of using pre-correction and active teacher supervision on behavioral incidents in a sixth-grade classroom. Using a multiple baseline across behaviors design, researchers trained teachers to identify, teach, and reinforce expected behaviors, as well as to use pre-correction strategies. Results indicated a functional relationship between teacher training on use of planned responding, and a decrease in minor behavioral incidents in the classroom.

- Duration of the professional development included an initial training session lasting 30 minutes. During initiation of the intervention, 45 minute daily coaching sessions occurred prior to the start of the school day. During the second phase of the study, coaching was faded to determine if teachers could continue to evaluate their teaching without direct coaching.
- Active engagement during training and coaching included modeling and practice.
- Coaching sessions occurred daily before the school day began and included sharing student-level data and supporting trend analysis, as well as, using the data to modify instruction.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F., & Yoon, K.S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*, 915–945.

Authors examined the relationship between features of professional development (PD) and self-reported change in teachers’ knowledge, skills, and classroom teaching practices. Results, indicated three core features of PD demonstrating positive effects on teachers’ self-reported knowledge and skills, as well as, classroom practices including (a) content knowledge, (b) opportunities for active learning, and (c) coherence with other learning activities. Additionally, structural PD features identified included the form and

duration of PD activities, as well as, duration and the degree to which PD emphasized group participation.

- Structural features of effective PD
 - Type of activity – workshop, mentoring, coaching, study groups
 - Duration – the length of time spent engaged in a PD and span of time
 - Collective participation – teachers working together
- Core features of effective PD
 - Content – the degree to which PD offers deep understanding of content
 - Active learning – active engagement in meaningful discussion, planning, and practice. Aspects included observing other teachers and being observed; planning for implementation of new approaches; opportunity to review and discuss student work; and leading discussions and producing written work
 - Fostering coherence – the degree to which PD is aligned with teacher practice.

Gregory, A., Allen, J. P., Mikami, A. Y., Hafen, C. A., & Pianta, R. C. (2014). Effects of a professional development program on behavioral engagement of students in middle and high school. *Psychology in the Schools, 51*, 143-163.

Effects of professional development (PD) on academic engagement of middle and high school students was examined. Using a randomized control trial design, researchers investigated the efficacy of PD on student engagement. The program included sustained coaching and systematic feedback. Results indicated teachers receiving the PD had increased student engagement after the one-year program.

- Initial one-day PD focused on principles of adolescent development, strategies to improve interactions, and application of principles to specific classrooms.
- Coaching focused on suggestions for improving teacher behavior and interactions with students with coaching occurring every two weeks during the year-long PD.
- Active learning included discussions of how to apply content to individual classrooms
- Coaching sessions were conducted at a distance, with teachers submitting videotapes for review and feedback. Coaches then sent suggestions back to the teacher with a follow-up telephone meeting to review and discuss changes. An action plan for improvement with goals over the next two-week cycle was developed.
- Team-based participation occurred during initial PD session

Jeanpierre, B., Oberhauser, K., & Freeman, C. (2005). Characteristics of professional development that effect change in secondary science teachers' classroom practices. *Journal of Research in Science Teaching, 42*, 668-690.

A mixed method design examined the extent to which a 2-week residential professional development (PD) experience increased teacher knowledge and use of inquiry. Five groups of teachers and students participated in research institutes. Groups attended a 1-week institute in the summer and fall. Qualitative results described characteristics that successfully translated inquiry to the classroom including deep content and process knowledge aligned with multiple opportunities for practice. Quantitative results indicated a statistically significant number of teachers using inquiry-based instruction after the PD.

- Two week-long institutes (10 hours per day, 50 hours of content delivery) for teams (secondary science teacher and two students)
- Focus of PD was inquiry-based research activities (e.g., short research projects, independent team inquiry project)
- Active learning included: presentations, small group activities, field research projects, discussions about classroom implementation, and group team inquiry research projects.
- Discussion and planning among teachers was a major element of group participation, with the majority of learning and engagement being group-focused
- No coaching strategies or supports were included in this study.

Klingner, J. K., Ahwee, S., Van, G. D., & Hernandez, C. (2004). Closing the gap: Enhancing student outcomes in an urban professional development school. *Teacher Education and Special Education, 27*, 292-306.

Authors described the impact on student achievement of a long-term urban professional development school (PDS). Specifically, the authors examined how the University-School partnership improved student outcomes and narrowed the achievement gap for culturally and linguistically diverse students. Results indicated that over time, students from the PDS school outperformed district grade level scores. Interviews with teachers and administrators highlighted several important aspects; with teachers commenting on specific strategies learned as a result of the partnership.

- The PDS model included a cadre of general education and special education teachers.
- University PDS supports included: (a) teaching on-site courses to teachers in school; placing fulltime practicing interns in the school each year; and (b)

assigning a professor-in-residence (university faculty member) taught on-site courses, facilitated teachers' learning and implementation of research-based practices, modeling and demonstrating practices in classrooms, and observing and providing feedback.

Lane, K. L., Oakes, W. P., Powers, L., Diebold, T., Germer, K., Common, E. A., & Burnsting, M. (2015). Improving teachers' knowledge of functional assessment based interventions: Outcomes of a professional development series. *Education and Treatment of Children, 38*, 93-120.

The purpose of this study was to investigate the effect of a year-long professional development training series that included four sessions of content, coaching, and applied practice. Using a causal comparative design, participants completed pre- and post-training surveys reporting levels of confidence, knowledge, and usefulness of PD. Results included significant improvements in strategies taught.

- The content of PD focused on school-based teams using functional assessment based interventions (FABI).
- Methods of engagement included coaches working with teams of teachers at school sites to examine data, and teach and model procedures, as well as, provide feedback.
- Collective participation focused on team meetings that supported interpreting data, modeling, providing additional instruction, demonstrations, problem-solving, and facilitating discussion of challenges and possible solutions.

McCollum, J. A., Hemmeter, M. L., & Hsieh, W. (2011). Coaching teachers for emergent literacy instruction using performance-based feedback. *Topics in Early Childhood Special Education, 33*, 28-37

This study examined the effect of skill-focused coaching on teachers' use of literacy instruction. Using a group experimental design, researchers examined the impact of initial professional development (PD) sessions plus coaching on literacy instruction of pre-kindergarten teachers. Results indicated the intervention group significantly increased skills in the two of three literacy areas compared to those in the control group. Differences were noted within a general measure of the classroom environment, suggesting PD and coaching may influence general classroom quality. Implications for practice and suggestion for future research were discussed.

- PD included a two-day training prior to the start of the school year, three group meetings during the year, and bi-weekly coaching sessions totaling 15 sessions per teacher.
- Content focused on emergent literacy of children at-risk for reading and learning disability.

- Teachers selected one of three content areas for instruction and coaching.
- Teachers received information on helpful websites and ways to encourage parent involvement in early literacy learning.
- Active learning during coaching sessions included:
 - Pre-observation discussions
 - Observations of teachers' instruction
 - Post-observation meetings to discuss data and track growth over time
 - Discussions of changes for next visit.
- Team-based participation occurred during group meetings throughout the year for teachers to share experiences and discuss improvements.

Ross, J., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of a randomized field trial. *Journal of Educational Research, 101*, 50-60.

This study investigated the effect of professional development on efficacy of sixth grade math teachers. Teachers were randomly assigned to treatment and control conditions in a delayed treatment design. Results indicated teachers in the treatment group outperformed teachers in the control group across three measures of teacher efficacy, including classroom management.

- Duration of the initial PD was a full-day training plus 2-hour follow-up sessions after school and incorporated the following features.
 - Active teacher learning
 - Examples from classroom practice
 - Collaborative activities modeling effective pedagogy
 - Opportunities for reflection
 - Practice and feedback
 - Focus on content
- After initial PD session, teachers applied what they learned and collected artifacts reflecting student critical thinking that they then shared with colleagues.
- Collective participation included modeling instructional strategies, providing feedback, and teacher collaboration.
- During follow-up sessions, teachers shared with each other experiences implementing instructional strategies learned, as well as, feedback to each other.

Sailors, M., & Price, L. R. (2010). Professional development that supports the teaching of cognitive reading strategy instruction. *The Elementary School Journal*, 110, 301-322.

This study compared two models of professional development (PD) designed to improve teachers' practices related to reading achievement using a random-effects, multilevel comparison design. In the first model, teachers attended a 2-day summer workshop. Teachers in the second model attended the same workshop and then received classroom-based support from a reading coach. Results indicated teachers who received additional coaching outperformed teachers who did not receive coaching.

- Content of the PD incorporated fidelity of implementation measured to ensure coaches were implementing the intervention as expected.
- Coaches demonstrated instructional strategies in classrooms, co-taught with teachers, observations, and providing feedback.
- PD was individualized, and did not use a team-based or group approach to learning.

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