ABSTRACT
                A discussion of adult learners and a description of
instructional reading strategies--based on thinking--for adult
learners are presented in this paper. A definition of adulthood and
the nontraditional learner in the paper highlights adults' cognitive
skills, interests, and literacy levels, while the metacognitive
awareness of disabled and good adult readers is discussed in terms of
motivation and text structure. The paper then deals briefly with
various learning theories, pointing out the importance of cognitive
structure to learning, and focuses on six instructional strategies:
(1) provide for assessments of learners' strengths and needs, (2)
encourage learners to predict as they read, (3) encourage learners to
organize their own material, (4) respect individual differences, (5)
encourage self-evaluation, and (6) encourage learners to be
responsible for their own learning. (JK)

Thinking Based Strategies to Enhance Reading
For Adult Learners*

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"Thinking" as a means of understanding ways to become a better reader has been encouraged in the past few years. Biggs (1977) used introspective/retrospective techniques in her research to guide college students through some reasoning processes about their reading. Specifically, the students had to ask themselves, "How do I know that I know what I am reading?" Interestingly, Brown (1978) identified metacognitive factors for elementary school children which posed questions similar to Biggs' as being important to understanding when one reads. Like elementary school children and college students, adult non-traditional learners or disabled readers can ask themselves questions as they read. This kind of questioning seems to force them to think about what they are reading as they read.

Before educators attempt to instruct or assist adult learners in improving their reading skills through questioning or other reading techniques, they must understand adults as learners and understand instructional strategies used for teaching adults. This paper will present a discussion of adult learners and a description of instruc-tional reading strategies for adult learners. The discussion and instructional strategies will be addressed through responses to the following three questions: (1) Who are the adult non-traditional learners? (2) What theories best seem to support how adults learn? and, (3) What are some reading/thinking based instructional strategies that have been successfully used with adults?

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Innovative Learning Strategies. College Reading Improvement/Inter-national Reading Association.

Adulthood and the Non-Traditional Learner

Adulthood has been divided into early, middle, and late years. The age range for early adulthood is roughly 20 to 40 years old. During this period adults appear to be at their intellectual peak; they are flexible; they can readily accept new ideas; and they can easily shift their strategies for problem solving. Middle adulthood spans the years from 40 to 60. During middle adulthood adults continue to mature and build on their experiences from early adulthood. These adults are often more knowledgeable and flexible in their thinking than in younger adulthood. Therefore, these years are considered to be their prime years intellectually (Baltes & Schaie, 1974). In late adulthood (after the age of 60) cognitive skills have not been found to decline to any great degree. Research shows that a few cognitive skills may decline with age, but this decline should not cause serious impairment in most individuals (Wortman & Loftus, 1981).

Adulthood is diversified. A variety of interests, needs, and levels of literacy occur among adults. Some adults are very literate, others are disabled in terms of reading, and many fall at various points on the scale between literacy and disability. Gambrell and Heathington (1981) conducted a study to expand the knowledge base about adult non-traditional (disabled) readers. They used an intro-spective/retrospective technique to probe the metacognitive awareness of adult disabled readers and then compared them with adult good readers. In their study disabled readers were adults who read at or below the 5th grade level, and good readers were college juniors who were enrolled in the same class.

Data in their study were organized around task and strategy--two variables identified as being important areas of metacognitive knowl- edge. Analyses of data for the first variable (task) found differences between the groups in (1) motivation and (2) structure of text.

The disabled and good readers were questioned about "motivation" through a scenario that asked whether a rich person or a poor person would be a better reader. Sixty-four percent of the disabled readers

and only 18% of the good readers indicated that the poor person would be the better reader. When the groups were questioned about "structure of text," the good readers (96%) reported that they understood the relationship between sentences and paragraphs whereas less than 45% of the disabled readers reported that they understood the relationship.

Motivation and structure of text are important factors for disabled readers to consider as they attempt to develop their reading skills. Motivation to do better was noted as a reason why the poor person would be a better reader than the rich one. On the other hand, a reason why disabled readers may not understand structure of text might be due to a lack of instruction in the relationship between sentences and paragraphs or structural cues. Instruction, then, in structural cues seems to be necessary for disabled readers.

The second variable of metacognition was identified as strategy. Data analyzed for strategy reported differences between the groups in (1) purposes for reading, (2) reading mode, (3) reading skills, and (4) reading comprehension failures.

In relation to "purposes for reading" the groups were asked about their perceptions of reading word-for-word or reading for meaning. Most of the good readers indicated that it would be easier to read for meaning while the disabled readers though it would be easier to read word-for-word. When the groups were asked about their "reading mode" or fast reading, the disabled readers indicated that they could read faster aloud, and the good readers indicated that they could read faster silently. The good readers also indicated comprehension as a central "reading skill" while few of the disabled readers suggested it. To offset "reading comprehension failure" due to unknown words, disabled readers indicated that they would ask someone the word (external strategy) whereas the good readers indicated that they would use the context as well as sound out words (internal strategy).

The disabled readers' responses about reading word-for-word and reading aloud might be interpreted to mean that their reading behavior is much like that of early elementary school children who are learning to read. However, these reading behaviors might be used by good

4

readers as well. For example, when good readers read material written in a foreign language, they will often read word-for-word and aloud. A reason for this may be so that they can concentrate more intently on what they are reading. An implication is that both good and disabled readers may use the reading word-for-word and reading aloud strategies, at different times, as clues to understanding what they read.

Though a small percentage of the disabled readers in Gambrell and Heathington's study identified comprehension as that skill needed to be a good reader, Scales' (1981) survey of adult disabled readers indicated that they wanted to be able to comprehend as they read. Similar to Gambrell and Heathington's findings, Scales also found that adult disabled readers did not use internal reading strategies very often. Perhaps disabled readers have become more aware of a need to understand text. However, their reliance on external reading strategies seems to further support the need for more instruction in reading.

Adult disabled readers do differ from adult good readers in reading oriented task and strategy variables. It is important, however, to remember that adult disabled readers like adult good readers can accept new ideas, can solve problems, and can be intelligent and flexible.

Learning Theories

Over the years, many learning theories have been generated and studied to determine suitable learning approaches for adults. Lindeman (cited in Knowles, 1978:31) proposed the following learning theories:

1. Adults are motivated to learn as they experience needs and interests that learning will satisfy; therefore, these are the appropriate starting points for organizing adult learning activities.

2. Adults' orientation to learning is life-centered; therefore, the appropriate units for organizing adult learning are life situations . . . .

3. Experience is the richest resource of adults' learning; therefore, the core methodology of adult

education is the analysis of experience.

4. Adults have a deep need to be self-directing;
therefore, the role of the teacher is to engage in a
process of mutual inquiry with them . . . rather than
to transmit his or her knowledge to them and then
evaluate their conformity.

Since it is believed that no single learning theory is applicable
to all adults, one alternative is to study the implications of many
theories. Three principle orientations for grouping theories accord-
ing to Dubin and Okun (1973) are (1) behaviorism, (2) neo-behaviorism,
and (3) cognitivism. Behaviorists are solely concerned with stimuli
and response, i.e., a stimulus is presented and there is a response;
they do not attempt to explain why. Programmed instruction is a good
example of this stimuli-response situation.

Neo-behaviorists are concerned with stimuli and response, and
with "what happens between the input of stimuli and the output of
responses" (p. 4). In other words, does interaction with a variable,
e.g., discussion with an instructor, impact upon the stimuli and pro-
mote a response? An example of the neo-behaviorists' principle may
be observed when the Reciprocal Questioning Procedure is used. It
requires a stimulant (written text), reading and the asking of ques-
tions about that text, and then a response.

Cognitivism is concerned with the cognitive structure of an indi-
vidual and the importance of this structure to learning. Specifically,
cognitivism includes discovery and receptive approaches to learning.
The discovery approach requires the learner to organize material for
learning while the receptive approach involves the instructor as organ-
izer of material. Another component of cognitivism is tha. of the
instructor as facilitator for learning. Here the learner shares in
the responsibility for his learning. For example, the language experi-
ence approach (often used to instruct adults in reading) requires that
the learner participate in and share responsibility for the progress
of his/her own learning.

Of the three principle orientations described by Dubin and Okun,
the grouping cognitivism included instructional implications that

6

were more conducive to instructing adult learners than did the other two. A summary of those implications is listed below:

1. The instructor should provide for assessment of learners' strengths and needs.

2. The instructor should encourage learners to predict as they read.

3. The instructor should organize materials so that they are meaningful to learners but should also encourage learners to organize their own material.

4. The instructor should interact with learners and should respect individual differences among learners.

5. The instructor should provide for self-evaluation of learners' progress.

6. The instructor should encourage learners to assume increasing responsibility for their learning as they proceed from dependency to independency.

Instructional Strategies

Holmes (1980) indicated that "Adult educators must understand themselves in the context of their professional belief system in order to select those strategies necessary for meeting effectively the needs of the adult public they serve" (p. 18). Seemingly, Scales and Biggs (1980) have supported cognitivism as part of their professional belief system. Within that system they have embraced the six instructional implications from cognitivism mentioned above. Those instructional implications are further explained through the following reading stra'egies.

1. Provide for assessment of strengths and needs of learners.

Below is a strategy for factual and inferential sentence comprehension. In this exercise learners are to demonstrate that they understand the sentence and that they can infer meaning from the sentence by rewriting it in two different forms. The first rewritten sentence must have the same factual meaning as the original. The

second rewriting must contain an inference based on the information given in the original sentence.

     Example sentence: The unhappy couple left City Hall with tears in their eyes.

Rewrite one -- Sentence/Factual

_____

_____

Rewrite two -- Sentence/Inference

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In the exercise for contextual meaning which follows, the learners are to determine the meaning of the underlined word from the sentence's context.

     Example sentence: Joy <u>stalked</u> out of the hardware store and continued to walk angrily to the end of the block.

Meaning of <u>stalked</u>: _____

2. Encourage predicting while reading.

In the following exercise the learners are to read the beginning of the story and then predict and write an ending for it.

     Example story: Mr. Jones went to the store to buy a pair of leather gloves for his wife's graduation. After selecting a pair he went to pay the cashier but discovered that someone had picked his pocket.

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3. Teach organizing material for memory.

Of noteworthy importance is the ability of adults to organize information so that they can store it in their long term memory banks. The questioning strategy below was designed to (a) instruct learners to ask questions about the material as they read, (b) answer those

questions, and (c) organize questions and answers in a fashion that will assist them in remembering information.

Example passage: Beth worked hard all week; she was eager to show that she deserved her new job. Her brother had promised to pick her up after work and take her to the bank to open a new savings account. He watched her face as she walked toward him opening the envelope. He saw the disappointment on her face . . .
(Scales & Biggs, p. 82).

Questions	Answers
Who worked hard?	Beth
Why did she work hard?	To show that she deserved her job
Why did her brother pick her up?	To take her to the bank
What did she have in her hand?	The envelope
How did she look?	Disappointed

Organize

Beth worked hard.

She wanted her job.

Her brother was to take her to the bank.

Beth was disappointed with the envelope.

4. Respect individual differences.

An instructional approach that is andragogically based will respect individual differences. Adult learners should be instructed according to their individual pace and/or need(s). For example, within any group of learners, some will be able to learn at a faster pace than others. And they will each have different needs. When instructors become aware of these differences, they should diversify their instructional approach so that all learners are accommodated.

5. Encourage self-evaluation.

With adult learners a continuous procedure whereby they are guided to self-evaluation of their achievement after each lesson is recommended. This self-evaluation provides immediate feedback and

reinforces material being studied.

 6. Encourage learner to be responsible for own learning.

 Instructors may encourage learners to observe or review their reading behaviors. Additionally, learners might work with the instructor to identify their reading strengths and needs. They might also keep records of their progress. Finally, adult learners should be encouraged to remain committed to their goals for learning (Scales, 1980).

Summary

 In summary, adulthood is a flexible period of life. During that period adults (both good and disabled readers) mature intellectually, and their cognitive skills remain functional throughout these years. However, differences in reading task and strategy variables between adult good and disabled readers were identified. In order to further consider those differences among adult readers as well as instruction for adult disabled readers, groupings of theories about adult learning were reviewed. From those groupings cognitivism was highlighted, and six implications for instructing adults in reading were cited. Finally, instructional reading strategies derived from the implications of cognitivism were described.

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Correction page 52

        Scales and Biggs (1983)

Insertion page 56

        Scales, A. M. and S. A. Biggs. Reading to Achieve: Strategies
            for Adult/College Learners. Columbus: Charles E. Merrill
            Publishing Co., 1983