Focus on
Basics
CONNECTING RESEARCH & PRACTICE

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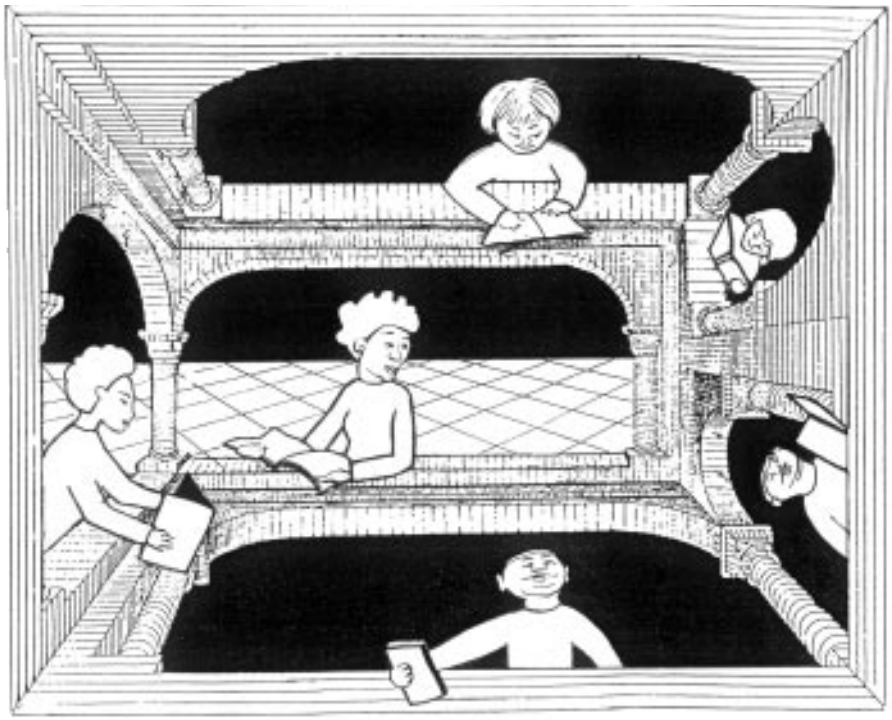

Findings From the Adult Development Research Study

Adult development has much to offer adult educators: it provides one more window through which we can understand learners and therefore better meet their needs. The NCSALL Adult Development Research Group study examined how the developmental levels of learners shape their experiences in their literacy programs. The research team views adult development as an interactive process between the individual and the environment, with adults moving from simpler to more complex ways of understanding the world. Concrete acts shape and organize the world of Instrumental adults; Socializing adults understand the world in relation to other persons or ideas; while Self-Authoring adults prioritize and integrate competing values according to their own ideology. Turn to page 3 for an overview of the research; separate articles on each of three findings follow on pages 7, 10, and 15. On page 23, two teachers whose learners participated in the study talk about their experiences. —Editor

Focus on Basics is the quarterly publication of the National Center for the Study of Adult Learning and Literacy. It presents best practices, current research on adult learning and literacy, and how research is used by adult basic education teachers, counselors, program administrators, and policymakers. *Focus on Basics* is dedicated to connecting research with practice, to connecting teachers with research and researchers with the reality of the classroom, and by doing so, making adult basic education research more relevant to the field.

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NCSALL
National Center for the Study of Adult Learning and Literacy

WORLD EDUCATION

Welcome!

Being the parent of two youngish children (6 and 8), child development is often on my mind. I subscribe to stage theory, as in "one I hope he'll move out of soon" and "it's only a . . .". I never thought about adult development and its role in my instructional choices when I was a classroom teacher, but, after putting this issue of *Focus on Basics* together, if I return to the classroom or to training teachers, I will.

As in most fields of research and theory, adult development has a variety of "camps" — different schools of thought on how adults develop — four of which are described by Lisa Baumgartner in the article that starts on page 29. Behavioristic / mechanistic; psychological / cognitive; contextual / sociocultural; and integrated, Lisa points out that our teaching choices reflect the school of thought we subscribe to, whether that subscription is conscious or not.

The NCSALL Adult Development Research Group takes that concept one step further. They suggest that, since adult basic education classes are comprised of learners at a variety of developmental levels, educators need to ensure that their program design and instruction supports learners at all developmental levels. Their research findings also reveal that the group plays an important part in supporting learners, regardless of developmental levels. Read about their research and related findings, then learn how Sylvia Greene and Matthew Puma, Massachusetts teachers, support the developmental growth of their learners in the interviews on page 23.

Carol Eades, of Kentucky, shares techniques she uses to support learners' developmental transformation in the article that begins on page 26. At TV411, Debby D'Amico and Mary Ann Capehart explore the dynamics that occurred in a group of learners who, working with a facilitator, used specially designed television shows and related materials as instructional guides. See this article and a commentary on the developmental theories implicit in TV411 in the section starting on page 41.

* * *

You can discuss the findings of the NCSALL Adult Development Research — and all NCSALL's research — via the *Focus on Basics* electronic discussion list. The researchers are eager to get feedback and answer questions about their work. See page 22 for information on how to participate.

Sincerely,

Barbara Garner

Barbara Garner
Editor

Describing the NCSALL Adult Development Research

by Eleanor Drago-Severson, Deborah Helsing, Robert Kegan, Maria Broderick, Kathryn Portnow, & Nancy Popp

How adult learners experience what we call "program learning" was the focus of the NCSALL Adult Development Research Group's two-year study. Program learning refers to how learners experience learning in their programs; how this learning transfers to their social roles as parents, workers, or learners; the ways in which learners experience program supports and challenges to their learning; and how this learning helps them to change. By listening to adult basic education (ABE) participants' experiences over the course of a year or more, the Adult Development Research Group was able to trace their processes of learning and, in some cases, transformation.

Research Sites and Participants

During 1998-1999, we evaluated a group of 41 adult learners from around the world who were enrolled in three different US ABE programs: a community college, a family literacy site, and a workplace site. The participant sample was diverse with respect to race, ethnicity, age, past educational experiences, socioeconomic status, and social roles. Of the participants, 38 were nonnative speakers of English.

At Bunker Hill Community College (BHCC), in Charlestown, MA, we studied how a group of recently immigrated young adults, who were mostly in their late teens or early 20s, experienced a pilot program aimed at helping them become better prepared for academic coursework in college. These learners were enrolled in the same two classes at BHCC during their first semester (i.e., an English for speakers of other languages ((ESOL)) class and an introductory psychology class designed for ESOL learners). During the second semester the group disbanded, and learners independently selected courses from the full range of academic courses available at BHCC.

At the Even Start Family Literacy Program in Cambridge, MA, we evaluated one group of parents who were members of a pre-General Educational Development (GED) class, and another parent group enrolled in an ESOL class. These parents, who were mostly in their 30s, had emigrated from various countries and been living in the United States for an average of nine years. Family members in this program also had at least one child who attended the Family Literacy Program.

At the Polaroid Corporation, Norwood, MA, we studied a group of workers who participated in a 14-month Adult Diploma Program designed and delivered by the Continuing Education Institute (CEI) of Watertown, MA. Most of these learners were in their 30s and 40s, had lived in the United States for more than 20 years, were married, and had children.

Site Selection Criteria

As developmental psychologists and educators, we embarked on a process-based research study: our focus was to understand the processes of students' learning more than the content of what they learned. The sites we chose were running programs widely considered to be best practice (see e.g., Harbison & Kegan, 1999). Best practice programs are commonly celebrated because they use effective methods for achieving excellent and targeted results, and because such model programs often set benchmarks or standards for other programs to emulate (Hammer & Champy, 1993). In our case, we selected programs that were longer term (nine to 14 months), enabling us to explore long-term growth in students' understanding, and allowing us to examine the developmental dimensions of transformational learning.

We also looked for programs that intentionally incorporated a variety of supports and challenges to facilitate adult learning, including, for example, tutoring, advising, and technological support for learners. As part of our research process, we examined how program design, teacher practice, learner expectations, and curricula might support and challenge learners with different ways of knowing and possibly lead to transformation. We selected

continued on page 4

Adult Development Research

continued from page 3

programs that supported the enhancement of adults' specific role competency in one of three social roles: student, parent, and worker. For example, at Bunker Hill Community College we could study the role of student. We selected Polaroid to study the role of worker and an Even Start Family Literacy site to study the role of parent. We examined the ways in which participants, over time, reported program learning as helping them to perform their specific social roles differently.

Research Questions

Prior studies that have used Robert Kegan's theory of adult development (see page 5) and research methods have largely been composed of white, highly educated, middle class adults who speak English as their first language. Our research study extends the use of this framework to ABE settings and applies a constructive developmental perspective of adult growth and learning to a sample of adults who are **not** economically privileged, mostly **not** native-born American, and mostly **non**native English speakers. This study was, therefore, among other things, an attempt to understand whether and how this particular theory of adult development could be extended to a very different population from that in which it was originally formulated.

By looking at the developmental dimensions of transformational learning, we sought to examine, both from the learners' and our developmental perspective, how the mix of supports and challenges provided by the three programs helped these adults in their learning. While the findings for all these research questions are not presented in the following three articles, these are questions that guided our exploration:

1. How does developmental level (i.e., way of knowing) shape adults' experiences and definitions of the core roles they take on as learners, parents, and workers?

What are the similarities in the ways in which adults at similar levels of development construct the role demands and supports in each of these domains?

2. How do adult learners' ways of knowing shape their experience and definition of programs dedicated to increasing their role competence?

What are adult learners' motives for learning, definitions of success, conceptions of the learners' role, and understandings of their teachers' relationship to their learning?

3. What educational practices and processes contribute to changes in the learner's relationship to learning (vis-à-vis motive, efficacy, and meaning system) and specifically to any reconceptualizations of core roles?

4. To what extent does the level of people's development or transformation predict their success or competence?

Are the similarities in experiences across roles related to developmental levels (i.e., ways of knowing)?

Methodology

We used a variety of data collection methods and tools, including qualitative interviews, structured exercises, classroom observations, focus groups, and quantitative survey measures and Likert scales that we administered to each adult learner on at least three different occasions during the study. Although we considered interviewing each adult learner in his or her first language, because of the diversity of our sample across the three research sites and the expense associated with hiring interviewers who spoke each of the represented languages, this was not feasible. All interviews were administered individually, in English.

Talking with the same adult learners at different points over the course of a year or more helped us to learn about their internal experiences of change and any ways in which their views had changed. For example, during each visit we asked participants about what makes a good student, what makes a good teacher, and how program learning was helping them in their social role. In other NCSALL publications (see Kegan et al., 2001), we discuss more fully what the processes of transformational learning looked like, how learners with different ways of knowing experienced such processes, and the practices that learners named as support to these changes.

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Our Developmental Perspective

We employed a constructive developmental perspective of growth, based on the work of psychologist Robert Kegan (1982, 1994), to understand: how the adults in this study experienced — or made sense of — what they learned in their programs; and the supports and challenges they named as facilitating their growth. Our perspective is informed by the past 30 years of research in the field of adult development, which suggests that developmental principles can be applied to adults (Basseches, 1984; Belenky et al., 1986; Daloz, 1986; Kegan 1982, 1994; Kohlberg, 1984; Piaget, 1952; Weathersby, 1976).

The first premise in a constructive developmental perspective is that **growth and development are lifelong processes.** Growth does not end in adolescence; as adults we continue to grow and develop. Another is that these **growth processes are gradual and in the direction of greater complexity.** Adults evolve from one way of knowing, or underlying meaning system, to another more complex way of knowing at their own pace and depending on the available supports and challenges. While these developmental processes are sequential, people of similar ages and phases of their lives can be at different places in their development (Broderick, 1996; Drago-Severson, 1996; Goodman, 1983; Kegan, 1982; Popp, 1998; Portnow, 1996; Portnow et al., 1998; Stein, 2000). Moving from one developmental stage to another is a progression of increasing

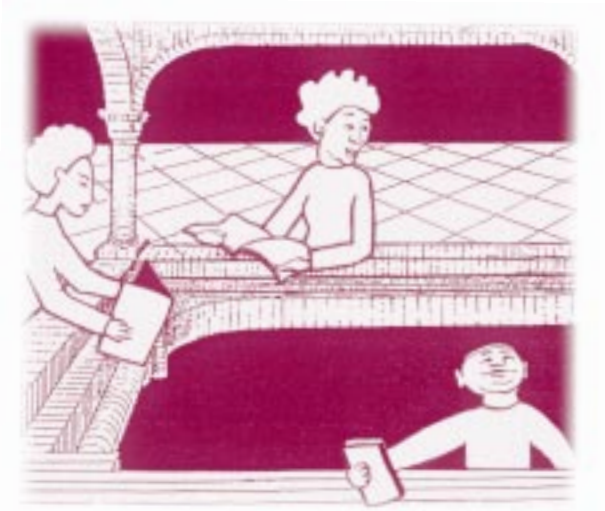
continued on page 6

Our Perspective

continued from page 5

complexity in an individual's cognitive, emotional, interpersonal, and intrapersonal capacities. Each stage includes the capacities of the prior stage, but adds new capacities as well. Some readers may wonder therefore whether we are suggesting that a higher stage is necessarily a better stage. We prefer to look at this question in terms of the natural learning challenges (or "hidden curricula") people face in their lives. If the complexity of one's meaning system is sufficient to meet the challenges one faces, it would not necessarily be better to construct a more complex meaning system. But if the complexity one faces outstrips the current complexity of one's meaning system, a change in one's meaning system in the direction of greater complexity **would** indeed be better, in the practical sense. We do **not** believe that a person is a better person for having a more complex meaning system.

Development, from our point of view, involves more than learning new skills or acquiring new knowledge, which we refer to as informational learning. Development also involves transformational learning: a qualitative shift in how people know and understand themselves, their worlds, and the relationship between the two. Transformational learning enables people to take broader perspectives on themselves (seeing and understanding different aspects of the self) and others (Cranton, 1994; Kegan, 1982, 1994; Kegan & Lahey, 2001; Mezirow, 1991). In our view, transformational change is intimately linked to the way in which people conceive of their adult responsibilities. This transformational learning, which underlies changes in how people construe their roles, helps them enhance their capacities to manage better the complexities of their daily lives as learners, parents, and workers. In our view, transformational development occurs across domains. Therefore, people tend to, but do not always, exercise the same meaning systems across all domains of life.



To understand how adults made sense of and interpreted their experience, we used a framework (Kegan 1982, 1994) that considers the way people *construct* — or make sense of — the reality in which they live, and the way these constructions can change or develop over time. We refer to an adult's underlying meaning system — through which all experience is filtered and understood — as a way of knowing or a developmental level. People's ways of knowing organize how they understand their experience of themselves, others, and life events and situations. Our ways of knowing may feel more to us like the way we are; and the world we construct through our way of knowing may seem to us less the way things look to us, and more like the way things are.

Each way of knowing has its own logic, which is different from and builds upon the previous logic by incorporating the former into its new meaning system. We are all engaged in the universal and continuing processes of meaning making. Understanding how a person is making sense of her world creates an opportunity to join her and offer support in a way that she will experience as being supportive. Three qualitatively different ways of knowing (and several identifiable transition points between any two) are most prevalent in adulthood: the Instrumental, the Socializing, and the Self-Authoring. Instrumental learners tend toward a concrete, external, and transactive orientation to the world. To Socializing learners, the self is identified with its relationship to others or to ideas. Self-Authoring knowers take responsibility for and ownership of their own internal authority.

People's ways of knowing shape how they understand their responsibilities as students and how they think about what makes a good student. It also frames how adults think about themselves as family members, learners, and workers. We used this lens in our research analysis to understand how participants made sense of their motives and goals for learning, expectations of themselves as learners and for their teachers, supports and challenges to their learning, and sense of themselves in their social roles. This framework also allowed us to trace how participants' sense making changed — and grew more complex — over time. ❖

Three Developmentally Different Types of Learners

by Eleanor Drago-Severson, Deborah Helsing, Robert Kegan, Maria Broderick, Nancy Popp, & Kathryn Portnow

How is it that the very same curriculum, classroom activities, or teaching behaviors can leave some learners feeling excited and their needs well met, while others feel deserted or lost? Research findings from the NCSALL Adult Development Research shed some light on this question. Despite similarities in the study participants, all of whom were participating in adult basic education (ABE) programs, the students demonstrated a diversity of ways of knowing. In this article, the NCSALL Adult Development Research Group demonstrate how a developmental perspective can be a tool for better understanding how adults make sense of the learning they experience in their programs. Our intention is to broaden conceptions about how to support adult learners in their educational processes.

Diversity of Learners' Ways of Knowing

Learners in any one of the three research settings in which we gathered data (see page 3 for a description of the study) were primarily of similar age and oriented to a common and particular social role (e.g., at one site, all participants were parents, at another, all participants were workers). We nevertheless discovered a diversity in learners' ways of knowing in each site. At the same time, the learners demonstrated a range of ways of knowing similar to the range found in previous studies with samples of native English-speaking adults with similarly widespread socioeconomic status (see e.g., Kegan, 1994). For example, at each of our research sites, an Instrumental way of knowing was dominant for at least one learner. At each of the sites, Self-Authoring ways of knowing were dominant for several learners. At all three sites, the majority of learners demonstrated some degree of a Socializing way of knowing (a person can have two ways of knowing operating at the same time). Instrumental knowers tend toward a concrete, external, and transactive orientation to the world; Socializing knowers identify self through its relation to other persons or ideas; and Self-Authoring knowers take responsibility for and ownership of their own internal authority. The differences in complexity of learners' ways of knowing were not highly associated with level of formal education. That is, some learners with limited formal education nonetheless demonstrated developmentally complex ways of knowing.

Interesting similarities and patterns emerged both within and across sites that illuminate how learners bound by a particular way of knowing commonly understood their program learning experiences, themselves as students, teacher expectations, and their social roles. Adults of markedly different ages, from very different cultures, and from different parts of the world shared these commonalities. Furthermore, people of similar ages or from similar cultural backgrounds were sometimes differentiated by very different ways of knowing. Hence a "new pluralism" of significance for the teacher emerges: that of developmental level. Tables 1 and 2 on pages 8 and 9 illustrate how, across all three sites, learners who shared a way of knowing demonstrated similar understanding in their conceptions of good students and good teachers.

> *"This less visible form of diversity in adults' ways of knowing is one aspect of what we call a* ***new pluralism.*** *"*

Implications

Our findings teach us that ABE and English for speakers of other languages (ESOL) classrooms are likely to be populated by adults with a range of qualitatively different ways of making sense of their experiences. Therefore, teachers and programs that recognize students' developmental

diversity and support their growth accordingly will be especially effective. Attention paid to development may allow ABE and ESOL programs to better scaffold students who have a diversity of learning needs and ways of knowing.

In our study, we found that participants' experiences varied across different ways of knowing, and that there were intriguing commonalities among the experiences of learners who shared a particular way of knowing. This less visible form of diversity in adults' ways of knowing is one aspect of what we call a "new pluralism." The diversity of learners' ways of knowing that will likely exist in any ABE or ESOL classroom calls for what constitutes the second aspect of our new pluralism. Educators need to be mindful of and orient toward this new variable by including a variety — or plurality — of pedagogical approaches in their classroom practice.

A final aspect of our new pluralism is that a person's way of knowing can become more complex (i.e., change) if she or he is provided with developmentally appropriate supports and challenges. Attending to the diversity of ways in which adults interpret and make sense of their experience — in addition to other more visible types of diversity — can provide new and important insights into learners' experiences.

To return to our opening

Table 1: **Learners' Constructions of Good Students (across all three sites)**

Way of Knowing	Good Students . . .	Sample Quotations
Instrumental Knowers	Study hard, follow clear directions and rules provided by teachers. Gather a lot of information and skills (i.e., knowledge is constructed as an accumulation of facts and skills). Focus on finding the right answers and the right ways to do things. Do well academically and they assess this by getting good grades, which are assigned by teachers.	"If we spend some time and we study much, there will be no difficulty." A good student will "come on time, do your homework, respect the teacher, you do what she told you to do." Good students "get the right answers," and in taking notes, "write down [the explanation] exactly."
Socializing Knowers	Have the right internal characteristics to learn. Maintain positive attitudes about themselves and the subjects they are studying. Rely on their teachers to tell them what they should know.	"The more [students] are open, they learn new things." Good students feel "comfortable" and "self-confident." "I always ask my teacher, and he always explain, and I think this is wonderful."
Self-Authoring Knowers	Can create and explain their own complex ideas. Are comfortable holding ideas or opinions that differ from their teachers'. Can evaluate their own learning experiences by how well they meet their self-constructed goals. Are able to take responsibility for their own learning.	"I can use the English writing to express my thought, my feeling." "I have a deep impression that I can talk it." "No matter how good teacher you have, if you don't want to learn, you're not going to learn nothing." "Before I thought… teachers [were] supposed to know… But now I know it's up to me."

Table compiled by Deborah Helsing.

question, familiarity with learners' different ways of knowing may help to explain how the very same curriculum, classroom activities, or teaching behaviors can leave some learners feeling excited and their needs well-met while others feel deserted or lost. In such cases, teachers may unknowingly be using materials or teaching strategies attuned to one way of knowing while neglecting others. For example, asking one student to critique another student's idea may be threatening to a Socializing knower, who depends on feeling a sense of empathy and agreement with her peers. Teaching the English language only as a collection of specific and concrete rules to be learned may leave both Socializing and Self-Authoring learners feeling frustrated, while an Instrumental learner may feel comfortable. A teacher's enhanced capacity to support all students in a class, across a range of ways of knowing, can increase the chances of more students feeling recognized and valued for the meanings they

Table 2: **Learners' Constructions of Good Teachers (across all three sites)**

Way of Knowing	Good Teachers . . .	Sample Quotations
Instrumental Knowers	Show them how to learn. *Give* them their knowledge and the rules they need to follow to get the right answers.	Good teachers… "give you that little push;" "make me learn." "Explain how do to it, ask you write it down, and you write down exactly how to do it. Then we'd do it."
Socializing Knowers	Care about them. Explain things to help them understand. Really listen and support them. *Know* what is good for them to know, and they tell them what they *should* know. Have certain qualities: kind, patient and encouraging. Acknowledge when the learner has learned something.	"If you don't have a good teacher, you're not going to be self-confident." "If [the teacher] doesn't teach you the way you learn good, that doesn't help you." Good teachers "keep explaining things in different ways, show you different ways to learn." "…help you feel important and accepted… never forget you." Good teachers have a "kind heart." "…don't give up on students. You can ask her anything—she's interested in your learning. She cares so much."
Self-Authoring Knowers	Are one source of knowledge, and they see themselves and their classmates as other sources. Listen to the feedback these learners offer to help them improve their practice. Use a variety of teaching strategies in their practice. Help them to meet their own internally generated goals.	Good teachers "understand their students." "She learn from me, I learn from her." "No matter how good a teacher you have, if you don't really want to learn, you're not going to learn nothing." "Make learning interesting. It has to be interesting to the student." "What you do with knowledge after it's given to you is of your own choosing." "I think it's very tough for a teacher to teach and listen and explain all the time."

Table compiled by Eleanor Drago-Severson.

bring to their learning. Students who are adequately and appropriately supported and challenged academically are more likely to learn more.

Conclusion

Our findings suggest that a new definition of the "resource-rich" classroom is needed including good pedagogical matches to a wide variety of adults' learning needs and ways of knowing. Thus, our study suggests that ABE and ESOL practitioners develop an understanding of this new variable — a diversity of learners' ways of knowing — as it expresses itself in the ABE or ESOL setting. By extension, we point to the need for educators to use a diversity of approaches in meeting and supporting learners with a diversity of learning needs and ways of knowing. Adult learners inevitably differ in ways that are less immediately apparent than that of more familiar pluralisms of race, gender, or age.

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Three Different Types of Change

by Deborah Helsing, Eleanor Drago-Severson, Robert Kegan, Kathryn Portnow, Nancy Popp, & Maria Broderick

As adult basic education (ABE) students progress, teachers know their students are changing. How can teachers best understand and support multiple types of changes? In this article, the NCSALL Adult Development Research Group presents findings from our longitudinal study. We found that adults' participation in ABE and English for speakers of other languages (ESOL) programs were adult developmental events in which the learners generally extended the reach of an existing way of knowing to a wider range of applications, and in which some learners actually transformed their ways of knowing.

The NCSALL Adult Development Research Group views development as a lifelong process, meaning that even as adults we continue to grow and become more complex. We mark this growth along a spectrum of sequential and qualitatively distinct levels of development. The three most common levels for adults are the Instrumental way of knowing, the Socializing way of knowing, and the Self-Authoring way of knowing. Instrumental knowers tend toward a concrete, external, and transactive orientation to the world; Socializing knowers have more a more abstract and internal orientation; and Self-Authoring knowers take responsibility for and ownership of their own internal authority. A given way of knowing may frame and influence one's experience of oneself, others, and events. To grow from one level to the next involves a qualitative shift in the ways an adult knows and makes sense of the world.

In researching the experiences of 41 adult learners at three literacy programs over the course of a year or more, we found that learners' descriptions of their experiences varied notably across different ways of knowing. Participants who shared a particular way of knowing had intriguing commonalities among their descriptions. We were also struck by the three types of changes occurring in learners' lives, which we will first introduce briefly and then describe in more detail.

Changes: An Overview

Most of the 41 participants in our study were undergoing changes of acculturation. As immigrants to the United States, they were confronting the formidable tasks of gaining fluency in the English language as well as in their new culture. How participants experienced and navigated these changes was related to their developmental levels. That is, learners with different ways of knowing demonstrated notable differences in their

descriptions of these changes. Learners with the same way of knowing, on the other hand, gave descriptions of change that had striking similarities.

All participants were seeking to gain new kinds of information, skills, and ideas throughout the course of their program. Often, these changes contributed to consolidation and elaboration of their perspectives, through which learners made connections among and extended their ideas and values within their existing ways of knowing. Participants also described their learning as contributing either to occurring or hoped-for improvements in many other aspects of their lives, including their sense of identity, their careers, their social and economic status, their home lives, and their self-confidence.

Some participants experienced transformational changes. These learners not only made gains in what they knew, they also modified the shape of how they knew. They grew to demonstrate new and more complex ways of knowing, along the lines of the distinctions suggested in Tables 1 and 2 of the previous article, "Three Developmentally Different Types of Learners" on pp. 8 and 9. For these qualitative shifts in participants' ways of knowing to occur even for a few learners over the short span of one year is remarkable.

To give an overview of these changes here, as well as the developmentally driven similarities and differences among learners, we discuss each type of change as we saw it in one particular site and around one particular aspect of the program. Remember, however, that the changes we describe were evident at all three sites and were related to learners' conceptions of several aspects of the program (including for example, how they perceived themselves as students, their teachers, their peers, and their learning).

Acculturation

At all three sites, many learners experienced changes relating to acculturation and, in particular, to their understanding of what it meant to be a good student. At Bunker Hill Community College (BHCC), in Charlestown, MA, all participants were immigrants growing accustomed to their new roles as students in an American community college. To succeed in these new roles, the learners needed to acculturate: to understand and demonstrate the specific skills, behaviors, attitudes, and types of knowledge that are valued in these settings. As with other aspects of

Learners' Ways of Knowing

INSTRUMENTAL

- Knowledge is a kind of possession, an accumulation of skills, facts, and actions that yield solutions; a means to an end. You get it and then you have it.
- Knowledge is right or wrong.
- Knowledge comes from external authority that tells you the right skills, facts, and rules you need to produce the results to get what you want.
- Knowledge helps one meet one's own concrete needs and goals, and obtain Instrumental outcomes.
- The purpose of education is to get X.

SOCIALIZING

- Knowledge is general information one should know for one's required social roles and to meet expectations of teachers and authorities.
- Knowledge is equated with objective truth.
- Knowledge comes from high authorities and experts who hand down truth and understanding. Authorities and experts are the source of the legitimate knowledge and informed opinions.
- Knowledge helps one to meet cultural and social expectations, gain acceptance and entry into social roles, and feel a sense of belonging.
- The purpose of education is to be X.

SELF-AUTHORING

- Knowledge is understood as construction, truth, a matter of context. Bodies of knowledge and theories are seen as models for interpreting and analyzing experience.
- Knowledge comes from one's interpretation and evaluation of standards, values, perceptions, deductions, and predictions.
- Knowledge comes from a self-generated curiosity and sense of responsibility for one's own learning.
- Knowledge helps to enrich one's life, to achieve a greater competence according to one's own standards, to deepen one's understanding of self and world to participate in the improvement of society.
- The purpose of education is to become X.

(By K. Portnow & N. Popp, (1998). "Transformational learning in adulthood." *Focus on Basics,* 2D. Adapted from R. Weathersby, *A Synthesis of Research and Theory on Adult Development: Its Implications for Adult Learning and Postsecondary Education,* 1976; pp. 88-89.)

their learning experiences, the ways that BHCC students described their understandings of a good student were shaped by their different ways of knowing.

Instrumental learners are oriented largely to the specific and concrete, externally observable behaviors and skills that they had to acquire to be successful as students. They described the importance of improving their academic English language skills, including learning new vocabulary, and constructing five-paragraph essays according to accepted rules of grammar, punctuation, organization, and style. They mentioned the importance of developing successful strategies for studying, such as note-taking, using a textbook effectively, and completing homework regularly and correctly. Other particular behaviors that Instrumental learners emphasized included asking questions and offering opinions in class discussions; attending all classes and arriving at them promptly; and utilizing institutional forms of academic support such as personal tutoring and computer software programs. Considering the identified behaviors and concrete skills as the keys to academic success, these learners were likely to evaluate their learning based on the grades and course credit they received and according to their ability to produce the "right" answers. While all learners name many of these concerns, Instrumental learners described only these concerns.

Like Instrumental learners, Socializing learners saw the need to learn the skills and behaviors valued by American educational institutions and included these concerns in their explanations. However, they also gave weight to abstract purposes and internal characteristics, such as considerations of character and personality that could help them acquire and were augmented by particular skills and new types of knowledge. To become good students and learn effectively in their new environment, they emphasized the importance of maintaining a positive attitude, a sense of hope, and the will to learn. Accordingly, these students tended to refer to their attitudes and their personalities when evaluating their learning, judging themselves on their ability to remain open and receptive to new learning.

"Thus, the changes they experienced in the classroom carried over into other aspects of their lives."

Demonstrating similar concerns about acquiring new skills and knowledge and acknowledging the importance of more abstract internal states, Self-Authoring learners referred to and concentrated on additional priorities. These students often described their struggles to master the English language in terms of how effectively they were able to communicate the complexity of their ideas. They showed interest in differences of opinion: each perspective could be considered as a possible and viable alternative that could inform their own understanding. Thus, rather than relying on teachers to communicate correct information or ideas as both Instrumental and Socializing learners did, Self-Authoring students regarded themselves and other students as additional valid sources of knowledge. These learners could evaluate their teachers and the subject matter by their usefulness in meeting the learners' own self-constructed goals.

Consolidation and Elaboration

Another dimension of the changes in participants' lives, across all three sites, centered on how acquiring new learning enabled participants to consolidate and elaborate on their existing social identities within a given way of knowing. In addition to gaining new skills, knowledge, ideas, perspectives, and values, learners formed new relationships among these ideas, and perhaps reconsidered their own beliefs. These changes in their perspectives on themselves and their roles — what we call consolidation and elaboration — are developmental changes: they allowed participants to build up and deepen their way of knowing. At an Even Start family literacy program in Cambridge, MA, learners described how various aspects of the curriculum helped them broaden their understanding of their parenting roles and supported them in enacting their visions of themselves as effective parents.

Instrumental parents had a concrete focus on their own and their children's needs and often found it difficult to put themselves in their children's shoes. They understood proper discipline as meaning that their children did what they were told, followed the rules, and met parental needs. In recounting how various aspects of their program enhanced their ability to parent, Instrumental learners described their increasing ability to perform practical behaviors. They reported that the program enabled them to help their children better

because they were more effective in communicating with doctors and teachers, assisting their children with homework, and making better use of public transportation. Unlike their Socializing and Self-Authoring peers, Instrumental learners did not identify additional criteria by which they understood their parenting role.

Parents with a Socializing way of knowing demonstrated the ability to internalize their children's perspectives. They held values of parenting that were prescribed culturally or by authorities, and they disciplined their children according to the externally mediated values they had internalized. In many cases, Socializing learners at Even Start accepted the underlying values of the parenting curriculum, through which they were able to consolidate and elaborate their own views and values of parenting. These learners explained how their increasing ability to participate in educational activities with their children, such as reading aloud or working on a school project, deepened the emotional bonds between them.

Self-Authoring parents saw themselves as the creators and generators of their parenting philosophies. These parents were able to take into account both the child's internal psychological perspective and their own, and recognized that children's successes and struggles were distinct from and not determined by their parents'. At Even Start, Self-Authoring learners often adopted the program's approaches to or information about disciplining their children. However, they were able to assess the program's values according to their own self-generated parenting philosophies. Increased parenting skills and information were valued as important fuel for their own self-definition of parenting competence.

Transformational

At several points during their programs, we invited all learners at each site to describe their understanding of what makes a good teacher. Over the course of the program, we observed how several Polaroid learners experienced transformation, growing to demonstrate new ways of knowing and qualitatively changing their conceptions of, in this example, good teachers.

Learners with an Instrumental way of knowing wanted their teachers to provide clear explanations, corrections on written and oral work, and step-by-step procedures. They focused on their own concrete needs and felt supported when teachers gave them information and task-oriented scaffolding to help them build the mechanical skills they needed to complete their assignments. These learners identified good teachers as those who made them learn. At the end of the program, we noticed changes in how several of these learners conceived the teacher-learner relationship. In many of these cases, Instrumental knowers began to recognize a more internal psychological and abstract quality to their learning, describing, for example, the way that their teachers made them feel about themselves. We marked these transformational changes as the emergence of a Socializing way of knowing.

"Change also has associated risks."

Socializing learners, like Instrumental knowers, felt supported in their learning when teachers explained concepts well and talked slowly. However, unlike Instrumental knowers, Socializing learners also expected their teachers to value their ideas and themselves. They felt most supported by teachers who really cared about them. While Socializing learners felt that good teachers helped them understand concepts so that they could complete assignments, it was the interpersonal connection they had with good teachers that helped learners to feel comfortable. They appreciated teachers who employed a variety of teaching strategies that helped them to apply their learning to broader goals. Learners with a Socializing way of knowing were not only interested in fulfilling their teachers' expectations of them, but they also identified with their teachers' expectations of them. In other words, the teachers' learning goals for them became their own goals for learning. They viewed their teachers as sources of authority and expected the teacher to know what they needed to learn. Although these learners could sense internally when they had learned something, they needed the teacher's acknowledgement to feel complete. During the programs, several learners grew to demonstrate a more Self-Authoring way of knowing operating alongside of a Socializing way of knowing. For instance, these learners began to see their teachers' perspective and expectations as separate from their own. Some learners developed a capacity to appreciate the complexity of a teacher's work and began to understand their own motivation to learn as independent of the teacher's influence.

Self-Authoring knowers not only saw their teachers as authorities and sources of knowledge, but also viewed themselves and each other as generators of knowledge. These learners, unlike Socializing knowers, were often able to reflect on their teachers' instruction and offer

constructive feedback. Like Socializing knowers, they voiced appreciation for teachers who employed a variety of teaching techniques and strategies to meet learners' needs. However, they were primarily concerned with meeting their own goals and internally generated standards on behalf of what they saw as their larger learning purposes. They had their own internally generated criteria for assessing and critiquing good teachers who, in their view, supported them in meeting their own goals for competence and self-mastery. Self-Authoring knowers also took greater responsibility for their learning both inside and outside of the classroom. For example, many of these learners talked about "growing" and feeling "strong" as they learned in the program.

Combinations of Change

The changes that participants in our study related and demonstrated were not as straightforward as the above descriptions imply. Instead, many learners at all three sites were experiencing multiple types of changes that influenced several, if not all, aspects of their lives. For example, some participants were making transitions of acculturation and transformation simultaneously, and these changes concerned not one but many aspects of their experiences. Participants were coming to many new understandings at once: of their role as students, of the teacher's role, of the subject matter they were studying, and of their relationships to their fellow classmates. We see all these dimensions of change as therefore interrelated and reciprocal.

Furthermore, these changes also combined with and fueled other changes. Across all three sites, as learners extended their skills and knowledge, their confidence and feelings of success also grew. Many adjusted the goals and expectations they set for themselves to incorporate larger and more ambitious dreams and plans. Thus, the changes they experienced in the classroom carried over into other aspects of their lives. In particular, students reported that the learning they did in their programs heightened their competency in their social role, enhancing their performance as students, workers, or parents.

Implications

In recognizing and welcoming continuing forms and expressions of growth and change, educators can support students' newly emerging identities. We submit that teachers can best aid, encourage, or spur change among their learners by understanding both the points where students are and where educators would like them to be. In terms of acculturation, teachers must therefore understand how any one learner might currently be making sense of her experiences and how her way of knowing shapes the way she might acculturate to the United States. In terms of developmental change, teachers must not only understand a learner's existing way of knowing but must also be alert to ways he might be exploring and gradually taking on new and more complex ways of knowing.

Change also has associated risks. In our study, Socializing learners were particularly at risk for internalizing empowering but also disempowering values transmitted by authorities and the surrounding culture. For example, in acculturating to the United States, these participants were not yet able to generate their own critiques of the ways that they might be devalued as immigrants, members of racial minorities, and nonnative speakers of English. Socializing learners might also be particularly vulnerable to feelings of distress and low self-evaluation in the face of teachers, administrators, or other authorities who might neglect or marginalize them. These students must receive appropriate supports from teachers, peers, and others to identify and contradict deprecating and disempowering cultural messages.

We suggest that one reason for the success of each program we studied was that the teachers were skilled in supporting learners' processes of change. Thus, while not focused consciously on their learner's developmental levels, rather than teaching in ways that cater to one way of knowing over others, they presented material, designed classroom experiences, and developed expectations that were flexible and responsive enough to meet a wide range of different learners at their current way of knowing. At the same time, in presenting learners with appropriate challenges, they were, in effect, inviting learners to move toward a slightly more complex or slightly more elaborate understanding.

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The Power of a Cohort and of Collaborative Groups

by Eleanor Drago-Severson, Deborah Helsing, Robert Kegan, Nancy Popp, Maria Broderick, & Kathryn Portnow

Being part of a cohort — which we define as a tight-knit, reliable, common-purpose group — was very important, in different ways, to many of the 41 adult learners at three different program sites who participated in the NCSALL Adult Development Research over the course of 14 months. This finding challenges the view that adults, who often come to their class-taking with well-established social networks, are less in need of entrée to a new community than, for example, older adolescents who are psychologically separating from their families of origin and who have not yet formed new communities of which they are a part (Knowles 1970, 1975; Cross, 1971, 1981; Aslanian & Brickell, 1980). Despite differences in the cohort design across the three sites, the interpersonal relationships that peers developed in the cohort made a critical difference to their academic learning, emotional and psychological well-being, and ability to broaden their perspectives.

The NCSALL Adult Development Research group sees development as a continuing and lifelong process. We understand growth as occurring along a continuum of successive and qualitatively different levels of development. We refer to these levels as ways of knowing or meaning systems that shape how people interpret — or make sense of — their experience. The three most common levels of development in adulthood are Instrumental, Socializing, and Self Authoring (please see the boxon page 5 for a discussion of our constructive developmental framework).

The Cohort as a Holding Environment

Robert Kegan's theory of adult development (1982, 1994) considers a person as a maker of meaning throughout his or her lifespan. We employ this framework to suggest why and how the use of cohorts in adult basic education (ABE) and English for speakers of other languages (ESOL) settings is important in different ways to a variety of students who have different ways of knowing and learning. Because every ABE or ESOL class will likely be populated by adults who make meaning with different ways of knowing, programs that recognize students' developmental diversity — and support students' growth accordingly — will be especially effective.

Growth processes, such as learning and teaching processes, depend on connections, and these processes, according to Kegan's theory, invariably occur in some context (Kegan, 1982). Students with different ways of knowing need different forms of

support and challenge from their surrounding contexts to grow. We refer to such contexts as "holding environments" (Kegan, 1982, 1994), which, when successful, can help students grow to manage better the complexities of their learning and their other social roles.

A good holding environment serves three functions (Kegan, 1982, 1994). First, it must "hold well," meaning that it meets a person's needs by recognizing and confirming who that person is, without frustration or urgent anticipation of change. It provides appropriate supports to accommodate the way the person is currently making meaning. Second, when a person is ready, a good holding environment needs to "let go," challenging learners and permitting them to grow beyond their existing perceptions to new and greater ways of knowing. Third, a good holding environment "sticks around," providing continuity, stability, and availability to the person in the process of growth. It stays, or remains in place, so that relationships can be reknown and reconstructed in a new way that supports who the person has grown to become.

While this third characteristic of good holding may be difficult to provide in as short a period of time as a few weeks, any classroom can include the other two features: high support and high challenge. Both are essential for good holding. It was apparent in our study, despite differences in the designs of the three programs, that for most participants their learning group became more than "just a class" or "just a group." In all three settings participants spoke of the group as "like a family." We might also call them a "band of warriors," or "fellow strugglers": in short, a cohort. These cohorts served as dynamic transitional growth spaces that helped learners make good use of each other by providing both the *challenge* that encouraged learners to grow and the *support* they needed to meet those challenges.

Three Sites, Three Cohort Designs

The three sites in our study provided contrasts in their specific cohort designs. At the Bunker Hill Community College (BHCC) site, in Charlestown, MA, students started their program together and were enrolled in the same two classes during their first semester. The cohort disbanded by the start of the second term and students independently selected their own courses for that semester. At Even Start, a family literacy program in Cambridge, MA, parents determined their own entry and exit dates from the program. Many parents had enrolled in this program before our study began and continued after its completion. At Polaroid, in Norwood, MA, all workers began the adult diploma program at the same time, worked toward a common purpose, and left the program at the same time.

Despite these differences in the cohort shape and configuration (and differences in age and social role among participants), the importance of participating in a learner cohort held true at all three sites. Even though these adults, like adults more generally, utilized different ways of knowing, they all described how their cohorts served several key purposes. First, the cohort served as a holding environment spacious enough to support and challenge adult students in their *academic learning* (see Table 1). Participants at all sites reported that their academic learning was enhanced by their participation in collaborative learning activities within their cohorts. Second, the cohort served as a context in which students provided each other with a variety of forms of *emotional and psychological support* (see Table 2). Lastly, the cohort challenged learners to *broaden their perspectives* (see Table 3). Both within and across sites, learners who shared the same level of development demonstrated similar concepts of how the cohort and collaborative learning experiences supported and challenged them in multiple ways. Furthermore, students with different ways of knowing described important differences in these concepts. Overall, these findings suggest not only the importance of a cohort but also that elements other than a specific structure regarding entry and exit might be crucial in transforming a class into a true cohort.

Academic Learning

Sharon Hamilton (1994) provides helpful suggestions for teachers who wish to construct collaborative learning activities to enhance academic learning. She describes three distinct models (postindustrialist, social constructionist, and popular democratic) identified by John Trimbur (1993) and relates them to the characteristics, practices, and beliefs about collaborative learning she has observed in higher education over the past decade. She illustrates how these three models can be applied to classrooms and suggests that teachers adopt one particular model that aligns with their teaching philosophy or personal style.

Each model has its own goals and suggested processes. The "postindustrialist model" of collaborative learning "appears in classrooms in the form of group efforts to solve common problems formulated by an instructor whose

curricular agenda determines group structure, time on task, goals, and anticipated answers" (Hamilton, 1994, p. 94). The "social constructionist model" consists of "engaging students more actively in their learning while concurrently developing social skills of negotiation and consensus building" (p. 95). In the "popular democratic model" of collaborative development the challenge for learners is "not to obliterate essential differences in the search for commonalties but rather to envision these essential differences as catalysts for the making of meaning within specific concepts of the particular course" (pp. 95-96). Not only do these models have different goals, but each also assigns different responsibilities to teachers and learners and recommends different principles for designing classroom environments. In our study, we noticed a remarkable correspondence between these three models of collaborative learning and the three different ways of knowing that learners demonstrated at each site. This raises questions about whether

Table 1: **Learners' Constructions of the Cohort as a Holding Environment for Academic Learning**

Way of Knowing	The Cohort . . .	Sample Quotations
Instrumental Knowers	Helped them obtain the "right skills, right answers, and facts" they needed to know. Provided information and concrete help. Was valued because they "made us" keep coming, "wouldn't let us quit," "made us do our work." Became informational resource.	"You have an idea but another person has an idea and can help you…it can help you change." "You give your opinion. I give my opinion, they give their opinions. If you like that you can take something, something good you take." "You work with group. There is teamwork. You can ask them if you have something difficult or you have something you don't know. Sometimes you call each other."
Socializing Knowers	Supported them by providing a comfortable and safe place to express themselves. "Knew them" as persons, knowing how they felt and thought. Accepted them, enabling them to ask questions and risk making mistakes. Was source of own self-confidence. Helped them evaluate their academic learning.	"We all got our strengths. We all have our weaknesses. Maybe what I, what I am good at, maybe they lack of it. What they are good at, maybe I lack at it. We have all got our weaknesses to work on."
Self-Authoring Knowers	Provided a place of joining together in collaboration and learning from that process. Helped them to discover their own capabilities. Provided an opportunity to improve upon and demonstrate how they wanted to carry out their own beliefs and purposes. Tolerated and appreciated conflict and difference.	"In groups, we share what we know. If someone knows something a little better, then that person helps others to know something a little better." "[Working with others] I realized I knew more than I thought I did." "When I learn math I try helping my co-students how to do the math, or you do your homework, let me see if you do exactly the way or why you don't try to do this work this way. [It's] a good way to learn, because if you see anything, anybody can help you. You can help work together, work in team. You learn more working together."

Table compiled by Eleanor Drago-Severson.

teachers really have the luxury of adopting a teaching model that most closely aligns with their personal style or philosophy.

Instrumental learners primarily valued opportunities to work collaboratively because doing so helped them achieve specific concrete, behavioral goals (see Table 1). Their reasoning aligns with the goals of the "postindustrial model." They said that cohort collaboration helped them to:

- "find the right answers" in math, or the correct sentence structure when writing.
- learn how to use the right words to express themselves better in English, and improve their vocabulary.
- learn how to communicate better with other people at work, at home, and in their daily interactions (e.g., with school officials, doctors, and/or their children's teachers).
- see classmates and even themselves as holders of knowledge (constructed as an accumulation of facts, and/or parenting practices they could then implement).
- understand the meaning of words and concepts.
- learn how to learn on their own (as evidenced by demonstrating a behavior).

While valuing the supports that were named by Instrumental knowers, Socializing knowers also spoke about appreciating the encouragement they received from

Table 2: **Learners' Constructions of the Cohort as a Holding Environment for Emotional Support**

Way of Knowing	The Cohort . . .	Sample Quotations
Instrumental Knowers	Embodied a community of concern (e.g., when a student missed a day of class, others inquired about the student's wellbeing). Provided more concrete form of support (e.g., help with homework).	"We work together with our friend…we talk and everybody is friends…we share food from different culture, we sit together…make a little party…when some friend not come in and not in school we ask our teacher what happened to her if she not come?"
Socializing Knowers	Increased their sense of belonging and decreased feelings of isolation. Eased the pressures of managing various responsibilities in their multiple roles and in their transition into US culture. Knew them, recognized and appreciated them. Encouraged them and enabled them to give encouragement to others.	"Everybody here cares so much for each other and I think that's so good…they become like part of your family." "I told [them] this 'we're going to breeze through this and even if it gets harder, we'll make it because we'll stick together and help each other." "Sometime I get frustrated, especially when I was doing math and sometime I'll be tired….But [a classmate] was a good encouragement. She always said, "don't get so mad with yourself."
Self-Authoring Knowers	Provided opportunities to share their goals and to learn about others' goals and feelings. Provided positive feelings from friendships with cohort learners; however, their commentary centered mostly on the connections the group created to a shared social status. Had a goal of group harmony not as an end to itself but as a means toward some greater end.	"I enjoy the relations with the other students. We meet, then sometimes we share our life, my life, each life. We are not American people so sometimes we can share our anxiety and our stress about language and that's good." "They are there for me so the fact…makes it even easier for me to push yourself." "Everybody's learning is different."

Table compiled by Eleanor Drago-Severson.

peers and fellow parents. Socializing learners especially valued the cohort and collaborative work for the important emotional and psychological support it offered as they balanced the multiple demands of work, family, and school. Their experience mirrors the goals of the "social constructionist model" of collaborative learning. It helped them to:

- feel "comfortable" asking questions when they did not know the answer or did not know what do to in particular situations.
- learn to "socialize with other people."
- feel less "afraid when speaking English" in front of others (both in and out of the classroom).

Although Self-Authoring knowers mentioned the instrumental, psychological, and emotional reasons why working with cohort members was helpful, they focused particularly on their appreciation of the different perspectives that members in the group brought to any particular activity. Their experience aligns closely with the goals of the "popular democratic model" of collaborative learning. Working with other cohort members helped them to:

- enhance their learning and teaching processes because they were exposed to varying perspectives (points of view) on particular issues.
- understand themselves and other learners' academic, parenting, and life experiences better.
- recognize and, at times, appreciate forms of difference and commonality across and beyond the cohort.

These three groups of learners' descriptions closely match those

Table 3: **Learners' Constructions of the Cohort as a Holding Environment for Perspective Broadening**

Way of Knowing	The Cohort . . .	Sample Quotations
Instrumental Knowers	Challenged them to think differently about their own and other people's life experiences.	"I just feel a lot of, I don't know, gratitude to meet them all [cohort members], and to learn about different things, different things about their countries." "If you have some idea you can share, you can share something good they can take, we discuss, because everybody has children too."
Socializing Knowers	Served as a safe haven for learning about other people's experiences, ideas, perspectives, and expertise. Provided a context in which they could broaden their perspectives by learning from "friends." Made difference okay because everyone was still connected and basically the same, which preserved the relationships. Relied upon lack of conflict.	"Everybody has different discussion, different ideas and you can learn from them and they learn from you." "We share a lot of experiences, we get a lot of advice." "They are friendly. They talk with me if I couldn't understand something they help me, they explain to me." "We come from different country that have different culture. We discuss and we learn something from, maybe other country is good, maybe other parents they teach something is different. I will try that, and everybody is different."
Self-Authoring Knowers	Provided information and ideas, which they used in service of self-understanding and self-expansion. Provided suggestions from others, which they could evaluate and integrate with their ideas. Could withstand conflict as a part of working with and learning from others.	"Like I was getting other people's ideas, and then I was trying to put my ideas, I was getting more ideas." "I…listen to other peoples' opinions and ideas, but compare their ideas and my ideas [and] think about it, see what happen."

Table compiled by Eleanor Drago-Severson.

described in the literature. This suggests that, in designing collaborative activities, educators, in contrast to Hamilton's suggestions, should perhaps give less priority to which individual approach they personally favor and more consideration to providing all three models in any one classroom: the "new pluralism" to which our research directs us more generally. We elaborate on this recommendation below.

Emotional Support

The literature on group learning points to ways these groups can serve as social and emotional support (see, for example Bosworth & Hamilton, 1994; Pedersen & Digby 1995). Our study demonstrates how learners experienced this emotional support differently according to their ways of knowing (see Table 2). While for many of the participants the cohort became "like a family," what "family" actually means differs according to different adult ways of knowing.

Instrumental knowers found the cohort to be a place where their ideas could be compared to those of other people and where peers created an active learning environment. For several of these learners, the cohort sometimes embodied a community of concern. For example, when a student was absent from a particular class, others inquired about the student's wellbeing. Support was discussed in concrete ways, such as help with homework, friendly encouragement, and help pronouncing words correctly.

Socializing knowers were less oriented to discussing the external facts of a situation and more oriented to their internal experience of the thoughts and ideas of cohort peers. For these learners, the cohort was about a way of being in relationship with one another, a way of giving an abstract level of support, and of accepting each other. Lack of conflict among cohort members was essential to their comfort. While individuals with any way of knowing might dislike or feel uncomfortable with conflict, those making meaning with a Socializing way of knowing often find conflict with people or ideas with whom they identify particularly difficult. These students will avoid conflict for its own sake, and feel the conflict as a breach in important relationships that tears them apart.

Self-Authoring learners, however, had a perspective on their feelings about conflict and saw the relationships among group members not as an end in itself but as a means toward some greater end. They did not experience conflict as a threat to their sense of cohesion with others. They were able to reflect upon their feelings and examine the roots and importance of those feelings. Like Socializing knowers, they noticed connections between themselves and others, cared about those connections, and offered them as important factors in their learning life. However, unlike Socializing learners, they reflected on what these relationships meant to them in a more abstract way. Many Self-Authoring students valued the process of working together because they felt it was effective, challenging, and supportive, not only for their own learning but also for other people's learning.

Perspective Broadening

Interpersonal interactions with cohort members also helped students to become more aware of and to share their own perspectives. Sharing ideas through dialogue and writing challenged and supported learners to broaden their perspectives by listening to and considering others' outlooks. Engaging with others in groups over time challenged cohort learners to experiment with and enact new ways of thinking and behaving. Collaboration with other cohort learners often became a catalyst for growth.

Many learners therefore began to understand their relationship to the cohort in new ways. We observed that some learners' notions of these group experiences expanded as they progressed through their programs. We refer to these changes as a consolidation or elaboration: learners extended their ideas within their existing way of knowing. Also, several students understood their cohort experience in more complex ways. We refer to this as transformational change: students evidenced qualitative and pervasive shifts in their underlying meaning system. The shapes of students' growth varied, depending on their ways of making meaning (see Table 3).

Several learners who were Instrumental knowers commented on how the experience of listening to and learning from cohort members transformed their thinking about themselves, their own families of origin, and people from other countries. These students began to think differently about their classmates and about life experiences in general. By coming to know others in the group whose backgrounds were starkly different from their own, several learners grew much better able to understand and empathize with other people.

For students with a Socializing way of knowing, working with others in the cohort created an opportunity for recognition and exploration of cultural differences that permeated cohort sharing and filtered into discussions. Several learners began to recognize com-

monalties across their cohort group that enabled them to manage their differences, rather than feeling threatened by them. A few students grew to be able to generalize their enhanced capacity for perspective-taking beyond the classroom and into other domains of their lives (e.g., work). The holding environment of the cohort supported several learners to be better able to take on other people's perspectives, which helped them in many aspects of their lives.

Self-Authoring knowers experienced the learner cohort as a context for analyzing and critiquing information, which they then used to enhance their competence as learners and in their social roles as students, parents, and workers. The cohort was a safe place that challenged and supported them as they broadened their perspectives on their own and on other people's learning process. Some of these students adopted a broader perspective on their own learning when they came to believe that they could learn from the process of working with cohort members who were different from them. Working with learners from different countries helped several Self-Authoring knowers to develop a new and deeper understanding of what it meant to be a person who came to the United States as an adult learner in their programs.

The holding environment of the cohort served as a context where adults were often encouraged by each other, and by teachers, to challenge their own assumptions, which we believe deeply influences the ways in which individuals think and act (Kegan & Lahey, 2000).

Summary

Our findings teach us about the different ways that the learner cohort served as a space of developmental transition and transformation: a holding environment for growth. Cohort members were indeed partners engaged in a community formed around a common learning endeavor, where students supported one another in their academic and cognitive development and emotional wellbeing as they participated in these programs. Furthermore, we have illustrated the ways learners with different ways of knowing experienced collaborative group learning. We have argued that these seem to mirror the goals Hamilton (1994) articulates for Trimbur's (1993) three models of collaborative learning.

"The holding environment… served as a context where adults were often encouraged by each other, and by teachers, to challenge their own assumptions…"

Implications

The importance of cohorts and the different ways in which learners will experience them suggest implications for both teacher practice and program design. Since learners make sense of their cohorts and collaborative learning activities in qualitatively different ways, they need different forms of both support and challenge to benefit more fully from them. Some ABE teachers occasionally use group learning as a pedagogical approach directed toward building classroom cohesion and to facilitate learning (Garner, 2001). While Hamilton (1994) suggests that a teacher would benefit from selecting and implementing one particular model that suits his or her teaching philosophy or style, we submit that choosing only one model would support learners with one way of knowing better than it would others.

For example, a teacher who designs a highly structured activity, in which students are expected to arrive at predetermined answers, might leave Socializing and Self-Authoring knowers feeling inadequately challenged and possibly frustrated. Without appropriate supports, a collaborative learning experience that requires learners to share their own thoughts and feelings might be experienced as overly challenging to Instrumental knowers. Finally, collaboration that asks students to welcome diversity of opinion and conflict within a group might be experienced as threatening to learners who have not developed self-authoring capacities. Therefore, to create optimal holding environments for all adult learners, teachers need to adopt a plurality of approaches, flexibly incorporating aspects of all three models in any one classroom to meet a wide range of learners' ways of knowing and their diverse needs.

Some program designers refrain from using the cohort model because of funding requirements (Beder & Medina, 2001) or because the needs and life situations of their participants seem to dictate an open-entry/open-exit policy (Bingman, 2000). However, although our sites presented three very different cohort designs, most participants valued highly

their sense of belonging in the group and benefited substantially from their cohort experiences. While some cohort designs might make for some bumps or challenges along the way, especially for a particular way of knowing, we do not claim that any one cohort design is preferable. Instead, we suggest that good matches to a variety of ways of being supported or challenged might be more crucial to success than a particular structure regarding entry and exit. And, above all, we recommend that educators look for ways to create some form of enduring and consistent learner cohort, employing practices by which students are regularly invited to engage in collaborative learning. Our participants show us that cohort experiences seem to facilitate academic learning, increased feelings of belonging, broadened perspectives, and, at least by our participants' report, learner persistence.

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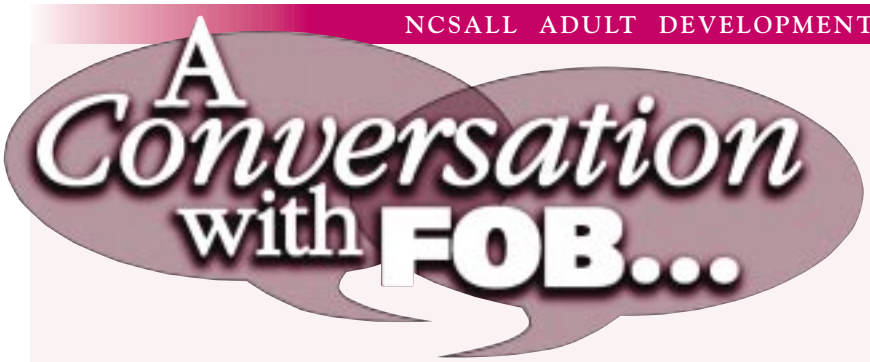

Reacting to the Research; Supporting Learners

Focus on Basics asked two teachers who participated in the NCSALL Adult Development research what the experience was like and what they do to support cohort development and learner growth. Sylvia Greene (SG), a teacher from the Community Learning Center Even Start program in Cambridge, MA, and Matthew Puma (MP), a teacher at Polaroid for the Continuing Education Institute, Norwood, MA, share their experiences.

FOB: *What was it like to participate in this research study?*

SG: It was really quite an extraordinary experience: a peek into what a major research study is like. One of the reasons I said yes was because I thought it would be interesting for me and my students to see how research works. A lot of them [my students] come from very faith-based societies and a western relativistic point of view is very foreign to them. They need to be able to adopt that point of view temporarily to get meaning from many texts, and, if it is one of their goals, to do well on a standardized test like the GED.

Being a practical person myself, I was fascinated and overwhelmed by the logistics of the project. Putting myself in the shoes of Kathryn Portnow and the other members of the team, the logistics seemed dizzying, in terms of telephone calls, letters, arranging times, unexpected changes, and then all of these things must have been multiplied threefold for them. Absenteeism comes with the territory with adult education students, so the researchers had to deal with make up interviews, and phoning people at home.

I was also interested in the instruments they were using. Kathryn was generous in sharing what she could about the instruments without violating the learners' confidentiality and privacy.

FOB: *Did you know anything about adult development before participating in the study?*

SG: I had taken an adult ed[ucation] certification course in 1977 given by Worcester State that touched a little on adult development, but it just skimmed over things. On my own, I had read some Maslow and Erik Erikson, but I've never taken a course in adult development. I learned the most at the end of the study when Kathryn sent me a rough draft of their monograph. [I learned] By reading that, about Robert Kegan's particular view, and a little about some of the theorists that he cites.

FOB: *What did you think of their findings?*

SG: They were consistent with my own experience over the last 25 years. I think what was most useful to me was their division into the three kinds of learners. That construct was very useful to have.

One of their main findings in relation to Even Start was how important the support of the group was. That's something I knew already and it corroborated what I knew. It was so nice to see that factor recognized and honored and put into print. It will be good for the adult ed community to see that validated by a major study.

Even Start mandates five components, one of which is some kind of parenting support. By nature, that gets people talking to each other about their own ideas about parenting. In addition, our particular Even Start believes in a strengths model. A lot of the focus of the component is getting the parents to share their own parenting strengths and concerns with each other, so they can support each other. We don't use a "canned" parenting program, which uses the premise that the parents have deficits. We do offer at the beginning of the year a menu of topics and participants choose the ones they want, prioritize them, choose the mode (speaker, videos, for example). That certainly gets the parents supporting each other.

FOB: *How do you support students?*

SG: The way we work in the two adult ed classes is to foster camaraderie, to try to encourage the parents to work together on whatever lesson they're doing. My

colleague, Lally Stowell, is a master at that. She's very interventionist and proactive; she makes people talk to each other. She structures things in the class so people are always interviewing each other, reading aloud to each other. If they don't speak up, in her own way, she makes them. I think I've always created a safe and comfortable environment, but I haven't been as active in getting people in pairs or talking to each other. I've learned a lot from her about that. Those kinds of explicit habits foster a lot of camaraderie. I've seen people who are shy and nervous become the best leaders.

The whole staff does a lot of individual counseling that provides support for people who are struggling in various ways and who face all the kinds of stress that many ABE students are under, but especially low-income parents. It could be anything, from helping write letters or making referrals to programs with good immigration lawyers; it could be referring people to a therapist if they're having extreme problems with their children; it could be helping them to advocate with their kids' teachers. One of the mandates for Even Start is helping parents become involved with their children's schools. Lally does a lot of role playing and rehearsing, and then debriefing after school events. We also help the parents navigate the medical system. One finding of the Even Start statewide evaluation was that our staff has been not as empowering as they might have been. So we've been trying to work on that.

We also design curricula that come out of the background, experiences, interests, and concerns of the students. Our parents know that when someone joins the class from a country that hasn't been represented yet, we drop everything and study that country, and the new person becomes a resident expert. We learn about and celebrate any of the holidays from their cultures.

In parent and child time, we try to design activities around themes that come from their countries. For example, around Chinese and Vietnamese New Year we take shoeboxes and paint them red and put feathers on them and those become dragon heads for a parade. Around Haitian New Year we make squash soup, which was made originally by the wife of Toussaint L'Ouverture, one of the heroes of Haitian independence.

> *"I never had the feeling we were being studied by lab-coated scientists."*

I think a lot of adult education teachers do these things naturally and therefore many will relate to the study's findings.

FOB: *Will you do anything differently based on the findings of this study?*

SG: The social/emotional learner is in a good place [in general], but I want those people also to be able to think in a self-authoring way as a result of the study. I've now seen which of my students are which type, so one thing to do would be to try to have the students who are self-authoring model for the other students. To help them show their stuff in a way that isn't too didactic, to point out how helpful that way of thinking could be. I think it's a tough thing, because if you've lived 25, 35, 45 years of your life as a certain kind of learner, it's hard to shift into a different way. I'm not sure how to do it. The researchers saw some people who were on the cusp, so maybe that's the person to take a look at, and see how to support that change.

* * *

FOB: *What was it like to participate in this research study?*

MP: Being involved with the research changed the program to the positive. The way the researchers talked about what they were looking for provided me with language about the community of learners that gave me a way to conceptualize what ordinarily goes on in the program. That was very helpful. For example, we were in the midst of developing a curriculum for [a program at a] jail and the research team got me thinking about how the workplace gives you a good social environment in which to work. The meetings for the researchers were helpful in understanding how these two situations (jail and workplace) were different.

Also, the research team met with the students to do interviews. That had a beneficial effect in general. The students felt good because it made them feel that their participation in the research was important. The researchers were nice people and were looking to find out what people really thought. They were talented interviewers and could get beyond linguistic issues to get at that.

The students don't usually reflect on how the program enhances their development, and [participation in the study] put it into their consciousness periodically; that was a good thing.

The big payoff to me, besides being interviewed and therefore thinking about these things, was helping to bring to my consciousness to me a lot of what has been going on for 10 years in my teaching experience. I hadn't really given a

lot of thought to developmental learning with adults before the research. As a teacher, you learn to manage these different people so that everyone is participating, but I didn't think of it in the same language as the study. I think differently now about how the students get their needs met.

FOB: *Were there any drawbacks to participating in the study?*

MP: No; even when they [the researchers] were there in class, it was not a problem at all. In fact, it was a positive. They were nice and helpful people. I never had the feeling we were being studied by lab-coated scientists.

FOB: *Participating in the study gave you a new way to think about your work and your learners. Do you do anything differently now, as a result of learning about adult development and participating in the study?*

MP: Actually, many of the changes that would be suggested by this study were already in effect because in the mid-1990s, we had changed our program to emphasize more group work. We wanted to get people speaking more and participating actively. This research did have a lot of effect on the jail curriculum and the design of that program. The whole issue of the community of learners...in the jail, we couldn't have one cohort go through the program. The goal was to have people come and go, so it became important for us to accelerate the socializing learning so the people could be more independent learners.

FOB: *Your program was chosen as a research site in part because you provide the kind of support for learners that enables developmental change to take place. How do you do that? What does the support look like?*

MP: A diploma consultant is available for all types of support, arranging for tutoring, for example. In addition, in the math class, for example, we had an assistant instructor who could stay after [class] to help students. A group of four or five often stayed together after class. We try to give people the constant message that there's no reason to give up and we're flexible about how we do it. We always encourage people to work together; people often think it's "cheating" to get help at home, but we encourage it. With the science course that I teach, arranging additional times outside of class so I can work with a smaller group, with computers available or at the library, really helps people. Then people get more out of the class, too, because they're not so anxious. Where we've had a computer lab available, the best thing is to have a designated time where the instructor is available and a group of students can come in and get help producing their papers.

At the beginning of the courses, we do a lot of icebreaker and getting to know you activities, such as human bingo. In human bingo, each person needs to answer a list of questions that all start with "Find someone who _____ " to complete their bingo card. It's a really nice activity, especially when you have students from all over the world; people have to get up and talk to each other. It's a mixer that helps break down a lot of resistance to moving in the classroom, and talking to others.

I also apply a method for brainstorming or collecting thoughts to everyday knowledge, so the content is not an obstacle. One example is to "design a house." We do a good number of those things. With many groups, the procedure of applying the method to a personal example and then to a more academic example is a good trick. Some people actually understand that the focus is just on the method and the content doesn't really matter.

The main way to support people is through group work, with projects that are somewhat open ended but also have strict expectations and requirements. The groups write papers together. We provide leading questions for the papers, and really good guidance, but then if someone speaks up in class and says "I want to use my own questions," that's okay too. This just happened, actually. The woman who voiced this concern might be perceived as antagonistic, but she was really a more autonomous learner. Then one of the students who liked the questions said, "Use the questions, it makes it much easier." There was the instrumental learner. It gave me, the teacher, the opportunity to say that people have different approaches and that there's no right or wrong one. A few students will emerge as a bit of challenge to authority, and it's a great thing for everyone else to see that they can define for themselves how they're going to educate themselves.

We also encourage peer support: students help each other improve their papers. At the beginning there's a lot of resistance —"I'm not a teacher" — but eventually they get better at it. It lets people exercise their roles and learning styles, and helps the cohorts to form.

An important payoff of our program is keeping the people together: the cohort model does pay off, but it takes a while. There is a steep slope of development and learning after a long initial period. Part of it is the ritualization of the process. Once people have gone through it [paper writing] a number of times, they're really able to apply the whole process to a new situation, then their writing gets much better. You end up being amazed as a teacher that people can get from the material to writing about it quickly at the end.

A Mingling of Minds:

Collaboration and Modeling as Transformational Teaching Techniques

by Carol Eades

Before speaking, Jim glances out the window at a few snowflakes falling to the slightly frozen November ground. Martha gazes from one side of the blackboard to the other, examining the chalky white set of notes that represents two hours of collaboration. After all seven students in my GED class have generated ideas and shared information, a few offer some closing thoughts.

"My grandmother came from Germany. I never gave much thought to how her life might have been. In fact, I never even knew her. I just heard stories about her when I was growing up. She could have had to move around like that," Jim said, with a new feeling of awareness.

"Yeah. She could have. I work with some people who moved here from India," responded Deborah. "I never thought about that they grew up hundreds and hundreds of miles from here. That must be hard. I wouldn't like that."

"I work on the floor with a guy from China. Nobody can understand him much. I need to try harder to be friendly even if I don't always know what it is he's saying. I'd like to know what it's like in China since I'll probably never get to go," Martha adds.

A sense of camaraderie pervades our group. Earlier we had read about Ellis Island and about the multicultural nature of our nation. We had brainstormed about why people leave their homelands and emigrate, what hardships they may face in getting to their new destinations, and what awaits them upon arrival. Soon my class of American-born, English-speaking students will write an essay on the challenges confronting a family whose members speak little or no English when they move to the United States. This lesson crossed the disciplines in reading, vocabulary, inferential skill building, geography, history, brainstorming, mapping, and other elements of process writing. This class took place at a large university where all the students were employed. Working in this environment brought them into frequent contact with a diverse, international population. From the comments they made, I sense that more has taken place than just preparation for essay writing. Perhaps this collaborative process has led to transformation.

Informational vs. Transformational Teaching

As I reflect on this conversation, I cannot help but remember my own education, as a child and young adult. It was quite a few years ago, in a school system where the teachers customarily assumed almost total responsibility for filling students' minds with information. Those teachers mainly recited facts, gave out practice exercises, and tested us. Only rarely was time devoted to discussion, group projects, or student interaction during class. Paulo Freire refers to such a teaching style as the banking concept of education, implying that the teacher is merely making information deposits into the minds of students (Shor & Freire, 1987). I refer to it as informational teaching. Purely informational learning may be thought of as acquiring or producing descriptive knowledge ("know what") that is new to the learner as well as procedural knowledge ("know how"), which indicates how to do something (Holsapple, 1995). In addition, it may include reasoning knowledge ("know why"), which is concerned with understanding what conclusion is valid when a given situation exists. "Know what," "know how," and "know why" are simple ways of thinking about descriptive, procedural, and reasoning knowledge respectively. Research confirms that informational learning approaches often do not affect students' present beliefs and interpretations or provide new ways of using information (Taylor et al., 2000).

Informational teaching focuses on the transfer of information to a learner. By itself, it is not particularly conducive to motivating learners, nor to helping them accomplish the kinds of changes in their lives that I believe are the purpose of adult learning. To me, adult education should be a means for enhancing and honing social cooperation, collaborative techniques, and individual and group responsibility skills that adult students need.

Transformational learning changes the learner. As such, it is crucial for accomplishing these objectives. Transformational learning enhances informational learning by interconnecting with it. It leads "…to deep and pervasive shifts in the learner's perspective and understanding" (Portnow et al., 1998). Transformational learning involves an alteration in how a person filters information, interprets information, and relates it to

previously received information, ultimately changing the way in which the person interacts in the world. In other words, a person's view of the world has been altered so that future assimilation of impressions is different, as are the consequent knowledge-based behaviors.

Teaching for Transformation

How do you teach for transformation? I have found that instructional activities involving collaboration and modeling are especially useful. Collaboration involves having students work together as a community of learners to share knowledge and to create new knowledge. During collaboration, I frequently pose a question, dilemma, or situation and have students collaborate in search of a solution or answer. I used this method in the earlier classroom vignette described above. I presented a short tale about an immigrant that served as a discussion prompt. It led to the class defining immigration and related terms, tracing immigration routes on a map, discussing the history and significance of immigration, and sharing personal stories.

Another example of the transformational teaching I do involves math. I frequently give math word problems: students discuss the nature of the problem, determine what is being asked in the problem, and decide the best method to use to solve it. Then they may work the problem individually, compare answers, and help each other as needed. We also often compare word problems to real-life situations they encounter. For instance, a math problem involving percentages can easily be transformed into problems about prices of sale items at stores or the return on bank interest rates.

I have always found my students to be very receptive to transformational teaching. An almost irresistible sense of personal connectedness to the subject matter occurs and even the more reticent students become engaged and speak up. Collaboration can also help adult students learn how to conduct themselves, negotiate their own positions effectively, productively assist others' attempts to negotiate their positions, and evaluate others' viewpoints. Communication skills are enhanced as students work to avoid vague language; mutual responsibility is developed as students work together in collaborative activities (Tipper & Malone 1995). Critical inquiry and analytic thinking take place as students seek to make sense of positions and arguments. A sense of community is achieved as students endeavor in extensive collaborative work to establish open communication, seek to help each other, learn, and trust each other with their thoughts and feelings. In this way, development of more complex, flexible thinking and multiple perspectives leads to a transformational understanding of the adult student's own life and of the world (Taylor et al., 2000).

An Adult Educator's Role in Collaboration

To establish a collaborative climate, it's important to provide:

- an opportunity for collaboration
- a model for collaborative activity
- a community where everyone is valued
- equal opportunity for every adult student
- student ownership of views
- time for ongoing response
- minimal input that helps students see new possibilities
- minimal input that helps students see new problems
- an open gate to new awareness learning by asking open-ended questions
- a closed gate to negative criticism that goes beyond beneficial learning through diplomatic validation of differences and conflict resolution
- guidance in appreciation for significance, meaning, and applicability of new learning
- an opportunity for collaboration with students from other adult education classes or invited guests
- information for other adult education teachers on adult collaborative endeavors

Modeling

After engaging in collaborative work, I generally follow with a teaching-by-modeling session. Before class ended on the day of the immigration lesson, I explained that the students would be writing an essay on immigration. I provided them with details about the topic and the nature of the writing. At the next class meeting, I modeled an outline of an essay similar to what they might write, beginning by putting the writing topic on the blackboard. The modeled subject must be adequately different from the topic the students will soon write about not to influence the content of their work, yet similar enough to provide a sound model. I chose the topic, "What Immigrants Leave Behind in their Homeland," because students would be writing instead on challenges confronting an immigrant family after moving to America. The general topic of immigration remained intact, but the

view was different in the model essay.

Next, I had students spend a few minutes drafting a short list of what immigrants might leave behind. Students voluntarily came to the board and briefly wrote some of their ideas: family, friends, home, familiar environment, job, and money or treasured possessions. Then we discussed and practiced how we might put some of these ideas into sentences. Students wrote some representative sentences on the board. We discussed how these sentences could best be worked into paragraphs and outlined the shape an essay might take using the ideas we had generated. As a last step, we practiced writing one good strong paragraph on the board. The students then indicated that they felt prepared to begin writing on their own. Modeling not only serves as a living demonstration and example but can also ease anxieties that some students may have when initially attempting an academic task.

Figure 1.
A Lesson Using Collaboration and Modeling

Present a brief vignette about a father, mother, and three children who are forced to leave their war-torn homeland and flee to America. Ask students, "What will each of these immigrants lives be like during the first year here?"

Phase 1: Collaboration

- Preview vocabulary used in lesson
- Preview historical context of immigration
- Read about Ellis Island
- Discussion of reading
- Map immigration routes in an atlas
- Look at related items of interest on the Internet
- General discussion: why people emigrate; what awaits them in a new land
- Share personal anecdotes

Phase 2: Modeling

- Introduction to topic and writing assignment
- Model writing similar to forthcoming independent writing:
- Prewrite on what immigrants leave behind in their homeland
- Brainstorm from prewriting
- Turn ideas into sentences
- Outline an essay
- Draft a paragraph

Phase 3: Independent Essay Writing

- Prewrite
- Map
- Outline
- Write the draft
- Finalize the essay

Putting it Together

Educators can do much to provide a setting conducive to transformational learning by establishing a collaborative climate and providing learners with the opportunity to do so. For some instructors, this will mean suppressing old teaching habits: that all, or most, of the instruction is solely teacher-based. It may not be easy initially to yield some control and permit true collaboration to flourish. Providing an initial model for a collaborative activity is useful, particularly in classes in which it has not yet been used.

Instructors can imaginatively implement collaboration and model teaching techniques in many different ways. A diagram of collaboration and modeling for my lesson on immigration appears in Figure 1. Giving students a similar diagram can help them visualize the direction of the collaboration and modeling session. Students can ascertain at any given time the phase of learning taking place, and note at a glance where the instruction process is leading. An instruction diagram can provide evidence of a planned process and may very well serve to stave off those "Where is this going?" looks from students.

Conclusion

Collaboration provides an environment for transformational learning and increases the opportunity for immediate as well as future meaning, benefit, and impact. It is a natural precursor to modeling. In turn, modeling helps students progress toward independent performance and usually yields outcomes that are closer to desired educational expectations.

Collaboration and modeling are integrated teaching techniques that can enable students to help each other. When I use collaborative methods, I typically spend less time teaching students individually,

allowing more time for all of my students. Adult students are not the only benefactors in this transformational learning process. Instructors have just as much to gain from engaging in transformational teaching. I have come to new awareness and deepened my own ways of seeing, thinking, and knowing as a result of stepping beyond the limiting boundaries of informational teaching. I have lost any tendency to make dogmatic prior assumptions about what my students may or may not know, while gaining a greater ability to communicate with them. I am more willing to let my students think for themselves and teach each other. Rather than having all the answers myself, my students and I find answers together. That makes me a better teacher and my students better learners.

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Four Adult Development Theories and Their Implications for Practice

by Lisa M. Baumgartner

What is adult development? What relevance do adult development theories and models have to the practice of adult basic education? Our philosophy of adult development informs our teaching. For example, if we believe that people mature by passively absorbing knowledge and reacting to their environments, our instruction differs from that of teachers who assume knowledge is constructed and that development depends on active participation with the environment.

In this article, I discuss several approaches to adult development and their related implications for instruction. Clark and Caffarella (1999) note, "Theories [serve] as a … lens through which we view the life course; that lens illuminates certain elements and tells a particular story about adult life" (p. 3). The four lenses through which adult development will be seen are: behavioral / mechanistic, cognitive / psychological, contextual / sociocultural, and integrative.

The Behavioral / Mechanistic Approach

According to the mechanistic approach, people are machines whose response to external forces results in development (Miller, 1993). This approach asserts that past behavior predicts future behavior and that people's machine-like minds do not construct knowledge but instead absorb existing knowledge (Miller, 1993). Development can therefore be measured quantitatively (Wrightsman, 1994).

Behaviorism exemplifies the mechanistic approach. It is a science interested in predicting and controlling human behavior (Watson, 1930). People learn behaviors by responding to stimuli and by receiving positive or negative reinforcement or punishment. Positive reinforcement increases the likelihood that the immediately preceding behavior will be repeated (Shaffer, 1994). For example, if a girl receives praise (an example of positive reinforcement) for helping her sister, she is likely to repeat the action. In contrast, negative reinforcement occurs when a desired action results in the cessation of an unpleasant stimulus. When a woman buckles her seatbelt to turn off the seatbelt alarm, she receives negative reinforcement (Shaffer, 1994). Punishment is a third kind of reinforcement. Instead of preceding the response as in the case of negative reinforcement, it follows the response and decreases the chance of the behavior recurring (Taber, Glaser et al., 1965). Scolding is an example of punishment.

Watson (1930), the father of behaviorism, believed that people

were "an assembled organic machine ready to run" (p. 269) and that their personalities were a collection of complex habits. For example, he said that a deeply religious Christian develops a religious habit system of praying, attending church, and reading the Bible. Habits change, he believed, and develop most during the teen years and are set by age 30. Watson noted, "A … gossiping, neighbor spying, disaster enjoying [person] of 30 will be, unless a miracle happens, the same at 40 and still the same at 60" (p. 278).

Instructors who favor the behavioral / mechanistic perspective provide students with plenty of opportunity for drills and practice. Using praise, grades, or some small prizes for their efforts positively reinforces learners. Students learn the appropriate response through reinforcement.

Programmed learning is one method of instruction used by teachers who champion the behavioral/mechanistic approach to development. This instructional technique, which was especially popular in the 1960s and 1970s (Green, 1963; Skinner, 1968; Taber et al., 1965), remains popular in the computer age (Kelly & Crosbie, 1997; Munson & Crosbie, 1998). Programmed learning involves assessing a student's prior knowledge about a topic, then basing individual programs of instruction on the student's level of expertise, and leading a student through a program of instruction via a book, slides, or a computer program. The material is divided into manageable portions called frames (Taber et al., 1965). After each frame, a question is asked and the student responds and receives immediate feedback. For example, learners in a research methods course may be presented with the explanation of a particular experimental research design. Next, they are asked a question about the information in the frame. After a correct response, the computer program may respond "Great job!" An incorrect response may yield, "Nice try, but try again." This reinforcement results in retention of the information.

The teacher who embraces this paradigm sees development as correct behavioral responses. People's personalities are a series of habits and the teacher's job is to get the student to develop good habits. Learning is additive in nature. Each set of facts builds on previous knowledge and this addition of knowledge can be accomplished with various types of reinforcement.

The Psychological / Cognitive Approach

The psychological / cognitive perspective focuses on an individual's "internal developmental processes" in interaction with the environment (Clark & Caffarella, 1999, p. 5). Clark and Caffarella differentiate between sequential models of development and models based on life events or transitions (p. 5). Sequential models, also called stage or phase models, assume that development is unidirectional in nature, that present development is build on past development, and that there is an endpoint (Miller, 1993). In this view, humans are active participants in their development, actively constructing knowledge rather than simply absorbing it. For example, a chronically ill woman changes medication and becomes increasingly lethargic.

She learns more about the new drug's side effects from friends, health professionals, and the Internet. She notices that when she eats certain foods in combination with the drug, it increases her fatigue. Her knowledge and personal experience help her realize she must change her diet to alleviate the lethargy.

Gould's (1978) model is an example of a stage / phase model. In his theory of transformation, he discusses four major false assumptions that people must overcome in order to move successfully from childhood to adult consciousness and become more fully functioning adults. He maintains that identity formation occurs between the ages of 16 and 22, when people are challenging the false assumption "I will always belong to my parents and believe in their world" (p. 6). The false assumption to be overcome between 22 and 28 is: "Doing things my parents' way with willpower and perseverance will bring results. But if I become too frustrated, confused or tired or am simply unable to cope, they will step in and show me the right way" (p. 71). From the ages of 28 to 34, people confront the false assumption: "Life is simple and controllable. There are no significant co-existing contradictory forces within

me," and from 35 to 45, people grapple with: "There is no evil or death in the world. The sinister has been destroyed" (p. 6).

The second psychological / cognitive approach examines life events and transitions. Pearlin's (1982) model notes that anticipated life course role changes, such as getting married and having children, cause less psychological distress than unscheduled changes such as car accidents or the loss of employment. Pearlin maintains that social class, a person's coping skills, the social support networks available to a person, and the type of stress all have an impact on the individual route that a person's life course follows (Bee & Bjorkland, 2000).

The psychological / cognitive approach to development asserts that people reach more complex, integrated levels of development through active participation with their environment. Furthermore, individuals construct knowledge as opposed to responding to existing knowledge. In essence, adult development is a continuous journey toward increasingly complex levels of development. Hence, teachers taking this perspective favor ideas found in the transformational learning literature, such as critical reflection and discussion (Daloz, 1999; Mezirow, 1991).

Mezirow (1990) asserts that through reflection, individuals often arrive at an "a more inclusive, differentiated, permeable and integrated perspective" (p. 14). To encourage critical reflection, instructors may have people engage in role plays. Role reversal activities help learners to explore and express views other than their own, which could encourage them to broaden their perspectives (Cranton, 1994). Another technique involves a method of journal writing, in which learners use one side of the page for observation and descriptions and the other side for thoughts, feelings, related experiences, or images provoked by the description (Cranton, 1994, p. 179).

Mezirow (1991) maintains that discussion with others is integral to adult learning and development. Instructors who champion the psychological / cognitive view provide discussion guidelines (Cranton, 1994) that ensure an atmosphere of trust, safety, and respect in which learners felt comfortable expressing their ideas. Instructors also allow for quiet time in the discussion groups.

"Teachers who champion the psychological / cognitive framework believe that knowledge is constructed and that adults are active participants in their development."

Lastly, teachers recognize that learners' receptiveness to information may be based on their life stage or time of transition. People often return to the classroom during a time of transition (Daloz, 1986; 1999). Instructors holding the psychological / cognitive view watch for what Havinghurst (1972) has termed "teachable moments," in which people are ready to learn and apply a concept because of their life situation.

Teachers who champion the psychological / cognitive framework believe that knowledge is constructed and that adults are active participants in their development. Instructors encourage critical reflection and discussion through a variety of activities. They realize that learners often return to school during a time of transition and look for "teachable moments" in which learners are receptive to new ideas.

Contextual / Sociocultural

The contextual / sociocultural perspective on development works from the point of view that adult development cannot be understood apart from the sociohistorical context in which it occurs (Miller, 1993). Vygotsky (1978), a well-known proponent of the contextual approach, believed that people are not separated from the contexts in which they live, but are part of them. Vygotsky (1978) called this the child-in-activity-in-context. This developmental stance also asserts that culture influences what people think about, what skills they obtain, when they can participate in certain activities, and who is allowed to do which activities (Miller, 1993). Miller (1993) writes, "Different cultures emphasize different kinds of tools (for example verbal or nonverbal), skills (reading, mathematics, or spatial memory), and social interaction (formal schooling or informal apprenticeships) because of different cultural needs and values" (p. 390). This, in turn, influences whom people become.

Sociocultural elements such as race, class, gender, ethnicity, and sexual orientation influence adult development (Chavez & Guido-DiBrito, 1999; Cross, 1995; Kroger, 1997; Merriam & Caffarella, 1999). These factors position people in relation to each other and in relation to a society that rewards those who fit the US "mythical norm," which Audre Lorde (1984/1995) defines as *"white, thin, male, young, heterosexual, Christian, and financially secure"* (p. 285) (italics in the original). US society devalues those outside this mythical norm.

It is the intersection of these factors rather than a single factor that affects adult development and

learning (Baumgartner & Merriam, 2000; Etter-Lewis & Foster, 1996; Johnson-Bailey, 2001). For example, Johnson-Bailey (2001) examined the common experiences shaping the persistence in higher education of African-American women who enrolled at a non-traditional age. Through these women's stories, she poignantly demonstrates how discrimination based on race, class, and gender affects their educational journeys. Speaking about the influence of racism and sexism in their lives, Johnson-Bailey notes, "Racism and sexism impact the educational experiences of Black women in many ways. As Blacks, they are thought to be intellectually and morally inferior. As women, they are held to task for the alleged inadequacy of their gender's intellect" (p. 91). The contextual / sociocultural approach views individuals as inextricable from the society in which they live; they develop in ways intrinsic to themselves but molded by the discriminatory forces of society within which they function.

Instructors utilizing this framework may use Vygotsky's (1978) idea of guided learning. The teacher and learner are active participants in the learning process. Learning involves observation, collaboration, and "scaffolding" (Shaffer, 1994, p. 78). Scaffolding requires that the teacher adjust the instructional level based on the learner's response. The learner is an apprentice who develops culturally relevant skills through thought and action (Vygotsky, 1978).

Teachers who adopt a contextual / sociocultural approach to adult development also focus on how social inequities based on various attributes including race, class, and gender affect adult development and learning. Like their colleagues who work within the psychological / cognitive paradigm, the instructors who believe in the sociocultural context are interested in having their students gain increasingly integrated and higher levels of understanding through critical reflection and discussion. However, they may take an approach that focuses on social justice, encouraging students to question critically why social inequities exist and how these inequalities remain part of the educational experience. For example, they may ask students to reflect on how school policies, procedures, and curriculum continue to privilege some while discriminating against others (Apple, 1996; Apple & King, 1983).

Educators who ascribe to the contextual / sociocultural view of adult development also recognize the importance of increasing students' cultural awareness. Sleeter and Grant (1988) write, "The ideology of multicultural education is one of social change — not simply integrating those who have been left out of society but changing that very fabric of society" (p. 139). Furthermore, these educators strive to introduce the idea of cultural pluralism, defined as "maintenance of diversity, respect for differences, and the right to participate actively in all aspects of society without having to give up one's unique identity" (p. 140).

"Teachers who choose this paradigm realize how race, class, gender, and sexual orientation influence adult development."

These instructors infuse materials from different cultures into their curricula, perhaps gathering stories to demonstrate a particular concept through a variety of cultural lenses. For example, a teacher of General Educational Development (GED) students may provide reading materials that examine the institution of marriage through different cultural lenses. She might help her students analyze how various aspects of a person's identity affect marriage.

Teachers who choose this paradigm realize how race, class, gender, and sexual orientation influence adult development. They encourage students to question critically how societal inequities are reproduced in the classroom. Instructors who see adult development through this lens also work to increase people's cultural awareness.

Integrated Approach

The integrated approach to adult development takes a holistic view of adult development. This perspective is focused on how the intersections of mind, body, and sociocultural influences affect development (Clark & Caffarella, 1999). Spirituality is also sometimes included in the integrated approach (Dirkx, 1997; Tisdell, 1999).

Perun and Bielby's (1980) proposed integrated model of development suggests that the life course is composed of changes on several levels across time. Changes in each area follow their own timetables. Different types of changes include physical changes, changes in the family life cycle such as being married and having children, changes in work roles, and in emotional tasks (Perun & Bielby, 1980, p. 102). Stress results when the timetables are asynchronous (Perun & Bielby, 1980).

While others do not present a model, they draw attention to aspects of adult development that are not widely discussed, including spirituality. For Tisdell (1999), spirituality is connection to history, to others, and to moral responsibility (p. 89). Moreover, Tisdell notes the inextricable tie between culture and spirituality. All are interconnected and, maintains Tisdell, all are important for adult learning. Recognizing spirituality as an aspect of the adult learner's experience, realizing its importance in meaning-making, and understanding "spirituality as the grounding place for

the work of many emancipatory adult educators" are important concepts for adult educators to grasp (p. 94).

Dirkx (1997) discusses "nurturing the soul" in adult learning (p.79). Instead of relying exclusively on logic, he invites educators to explore "ways of knowing grounded in a more intuitive and emotional sense of our experiences" (p. 80). In this type of transformative learning, students move beyond the rational to the extrarational. Images and symbols are important in this type of learning. Learning through the soul "has to do with authenticity, connection between heart and mind, mind and emotion, the dark as well as the light" (p. 83).

Teachers who espouse the integrated approach to adult development believe in the interconnection between mind, body, spirit, and sociocultural factors. They are interested in promoting students' growth intellectually, physically, emotionally, aesthetically, and spiritually (Miller, 1999). Encouraging students to connect to course content in a variety of ways requires myriad techniques. Instead of relying solely on class discussion and written work, teachers may encourage students to construct a learner's portfolio in which course content is addressed in a variety of ways including, for example, art music, poetry and fiction, or dance. Other techniques may include visualization and meditation.

Instructors who see adult development as an integrated process may be more sensitive to the idea of multiple intelligences (Gardner, 1993). This theory notes that there are seven kinds of intelligence: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, and intrapersonal. These teachers incorporate activities that address different types of intelligences into their teaching (see *Focus on Basics* Volume 3, Issue A, on how teachers use the theory of multiple intelligences in the adult basic education classroom).

Promoting spiritual development in learners' lives is of interest to those who adopt an integrated approach to development (Tisdell, 1999; Palmer, 1999). Spirituality is often equated with connection to others and to something larger than oneself (Palmer, 1999; Suhor, 1999). Connecting subjective feeling with objective fact by journaling, by promoting discussion that "generates a sense of unified consciousness" (Suhor, 1998/1999, p. 14), or by creating sensory experiences such as viewing a beautiful painting or engaging in a walk outdoors is a way to achieve this connection and begin to discuss larger life questions.

> *"Those believing the integrative approach recognize the intersection between mind, body, spirit, and sociocultural factors."*

Those who adopt the integrative framework of adult development may also be acutely aware of the teacher–student interaction. They may simultaneously observe themselves and their students in interaction with each other. They may encourage themselves and their students to engage in an activity and then journal the physical feelings, emotional issues, and analyze the situation (Brown, 1999).

Those believing in the integrative approach recognize the intersection between mind, body, spirit, and sociocultural factors. They recognize the importance of connecting students to course content in a variety of ways to promote growth on several levels. Writing stories, discussion, drawing, other artwork, and engaging in visualization and meditation may be techniques used to encourage this development.

In Conclusion

In conclusion, each of the four lenses on adult development makes different assumptions. Recognizing these different outlooks on adult development broadens our perspective on adult development and its relation to practice. This awareness can lead to appropriate instruction for our students, which, in turn, will promote their development, whatever you believe it to be.

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Letting Learners Lead:
Theories of Adult Learning and TV411

by Debby D'Amico and Mary Ann Capehart

Do adult learners benefit from educational television? Can educational television support learner leadership and help teachers position themselves as facilitators? What do viewers actually learn? What can practitioners learn from research on the impact of educational television? These and other questions guide researchers from the Institute for Social Research (ISR) at the University of Michigan, as they study what viewers learn from TV411. Created by the Adult Literacy Media Alliance (ALMA), TV411 is a national television series that aims both to reach learners not enrolled in adult basic education (ABE) classes and to enhance the education of learners enrolled in such programs.

Findings from the Pilot Study

ISR has completed a pilot study of TV411 use by facilitated groups (Johnston et al., 1999). Facilitated groups differ from typical adult literacy classes in this way: in a class, a teacher takes primary responsibility for designing and delivering instruction that meets particular curriculum goals, even if he or she uses video, print, or other materials in the lesson. In the groups in this study, in contrast, a number of features ensure that instruction is either materials- or learner-centered rather than teacher-centered.

The pilot refined the parameters of the overall research project and developed measures of learning impact. The results indicate that working with TV411 changed most participants' sense of themselves as learners. Three measures support this finding. The first is that study participants, who were not enrolled in any other adult education program at the time, changed their future plans for education significantly over the 10-week course of the study. Two-thirds reported that they now wanted to complete a certificate of General Educational Development (GED) and others hoped to go to college or enter job training. The second measure is that participants' confidence about their ability to carry out specific literacy activities covered in the materials (such as using a thesaurus, or writing a poem, song, or essay) increased markedly. The third was that participants also reported an increased likelihood that they would engage in the specific reading, writing, and math practices presented in TV411 materials (such as reading a newspaper or editing their own writing), as measured by a pre- and poststudy oral survey. The increase was strongest among literacy behaviors that were infrequent before the TV411 exposure, but also held for behaviors in which participants had engaged before the experience.

The 18 learners took the same two tests — one of math concepts and the other of writing mechanics — before and after the 10 week facilitated group study. Scores on the posttests were, on average, 16 percent higher than on the pretests. Both the changes in self-concept and these learning gains occurred after only 10 weeks, or about 30 hours, of group study, which is much less time than is usually spent in conventional instruction before students are expected to show gains. Taken together, the results of the pre-and post-study tests and of the short weekly quizzes show that adult learners can improve their skills and knowledge by engaging with TV411 in a facilitated group setting, and that at least some of these learning gains are sustained.

Mary Ann Capehart (front row, left) and her students participated in the study of TV411 discussed in this article. *Photos by J. Johnston*

Potential Impact on Practitioner–Learner Dynamics

While many adult educators espouse learner-centered instruction and aspire to share decision-making power in the classroom with learners, two recent studies show that few classrooms really operate according to these theoretical principles (Beder, 2000; Purcell-Gates et al., 2000). According to Purcell-Gates, adult

literacy classes dramatically fail to reflect these prevailing beliefs about best practice for adults. Whether or not the facilitated group design of the study conducted by ISR represents a true collaborative setting, the extent to which learners took charge of the class genuinely surprised both the researchers and the instructors. The observations detailed below (derived from a second study, the results of which have not yet been published) suggest that using TV411 in a facilitated group setting fosters learner leadership in the classroom, allowing ABE practitioners to realize their goals for learner-directed instruction.

A Practitioner's Perspective

Coauthor Mary Ann Capehart participated in the second study of facilitated groups. None of her eight students had been in an adult education class for at least six months prior to the study. They were all without a high school diploma or GED certificate, and were all native English speakers or competent nonnative English speakers reading at grade levels five to eight as measured by the Tests of Adult Basic Education (TABE). They were paid a stipend of $180 to participate. The group met twice a week for two hours each meeting, for 10 weeks; the pilot group met only once per week. During the 10 weeks, they watched nine videos and used nine workbooks. The meetings were scripted, to ensure that they conformed to the facilitated group model, which, in turn, ensured comparable data for the study.

The theories of adult learning on which TV411 is based advocate active, learner-centered education. The materials seek to create a community of learners who direct their learning and increase their literacy practices: the facilitated group takes this a step further by creating a supportive community in which to do this. The group model required was initially threatening and uncomfortable for both learners and for Capehart, but, over time, the amount participants could learn from each other and by themselves was a revelation to all. The lead researcher, who has many years of experience with educational and media research, now feels that TV411, when used in a facilitated group, is a catalyst for changing the way teachers teach and learners learn (Johnston & Petty, 2001, personal communication).

During the first meeting of each week, the group viewed a TV411 half-hour episode in its entirety and took before and after quizzes on the content. Following the viewing, to identify a topic of interest for further study, learners discussed the content, asking questions of each other and of Capehart when the need arose. Sometimes, questions resulted in spontaneous mini-lessons, such as how to identify a prefix or calculate a percentage. At times, the group subdivided into smaller groups that examined their prior experiences with applying the skills they saw modeled in the video. Learners also evaluated the video from the perspective of what they found useful and why. For example, one learner said: "I really love learning new words because it makes me feel good about myself, and it helps me communicate on the job."

At first, Capehart suggested when to break into small groups; by the third week, however, the learners were directing this themselves. During the second meeting of the week, the group worked on the accompanying workbook to the video; again, they chose from among the activities and extended these in any way they chose. Learners kept portfolios of work done in and outside of the group.

Capehart has always aimed to make the classroom inclusive by creating an environment in which each person is known, respected, and valued. This was easier to do with the facilitated group because the materials for the class were assembled already, making it possible to solicit people's honest opinions and preferences, and to get them involved on an aesthetic level, and because she modeled the desired behaviors for the group. Showing the video at the beginning of the first class of the week draws everyone in, providing a shared experience. The modeling in the show, especially the true stories of adult learners, seems to build confidence, and may help participants ease into topics about which they may feel anxious. The people in the video episodes and workbooks are diverse in many ways — geographically, ethnically, in age, in notoriety, in level of career accomplishment — which may help to create an inclusive climate for learning.

During the first meeting of Capehart's group, they worked on goal setting with the TV411 *User's Guide*, which was developed to enable learners to assess their learning needs and set their own learning priorities. For example, the reading assessment

lists skills demonstrated by effective readers, and asks the learners how much they need to practice to do each activity well (a lot, some, a little, not at all). These lists were designed

to empower the participants to evaluate what they needed to learn, and encourage them to become responsible for deciding when, where, and what to practice. The process also made everyone feel that they could already do some things, thus engendering a level of confidence. Learners became the ones who set the course.

TV411 materials center the learning experience in real-life contexts, chosen for their meaning to adult learners. The familiar television genres used in the segments of TV411, as well as the use of celebrities, sports stars, and well-known authors, constantly connect literacy practices to the larger literate community. The students were excited to learn that Toshi Reagon, a songwriter featured in a segment on writing, for example, was appearing in a local concert.

Having the TV411 materials and general format for classes determined by the research protocol was surprisingly reassuring, for both Capehart and the learners. Too often, Capehart reports, she has not had enough books for all her students or the materials were poor-quality photocopies. The physical appeal of the TV411 materials made an impression. Also, everyone in the group knew the content, how many videos there were, how many the group would be watching, what material would be covered, and when. Each meeting had a routine that became familiar, so everyone knew what to expect. Learners could anticipate and direct what would happen within this overarching structure, and not depend on the whim of a teacher. They could count on a certain type of activity and decide what they wanted to emphasize.

Because of this, as time went on learners directed the group activity more and more. They would say, "We want to read this aloud together," for example. Because the subjects of the TV411 segments lead out into the world, learners, especially those who spent most of their time at home, felt less isolated. Some of the learners made it a point to see movies based on books featured in the book club segments of TV411, while others got the books themselves.

Personal Transformations

At the end of the group, a number of learners went to a drop-in GED site to be tested. One enrolled in a GED class. Another, who had been forced to leave school at 11, experienced the kind of transformation described by Mezirow (2000) and Kegan (2000). By putting her own feelings on paper, sharing them with the group, and accepting their feedback, she was moved to alter her sense of self and dramatically change her life. At the beginning of class, she confessed to being terrified of "making a fool of myself in writing." During the course of the group, she read an article that said negative things about the work of nurse aides, which was her job at the time. She disagreed with the article, and wrote a paper about her experiences on the job, got furious, and in that crisis of anger made the decision to go back to school. She had four or five kids, so it was not an easy decision. She said that she began to feel that her personal issues connected to larger issues, and to topics discussed in the media. Because of her experience with the group, she saw that she did not have to rely only on her own resources: she could ask for and receive help from others.

During the group meetings, students decided that they learned best by sharing their work and encouraging each other to work on weak areas. Capehart recalled a tense moment when the learners decided, based on a time management exercise in TV411 video and print, to share their daily planners. The activities of those who were working and those who were not contrasted markedly. But the learners got past that. Capehart also realized that the group had formed a community when she noticed the Latina women and Chinese women beginning to speak across the ethnic divide.

Perhaps the Milestones segments help people to talk without self-consciousness about the level of expertise they were attaining and how they were experiencing the process of

learning. To see others like themselves telling their stories in engaging ways in a beautiful visual format is very different from a teacher telling them they can do it. It recasts their experience in the light of what they have seen others experience, putting it on an important public level. The workbook exercises are structured so that learners can experience success in the short term and boost their

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What is TV411?

TV411 is a series of 30-minute television shows broadcast on enough PBS and cable stations to reach half the households in the United States. Modeled after popular television genres, the show's major themes are parenting, money, and health. Each half-hour episode is in a magazine format, with five or six major segments that cover a range of reading, writing, and math activities situated within themes and settings of concern to adult learners. While the varied genre and topic format works for broadcast by ensuring enough different segment styles and themes to appeal to a wide audience, teachers, tutors, and facilitators often choose a segment or a series of segments from different shows to conform to their specific class themes and projects. To date, 20 half-hour episodes of TV411 have been produced, each available in video with an accompanying magazine-style workbook.

TV411 is a "how to" show: it models how to learn. The approach to learning is active and strategic; the content demonstrates and explains literacy practices in context, such as two co-workers figuring out payroll deductions. The print material provides structured opportunity to practice the skills demonstrated in the show; for example, the components of a paycheck are examined in the workbook section related to the paycheck video segment. The show is aimed at pre-GED and intermediate- to advanced-English for speakers of other languages (ESOL) adult learners, although some practitioners have adapted its use for beginning readers and lower-level ESOL students.

The contents of Episode One give the flavor of TV411. This show opens with **Question Man**, a comic figure who recurs throughout the series and models asking questions in unlikely places. In Episode One, he asks a toll booth clerk for help in boosting his vocabulary and receives a short lesson in using a thesaurus while angry commuters roll their eyes behind him. Next, in **Word Up**, poet and teacher Steve Coleman delivers a rap-like poem about synonyms and antonyms. **Pop Quiz**, a multiple-choice question that focuses on general information, such as average life expectancy, follows. Pop quiz creates a comfortable, fun way to practice multiple choice questions. Following is a **Milestone** segment, a short documentary that tells the story of an adult learner. In Episode One, Dallas Farmer, now the owner of an auto repair shop, recounts his learning journey in his own words. Not surprisingly, Milestones are the most popular segments among adult learners. **Personal Portfolio** is next: a four-minute segment on compiling a personal dossier of accomplishments. Its message is that even individuals without work histories can describe their accomplishments to an employer. The setting is a real job search class in a New York City settlement house. Then comes **Laverne**, played by actress Liz Torres. Laverne is a clerk in the Big Store, a K-Mart-like place where she helps co-workers and customers with such challenges as determining unit pricing, reading food labels, writing a message on a blank card, estimating the cost of a painting job, and filling out a credit application. In the first show, she helps a co-worker calculate the amount of taxes taken out of her check by illustrating with lunch: a quartered pizza. The final segment features singer Michael Franti in an MTV-like **Words Behind the Music** segment. In these segments, famous singers describe their writing processes. Franti talks about the fear of writing, writing blocks, and writing tricks and techniques he uses to make his writing come alive. The show closes with **Buzzword**, a definition of a word used in the show that takes less than a minute and is part of every episode.

TV411 In Print provides structured opportunities to practice the reading, writing, and math skills featured in the show. Each issue contains a deconstruction of a commonly used document or type of prose; for example, readers might encounter the parts of a newspaper article, a job application, a resume, or a business letter. "Words to Know" features vocabulary strategies. The "How to" pages explain how to tackle common learning challenges, such as taking a test, editing your work, reading critically, or keeping a journal. In "Learn About," readers explore such topics as learning styles, reading to children, making a budget, and putting together a family album. "Good Reading / Good Writing" contains a piece of writing related to the show and a writing exercise for readers. The "Brush Up" section contains mini-lessons on such topics as punctuation, spelling, reference books, or reading hard words. In "People," the final feature, readers can learn about the Milestones subjects, the singers in "Words Behind the Music," or the authors in the show's book club. The back page provides a checklist of the activities in the issue with which learners can keep track of what they've done for their portfolios. It also features a cartoon and various kinds of quick quizzes, as well as ALMA contact information.

TV411's web site, expected to debut by 2002, will be highly interactive. Visitors will be able to read profiles of adult learners and the show's celebrities, write poetry, improve spelling, calculate their own paychecks, etc. Learning games, a way to keep a portfolio of work, chat rooms, and topical guest speakers will also be features.

Although using the web and print materials along with watching the show provides the deepest TV411 experience, any part of these components can be understood and used by learners on its own. Because the show is iterative and recursive, learners can enter the materials at any episode and not feel they have missed something. ❖

confidence about what they can do now and what they might try. They can work as much or as little as they are able, and they are still responding to the context.

Challenges

One challenge for programs that use video is regular access to a TV and VCR for all instructors who want to work in this way. Another is storage space for the set of videos and print. Watching video materials needs to become a routine part of class, otherwise it sets up the expectation of something that is special and apart from what is usually done, and not part of the learning experience. As adult learners and practitioners work more with technology, including both video and computers, we can hope to learn more about what kinds of literacy practices are best learned with what tools, under what circumstances, and with what kinds of learners. The short duration of the facilitated group in the study also raises the question of how long this level of interest and group rapport can sustain itself. Another challenge for facilitators is to address learner goals for achieving credentials. When a passing GED score is the desired end, learners need to understand how materials such as TV411 get them closer to that goal while not explicitly addressing it.

Conclusion and Implications

The quantitative and qualitative findings from the first ISR study provide a number of challenging possibilities for ABE practitioners. Using the TV411 materials in a supportive group environment has the potential to impact adult learners in a positive way and lead them to take greater ownership of their own learning. Perhaps more interesting is the synergy that broadcast and video make possible among adult education programs, informal learning settings, and individual adult learners.

We want learners to lead, but they want teachers to give direction in their realm of expertise: the growth and use of literacy in the real world. Capehart's experience suggests that a set of materials that place adult learners in real-life settings, feature adults who acquired or improved literacy late in life as learning masters, and entertain and engage adults both intellectually and emotionally can, when combined with a supportive group structure, facilitate a learning environment in which the learners will lead.

Specifying which decisions are the province of learners yielded a way to allow learners to take center stage and could be adopted for this reason. Using materials that vary the voice of knowledge giver or learning leader fosters comfort with a different kind of learning environment, and can help position instructors differently in relation to learners.

Capehart suggests that a set of enabling beliefs on the part of the practitioner, coupled with a type of modeling that occurs in the TV411 materials, are instrumental in supporting learner leadership. These enabling beliefs include: 1) confidence in the efficacy of the materials and medium used (in this case, TV411 video and print); 2) belief in the ability of adults with a low level of literacy to evaluate their own learning and competency; 3) faith in practice as a primary means for improvement in literacy and numeracy; and 4) belief in the fundamental importance of modeling as a way of facilitating learning behaviors.

Regarding the latter, specific kinds of modeling facilitate learner leadership in the classroom: 1) modeling learning based on a clearly defined and finite task; 2) modeling the kind of questioning that effectively spurs the search for more information, examples, or explanations; and 3) modeling how to revisit materials to find answers and solutions to questions. Demonstrating these learning behaviors helps learners to experience, not just hear, how important it is to articulate what they don't know; to understand that it is acceptable and normal to not understand things the first time; and to get comfortable with the idea that no one, not even the "teacher," has all the answers. These beliefs and understandings are fundamental to establishing both facilitators and learners as lifelong seekers, and the classroom as a community of learners.

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The Theoretical Basis of TV411

Both the design of TV411 materials and the pedagogy of the facilitated group reflect several beliefs about adult learning. Adults learn best when they are actively involved in learning, engaged in making meaning, or constructing new knowledge, based on their prior knowledge and experience. This ***constructivist approach*** is based on students' active participation in problem solving and critical thinking regarding a learning activity that they find relevant and engaging. They construct knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to a new situation, and integrating the knowledge gained with pre-existing concepts. The teacher is a facilitator or coach in the constructivist learning process (Denver School of Education web site). TV411 segments feature adult learners, authors, songwriters, sports stars, and celebrities who model the process of constructing knowledge as they solve problems or make meaning through books, songs, and other written media For example, in one math segment, the Dallas Cowboys draw on the viewer's knowledge of football to build an understanding of percentages.

Research shows that metacognition, or the ability to reflect on, adapt, and manage one's own learning, is associated with successful learners (Paris & Pareki, 1993). Without thinking about how they learn, adults cannot direct their own learning, or participate in the active way that constructivist approaches advocate. Metacognition also involves affective motivational beliefs, self-referenced ideas about will as well as skill (Paris & Pareki, 1993). Adults in TV411's target audience — who already have at least partially learned reading, writing, and math skills — need to develop a ***metacognitive awareness*** about their own learning so that they can direct it in the ways that matter to them and work for them. In a Milestones segment, adult learner Sheila Green talks about how she managed her own learning to qualify for a travel agent training course she wanted to take. She demonstrates how she set aside a time and place at home to study, putting her five small children to bed earlier than usual so that she could concentrate. She shows how she used context clues to read hard words, took notes on what she read to improve her comprehension, and began reading articles of interest to her in the newspaper every day on her way to work to become a more fluent reader.

TV411 materials address the ***affective dimension of learning,*** in ways that support both motivation for learning and metacognitive awareness. The series includes stories of adult learners who share their learning strategies and learning journeys. The voices of adult learners who have acquired literacy and numeracy as adults serve three critical functions for viewers: **1)** they inspire others to feel that they too can succeed at learning as adults, **2)** they position adult learners as authorities on their own learning, and **3)** they demonstrate learning strategies and pathways that others can try. In Capehart's group, the candid and sensitive expression of emotion by adult learners in the Milestones segments encouraged some participants to express deep feelings about their own education and their lives. They began to see that literacy was not only about helping them to use language better, but also about freeing themselves by using language to release emotions that stood in the way of learning.

Finally, TV411 looks to ***social theories of learning*** to place literacy and numeracy acquisition in a wider framework. Adults learn most of what they know outside the classroom. Only five to eight percent of the adults estimated to need literacy instruction ever enter a program (Pugsley et al., quoted in Quigley, 1997: 193). Therefore, it is critical to understand what happens in the other places where they do learn.

The theory of communities of practice, which emerges from the work of Wenger (1998) and Wenger and Lave (1991) on apprenticeships in diverse cultural settings, is a way of applying constructivist theory to how adults learn to become part of social groups. Communities of practice are social settings in which adults construct identities and move from the role of novice to master as they learn the practices of the group. Examples include members of a trade, such as midwives or tailors; members of formal or informal associations, such as Alcoholics Anonymous or new mothers who meet at the playground and compare child rearing notes and strategies; or church, community, or ethnic groups. Fingeret and Drennon look at the process of how adults become members of the literate community, and begin to increase and deepen the literacy practices in which they engage (1997). Reder and Green (1985) looked at how literacy and numeracy might be learned outside the classroom, in the context of informal networks. Because TV411 hopes to reach those who are not in classes, in addition to supporting classroom learning, this research helps us think about how that might happen in the homes and communities of adult learners. In TV411, folks learn in stores, at ball games, at home with their families, and in other everyday settings. ❖

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TV411 and the Transformation of Self

by L. Earle Reybold

D'Amico and Capehart, in their article on TV411, emphasize a significant link between collaborative pedagogy and changes in participants' sense of self as a learner. Program characteristics of TV411 — a learner-centered format and self-directed, authentic instruction — noticeably reduce learner anxiety and encourage participant ownership of the learning process. Building on an established relationship between education and human development, I will explore how pedagogy translates to changes in learners' sense of self, particularly their sense of self as a learner.

Adult learning and development of self are connected experiences (Clark, 1993; Tennant & Pogson, 1995). Learning promotes development, while development encourages further learning. This is particularly true when educational experiences endorse learner autonomy through self-directed learning; learners have the opportunity to change their attitudes about education and knowledge, leading to a changed sense of self as a learner (Tennant & Pogson, 1995).

Development of identity as a learner is integral to adult literacy education, especially in a program such as TV411 that moves literacy instruction beyond essential academic and vocational skills. A humanist approach to adult literacy provides "an opportunity to nurture and build self-esteem among learners" (Quigley, 1997, p. 110). With the primary goal of TV411 focused on self-directed learning, the program anticipates the participants' transformation of self as learner, assuming participants eventually will take ownership of their learning process. Examples of the program's humanist thrust include student-authored portfolios of learning experiences, facilitated group work that encourages communication across differences, and an authentic curriculum oriented to participants' life contexts. This pedagogy creates an educational environment conducive to development of the self as learner.

This concept of transformation implies radical change, a developmental enterprise that "shapes people" (Clark, 1993, p. 47). Mezirow's theory of adult learning, which he calls perspective transformation, is "intimately connected to the developmental process" (p. 47) because learning has the potential to transform one's sense of self when it challenges an individual's meaning system. This meaning system is the lens through which individuals mediate and interpret their experiences, or make meaning. According to Clark (1993), "if learning is the restructuring of meaning as adults engage life experience, then learning can be conceptualized as the vehicle of adult development" (p. 53).

The very goal of transformational learning is to develop "a crucial sense of agency over ourselves and our lives" (Mezirow, 1981, p. 20). But Mezirow's theory suggests this agency, or personal autonomy, extends beyond the educational arena into the everyday life of the learner. This "freedom of adults to act," says Clark (1993), "is directed toward their own growth and development" (p. 50). The development of personal autonomy through transformational learning encourages continued self

development.

Kegan (1979) defines self as the "zone of mediation where meaning is made" (p. 6). According to Kegan, this zone of mediation "is the person" (p. 6). Perspective transformation is about changes in an individual's consciousness, changes in how a person makes meaning of the world around him or her. In other words, transformational learning has the capacity to advance the self-as-knower "toward more inclusive, differentiated, open, and integrated meaning perspectives" (Cranton, 1994, p. 28).

Transformational learning, of course, is an ideal goal of adult education. But personal empowerment through self development is only one aspect of the TV411 program. The program strives to balance the need for both technical and personal development through adult literacy education that honors the development of human potential.

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Common Ground

Theories of Adult Basic Education and the Practice of Career and Technical Education

by Lynne M. Bedard

"I take it that the fundamental unity of the newer philosophy is found in the idea that there is an intimate and necessary relation between the processes of actual experience and education."

(Dewey, 1938, pp. 19, 20)

The career and technical center where I teach is located in an urban environment and serves a diverse population of approximately 500 students. Programs in the school cover a wide range of areas, including auto technology, collision repair, graphic design, health occupations, construction technology, computer science, child studies/human services, travel and tourism, finance, and a Cisco networking academy. Because of the nature of hands-on learning, the school follows a four block schedule; each block is approximately 90 minutes long. Students in the first year spend one block in their career and technical program, while advanced students may be assigned to two blocks so they can participate in internship experiences.

In my position as a career and technical educator, I have witnessed the power of experiential learning. Both adult basic education teachers and career and technical instructors recognize and respect the value and richness of experience. I have discovered that experiential learning makes learning more relevant because it enables students to apply what they are learning. Often, students have arrived in my classroom unsure of their direction. Sometimes they have already become bored with and disconnected from school and learning. Some students have even been told that they are not bright enough to consider college or any other postsecondary educational opportunities. At the other end of the spectrum, a few misinformed guidance counselors have occasionally discouraged college-bound students from enrolling in a course at the career and technical center because these students are considered to be too smart. This tactic perpetuates the false notion that courses promoting experiential and applied learning should be limited to those individuals who will go right into the work force without attending college or seeking further training. Image problems still plague career and technical schools, and the curriculum is sometimes perceived to be less rigorous and challenging than that found in comprehensive high schools. This is a false assumption.

Experiential Learning

Experiential learning provides the sturdy foundation upon which the programs in the career and technical center where I work are built. I am one of two instructors who coordinate the three-year child studies/ human services program. This program is scaffolded to build on each new experience, just as adult basic education builds on experience. In the first year of the program, students study theory related to early childhood education and they learn to work with preschool-age children in our on-site Early

Childhood Center. During the second year of the program, students study the growth and development of school age children, and they complete internships in elementary classrooms within the community. Students then go on to focus on special education, and they intern in a variety of settings including medically fragile, mild/moderate, severe/profound, and English for speakers of other languages (ESOL) classrooms. Upon successful completion of the program, students become eligible to receive state approval as teacher assistants because the program has met state standards for teacher assistant certification. Through the development of an articulation program with a local community college, students may also earn three college credits.

Within the framework of the child studies/human services program, the internship experience is a critical piece in a student's professional and personal growth. This internship opportunity is directly linked to the psychological/cognitive approach to adult learning. Clark and Cafarella (1999) describe the psychological/cognitive approach as being one that focuses on a person's 'internal development processes' in interaction with the environment (p. 5). Humans are viewed as active participants in their own development who construct knowledge rather than responding to existing knowledge (1999). As educational endeavors, both adult and career and technical education promote the active participation of individuals in their own learning. In both cases, learning through experience and building on experience are valued and respected forms of pedagogy. Experiential learning can be employed as an effective instructional tool. Kolb (1984) defines experiential learning as being the process of learning from experience that shapes and actualizes developmental potentialities (p. 133). For many of the so-called non-traditional students enrolled in schools today — minorities, the poor, and mature adults — experiential learning has become the favored method of instruction in colleges and universities (1984). Experience-based education can include a diverse range of programs, from role playing activities in the classroom to venturing outside the walls of the school in order to pursue real world opportunities. Shadowing, where a student spends time observing in a particular work environment, internships, field placements, work–study assignments, cooperative education agreements, and apprenticeships (1984, p.3) offer students a chance to explore the real world of work. These innovative and engaging opportunities can make learning more meaningful while strengthening the critical connections between education, work, and personal development, and ultimately affirming the concept that learning is a lifelong process (1984, p. 4). Murphy (2001) believes that using instructional methods that focus learners' attention on concrete application of theory in the practicum setting also enables them to enhance their reasoning skills. The psychological/cognitive approach to adult development contends that people reach more complex, integrated levels of development through their active involvement with their environment (Baumgartner, 2001). Peering through the lens of a practitioner, I have found this to be true, and what's more important, my students have too.

"Her true voice emerged slowly from each filled page in her reflective journal."

"I think that this internship experience has had a huge impact on my choice of a career. Without my internship experience, I don't think that I would have made it through high school." These are the words in a journal entry written by Allyson, a second year student. Allyson enrolled in the career and technical center as a tenth grader and she is now a senior in the program. Her educational journey through the maze of middle school and high school has been fraught with barriers and she struggles daily to find her way. Allyson's home life is difficult and she suffers from depression that requires medication. She has also been diagnosed with a chronic kidney ailment, so attending school has been a challenge for her. In her first year in the class, a combative attitude sometimes colored her behavior, and her future in the program was in doubt. Allyson entered the second year on academic probation and she was not assigned to an elementary school internship until November (other students had been placed in early October). Although I was hesitant to place Allyson in an elementary classroom, I finally assigned her to a teacher whose caring nature became an essential ingredient in Allyson's progress. The classroom teacher and I closely monitored Allyson's performance, and within a few weeks both her attitude and her attendance improved. The classroom in which she was placed was constantly challenging and many of the students had behavior issues that complicated their ability to learn. Once she became immersed in her field experience, Allyson began to look forward to coming to school and she began to focus more on her school assignments. She has blossomed because she has found a place where she feels she belongs. Allyson's story is not unique in career and technical education, and students enrolled in adult education also have similar stories of obstacles they have encountered during their pursuit of learning.

At the heart of Allyson's success is the internship experience, and her increased motivation is evidence of her achievement. When evaluated on a rubric that measures 16 teacher assistant competencies, Allyson exceeded the standard in 10 areas, and she achieved the standard in the remaining six areas. According to her cooperating teacher, Allyson has made excellent strides in her classroom behavior management skills and, as the year progressed, she became more effective in her ability to communicate with both children and adults. Her enthusiasm has been described as 'wonderful and sincere' and Allyson never once displayed a negative attitude and was always positive and open to suggestions. She also followed through on feedback that she received. In the classroom she showed a sense of humor and she reacted to the children in a sensitive and caring manner. Inspired by her internship experience, Allyson wants to learn more and her goal is to keep improving her skills, but still lingering in her mind are the memories of a teacher who once told her that she would always be a failure. It is my belief that instructors who work in adult basic education as well as those in career and technical education must sometimes mend the damage done by prior negative learning experiences in order to enable the learner to move forward.

Reflection

A significant component of the internship experience in my program is reflection. Students are required to reflect daily and write these thoughts in a journal, which is submitted to me weekly. This pushes students to think critically about their internship experiences, which helps them to attain a more integrated perspective. Emily, a student who graduated recently, is an extremely quiet and shy individual who exemplifies the power of reflection. Her true voice emerged slowly from each filled page in her reflective journal. Emily always sprinkled precise details throughout her reflections of each day's activities at her internship in a special needs classroom at a local elementary school. Described as mild/moderate, this classroom includes children with pervasive developmental disorder (PDD). Emily analyzed occurrences in the classroom while commenting about changes that she observed in the children as the year progressed. Her insight became so highly developed that her cooperating teacher commented that Emily's insight into children and their learning challenges is the best she has seen in 22 years of supervising both high school and college interns. The entry in the box is an example of the thick, rich description found in Emily's journal.

> Cruz is Puerto Rican, and he has tan colored skin, brown eyes, a small pointy nose and neatly cut black hair. When his mouth is closed, the lump on his upper lip emphasizes his overbite. When Cruz walks, he walks with a hop because he walks on his toes. He lives with his grandmother and a cousin, and the language spoken at home is Spanish, but Cruz is limited in both Spanish and English. In the classroom, he enjoys being on the computer, and he likes playing games that deal with coloring, matching, and putting puzzles together. When a timer signals the end of computer time, Cruz gets upset and throws the timer so hard it has to be replaced. Throwing things is one of the ways he deals with stress.

Emily was offered full scholarships (one totaled $25,000 per year) to two schools, and she chose to attend a local university to pursue a course of study in early childhood and special education. Before she attended the career and technical center, Emily led a rather sheltered life and rarely went out after school. Because her internship required her to venture into a new environment, Emily emerged from her cocoon and she became more aware of her community. As she spread her wings she began to feel more comfortable working with children and adults. To my surprise, Emily even decided to live on campus this year!

Dialogue

Dialogue is another technique that I find effective in linking the classroom with the real world. It provides students with the opportunity to share their experiences, which enables them to feel that they are part of a learning community. Students enjoy talking about children in their classrooms, and sometimes they ask each other for suggestions about a lesson they are planning or for tips on how to handle a behavior problem. Through dialogue, students also feel more secure talking about cultural and societal issues. Because of the diversity of both my students and the children that they work with at their internships, a message of the importance of cultural awareness and respect is threaded throughout my curriculum. I often assign students articles to read that focus on diversity to cultivate critical thinking that in turn will generate meaningful discussion.

Vygotsky (1978) supported the contextual approach to development: he believed that people are not separated from the contexts in which they live, but instead they are part of them. When students are empowered by their school experiences, they develop the ability, motivation, and confidence to succeed academically and they go on to participate effectively in instruction because they have developed a confident cultural identity (Cummins, 1983).

Dialogue is also an effective technique when utilizing a contextual/sociocultural approach in the classroom. Wlodkowski and Ginsberg (1995) believe that to enter into dialogue and then uncover and acknowledge the voice of each student is necessary for understanding that whatever each of us has to offer is grounded in political, social, historical, sexual, and economic context that is unique yet related to the culture of others (p. 171). Too often, the teacher's voice is one of universal authority and universal truth. Joining learner expression and language with teacher expression and language enables the perspectives of all learners to be shared and included in the process of learning (1995). Culturally responsive classrooms promote dialogue and reciprocity, and foster trust, respect, caring, and a sense of community (Bedard, 1999).

Dialogue with others is integral to adult learning and development (Mezirow, 1991). Shor and Freire (1987) describe dialogue as "the moment where human meet to reflect on their reality as they make it and remake it" (pp. 98-99). Through dialogue, which is the process of communicating, challenging, and affirming meaning, the world is transformed. Both adult and career and technical educators often witness this transformative process in their students' lives.

Teachers such as myself support the concepts of reflection and dialogue to maximize the potential of experiential learning while promoting more integrated development of students. Mezirow (1990) purports that through reflection, individuals often arrive at "a more inclusive, differentiated, permeable, and integrated perspective" (p. 14). In a recent study of student nurses, Murphy (2001) found that those students with the highest scores in clinical reasoning reported a high frequency of the use of focused reflection and articulation, engaged in abstract learning, and were more self-regulated in their learning than those in the study who scored low on clinical reasoning.

Conclusions

After 21 years as a career and technical educator, I realize that a variety of links do exist between theories woven tightly through the fabric of adult basic education and career and technical education. Both adult and career and technical educators are committed to preparing a diverse group of people to navigate successfully through the uncharted waters of a rapidly changing economy and society. From my perspective as a practitioner, I have come to believe strongly that the essence of both adult basic education and career and technical education is grounded in the adult development theories that focus on the concepts of experiential learning, reflection, dialogue, and culturally responsive teaching. Both endeavors deserve more recognition for the success that each has attained in educating their diverse populations while connecting learning to the real world. Common ground does exist between the two. This article has only begun to scratch the surface.

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