

# Andragogy in Practice

## Expanding the Usefulness of the Andragogical Model

### HISTORY OF ANDRAGOGICAL ASSUMPTIONS

Depending on which citation is consulted, various authors present andragogy in different ways. Accordingly, it has often been difficult to ascertain both the number and content of the core assumptions of andragogy. This difficulty stems from the fact that the number of andragogical principles has grown from four to six over the years as Knowles (1989) refined his thinking. In addition, many authors still seem to prefer to use Knowles (1980) as the core citation for his andragogical assumptions, despite the fact that he updated the list twice since then. The addition of assumptions and the discrepancy in the number cited in the literature has led to some confusion.

Table 7-1 shows the six principles (or assumptions) of the current model, as well as the ones cited in Knowles's previous works. As the table indicates, andragogy was originally presented with four assumptions, numbers 2-5 (Knowles, 1980, 1978, 1975). These first four assumptions are similar to Lindeman's four assumptions about adult education, though there is no evidence that Knowles obtained his early formulation of andragogy directly from Lindeman (Knowles, Holton, and Swanson, 1998; Stewart, 1987). Assumption number 6, motivation to learn, was added in 1984 (Knowles, 1984a)

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**Table 7-1**

#### Changes in core andragogical principles

**The Adult Adult Making of Adult Andragogy Modern Adult Learner 5<sup>th</sup> ed. Learner an Adult Learner in Action Practice Learner (Knowles, 4<sup>th</sup> ed. Educator 3<sup>rd</sup> ed. (Knowles, of Adult 2<sup>nd</sup> ed.**

**Holton & (Knowles, (Knowles, (Knowles, 1984) Education (Knowles, Swanson, 1998) 1990) 1989) 1984) 2<sup>nd</sup> ed. 1978)**

**(Knowles, 1980)**

Need to Know Y Y Y Y

Learner Y Y Y Y Y Y

self-concept

(self-directed)

Learner's Y Y Y Y Y Y

Experience

Readiness to Y Y Y Y Y Y

Learn (life tasks)

Orientation to Y Y Y Y Y Y

Learning

(problem-centered)

Motivation to Y Y Y Y

learn (internal)

and assumption number 1, the need to know, was added in more

recent years (Knowles, 1990, 1989, 1987). Thus, today there are six core assumptions or principles of andragogy (Knowles, Holton, and Swanson, 1998).

#### AN INDIVIDUAL-TRANSACTIONAL FRAMEWORK

Some of the sharpest criticism of andragogy has come from theorists operating from a critical philosophical perspective. Grace (1996), for example, criticizes andragogy for focusing solely on the individual and not operating from a critical social agenda or debating the relationship of adult education to society. Cross (1981) concluded that “whether andragogy can serve as the foundation for a unifying theory of adult education remains to be seen” (p. 227). Others have pushed for adult learning theory to reach beyond the teaching/learning transaction to encompass some elements of desired outcomes. Most prominent of these include perspective transformation (Mezirow, 1991) and a critical paradigm of self-directed learning (Brookfield, 1984b, 1987). Pratt (1993) also criticizes andragogy for not adopting a critical paradigm of adult learning. He concludes: “Clearly andragogy is saturated with the ideals of individualism and entrepreneurial democracy. Societal change may be a by-product of individual change, but it is not the primary goal of andragogy” (p. 21).

Andragogy’s critics are correct in saying that andragogy does not explicitly and exclusively embrace outcomes such as social change and critical theory, but they are incorrect in thinking that it should. Knowles (1989, 1990) and others (Darkenwald & Merriam, 1982; Grace, 1996; Merriam & Brockett, 1997) clearly identify andragogy as being rooted in humanistic and pragmatic philosophy. The humanistic perspective, reflected by the influence of Maslow and Rogers (Knowles, 1989), is primarily concerned with the self-actualization of the individual. The pragmatic philosophy, reflected in the influence of Dewey and Lindeman on Knowles, valued knowledge gained from experience rather than from formal authority (Merriam & Brockett, 1997).

It is easy to see from its philosophical roots that andragogy is an individual-transactional model of adult learning (Brookfield, 1986). The philosophies of pragmatism, behaviorism, humanism, and

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constructivism focus most of their assumptions on two dimensions: the learner and the learning transaction. Critical theory, however, is much more concerned with the outcomes of learning—namely social change (Merriam & Brockett, 1997). Knowles (1990) implicitly acknowledged this tension when he wrote of the philosophical debates between 1926 and 1948 with “one side holding that this goal [for adult education] should be the improvement of individuals, and the other holding that it should be the improvement of society” (p. 44). As stated earlier, our view is that Knowles never intended for andragogy to be a theory of the discipline of adult education as it is defined by the critical theorists, or any of its sub-fields for that matter. Attempts to embed the specific goals and purposes of any sub-field into the andragogical model of adult learning are conceptually and

philosophically flawed. Adult learning occurs in many settings for many different reasons. Andragogy is a transactional model of *adult learning* that is designed to transcend specific applications and situations. *Adult education* is but one field of application in which adult learning occurs. Others might include organizational human resource development, higher education, or any other arena in which adult learning occurs.

Furthermore, adult education is a very diverse discipline with little agreement as to its definition. For example, many definitions of adult education would incorporate human resource development as a sub-field, but few definitions of HRD label it as such. Each subfield engaged in adult learning has its own philosophical foundations regarding the role of education in society and the desired outcomes from educational activities for adults (Darkenwald & Merriam, 1982; Merriam & Brockett, 1997). For example, in HRD critical theory is only one of several theoretical frames. Unfortunately, andragogy has been critiqued mostly through the critical philosophical lens, which is only one sub-field interested in a particular type of adult learning.

The debates about the ends and purposes of adult learning events are important and vital, but they should be separated from debates about models of the adult learning process. There are real issues that each arena of adult education must debate and carefully consider.

Our point is that those issues are not, and were never intended to be, part of andragogy. So, for example, scholars might debate whether organizational HRD should be approached from a critical theory or

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a performance perspective—but that is *not* a debate about andragogy. We suggest that these criticisms are more relevant to *why* adult learning events or programs are conducted (i.e., their desired outcomes) than to *how* the adult learning transaction occurs, which is the more central concern of andragogy. Andragogy may not be a defining theory of *any* sub-field of adult education.

It is important to note that andragogy also does not *prohibit* combining it with other theories that speak to the goals and purposes.

We now know that andragogy can be embedded within many different sets of goals and purposes, each of which may affect the learning process differently. So, for example, one could engage in adult learning for the purpose of social change (critical theory) and use an andragogical approach to adult learning. Similarly, one could engage in adult learning for performance improvement in an organization (performance/human capital theory) and use an andragogical approach.

To the extent that critical theory has become the predominant paradigm among adult education researchers, prior criticisms of andragogy point to missing elements that keep it from being a defining theory of the *discipline of adult education* (Davenport & Davenport, 1985; Grace, 1996; Hartree, 1984), not of *adult learning*. Merriam and Brockett (1997) note that “adult education can be distinguished from adult learning and indeed it is important to do so when trying to arrive at a comprehensive understanding of adult education” (p. 5). Knowles may have invited this confusion with his

statements in early works that andragogy might provide a unifying theory for adult education or for all of education (Knowles, 1973, 1978)—a stance that he has since softened (Knowles, 1989).

#### A DYNAMIC VIEW OF ANDRAGOGY

That andragogy does not speak to all possible goals and purposes of learning is not a weakness but a strength because andragogy can then transcend arenas of application. Ironically, by focusing andragogy more narrowly on its original intent, it may become stronger and more versatile, though incomplete as a full description of adult learning in all situations. We recognize that critical theorists would likely disagree because they have a particular world view that emphasizes adult education for a certain purpose. As Podeschi (1987) points out, the debate about andragogy has been confounded

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by conflicting philosophical views about adult education. It is unfortunate that andragogy has not been as heavily critiqued and researched from other philosophical perspectives as it may well be more appropriate when viewed through other philosophical lenses. There are other theories that are similarly neutral to goals and purposes. Consider, for instance, Kurt Lewin's three-stage theory of change (unfreezing—movement—refreezing) that has long stood as one cornerstone of organization development theory. His theory also does not debate the ends or means of any particular type of change, but rather focuses simply on the change process. We could criticize Lewin's theory because it does not embrace the goals of re-engineering or of egalitarian corporate structures, for example, but it would be violating the boundaries of the theory. As Dubin (1969) notes, one critical component of any theory building effort is to define the boundaries of the theory. It seems that much of the criticism of andragogy has come from attempts to make it become more than it was intended to be, particularly within the adult education scholarly community. Such efforts violated the boundaries of the theory, and resulted in confusion and frustration.

Knowles's (1980) conception of "adult education" was broad. His definition of an adult educator was "one who has responsibility for helping adults to learn" (p. 26). He also noted that there were at least three meanings of the term *adult education*. One meaning was a broad one to describe the *process* of adult learning. A more technical meaning, he suggested, was of adult education as an *organized set of activities* to accomplish a set of educational objectives. Finally, a third meaning was a combination of the two into a *movement or a field of social practice*. In his examples, he listed everyone in what would today be called adult education, human resource development, community development, higher education, extension, library educators, and more. It seems clear that he intended for andragogy to be applicable to *all* adult learning environments.

#### INTEGRATED SYSTEM OR FLEXIBLE

#### ASSUMPTIONS?

In early works Knowles presented andragogy as an integrated set of assumptions. However, the through years of experimentation it

now seems that the power of andragogy lies in its potential for more flexible application. As others have noted (Brookfield, 1986, Feuer and Gerber, 1988; Pratt, 1993), over the years the assumptions became viewed by some practitioners as somewhat of a recipe implying that all adult educators should facilitate the same in all situations. There is clear evidence that Knowles intended for them to be viewed as flexible assumptions to be altered depending on the situation. For example, Knowles (1979) stated early on:

My intention, therefore, was to present an alternative set of assumptions to those that had been traditionally made by teachers of children, so that others would have another choice. I saw them as assumptions to be tested (not to be presumed), so that if a pedagogical assumption was the realistic condition in a given situation then pedagogical strategies would be appropriate. For example, if I were now, at age 66, to undertake to learn a body of totally strange content (for example, the higher mathematics of nuclear physics), I would be a totally dependent learner. I would have very little previous experience to build on, I probably would have a low degree of readiness to learn it, and I don't know what developmental task I would be preparing for. The assumptions of pedagogy would be realistic in this situation, and pedagogical strategies would be appropriate.

I would like to make one caveat to this proposition, though: an ideological pedagog would want to keep me dependent on a teacher, whereas a true andragog would want to do everything possible to provide me with whatever foundational content I would need and then encourage me to take increasing initiative in the process of further inquiry. (pp. 52–53)

Knowles (1984b) reiterated this point in the conclusion to his casebook examining 36 applications of andragogy. He noted that he had spent two decades experimenting with andragogy and had reached certain conclusions. Among them were:

1. The andragogical model is a system of elements that can be adopted or adapted in whole or in part. It is not an ideology that must be applied totally and without modification. In fact, an essential feature of andragogy is flexibility.

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2. The appropriate starting point and strategies for applying the andragogical model depend on the situation. (p. 418)

More recently, Knowles (1989) stated in his autobiography: So I accept (and glory in) the criticism that I am a philosophical eclectic or situationalist who applies his philosophical beliefs differentially to different situations. I see my self as being free from any single ideological dogma, and so I don't fit neatly into any of the categories philosophers often want to box people in. (p. 112)

He further stated that "what this means in practice is that we educators now have the responsibility to check out which assumptions are realistic in a given situation" (Knowles, 1990, p. 64).

It seems clear that Knowles always knew, and then confirmed through use, that andragogy could be utilized in many different

ways and would have to be adapted to fit individual situations. Unfortunately, Knowles never offered a systematic framework of factors that should be considered when determining which assumptions are realistic in order to adapt andragogy to the situation. As a result, the andragogical assumptions about adults have been criticized for appearing to claim to fit all situations or persons (Davenport, 1987; Davenport and Davenport, 1985; Day and Baskett, 1982; Elias, 1979; Hartree, 1984; Tennant, 1986). Although a more careful read of Knowles's work shows he did not believe this, andragogy is nonetheless open to this criticism because it fails to explicitly account for the differences. Because of the conceptual uncertainty, Merriam and Caffarella (1999) go so far as to say that "andragogy now appears to be situation-specific and not unique to adults" (p. 20).

Several researchers have offered alternative contingency models in an effort to account for the variations in adult learning situations. For example, Pratt (1988) proposed a useful model of how an adult's life situation not only affects that person's readiness to learn, but also his or her readiness for andragogical type learning experiences. He recognized that most learning experiences are highly situational, and that a learner may exhibit very different behaviors in different learning situations. For example, it is entirely likely that a learner may be highly confident and self-directed in

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one realm of learning, but very dependent and unsure in another. Pratt operationalized this by identifying two core dimensions within which adults vary in each learning situation: *direction* and *support*. Cross's (1981) Characteristics of Adult Learners (CAL) model also embodied a range of individual characteristics as well as some situational characteristics. Pratt (1998) discusses five different perspectives on teaching based on an international study of 253 teachers of adults. Grow (1991) also offered a contingency framework for self-directed learning.

These and others were attacking the same problem: the need for a contingency framework that avoids a "one size fits all" approach and offers more clear guidance to adult educators. It seems clear that this is one area in which andragogy has been weakest, though experienced users learned to modify it as needed. There seems to be a need to further clarify andragogy by more explicitly taking into account key factors that affect the application of andragogical principles. A more complete andragogical model of practice should direct users to key factors that affect its use in practice.

#### THE ANDRAGOGY IN PRACTICE MODEL

Andragogy in practice, the framework depicted in Figure 7-1, is offered as an enhanced conceptual framework to more systematically apply andragogy across multiple domains of adult learning practice. The three dimensions of Andragogy in practice, shown as rings in the figure, are (1) goals and purposes for learning, (2) individual and situation differences, and (3) andragogy: core adult learning principles. This approach conceptually integrates the additional influences with the core adult learning principles. The three

rings of the model interact, allowing the model to offer a three-dimensional process for understanding adult learning situations.

The result is a model that recognizes the lack of homogeneity among learners and learning situations, and illustrates that the learning transaction is a multifaceted activity. This approach is entirely consistent with most of the program development literature in adult education that in some manner incorporates contextual analysis as a step in developing programs (e.g., Boon, 1985; Houle, 1972; Knox, 1986). The following sections describe each of the three dimensions in the model.

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### ANDRAGOGY IN PRACTICE

(Knowles, Holton & Swanson, 1998)

#### *Goals and Purposes for Learning*

#### *Individual and Situational Differences*

#### *Andragogy:*

#### *Core Adult Learning Principles*

##### 1 Learner's Need to Know

-why

-what

-how

##### 2 Self-Concept of the Learner

-autonomous

-self-directing

##### 3 Prior Experience of the Learner

-resource

-mental models

##### 4 Readiness to Learn

- life related

- developmental task

##### 5 Orientation to Learning

- problem centered

- contextual

##### 6 Motivation to Learn

- intrinsic value

- personal payoff

#### *Individual Learner Differences*

#### *Individual Growth*

#### *Institutional Growth*

#### *Subject Matter Differences*

#### *Situational Differences*

#### *Societal Growth*

**Figure 7-1.** *Andragogy in practice model (from Knowles, Holton, and Swanson, 1998).*

### **Goals and Purposes for Learning**

*Goals and purposes for learning*, the outer ring of the model, are portrayed as developmental outcomes. The goals and purposes of adult learning serve to shape and mold the learning experience. In this model, goals for adult learning events may fit into three general categories: *individual*, *institutional*, or *societal* growth. Knowles (1970, 1980) used these three categories to describe the missions of adult education, although he did not directly link them to the andragogical assumptions. Beder (1989) also used a similar approach to describe the purposes of adult education as facilitating change in society and supporting and maintaining good social order (societal); promote productivity (institutional); and enhance personal growth (individual).

Merriam and Brockett (1997) discuss seven content-purpose

typologies (Bryson, 1936; Grattan, 1955; Liveright, 1968; Darkenwald and Merriam, 1982; Apps, 1985; Rachal, 1988; Beder, 1989), using Bryson's (1936) five-part typology (liberal, occupational, relational, remedial, and political) and noted that the purposes for adult learning have changed little since then. Bryson's (1936) typology would also fit into Knowles's three-part typology with liberal, relational, and remedial fitting into the individual category, occupational fitting into the institutional category, and political fitting into the societal category. Thus, Knowles's three-category typology can be seen as also encompassing all of the categories found in other major typologies of purposes for adult learning.

That so many researchers have attempted to create typologies for adult learning outcomes reinforces our position that the goals and purposes are conceptually separate from the core andragogical assumptions. As was seen in the early discussion about criticisms of the andragogical model, it is easy to attempt to imbue the core principles with value-based or philosophical dimensions of the goals and purposes. Andragogy has almost always been found lacking when examined from that perspective. That is, attempts to take a transactional model of adult learning and make it bigger have failed.

We are not suggesting that goals and purposes of the learning program do not affect the learning transaction. To the contrary, it is vitally important that they be analyzed alongside the core principles as they may influence how the core principles fit a given situation. It

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is unrealistic to think that the core principles of andragogy will always fit the same in learning programs offered for different goals and purposes. However, keeping them conceptually distinct and analyzing them separately allow andragogy to accommodate multiple perspectives on learning outcomes. Also, only then can the interactions between the goals, philosophies, and contexts with the adult learning transaction be fully identified and correctly defined.

It is for that reason that Knowles (1984b, 1990) talked extensively about adapting the use of andragogy to fit the purpose of the learning event. Consider adult literacy programs as an example. Such programs may be conducted by an adult education center to help individuals improve life skills (an individual goal); by a corporation to improve job and organizational performance (an institutional goal); or by some other entity seeking to help a disadvantaged group of citizens improve their socio-economic position (a societal goal). Although the goal differs in each of these situations, the actual learning program and immediate learning outcomes (e.g., improved literacy) may be quite similar or even identical. Therefore, andragogy is equally applicable to each scenario because andragogy focuses on the learning transaction, as opposed to the overall goal for which the program is offered.

However, the goal will also likely affect the learning process. For example, when offered for societal improvement purposes, extra emphasis may be placed on developing self-directedness among the learners. When offered for work-related performance improvement, extra emphasis might be placed on relating the content to work situations.



However, these changes are *not* a direct result of applying the andragogical model, but of the context in which andragogy is utilized. This illustrates the strength of andragogy: It is a set of core adult learning principles that can be applied to all adult learning situations.

*Individual growth* The traditional view among most scholars and practitioners of adult learning is to think exclusively of individual growth. Representative researchers in this group might include some mentioned earlier, such as Mezirow (1991) and Brookfield (1987, 1984a). Others advocate an individual development approach to workplace adult learning programs (Bierema, 1996; Dirkx, 1996). At first glance, andragogy would appear to best fit with individual development goals because of its focus on the individual learner.

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*Institutional growth* Adult learning is equally powerful in developing better institutions as well as individuals. Human resource development, for example, embraces organizational performance as one of its core goals (Brethower and Smalley, 1998; Swanson and Arnold, 1996), which andragogy does not explicitly embrace either. From this view of human resource development, the ultimate goal of learning activities is to improve the institution sponsoring the learning activity. Thus, control of the goals and purposes is shared between the organization and the individual. The adult learning transaction in an HRD setting still fits nicely within the andragogical framework, although the different goals require adjustments to be made in how the andragogical assumptions are applied.

*Societal growth* Societal goals and purposes that can be associated with the learning experience can be illustrated through Friere's work (1970). This Brazilian educator saw the goals and purposes of adult education as societal transformation and contended that education is a consciousness-raising process. From his view, the aim of education is to help participants put knowledge into practice and that the outcome of education is societal transformation. Freire believed in humans' ability to re-create a social world and establish a dynamic society, and that the major aim of education is to help people put knowledge into action. Doing so, according to Friere, would enable people to change the world—to humanize it. Friere is clearly concerned with creating a better world and the development and liberation of people. As such, the goals and purposes within this learning context are oriented to societal as well as individual improvement. Once again, though, the actual adult learning transactions fit within the andragogical framework, although with some adjustments.

This perspective acknowledges that learning occurs for a variety of reasons, has outcomes beyond the individual level, and frequently is sponsored by or embedded in organizational or societal contexts (Boone, 1985; Brookfield, 1986; Knowles, 1980). Andragogy is an individual learning framework, but individual learning may occur for the purpose of advancing individual, institutional or societal growth.

### **Individual and Situational Differences**

*Individual and situational differences*, the middle ring of the andragogy in practice model, are portrayed as variables. We con-

tinue to learn more about the differences that impact adult learning and that act as filters that shape the practice of andragogy. These variables are grouped into the categories of *subject-matter differences*, *situational differences*, and *individual learner differences*.

*Subject-matter differences* Different subject matter may require different learning strategies. For example, individuals may be less likely to learn complex technical subject matter in a self-directed manner. Or, as Knowles stated in the earlier quote, introducing unfamiliar content to a learner will require a different teaching/learning strategy. Simply, not all subject matter can be taught or learned in the same way.

*Situational differences* The situational effects category captures any unique factors that could arise in a particular learning situation and incorporates several sets of influences. At the micro-level, different local situations may dictate different teaching/learning strategies. For example, learners in remote locations may be forced to be more self-directed, or perhaps less so. Or, learning in large groups may mean that learning activities are less tailored to particular life circumstances.

At a broader level, this group of factors connects andragogy with the socio-cultural influences now accepted as a core part of each learning situation. This is one area of past criticism that seems particularly appropriate. Jarvis (1987) sees all adult learning as occurring within a social context through life experiences. In his model, the social context may include social influences prior to the learning event that affect the learning experience, as well as the social milieu within which the actual learning occurs. Thus, situational influences prior to the learning event could include anything from cultural influences to learning history. Similarly, situational influences during learning can be seen as including the full range of social, cultural, and situation-specific factors that may alter the learning transaction.

*Individual differences* In the last decade there has been a surge of interest in linking the adult education literature with psychology to advance understanding of how individual differences affect adult learning. Tennant (1997) analyzes psychological theories from an adult learning perspective and argues for psychology as a foundation discipline of adult education. Interestingly, a group of educational psychologists have recently argued for building a bridge

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between educational psychology and adult learning, calling for creation of a new sub-field of adult educational psychology (Smith and Pourchot, 1998).

This may be the area in which our understanding of adult learning has advanced the most since Knowles first introduced andragogy. A number of researchers have expounded on a host of individual differences affecting the learning process (e.g., Dirkx and Prenger, 1997; Kidd, 1978; Merriam and Cafferella, 1999). This increased emphasis on linking adult learning and psychological research is indicative of an increasing focus on how individual differences affect adult learning. From this perspective, there is no reason to expect all

adults to behave the same, but rather our understanding of individual differences should help to shape and tailor the andragogical approach to fit the uniqueness of the learners. It is somewhat ironic that andragogy first emerged as an effort to focus on the uniqueness between adults and other learners. Now, we know that andragogy must be further tailored to fit the uniqueness among adults. It is beyond the scope of this chapter to delineate all the individual differences that may affect learning. However, Jonassen and Grabowski (1993) present a typology of individual differences that affect learning which incorporates three broad categories of individual differences: *cognitive* (including cognitive abilities, controls, and styles), *personality*, and *prior knowledge*. Table 7-2 shows their list of individual differences that may have an impact on learning.

Although there remains much uncertainty in the research, the key point is clear—individuals vary in their approaches, strategies, and preferences during learning activities. Few learning professionals

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**Table 7-2**

**Individual Learner Differences (Jonassen & Grabowski, 1993)**

**COGNITIVE**

1. General Mental Abilities
  - Hierarchical abilities (fluid, crystallized, and spatial)
2. Primary Mental Abilities
  - Products
  - Operations
  - Content

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**Table 7-2**

**Individual Learner Differences (Jonassen & Grabowski, 1993)—cont'd**

3. Cognitive Controls
  - Field dependence/independence
  - Field articulation
  - Cognitive tempo
  - Focal attention
  - Category width
  - Cognitive complexity/simplicity
  - Strong vs. weak automatization
4. Cognitive Styles: Information gathering
  - Visual/haptic
  - Visualizer/verbalizer
  - Leveling/sharpening
5. Cognitive Styles: Information organizing
  - Serialist/holist
  - Conceptual style
6. Learning Styles
  - Hill's cognitive style mapping
  - Kolb's learning styles
  - Dunn and Dunn learning styles
  - Grasha-Reichman learning styles
  - Gregorc learning styles

**PERSONALITY**

7. Personality: Attentional and engagement styles
  - Anxiety

- Tolerance for unrealistic expectations
  - Ambiguity tolerance
  - Frustration tolerance
8. Personality: Expectancy and incentive styles
- Locus of control
  - Introversion/extraversion
  - Achievement motivation
  - Risk taking vs. cautiousness

### **PRIOR KNOWLEDGE**

#### 9. Prior knowledge

- Prior knowledge and achievement
- Structural knowledge

would disagree. At one level, merely being sensitive to those differences should significantly improve learning. Even better, the more that is understood about the exact nature of the differences, the more specific learning theorists can be about the exact nature of adaptations that should be made.

Another area of individual differences in which our understanding is expanding rapidly is adult development. Adult development theories are generally divided into three types: physical changes; cognitive or intellectual development; and personality and life-span role development (Merriam and Cafferella, 1999; Tennant, 1995).

Cognitive development theory's primary contributions are twofold. First, they help to explain some differences in the way adults learn at different points in their lives. Second, they help to explain why the core learning principles are exhibited in different ways at different points in life. Life-span role development theory's primary contribution is to help explain when adults are most ready for and most need learning, and when they may be most motivated to learn.

An understanding of individual differences helps make andragogy more effective in practice. Effective adult learning professionals use their understanding of individual differences to tailor adult learning experiences in several ways. First, they tailor the manner in which they apply the core principles to fit adult learners' cognitive abilities and learning style preferences. Second, they know which of the core principles are most salient to a specific group of learners. For example, if learners do not have strong cognitive controls, they may not initially emphasize self-directed learning. Third, they expand the goals of learning experiences. For example, one goal might be to expand learners' cognitive controls and styles to enhance future learning ability. This flexible approach explains why andragogy is applied in so many different ways (Knowles, 1984b).

### **APPLYING THE ANDRAGOGY IN PRACTICE**

#### **FRAMEWORK**

The andragogy in practice framework is an expanded conceptualization of andragogy that incorporates domains of factors that will influence the application of core andragogical principles. We turn now to an example to illustrate how to use the andragogy in practice model.

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As a general note, we have observed interesting differences in the

way people apply the model and therefore explain it. Those familiar with the six core principles of andragogy tend to want to conceptually begin in the middle of the model, working outward to adjust the six principles to fit the individual and situational differences as well as differences due to the goals and purposes. For them, the outer two rings act as “filters” through which the core principles are examined to make adjustments. Those unfamiliar with the six principles seem to prefer to start with the outer ring and work inward. For these individuals, it makes more sense to analyze the goals and purposes first, then the individual and situational differences, and finally to adjust their application of the core principles to fit the full context. Both perspectives have merit, depending on the application. We suggest a three-part process for analyzing adult learners with the andragogy in practice model:

1. The core principles of andragogy provide a sound foundation for planning adult learning experiences. Without any other information, they reflect a sound approach to effective adult learning.
2. Analysis should be conducted to understand (a) the particular adult learners and their individual characteristics, (b) the characteristics of the subject matter, and (c) the characteristics of the particular situation in which adult learning is being used. Adjustments necessary to the core principles should be anticipated.
3. The goals and purposes for which the adult learning is conducted provide a frame that shapes the learning experience. They should be clearly identified and possible effects on adult learning explicated.

This framework should be used in advance to conduct what we call *andragogical learner analysis*. As part of needs assessment for program development, andragogical learner analysis uses the andragogy in practice model to determine the extent to which andragogical principles fit a particular situation. Figure 7-2 is a worksheet created for this purpose. The six core assumptions are listed in the left-hand column and comprise the rows in the matrix. Each of the two outer rings and the six groups of factors contained within

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the andragogy in practice model are shown in the other six columns. Thus, each cell of the matrix represents the potential effect of one of the factors on a core assumption.

The analyst using the andragogical lens should first assess the extent to which the andragogical assumptions fit the learners at that point in time and check the appropriate ones in column 2. Then, he or she must determine the extent to which each of the six groups of factors would impact on each of the six core assumptions. That impact might be to make it more important, less important, not present in the learner group, and so on. Deviations and potential changes should be noted in the appropriate cell of the matrix. When used for this purpose, it is probably best to start with the outer ring and work inward. On the other hand, if one does not have much of an opportunity to analyze the learners in advance, then it may be more appropriate

to begin the program with the core principles as a guide, and make adjustments as the other elements of the model become known.

### **Case Example 1: Adult Basic Education Program**

Case example 1 shows an andragogical learner analysis for a classic adult basic education case. In this case, the learners are disadvantaged citizens who lack the basic literacy skills to obtain well-paying jobs. They have been struggling in life, holding minimum wage or close to minimum wage jobs because of low reading and math skills. They are enrolled in a workplace literacy program to improve their literacy skills in the hopes that they can obtain better jobs to improve their individual lives. The goal of the program is clearly an individual life improvement goal, although the funding agency's goal is a community development goal.

The andragogical learner analysis shows that learners generally fit the core assumptions of the andragogical model (see Figure 7-3). However, assumption number 2, self-directedness of the learners, is the weakest because the learners have a history of not being successful in similar learning situations and lack confidence as learners when it comes to reading and math. Fortunately, they have exhibited successful learning in other parts of their lives so the potential for self-directedness exists, but they will need strong support initially. Their motivation is high because they are trapped in low-wage jobs and are anxious to improve their lives, but their prior experiences

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#### **Expected Influence of Andragogical Principle**

**Applies to these learners?**

Individual and Situational Differences

Goals and Purposes for Learning

Individual Situational Individual Institutional Societal learner

Subject matter

1) Adults need to know why they need to learn something before learning it.

2) The selfconcept of adults is heavily dependent upon a move toward self-direction.

3) Prior experiences of the learner provide a rich resource for learning

4) Adults typically become ready to learn when they experience a need to cope with a life situation or perform a task

- 5) Adults orientation to learning is life-centered; education is a process of developing increased competency levels to achieve their full potential.
- 6) The motivation for adult learners is internal rather than external.

**Figure 7-2.** *Worksheet for andragogical learner analysis.*

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**Expected Influence of**

Individual and Situational

Differences

Goals and Purposes for Learning

Subject

matter

Individual

learner

Situational Individual Institutional Societal

The work

place literacy

program is

designed to

help reduce

the number of

disadvantaged

workers in

the community.

Participants

need to build

better basic

skills to raise

their

standard

of living thru

better jobs

Some basic

subject

matter may

not seem

relevant to

life needs

Unfamiliar

subject

matter

Low

confidence in

self-directed

learning

capability;

will need

high support

initially

**Applies to these learners?**

**Andragogical**

**Principle**

1) Adults need to

know why they

need to learn

something

before learning

it.

2) The selfconcept

of adults

is heavily

dependent upon

a move toward

self-direction.

3) Prior experiences of the learner provide a rich resource for learning

4) Adults typically become ready to learn when they experience a need to cope with a life situation or perform a task

5) Adults' orientation to learning is life-centered; education is a process of developing increased competency levels to achieve their full potential.

6) The motivation for adult learner is internal rather than external. Prior experience may be a barrier to learning because they have not been successful learners in traditional education. Most participants are struggling with finding jobs that pay a decent wage due to their poor skills. Will need to make basic subjects highly life relevant. High motivation to learn due to economic difficulties

**Figure 7-3.** *Andragogical learner analysis.*

with this type of learning could be a significant barrier to learning if self-directed learning is thrust upon them too quickly. However, they are judged to be highly pragmatic learners; assumption number 5 (life-centered orientation to learning) is expected to be particularly important in that the learning will have to be highly contextualized in work and life situations. Thus, the instructors have chosen not to use traditional GED-type learning and instead will use work-based experiential learning techniques to keep motivation high.

**Case Example 2: Management Development Program**

In case example 2, a municipal government has developed a new



management development program to help change the organization to a high-performance workplace. It was developed based on best practices and thinking in performance improvement leadership. Figure 7-4 shows the andragogical learner analysis form completed for this scenario.

An analysis of the learners indicates that they generally fit the core assumptions of the andragogical model (check marks in column 2). This presents several problems because the program cannot be conducted in a completely andragogical approach (comments that follow are noted in the appropriate cell in Figure 7-4). First, the ultimate goal of the program is to enhance organizational performance. Thus, learners will not have as much choice about the content of the learning (goal factor). It was determined that considerable effort will have to be devoted to convincing the learners of the “need to know” because some may not perceive they need the program. Second, most of the learners are experienced managers who consider themselves to be reasonably accomplished at their jobs. However, the program will challenge learners’ mental models of management development as it presents a new approach to managing in the public sector. Thus, their prior experience could actually be a barrier to learning (individual difference factor). Next, it was determined that few of them had engaged in self-directed learning with regard to management issues. This fact, coupled with the unfamiliarity of the material, will make self-directed learning unlikely, at least in the early stages of the program. Further complicating the design is that there is likely to be little formal payoff because public sector employment systems do not allow for performance or skill-based pay

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increases (a situational factor). Much of the “payoff” will be intrinsic, and learners will have to be convinced of the value. Finally, the subject matter itself will shape the learning. The approach being taught relies on a complex integration of theories and would be unfamiliar to these managers. Thus, some portions of the program may be more didactic than others (subject-matter factor).

This example illustrates how andragogy becomes more powerful by explicitly accommodating contingencies present in most adult learning situations. It is difficult to explicate the precise mechanisms by which the factors in the outer ring will influence application of the core assumptions because of the complex ways in which they interact. But andragogical learner analysis based on the andragogy in practice framework provides practitioners a structured framework within which to consider key ways in which andragogy will have to be adapted.

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**Andragogical Principle**

Subject matter Societal  
Learners may not perceive they need program so must work harder here  
Few have engaged in self-directed learning on management issues  
Will have to convince learners of the value of the

new learning

**Applies to these learners?**

**Expected Influence of**

Goals and Purposes for Learning

Individual Situational Individual Institutional learner

Individual and Situational Differences

1) Adults need to know why they need to learn something before learning it.

2) The self-concept of adults is heavily dependent upon a move toward self-direction.

3) Prior experiences of the learner provide a rich resource for learning

Prior experiences may be a barrier to learning because new program is very different

New material may be complex and unfamiliar; learners may feel threatened  
Need for program is not immediately apparent in their everyday jobs

No formal rewards in public sector for participating so will have to depend on internal motiv.

4) Adults typically become ready to learn when they experience a need to cope with a life situation or perform a task

5) Adults' orientation to learning is life-centered; education is a process of developing increased competency levels to achieve their full potential.

6) The motivation for adult learners is internal rather than external.

**Figure 7-4.** *Andragogical learner analysis form completed.*

## SUMMARY

What we have offered in this chapter is a clarified conceptualization of the andragogical model of adult learning that more closely parallels the way andragogy is applied in practice and, we believe, is closer to Knowles's original intent. The *andragogy in practice* model expands andragogy's utility by (1) conceptually separating the goals and purposes of learning from the core andragogical principles of the learning transaction so the interactions and adaptations can be more clearly defined, and (2) explicitly accounting for individual, situational, and subject matter differences in the learning situation.

This is not an attempt to re-ignite previous debates about andragogy or to suggest that andragogy should be the single defining model of adult learning. Rather, we tend to agree with Merriam and Cafferella (1999), who said: "We see andragogy as an enduring model for understanding certain aspects of adult learning. It does not give us the total picture, nor is it a panacea for fixing adult learning practices. Rather, it constitutes one piece of the rich mosaic of adult learning" (p. 278). Our understanding of Knowles's work suggests that is entirely consistent with his views. To the extent that andragogy is the right model of adult learning in a given situation, the andragogy in practice framework should

improve its application.

As some critics have pointed out, andragogy has not been well tested empirically (Grace, 1985; Pratt, 1993). However, the reality is that none of the prominent theories or models of adult learning have been well tested empirically (Caffarella, 1993; Clark, 1993; Hiemstra, 1993; Merriam and Caffarella, 1999) and all, including andragogy, are in need of more research. Knowles (1989) himself acknowledged in his autobiography that he no longer viewed andragogy as a complete theory: "I prefer to think of it as a model of assumptions about adult learning or a conceptual framework that serves as a basis for emerging theory" (p. 112).

However, such research should not ask questions about andragogy that are outside its intended theoretical frame. Thus, we have offered some alternative perspectives that should help guide future research. It is important that andragogy be evaluated from multiple perspectives. Further research is needed to more explicitly define how the andragogical principles will be affected as different factors change.

SUMMARY 163

We see this as an initial attempt to clarify how andragogy can be a more realistic, and therefore useful, approach to adult learning.