The mission of an effective mentoring program for beginning teachers is critical to their successful professional development. In order to successfully prepare veteran teachers for the role of mentor to beginning teachers, a combination of cognitive coaching and Pathwise Performance Assessment (PPA) is suggested. Included in such a staff development program should be an adult cognitive-development/learning-theory component. Such an approach allows the mentor to help the mentee make the transition from inductee to veteran. This type of program challenges the traditional approach to staff development and supports the paradigm shift to a learner-centered view of teaching. This paper discusses one faculty member's participation in a two-credit graduate course, Mentoring Induction-Year Teachers, designed to meet one school district's staff development needs. The program's focus was on the PPA and on developing skills in cognitive coaching whereby teachers could implement the Pathwise framework with a protege. The paper examines: the connection between PPA and cognitive coaching; adult learning theory; Vygotsky's Zone of Proximal Development; Perry's Developmental Scheme (which emphasizes cognitive development in nine positions); women's views on developmental issues; and connections between mentors and mentees. (Contains 25 references.) (SM)
Adult Learning Theory: The Mentoring Connection

Bonnie Williams

The University of Akron, Akron, Ohio
Abstract

The mission of an effective mentoring program for induction-year teachers is critical to their successful professional development. In order to successfully prepare veteran teachers for the daunting role of mentor to the induction-year teacher, a combination of cognitive coaching and Pathwise performance assessment is suggested. Included in such a staff development program should be an adult cognitive development/learning theory component. Such an approach allows the mentor to assist the mentee in making the transition from inductee to veteran. Such a program challenges the traditional approach to staff development and supports the paradigm shift to a learner-centered view of teaching.
Introduction

Reports issued by governmental institutions, business groups, and various commissions emphasize the pivotal role staff development must play in school reform efforts. Nevertheless, the link between staff development and successful educational change calls for a consequential "rethinking" of the traditional approach. Lieberman notes: "What everyone appears to want for students—a wide array of learning opportunities that engage students in experiencing, creating, and solving real problems, using their own experiences, and working with others—is for some reason denied to teachers when they are learners" (1995, p. 591). She further describes the commonalties between students' and teachers' approaches to learning:

[People learn best through active involvement and through thinking about and becoming articulate about what they have learned. Processes, practices, and policies built on this view of learning are at the heart of a more expanded view of teacher development that encourages teachers to involve themselves as learners—in much the same way as they wish their students would (p. 592).]

Darling-Hammond and McLaughlin (1995) suggest that staff development must support a learner-centered view of teaching, a career-long conception of teachers' learning, provision for teachers to reflect critically on their practice, and a shaping of new knowledge and beliefs about content, pedagogy, and learners.

The current paradigm shift in support of staff development contains three powerful transformations, i.e., results-driven education, systems thinking, and constructivism. Results-driven education requires teachers and administrators to acquire new instructional knowledge and skills and to alter their attitudes to the belief that all students can acquire the school's valued outcomes if given sufficient time and appropriate instruction. Results-driven education for students requires results-driven staff
development for educators, i.e., programs that alter instructional behavior in a way that benefits students.

Systems thinking, the second transformation, is described by Senge (1990), as a "discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots" [italics added] (p. 69). Systems thinking offers a language that can restructure how we think about various types of relationships and how organizations change, i.e., seeing interconnectedness and understanding that causality is circular—not a straight line.

Constructivism, the third transformation, exemplifies the belief that learners create their own knowledge structures rather than merely receiving them from others. Knowledge is constructed in the mind of the learner and not simply transmitted from teacher to student. Constructivism is not a theory about instruction, but rather one about knowledge and learning in which the student is a "thinker, creator, and constructor." (Brooks & Brooks, 1993, p. viii) According to Clinchy (1995), young people create their cognitive structures based on their interactions with the world. So, too, adults construct reality based on "schemes"—categories, theories, ways of knowing which provide maps of the world. Learning occurs when events require some adaptive changes in these schemes. The learning of both students and adults is promoted when there is a partial discrepancy between existing cognitive structures and the new experience. While research indicates that these transformations play a pivotal role in the professional development of teachers, the following program serves as a catalyst in this paradigm shift.

Mentoring Induction-Year Teachers
In Spring, 1998, I was invited by James Salzman, Ursuline College, to participate in a two-graduate-credit course—Mentoring Induction-Year Teachers, designed to meet North Royalton City School District’s staff development needs. The program’s focus was twofold. First a framework, Pathwise Performance Assessment (Educational Testing Service, 1995) that delineates the characteristics of effective teaching into four domains, i.e., planning, creating a learning environment, teaching for student learning, and professionalism, was provided identifying teaching behavior based upon a researched knowledge base.

Secondly, the focus turned to developing skills in cognitive coaching whereby teachers could use these skills to implement the Pathwise framework with a protégé. Cognitive coaching (Costa and Garmston, 1994) focuses on three major goals: building trust between coach and colleague; facilitating mutual learning; and enhancing growth toward holonomy, i.e., “individuals acting autonomously while simultaneously acting interdependently with the group” (p. 3).

Providing the Connection Between Pathwise Performance Assessment and Cognitive Coaching

As North Royalton mentors-in-training completed their first Pathwise observations and debriefing, teachers commented positively on the concreteness and clarity of the criteria (Salzman, 1999). However, the continued use of Pathwise did not alleviate the teachers’ concerns about being effective mentors. While the process of Cognitive Coaching focuses on a fluid approach of building trust based upon collaboration and reflective planning, a connection between the two mentoring program components still was missing as teachers asked questions such as, “How am I to partner
with a novice teacher and not create a clone of myself? How do I use the Pathwise Assessment piece in mentoring?” Consequently, the Cognitive Coaching model was modified slightly to include a presentation on adult learning theory in order to sensitize mentors to some of the learning needs their colleagues would need to meet.

**Adult Learning Theory**

The adult learning theory presentation was developed in accordance with the objectives of the Mentoring Induction-Year Teachers’ program, assisting teachers in making the connection between Pathwise Assessment and Cognitive Coaching and also instigating teachers’ self reflection, analysis, and articulation regarding their own classroom experience and journey from novice to veteran teachers. At the heart of the presentation was the beginning teacher’s needs in comparison with the district’s goals, the delivery system, i.e., mentor’s responsibilities, mentor selection criteria and training requirements, and resources, e.g., financial, physical facilities, personnel, etc. Consequently, the components contained in this portion of the mentoring program included the following: the Zone of Proximal Development (ZPD) and constructivism; andragogy, including motivations and barriers to adult learning; Perry’s Development Scheme; Belenky’s Women’s Ways of Knowing; and the mentor ‘connection.’ This eclectic presentation of adult learning theory was chosen as it met the needs of the population and the design of the mentoring program.

**The Zone of Proximal Development**

Central to Vygotsky’s theory of cognitive development is his theoretical construct of the Zone of Proximal Development. Vygotsky proposed that a child’s immediate
potential for cognitive growth is bounded on the lower end by what the child can accomplish on his/her own and on the upper end by what the child can accomplish with the help of a more knowledgeable individual, such as a peer or teacher. This region of immediate potential is the Zone of Proximal Development.

Vygotsky's work principally discusses children, but identical processes can be seen operating in the learning adult. Recognition of this fact allows the creation of effective programs for teacher training and offers guidance for organizational management of systems of assistance. Developmental processes, arising from assisted performance in the ZPD, can be observed not only in the course of development (ontogenesis) of the individual but also in the microgenesis of discrete skills as they develop throughout the life course.

Distinguishing the proximal zone from the development level by contrasting assisted versus unassisted performance has profound implications for educational practice. It is in the proximal zone that teaching may be defined in terms of child development. In Vygotskian terms, teaching is good only when it "awakens and rouses to life those functions which are in a stage of maturing, which lie in the zone of proximal development" (Vygotsky, 1956, p. 278; quoted in Wertsch & Stone, 1985: italics in original).

We can accordingly derive a general definition of teaching as assisting performance though the ZPD; teaching can be said to occur when assistance is offered at points in the ZPD at which performance requires assistance. This being the case, the word mentoring could very well replace teaching in the previous general definition.
During the adult learning portion of the mentoring program earlier this year, veteran teachers were asked to recall their first year of teaching, identify their needs, and express the feelings those needs provoked. They were also asked to identify someone who served as a mentor to them, the appropriate assistance they provided, and the characteristics they admired in the mentor. After reviewing the Zone of Proximal Development, teachers were asked to relate their induction year examples to the four stages of the ZPD, i.e., where performance is assisted by more capable individuals (professors, cooperating teachers, mentors, etc.); where performance is guided and directed by self (passing of control from the expert (mentor) to the novice); where performance is developed and automatized, i.e., where performance is no longer developing—it has developed; and the final stage where de-automatization of performance leads to recursion back through the ZPD. Discussion followed regarding teachers’ professional development and lifelong learning pursuits whereby any individual repeats the same regulated ZPD sequences from other-assistance to self-assistance for the development of new capacities.

Mentor program participants were then asked an often-repeated question, “Why do first-year teachers make the statement: I learned more during student- or first-year teaching than I did during my entire undergraduate experience?” In the ensuing discussion regarding reasons/fallacies surrounding this statement and the importance of socially constructed knowledge, the group discussed first-year teachers’ barriers to learning and successful teaching and their personal reflections involving motivations and barriers to entering the teaching profession. Coincidentally, three main issues discussed are also supported by educational literature. First, the issue was change in the definition
of oneself. The novice exchanges the familiar status of college student for that of
teacher. He/she establishes and becomes comfortable with a new identity and leadership
expectations and adjustments. The new teacher looks to colleagues to model appropriate
professionalism, e.g., behavior, lifestyle, dress, etc. According to Barocas,
Reichman, Schewel, Belkin and Nass (cited in Camp & Heath-Camp, 1991), this stage is
characterized by insecurity, false starts, and instability.

Secondly, the novice teacher experiences the novelty of a totally new situation.
At different points in his career, the teacher demonstrates varying degrees of knowledge,
skills, and attitudes (Burden, 1982). Most beginning teachers, or novices, are recent
college graduates in the exploratory-trial stage, i.e., the stage of beginning adulthood,
involving transition from schooling to work. Provided the college experience was
successful, the novice teacher looks forward to a successful first year of teaching.
Accustomed to academic success, he/she does not always anticipate problems. Schools
are familiar settings; however, reality from the other side of the desk may be much
different. When problems arise, e.g., managing
students, relating to colleagues and parents, etc., the novice becomes dismayed and
blames himself, others, the alma mater where teacher training occurred, etc. The first-
year teacher regards problems as personal failures. Discouragement may overtake the
novice teacher without a support mechanism and counsel firmly in place. The first-year
experience is also a frequent factor in the decision whether or not to remain in the
profession (Ryan, 1979; Zumwalt, 1984).

Thirdly, a change occurs in interpersonal support networks. The change from
college student to teacher affects relationships with parents, college professors, friends,
etc. Decisions must be made without the assistance of those in the former support network; therefore, their first step into adulthood requires a new set of personal relationships. The group became acutely aware of the importance of providing opportunities for novice teachers to think aloud and examine their intentions.

In effect, we give the "...hardest job to the least experienced..." (ASCD Update, 1987, p.6). A letter written by a mentor teacher describing her frustrating but enlightening mentor-protege experience proved to corroborate that the teaching profession is one of the very few, if not the only profession, in which beginners are expected to assume full responsibilities the first day on the job (Huling-Austin, 1988) and are assigned multiple preparations, lower-ability students, and no permanent classroom (Beginning Teacher Induction Plan for Texas Schools, 1988). As beginning teachers confront authentic classroom problems, mentors provide assistance in solving problems that might otherwise be insoluble.

"The implications of constructivism for staff development are thus profound: constructivist classrooms cannot be created through transmittal forms of staff development" (Sparks & Hirsh, 1997, p.11). Constructivist practices must be modeled in staff development if teachers are to be convinced of the
validity of those practices and to understand them well enough to integrate them into their classrooms. Sparks and Hirsh elaborate further:

Rather than receiving “knowledge” imparted by “experts” in training sessions, teachers/administrators make sense of teaching by collaborating with peers, researchers, and their own students in making sense of the teaching/learning process in their own contexts. Staff development from a constructivist perspective will include activities such as action research, conversations with peers about the beliefs and assumptions that guide their instruction, and reflective practices such as journal keeping . . . (p. 11)

**Perry’s Developmental Scheme**

Piaget’s childhood cognitive development stages, i.e., sensory motor, preoperational, concrete and formal operational, laid a foundation for our understanding of adult cognitive development emphasizing the active role of the person in constructing his or her knowledge. Piaget provided useful insights into how adults solve ‘real life’ personal problems and emphasized the need for active learning as opposed to far less meaningful passive learning.

Perry’s Developmental Scheme emphasizes cognitive development in nine positions, with each position representing a qualitatively different way of interpreting learning experiences, i.e., different points of view with which to look at the world. Each of the positions is hierarchical and sequential and moves from the simple thinking patterns (dualistic—right/wrong) to the complex (perceiving and evaluating knowledge). People move from dualistic thinking to an acceptance of knowledge/values as relativistic. In other words, it is important to understand that the context of knowledge is as important as the knowledge itself. Consequently, each of Perry’s schema are shades of dialectic
thinking—shades of acceptance of alternative truths or contradictions/paradoxes that abound in everyday life.

Perry’s work relates to the mentoring relationship. Constructivist mentors encourage and accept the beginning teacher’s autonomy and initiative; allow responses to drive learning; shift instructional strategies, and alter content; inquire about understanding of concepts before sharing their own understanding of those concepts; encourage engagement in dialogue, foster inquiry by asking thoughtful, open-ended questions, seek elaboration of the novice’s initial responses, engage the novice teacher in experiences that might engender contradictions to their initial hypotheses and then encourage discussion; provide time for construction of relationships and nurture the novice’s natural curiosity.

Women’s Ways of Knowing

In reaction to Perry’s (1970) work in which only male samples were used, researchers became interested in hearing the women’s voices on developmental issues. The most prominent sample of women’s studies is “Women’s Ways of Knowing” (Goldberger, et al. 1996). Women were interviewed from diverse social and ethnic backgrounds from two major settings, i.e., different types of academic institutions and parenting classes. Again, each of the positions is hierarchical and sequential and moves from the lowest thinking pattern, (silence, a position in which women experience themselves as mindless, voiceless, and defined by others), to the highest level, (constructed knowledge, a position in which women view knowledge as contextual and
where they can be creators of knowledge and value both subjective and objective strategies for knowing which are characterized by an authentic voice).

Mentor "Connection"

Parkay (1988) indicated that mentoring relationships form best when a similar style of thinking is shared between the mentor and protégé. Within the educational discourse community, this translates to matching the teaching styles and ideologies of the mentor and novice. Constructive, productive relationships between mentor and novice are formulated with like-minded teaching approaches which, in turn, foster intellectual and professional growth.

Demographically, several studies indicate that the sex of the mentor and novice teacher should be the same (Hunt & Michael, 1983; Kram, 1983) and that an older mentor should be assigned to the novice teacher (Levinson, 1978). Nevertheless, mentoring influences come in various forms. Darling (1985) distinguishes between mentoring, the process by which you are guided, taught, and influenced in your life's work in important ways (p. 42), and a mentor, the person who leads, guides, and advises a person more junior in experience (p. 42). Darling suggests cultivation of a network of secondary mentors or a mentoring mosaic, which will strengthen weak ties and prevent the exclusion of various mentoring strategies as well as a solitary focus on the primary, traditional mentor (Darling, 1985; Granovetter, 1973).

Realistically, school districts cannot always pair the mentor and novice ideally according to sex and age spread and need to be more concerned with the pedagogical expertise, extensive content knowledge, and personal characteristics, e.g., nurturing skills...
and sensitivity, required in selecting appropriate mentors from their pool of veteran teachers.

Head, Reiman, an Thies-Sprinthall (1992) have stated that the heart and soul of mentoring is an outgrowth of a personal belief in the value and worth of people and an attitude toward teaching that focuses on 'passing the torch' to the next generation of teachers.

Conclusion

More than the literature itself, my participation in the Mentoring Induction-Year Teachers’ Program has convinced me that the mission of the program is essential to the successful professional development of mentors. I believe that the program’s focus on Pathwise Performance Assessment and Cognitive Coaching has a pivotal role in the current paradigm shift in staff development and must include an adult cognitive development/learning theory piece in order for mentors to see the connection and the transition from one component to the other. This program has ‘rethought’ the traditional approach of staff development and has implemented new strategies and methodologies to meet the need of today’s challenging mentor role.
References


Beginning Teacher Induction Plan for Texas Schools. (1988, November 8). Draft


I. DOCUMENT IDENTIFICATION:

<table>
<thead>
<tr>
<th>Title:</th>
<th>Adult Learning Theory: The Mentoring Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s):</td>
<td>Bonnie Williams</td>
</tr>
<tr>
<td>Corporate Source:</td>
<td>University of Akron</td>
</tr>
</tbody>
</table>

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

- Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.
- Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC collection subscribers only.
- Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Bonnie Williams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed Name/Position/Title:</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Organization:</td>
<td>University of Akron</td>
</tr>
<tr>
<td>Address:</td>
<td>Akron, OH 44325-6201</td>
</tr>
<tr>
<td>Phone:</td>
<td>(330) 972-8851</td>
</tr>
<tr>
<td>Fax:</td>
<td>(330) 972-6779</td>
</tr>
</tbody>
</table>
III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com