Andragogy or Pedagogy:

A Discussion of Instructional Methodology for Adult Learners

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Abstract

Since the 1970's college campuses had felt the need to accommodate an ever increasing number of adult learners. These learners are defined as individuals over the age of 25, usually employed full-time and attending school on a part-time basis. Numerous nontraditional programs have been developed to meet the educational needs of this population. Many of these programs have been based upon an andragogical instructional model rather than a traditional pedagogical model. The purpose of this paper is to explore the validity of the andragogical model. Is the andragogical model a better way to provide educational instruction? Do adult learners actually prefer andragogical instruction or do they prefer pedagogical instruction? Or is that they prefer a combination of both? These and other questions will be answered by examining the research data available that provides the most direct bearing on the questions at hand.

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Andragogy, is a word that is often attributed to Malcolm Knowles. Knowles defined andragogy as, Athe art and science of helping adults learn (Knowles 1970).@ Though many attribute the word to Knowles, it was first used by the German Alexander Kapps in 1833 to describe Plato=s educational theory (Davenport and Davenport 1985). Kapps= use of andragogy met opposition in Germany and soon fell from favor and was unused for nearly a century before Eduard Lindeman introduced the term in America in 1920's (Beder and Carrea 1988). It was little used until Knowles was introduced to it the 60's

and elaborated on the word in his work, *The Modern Practice of Adult Education: Andragogy versus Pedagogy*. The purpose of this work was to establish a comprehensive theory of the practice of adult education. With the publication of this book andragogy has been generally used to denote the enterprise of adult education.

Assumptions of Andragogy and Pedagogy

Andragogy differs from pedagogy based upon four assumptions. First, pedagogy views the learner as dependent. The teacher is expected to be the one who determines what is to be learned. Andragogy understands that there is a natural maturation within individuals in which they move from dependency to ever increasing self-directedness. Secondly, pedagogy sees little validity in the learner=s previous experience. What matters most is experience of the teacher, textbook, or other instructional aids. Andragogy, on the other hand, views the experience of the learner as a deep reservoir that serves as a resource for learning. In pedagogy the primary techniques used are lecture, assigned readings, and other passive methods. Andragogy utilizes

experiential techniques, such as lab experiments, discussion, problem solving cases, simulation games, filed experience and other similar methodologies. The third assumption is predicated upon the first. Pedagogy assumes that everyone is ready to learn what society says that they ought to learn. Further, because most people are ready to learn the same things at the same time a fairly standard curriculum is utilized. Andragogy differs in that it asserts that learners are ready to learn when they experience a need to learn, in order to cope with some real-life task or problem. Learning, according too andragogical model should focus on life-application categories and should be ordered according to the learners needs and readiness to learn. The final pedagogical assumption is that most learning has a future orientation that is, what is being learned today will be useful at some later date and applied at some indefinite date in the future. Therefore, learning is subject centered and it moves from mastery of the simple to the more complex. Andragogy differs, in that it understands education as a process of developing increased competencies. The goal is to learn something that can be applied to make living tomorrow more rewarding. Therefore the structure of learning is performance-centered rather than subject-centered (Knowles 1980 pp.43-44).

Philosophical Implications of Andragogical Assumptions

Brookfield (1985) contends that the field of adult education is at risk because of the uncritical manner in which the discipline has adopted the orthodoxy of the andragogical model. Brookfield defines the controversy in philosophical terms based in part on the differences in assumptions between andragogy and pedagogy. The first assumption that Brookfield cites is that the purpose of adult education is to meet the felt needs of the learner. The fear, associated with this assumption, is that by adopting a completely learner-centered approach that the decision of

what ought to be or needs to be learned will be ceded entirely to the learner. The idea that the learner lacks a sufficient knowledge base or has an understanding of the full range of possibilities may indicate an authoritarian stance or arrogance on the part of the educator. The second and third assumptions that Brookfield cites are that the adult learners are naturally self-directed learners and that learning is a joyful, wholly fulfilling experience in which, what the educator intends and learner needs are matched (Brookfield 1985, p.44). The philosophical problem that arises, according to Brookfield=s analysis, is

that adult education becomes little more than a service-based or consumer-driven enterprise. Brookfield succinctly states his case as follows:

> Viewing adult education solely as the design and management of effective learning as defined by others, denudes the field of any philosophical rationale, future orientation, or purposeful mission. . . . Furthermore, acceptance of this pragmatic rationale means that our priorities, purposes, and primary function are determined by others. Our curriculum becomes devised in response to the demands by those who can attract our attention . . . (Brookfield 1985, p 45).

Brookfield is not alone in his concerns. Leon McKenzie described the philosophical conflict between andragogy and pedagogy as beginning from very different foundational assumptions. Pedagogy=s assumption is that children and adults are essentially the same since they share the same human nature. Therefore, the education of adults and children is the same. Andragogy=s assumption is that children and adults are existentially different. Therefore education for children and adults must be existentially different (Davenport and Davenport 1985). Still others see the debate over andragogy and pedagogy as nothing more than a rehashing of the ongoing debate between *progressivism* and *traditionalism*, where progressivism is defined as learner-centered and traditionalism is defined as content-centered (Darkenwald 1982).

On a more practical side, critics of andragogy contend that andragogy is just a technique or set of techniques and is not dichotomus in regard to pedagogy. London (1973), argued that andragogy was nothing more than an invented word that added to the already overloaded jargon within the field of education and that adult educators were using it in an effort to achieve status and respect in educational circles.

If, as Brookfield suggests, the field of adult education has uncritically accepted what is current practice, then it is necessary to examine what the research has to say in regard to which instructional methodology may or may not be most beneficial for adult learners.

Research Review

There is substantial literature on the topic of andragogy but there is very little empirical research on the subject (Beder and Carrea 1988). An attempt was made to find research that dealt specifically with the efficacy of andragogy over against pedagogy in order to determine if there is any validity to utilizing andragogy. Five studies will be reported on dealing with attendance patterns, evaluation of teachers who utilized andragogical instruction, perceptions of nontraditional students, teaching, and learning by both faculty and students, differences in teaching behavior related to adult learners and pre-adult learners, and the learning preferences of adult learners in both traditional and nontraditional baccalaureate programs.

Teaching Behaviors Related to Adult/Pre-adult Learners

The question was first posed by Beder and Darkenwald (1982) as to whether or not teachers taught adult learners differently than they taught pre-adult learners. To answer that question, 173 teachers of adult and pre-adult learners were surveyed as to their teaching

practices. These teachers reported that in teaching adults that they made greater use of discussion, varied their teaching techniques more frequently, made numerous attempts to relate class discussion to student life experience and made more adjustments in instructional content in response to student feedback. When teaching pre-adults, these same teachers reported that they spent more time in giving directions, providing emotional support to individual students, structured instructional activities more tightly, and spent more time in disciplining. Thus this survey appears to support the idea that andragogical principles are utilized when teaching adults. Darkenwald (1982), in reviewing the data, from the original study attempted to determine, if responsiveness to the student (andragogy) or teacher control (pedagogy), were variables in instructional methodologies or conceptual structures that guided the teacher=s instruction.

What Darkenwald=s study, showed, is, that teachers utilized the principles of both the andragogical and pedagogical models as variables, rather than strictly adhering to the principles of one model over the other. A case in point was the utilization of discussion and the varying of teaching techniques. Both of these variables would generally fall under the andragogical model. However, in Darkenwald=s factor analysis it was shown that these were used as a means of teacher control, rather than as a student-centered concept. Varying teaching techniques, was shown as a means to control or structure the classroom environment, perhaps to counteract restlessness or boredom of the students. Classroom discussion was shown as both, a means to student responsiveness and/or to control student behavior by reducing the restlessness or boredom of the students.

Gorham (1985) observed that there is considerable prescriptive advice on how to teach adults as opposed to teaching pre-adults, but few descriptive studies have investigated the

similarities and differences in the way that teachers actually teach adults and pre-adults. Gorham, followed up on the study done by Beder and Darkenwald, noting that their study was limited to self-report. Gorham added classroom observation to determine if what was being reported as teaching behaviors was indeed what happened in the classroom. Very little differences in terms of self-reported behavior and perceptions, were noted between the respondents to Gorham=s study and that done by Beder and Darkenwald. Both studies indicated that adult learners were perceived as significantly more intellectually curious, concerned with practical application, exhibited high motivation to learn, were clear about what they wanted to learn, willing to work hard and less emotionally dependent upon the teacher. Reported differences in teaching adults and pre-adults were related significantly to the teacher=s perceptions of the two groups as learners and the belief that both groups should be taught differently. Further, Gorham=s study revealed, that the greater the perception of differences between adult and pre-adult learners were, the greater likelihood that it would be reported that the two groups were taught differently and the belief that they should be taught differently.

In the observational phase of Gorham=s study the following were noted: 1) teachers did tend to provide more emotional support for pre-adult learners; 2) they were more overtly directive with pre-adults; 3) however the overall use of directive behavior was essentially the same in adult and pre-adult classes. This last observation was not congruent with the teacher=s perception as reported. Gorham found that on average, teachers talked 71% of the time in adult classes and 73% of the time in pre-adult classes. Gorham also found that student talk was not appreciably greater in adult classes (22%) than in pre-adult classes (18%). Student talk in adult classes was more student initiated than in pre-adult classes. Gorham also reported that when

discussion stopped in adult classes that typically the teacher would move on, while in pre-adult classes the teachers tended to try and spur further discussion. The teachers in this study often commented on the responsiveness of adult students and the quality of their interaction. Observational data confirmed that differences do exist, in this regard, but that these observations had little impact on teachers to adopt more student-centered approaches. As students became more responsive teachers would maintain the balance of teacher-student interaction by increasing their directive and nonverbally restrictive behavior. In a footnote, Gorham, reported that the adult students did not object to this teacher-directed interaction. When asked about changes they would suggest any changes suggested were limited to course content and not delivery.

Gorham, in commenting on the results of her study noted the following:

> Thus although teachers in this study reported differences between teaching adults and pre-adults that are very much in line with the prescriptive literature of adult education, the analysis of actual teaching practice concurred with the theory of static role performance by Scheflen and Goffman (p. 205).

The observational phase noted that the differences in actual teaching practice were to be found among the teachers of adult and pre-adult classes, rather than differences between adult and pre-adult classes taught by the same teacher. Gorham=s study revealed that despite knowledge and belief in differences between adult and pre-adult learners, this knowledge had little impact on teaching behavior. Further, it was found that the amount of knowledge regarding the theory and the practice of adult education had little impact on producing a more student-centered approach in the classroom. In fact, teachers with more formal training in the field of adult education tended to be the least responsive (p. 206-7). The greatest indicator of a more student-centered or andragogical approach was not related to formal training but to room arrangement. If the

classroom was arranged in less formal and less traditional ways then the dynamics between teacher and student seemed to change toward a more student-centered approach. Gorham also indicated that room arrangement impacted the teacher-student interaction toward a more andragogical model even in cases where the teacher did not perceive significant differences between adult and pre-adult learners or believe that both groups should be taught differently (p. 207). Women teachers were found to be more likely than male teachers to affect this room arrangement change. Further, Gorham=s study showed that men were more likely to favor a more directive approach with both adults and pre-adults.

Perceptions of Nontraditional Students, Teaching and Learning

The above two studies have shown, that among faculty members, there are perceived differences between adult and pre-adult students that are in line with principles outlined in the andragogical model. The second study indicated that despite these perceptions there was little appreciable difference in how both groups were actually taught. Both of these studies examined faculty perceptions and reported teaching practices, while the perceptions of the learners, toward their instructors, were not assessed. A study done, at Washington State University (WSU) by Raven and Jimmerson (1992) attempted to examine both the faculty and the student=s perceptions of how they viewed their instructors and the learning process. The intent of the study was to collect data useful to faculty and administration in determining how the faculty might improve their instructional goals and strategies in teaching

nontraditional students. Faculty members who taught both traditional and nontraditional students, traditional students and nontraditional students were surveyed as to their perceptions. Three research hypotheses were developed to guide the study:

H1: Faculty hold more positive attitudes of nontraditional students than they do traditional students.

H2 There are differences in perceptions of faculty teaching held by faculty, traditional students, and nontraditional students.

H3 There are differences in perceptions of student learning held by faculty, traditional students and nontraditional students.

Faculty Attitudes

The faculty of Washington State University perceived nontraditional students in much the same way as other studies had shown indicating that the first hypothesis was valid. Specifically, the faculty believed that adult learners are different, more diverse and better students. The faculty at WSU also sensed that adult learners were more goal oriented, motivated, responsible for their learning and self-directed. They also believed that there was no appreciable difference between the behavior of traditional students and nontraditional students. The WSU faculty=s attitudes toward adult and pre-adult learners were positive but there was a significantly higher rating for adult learners than for pre-adult learners. These perceptions are in keeping, as with the other studies, an andragogical view of adult learners.

Perceptions of Faculty Teaching

As was suspected in the second hypothesis, when students and faculty were surveyed regarding educational goals a disparity emerged. The faculty reported that their primary educational goals were to help students develop critical thinking skills and problem solving skills. However, both traditional students and nontraditional students indicated that they perceived the teachers primary educational goal was to communicate a body of knowledge which is more in line with a pedagogical model. In regard to teaching technique all three groups agreed that lecturing was the primary teaching technique. However, the faculty perceived that they used

a greater variety of teaching techniques than did either of the student groups. The next most often used teaching method, in addition to lecture was group discussion and projects with the nontraditional group and group discussion and Q& A for the traditional students.

Perceptions of Student Learning

The third hypothesis was only supported on one of the four learning construct variables surveyed. All three groups were surveyed about learning preferences, learning characteristics, classroom concerns, and the teaching/learning process. The hypothesis was that there would be differences in faculty perceptions, nontraditional and traditional student perceptions. However, only in the learning characteristic construct

was there found to be a divergence. The greatest divergence was between the faculty and the nontraditional students in regard to the amount of intellectual curiosity exhibited by the students. Nontraditional students saw themselves as more intellectually curious, motivated to learn, confident in their ability and concerned with practical applications than did the faculty. The study also revealed that all three groups strongly prefer ordered presentations and logical sequence when learning. On a scale of one to five, with being low the mean score for ordered presentations was 4.31 for faculty, 4.41 for traditional students, and 4.46 for nontraditional students. The study also showed a strong preference for one-on-one interaction, for a course syllabus and outline. All three groups also indicated a strong feeling that all participants in the teaching-learning situation held a high degree of responsibility for its success or failure.

Learning Preferences

Thus far research seems to indicate an affinity toward the andragogical model in reported perceptions and practices among college faculty members, while indicating that there is an

inconsistency between reported and actual practice. Despite this affinity for an andragogical framework actual practice indicates a more pedagogical approach. Further, the stated learning preferences, of both adult and pre-adult learners in the WSU study also indicates a pedagogical bent, in regard to the reported strong preference for ordered and logically sequenced presentations. A question that might be asked is how much of this data is contextual? Meaning, are students reporting a preference for what they are already receiving? The WSU study reported that faculty, traditional and nontraditional students all reported a strong preference for ordered presentations. The students and faculty surveyed in this study were part of a traditional baccalaureate program, but are there different preferences among nontraditional adult learners enrolled in a nontraditional baccalaureate program?

Loesch and Foley (1988) attempted to answer this question by comparing the learning preferences of adult learners in nontraditional and traditional baccalaureate programs. Both groups were administered the Learning Preference Inventory (LPI) developed by Rezler and French (1975).

> The LPI yields six scores which indicate the degree of preference for the following conditions or situations: (a) abstract (AB) B preference for learning theories and generating hypotheses, with focus on principles and concepts; (b) Concrete (CO) B preference for learning tangible, specific practical skills, with focus on skills; (c) Teacher structured (TS) B preference for learning well-organized, teacher-directed classes, with expectations, assignments, and goals clearly identified; (d) Student structured (SS) B preference for learning via student-organized tasks, with emphasis on autonomy and self-direction; (e) Interpersonal (IP) B preference for learning or working with others, with emphasis on harmonious relations among students and between students and teachers; (f) Individual (IN) B preference for learning or working alone, with emphasis on self-reliance and tasks which are solitary, such as reading (Loesch and Foley p. 227).

The study results revealed that students who had high student structure scores required less direction from instructors and desire less concrete learning situations. Those students with high teacher structure scores indicate a greater preference for instructor guidance and also preferred more concrete learning situations. When examining the data from students in the two programs it was found that students in the nontraditional program preferred student structured learning situations, while those enrolled in the traditional program preferred teacher structured learning tasks. No other learning preference differences between the two groups emerged except that noted earlier. The median scores were closely correlated in all areas of the learning preference. Of special note in regard to this study is that both student groups had a strong affinity for concrete learning outcomes suggesting that both groups prefer learning tangible skills rather than concepts and theories.

Effects of Andragogical Teacher Training on Adult Students

Beder and Carrea (1988) conducted a study questioning the effectiveness of the andragogical model. Two hypotheses were developed and tested to judge the effectiveness of the andragogical model. The first hypothesis stated, AAndragogically trained teachers of adults will have higher rates of student attendance in their classes than teachers not trained in andragogy.@ The purpose for selecting attendance is that adult education program depends heavily upon the voluntary attendance of students. There may be a variety of motivation for attending adult class, but the bottom line is that participation is generally voluntary. Attendance is a key factor in identifying the effectiveness of the class. The second hypothesis stated, AStudents will evaluate

more positively andragogically -trained adult education teachers than teachers not trained in andragogy.

In reviewing the work of other researchers Beder and Carrea concluded that there is sound evidence showing that among adult educators andragogical and pedagogical teaching orientations do exist and are practiced. What was not known according to Beder and Carrea was whether or not the andragogical model was preferable to the pedagogical model. Three groups of teachers were assembled, one group was to receive nine hours of andragogical training, a second group received no training in andragogy, thus serving as a control group, and a third group which would serve a placebo function. The purpose of the placebo group was to provide instruction that favored neither model.

The result of this study provided Aguarded support@ for the hypothesis that andragogically trained teachers will have a higher rate of attendance. The reason for guarded support was that there was a small N. A second concern centered upon the fact that though the andragogical group did achieve a significantly higher attendance rate than the control group, but the differences between the andragogical group and the placebo group were not as great as was suspected. Though there were differences in attendance rate they did not achieve statistical significance. Two explanations were offered, indicating that the experiment may not have been constructed as well as it could have been.

The second hypothesis, that the students would rate the andragogically trained instructors higher, had no support based upon the research. One reason suggested for the lack of statistical support for the second hypothesis may be that students, who may have evaluated the placebo

course negatively, had already done so, by Avoting with their feet@ and did not remain in the class, long enough to evaluate it formally.

Discussion

The purpose of this literature review was to determine if there was sufficient research support for utilizing the andragogical model when teaching adults, over against a pedagogical model. The research, it would appear, is ambivalent in regard to the efficacy of the andragogical model over the pedagogical model. This ambivalence is evidenced in the following ways.

First, despite the perception, that there are significant differences between adult learners and pre-adult learners, there is little support for the fact that the two groups are being educated any differently. Gorham=s study found that both adult classes and pre-adult classes are dominated by teacher talk. This strongly suggests that practice does not match perceptions. Further, Gorham also noted that those with more formal training in adult education often showed less of an andragogical bent in their teaching.

The dissonance that exists between the faculty=s perception of their primary educational goal to teach creative thinking skills and problem solving skills and the student=s perception that the faculty=s goal was to cover the subject matter further indicates an ambivalence in regard to the power of the andragogical model. The goal of the teachers appears to favor a more andragogical perspective, whereas the students= perceptions of the faculty=s goal favors a more pedagogical understanding.

The ambivalence of the research is furthered supported by the WSU study. This study reported that the faculty maintained a positive perception of adult learners and rated them more

positively than they did pre-adult learners. However, in rating the learning characteristics of adult learners, there was a significant divergence in how the faculty rated the characteristics of the adult learners from how the students rated themselves. This divergence may suggest a desire on the part of the faculty to promote a dependence upon themselves. It could also suggest, that the faculty may have little confidence in the student=s ability to adequately decide what learning goals are appropriate within a specific subject area. Either of these possibilities cut to the root of andragogical assumptions in regard to the nature of the adult learner.

There also seems to be evidence that students learning preferences may be contextually influenced and not necessarily the result of an adult student acting on the basis of some inherent adult learning drive. The students in the Loesch and Foley study suggest that students may have expressed a preference for a particular program on the basis of the program with which they were involved. The learning preferences that were reported by the students in this study strongly reflected the type of instruction they were receiving, raising the question, are these preferences inherent in the learner or have they been contextually conditioned. Further, are these preferences solely based upon the immediate context of the program the student=s are enrolled in or are they the result of long term participation in a pedagogical process?

Another contributing factor to the ambivalence is generated by the less than glowing support generated by the Beder and Carrea study. The results of this study could only generate Aguarded support@ for the hypothesis that andragogically trained instructors will have a higher attendance rate and the fact that no

statistical support could be found for the hypothesis that students will rate andragogically trained instructors more positively creates questions regarding the strength of the andragogical model.

A final consideration in regard to ambivalence of the andragogical model rests upon the andragogical preference of students for concrete learning outcomes and their stated preference for ordered presentations. These two desires suggest an andragogical goal by means of a pedagogical method. The tension suggested by this and the previously mentioned reasons warrant that adult educators carefully consider their educational assumptions regarding both adult learners and how best to participate in their education.

Conclusions

The review of these five studies indicates that more empirical research needs to be conducted to determine if the andragogical model is the most effective means of educating adult learners. Most of the studies focused on the college as the context for the delivery of instruction. Research that focused on the education of adults in the workplace and the role of andragogy and pedagogy in the delivery of this instruction would be beneficial. Research could also focus on why the disparity between perception and practice exists. In this regard it would seem evident that further training and practice in andragogy may lessen the disparity between perception and practice. Another area of concern would be helping teachers evaluate their educational goals and developing strategies for accomplishing that goal. The reported goal of educators was of a more andragogical bent, but the student=s perception of the instructor=s goal was pedagogical. Answering why this disparity exists would be very beneficial to adult educators. For institutions that provide traditional and nontraditional baccalaureate degrees it may be beneficial to use a tool, such as the LPI, to place students in programs that best suit their learning preferences, rather than blindly assuming that they might function best in an andragogically based program. A final concern generated by this research is that, not only will instructors need training in andragogical

teaching, but learners need training as well, in order to break away from the pedagogical mentality. Knowles (1975), in his book entitled *Self-Directed Learning*, suggest that a student that does not understand the how and why of self-directed learning will not be able to adequately cope with the learning process. Knowles, asserts, that most people know how to be taught, but know little about how to learn. If Knowles is correct in his assumption, then before the andragogical or pedagogical model are embraced or trashed, research would need to be done on the effect that instruction of students in self-directed learning has upon academic success.

Summary

The purpose of this paper was to explore the efficacy of the andragogical model in the education of adult learners. Five different research studies were examined with a discussion of the implications that each raise for the education of adults. The paper concluded with a discussion of various future research issues need to be explored, as well as, implications for faculty and student training that might lead to a greater effectiveness in the utilization of the andragogical model.

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