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## Journal of Health Occupations Education

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**About this issue**

**Integrating Academic and Vocational Instruction  
(Model Programs for Health Science Education Programs)**

Donna B. Jordan

**Earthworm Study**

Carmen Shryock

**Myers-Briggs Type Indicator Personality Characteristics of Beginning Trade and  
Industrial and Health Occupations Education Secondary Teachers**

Howard R. D. Gordon

**Characteristics of an Adult Learner**

Jo Ann M. Whiteman, Larry Hudson, et al

**The Health Science Career Path Model and the National Consortium  
on Health Science & Technology Education**

Nancy Langley Raynor

**WEBSITES for Health Occupations Education**

Ramit Kapoor

**Contacts for this Issues**

**Editorial Procedures**

General Information  
ISSN 0890-6874

Journal of Health Occupations Education  
Spring 2000, Volume 14, Number 1

### About this issue

Where to start? That is of concern here because this “first” issue has been a bit of a challenge to get “up” but worth the work. Thanks to all the authors and reviewers for their timely work and attention to detail.

The goal of this Journal is to provide information for and by classroom teachers and researchers to improve teaching and learning in Health Occupations Education. To that end articles from classroom teachers are encouraged. A mixture of articles from classroom teachers and university faculty are included in this issue.

Donna Jordan, a classroom teacher, leads off with an article describing an actual program integrating academic and vocational education. She offers insight into challenges in the development of such a program for health science careers and tips for being successful.

Carmen Shyrock, another classroom teacher, has written an article about a “clever” and real hands-on project with earthworms in her program. Students learned from the earthworms and made presentations to other students—quite the follow-up.

A research article by Howard Gordon provides fresh insight into the results of using Myers-Briggs Indicators for Health Occupations Teachers. Of special note are the results for us being—ESTJ, ESFJ, ISFJ, ISTJ. You must read the article to find out more about us!

A compilation of comments about and from adult learners is included in an article by JoAnn Whiteman and Larry Hudson, with contributions from ALL students in a current course. Undoubtedly the reader will “see yourself” in some of the comments. A “Creed of the adult learner” was developed and is included.

And from the National Consortium for Health Science and Technology, Nancy Raynor describes a model path in health science careers and how the NCHST is involved. It is always nice to hear from the NCHST and is a group all should know about.

A starter list of Web references about Health Occupations Education is included, as compiled by Ramit Kapoor, a Lead Scholar and freshman college student. Sites were originally offered in a course for Health Occupations Education teachers, summer 1999. The reader is requested to send lists of relevant sites to the Editor for inclusion in future issues and hopefully we can establish an “HOE Web sites” at ACTE also.

Concluding this issue are two items. The first is a list of contacts for this issue. You may contact any of the people directly; networking, remember? Use their e-mail addresses please. My sincere apologies if anyone is left out or information is incorrect—let me know. Secondly, the Editorial Policies and procedures for article submission are included for reference. You are encouraged to submit articles or ideas for articles to the Editor. This is YOUR Journal of Health Occupations Education.

Most sincerely,

Larry Hudson

## **INTEGRATING ACADEMIC AND VOCATIONAL INSTRUCTION (Model Programs for Health Science Education Programs)**

Donna B. Jordan

It has been predicted that the health care industry will grow at twice the rate of the national economy over the next few years. The demand for skilled workers in this field will continue to rise. By the year 2000, trillions will be spent on health care as more services are offered. The demand for professionals in the industry has not been able to keep pace with the growth and changes. The public school system in Palm Beach County, Florida recognized its role in preparing students for employment in this area and developed career pathways to help students focus on educational readiness and preparation for challenges health careers present.

The two health science education high school models featured in this article serve students in grades 9-12 in a four year preparatory program and are designed to offer motivational activities, problem solving, and critical thinking skills by way of educational technologies and involvement at community agencies. Students are involved in a variety of educational experiences that will assist them in decision making and in developing leadership abilities. Concepts in scientific techniques, research, math, and communications are also applied. Students in the high school programs must complete a core of studies, after which they are able to continue on a path that can lead to one or more exit completion points thus allowing the student to be multi-skilled and or cross trained in entry level jobs.

**The Medicine and Health Science Education** program began in 1991 as a skill based magnet at **Lake Worth High School**. The academic and career tracks offered at this site are Medical Lab Assisting,

Allied Health Assisting, Nursing Assisting, Home Health Aide and First Responder. Medical scholarships, and participation in the partnership activities with community agencies is a vital part of this program. Students of all ability levels are able to achieve in this type program.

The **Pre-Medicine** magnet at **Palm Beach Gardens High School** was established in 1993 as an intensive college preparatory program which emphasizes honors courses in many of the content areas. It prepares students to be highly competitive in the medical field at the university level of study. Students are actively involved in clinical preceptorships, Health Occupations Students of America, and other leadership building activities such as participation in volunteer clubs, debate, and teaching younger students.

The **Health Science Education program at Roosevelt Middle School** was initiated in 1998 as a magnet to provide a three year program that emphasizes science, math, and technology for entry into the high school medical programs and other related field of study. Students at this level pursue hands on laboratory activities including dissections, problem solving projects, and research on medical topics. Field trips and observation in various medical settings are integral components of this educational pathway. Students at this level are followed by way of computer to learn whether they continue on a health science pathway while in high school.

## Earthworm Study

Carmen Shryock

In August, an earthworm farm was received for the Health Science Technology I class. It had about 24 “nightcrawlers” and directions for their upkeep. As students came to class, two from the morning session and two from the afternoon session were assigned to be responsible for the worms. I planned to use the worms for a cardiology lab in conjunction with the A.D.A.M. anatomy course. The lab uses the worms to count pulse.

Students responsible for the upkeep of the worms have had an ongoing “relationship” with them and learned how to count pulses so they can supervise the lab for the other students. Afternoon students planned, prepared, and presented a lab to a fourth grade class at an elementary school and are now better prepared to present the lab to our class.

A copy of the lab they prepared is enclosed. I have been extremely proud of the work the students presented; they used problem-solving skills, computer skills, biology research, and speech skills to present the lesson. In addition, they learned more about working with younger students (one of the students plans to become a pediatrician).

Another benefit has become apparent in the course of maintaining the worm farm. It is a great tool for recruitment as students who are interested in the health care field can see that the labs are hands-on and not run-of-the-mill book emphasis. Also, we will use the worms for other elementary and middle school presentations to encourage future health care providers to enroll at the technology center for specialized study.

Name \_\_\_\_\_

# Directions:

1. Place the worm on the plate.
2. Look for the blood vessel on the top surface of the earthworm. (The top is darker)
3. Count each pulse of the earthworm for exactly 15 seconds.

**To count the pulse you need to look at the top surface of the worm.  
You will see a dark line running from one end to the other; this is the blood vessel.  
The pulse is the disappearing and reappearing of the vessel.  
Everytime you see this action it is one beat of the pulse.**

4. Multiply your answer by four. Write down your answer in the table below.
5. Repeat steps 3 and 4 three more times.
6. Now check your partners pulse for 15 seconds. Multiply by 4 and record on the table.
7. Repeat 6 and 7 three more times.
8. Now that you have all the pulses recorded, add all the worm pulses together and write in the total in the total box. Next, take that number divide by 4 and write in that number in the average box.
9. Do the same for your partner's pulse. (Repeat step 8)

| <b>Number of times pulse was taken</b> | <b>Worm pulse for 15 seconds</b> | <b>Worm pulse for 1 minute</b> | <b>Partners pulse for 15 seconds</b> | <b>Partners pulse for 1 minute</b> |
|--|----------------------------------|--------------------------------|--------------------------------------|------------------------------------|
| <b>1</b>                               |                                  |                                |                                      |                                    |
| <b>2</b>                               |                                  |                                |                                      |                                    |
| <b>3</b>                               |                                  |                                |                                      |                                    |
| <b>4</b>                               |                                  |                                |                                      |                                    |
| <b>Total</b>                           | -----<br>----                    |                                | -----                                |                                    |
| <b>Average</b>                         | -----<br>---                     |                                | -----                                |                                    |

Journal of Health Occupations Education  
Spring 2000, Volume 14, Number 1

## Myers-Briggs Type Indicator Personality

Characteristics of Beginning Trade and Industrial and Health Occupations Education Secondary  
Teachers

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### **Abstract**

The purpose of this study was to examine personality type preference profiles of health occupations education and trade and industrial secondary education teachers. The Myers-Briggs Type Indicator (MBTI) was used to gather personal data and categorize personality type profiles. The four major MBTI type components were: ESTJ, ESFJ, ISFJ, and ISTJ. A majority of the trade and industrial education teachers had a preference for ESTJ personality type. There was an even distribution of MBTI personality types (ESTJ, ESFJ, ISFJ, and ISTJ) among health occupations education teachers. Both health occupations education and trade and industrial teachers were more likely to have a preference for sensing and judging. Respondents with an associate degree and a master's degree reported a preference for thinking.

## **Introduction and Theoretical Framework**

It is universally accepted that the teacher is the most important component of education. School improvement efforts and/or educational reform will most likely not happen until effective teachers are regarded as the most important entity. The current emphasis on educational reform in our nation's schools should be forcing us to examine the personality of effective teachers (Sikora, 1997). Personality is defined as all the relatively stable and distinctive styles of thought, behavior, and emotional responses that characterize a person's ability to adapt to surrounding circumstances (Maddis, 1976; Mischel, 1976). For the purpose of the study, personality type is defined as an identifiable pattern in the manner that an individual prefers to perceive and make judgment.

### **Personality Type Theory of Carl Jung**

The Swiss psychologist, Carl Jung centered his theory of personality as a complex network of interacting systems that strive toward eventual harmony with oneself and one's environment. He believed that human behaviors, through seemingly random and unorganized, are really quite consistent and orderly, and are a function of different ways in which people prefer to use their perception and judgment (Myers, 1962). Perception was understood to be the ways people become aware of the environment, other people and occurrences, while judgment was considered the method employed by people to form conclusions about experiences perceived (Jung, 1933a).

According to Jung, both perception and judgment consist of two contrasting functions. The two functions of perception are sensing (S), which reflects the use of five senses to establish what exists, and intuition (N), the use of the unconscious as a way of indirectly perceiving through insight and associations that exists. The two functions are thinking (T), a decision making process utilizing an analytical, objective consideration of the situation, and feeling (F), a decision making process which includes heavy consideration to the personal or social values and merits of the situation.

Jung (1933b) further identified two complementary attitudes or orientations toward life. These he described as extraversion (E) and introversion (I). Extraversion is an attitude in which the person is oriented to the outer world of people and things. Introversion is an attitude in which the person is drawn to the inner world of thoughts and ideas. Jung believed that the attitudes and the functions combine to affect how individuals relate to the world and to other people. (McClain, 1987).

Studies have shown that individuals identified as having particular combinations of these functions, (E) or (I); (S) or (N); (T) or (F); exhibit predictable preferences toward certain occupational or academic choices (Kuder, 1968; Campbell & Hansen, 1981; Barrett, Sorensen & Hartung, 1985).

### **The Work of Myers and Briggs**

Because of the implied importance of judgment and perception in the extensive writings of C. G. Jung, Isabell Briggs-Myers and Katherine Briggs added these two preferences in the development of the Myers-Briggs Type Indicator (MBTI) (Myers, 1962). As a fourth index of the MBTI, the two preferences of perception (P) and judgment (J) help to explain certain identifiable behaviors and attitudes toward the surrounding world (Myers & McCaulley, 1985). Individuals possessing a preference for judgment are concerned with making decisions either through logical, objective analysis (thinking-judgment), or through impassioned subjective appraisal (feeling-judgment) (Myers, 1980).

In all, there are sixteen type variables in the MBTI, each possessing its own unique qualities of personality. An individual's basic preferences can be identified by taking the MBTI. Once established, interpretive data could help promote a more constructive use of the differences among individuals (Kroeger & Thuesen, 1989). Each of the 16 types was written by combining the letters that identified the basic preference from each of the four indices (e.g., ESFJ, INTP).

### **Purpose and Objectives**

The present study was undertaken to develop and examine personality type preference profiles of beginning secondary technical education teachers in West Virginia. Given the potential impact which personality type has on teacher effectiveness and educational success of learners, it is important that

baseline data be developed and maintained about the personality preferences of beginning technical education teachers. Specific research objectives for this study included:

1. To determine personality preferences of beginning trade and industrial and health occupations education secondary teachers using the Myers-Briggs Type Indicator (MBTI).
2. To determine mean preference scores for MBTI preferences based on selected variables (gender, educational attainment, age, and vocational content area).

### **Research Methodology**

The target population for this study consisted of all beginning secondary technical education teachers ( $N = 34$ ) employed by the West Virginia Department of Education during the 1998-1999 school year. Participants' names were obtained from three regional teacher educators. Vocational content areas included in the study were health occupations and trade and industrial education teachers. The nature of this study required the entire population of interest be included in the sample.

True (1989) recommends the use of nonprobability saturation sampling when the population is very small or when it is essential to include everyone—as it is for the national census. However, caution is warranted in generalizing the results beyond the accessible sample.

### **Instrumentation**

The MBTI Form G was used to determine each teacher's personality type preference. The MBTI is a 126-item forced choice questionnaire designed to elicit an individual's preference on four dichotomous scales or dimensions which allow separate indices for the four basic preferences of extraversion (E) or introversion (I), sensing (S) or intuition (N), thinking (T) or feeling (F), profile and judging (J) or Perception (P) (Foster & Horner, 1988; Myers & McCauley, 1985; Plessman, 1985; Schultz, 1985; Vogt & Holder, 1988). The four personality dimensions or indices based on Jung's theory of attitude (extraversion and introversion) and functions (perception and judgment are (Foster & Horner, 1998; Keirsey & Bates, 1984; Lawrence, 1982; Myers & McCauley, 1985):

1. EI Index: **Extraversion (E)** Active involvement with people as a source of energy. Perception and judgment are focused on people and things. **Introversion (I)** A preference for solitude to recover energy. Perceptions and judgment are focused on concepts and ideas. Seventy-five percent of the general population prefer an extraverted orientation, while 25% prefer an introverted one.
2. SN Index: **Sensing (S)** Receiving or gathering information directly through use of the five senses. **Intuition (I)** Perceiving things indirectly, through hunches or a “sixth sense.” Represents the unconscious incorporation of ideas or associations with outside perceptions. Three-fourths (75%) of the general population report a sensing preference, while the remaining one-fourth (25%) prefer intuition as a means of perceiving and gathering information.
3. TF Index: **Thinking (T)** Drawing conclusions based on a logical process using impersonal and objective facts. **Feeling (F)** Drawing conclusions based on personal values and subjective observations. The general population is divided fairly evenly between a preference for thinking (50%) and feeling (50%).
4. JP Index: **Judgment (J)** A preference to live in a structured, orderly, and planned fashion. **Perception (P)** A preference to live in a more spontaneous and flexible fashion. Fifty percent of the general population report to be judging, while the other half report a preference for perception.

The judgment-perception index was not explicitly identified by Jung. Rather, this type scale was developed by Myers and Briggs to explain and identify an individual’s dominant and auxiliary functions (Plessman, 1985).

The JP reference has two uses. First, it describes identifiable attitudes and behaviors to the outside world. Second, it is used, in conjunction with EI, to identify which of the two preferred functions is the leading or dominant function and which is the auxiliary.

The recognition and development of facts about the JP junction are a major contribution of Briggs and Myers to the theory of psychological types. (Myers & McCaulley, 1985, p.13)

Validity. Since the MBTI was designed to implement Jung's theory of psychological type, its validation has generally been in the form of demonstrating relationships and outcomes predicted by theory.

Construct validity of the MBTI has been investigated by several researchers. Carlyn (1977) reports that numerous correlational studies indicate that "... a wealth of circumstantial evidence has been gathered and results appear to be quite consistent with Jungian Theory" (p. 469).

Myers and McCaulley (1985) give detailed results of research completed on each of the four dichotomous indices included on the MBTI. Significant correlations ( $p = .01$ ) with other scales reflecting behavioral manifestations were present which tend to confirm construct validity. Willis (1984) best summarizes the studies on construct validity by stating that, "Examination of data on individual MBTI scales demonstrates the behavior and attitudes which the MBTI appears to tap, suggesting a strong argument for construct validity" (p. 488).

Content validity has been tested on numerous personality measures including SAT performance, selected Strong Vocational Interest Blank Scales, and the Edwards Personal Preference Schedule. Through factor analysis, using these instruments, the MBTI has been found to be consistent with theoretical predictions (Myers & McCaulley, 1985).

Correlations ranging from the .50's to the .70's with other similar construct measures have been found through comparative testing (McCaulley, 1981).

Reliability. Internal consistency reliability estimates have been computed on type categories using split half scores. Using three separate studies from the Center for Applications of Psychological Type (CAPT) data base, items were paired which most resembled each other and correlate most significantly. Correlations ranging from .73 to .92 were found to exist consistently throughout age groups and from .43 to .94 on samples differing by education and achievements. Myers and McCaulley (1985) concluded that "the reliabilities are consistent with those of other personality instruments, many of which have longer scales than the MBTI" (p. 165). Reliability tends to remain stable up to twenty-five omissions for Form G.

Test-retest reliability estimates of type categories have been examined by several researchers. Correlations of continuous scores from ten studies with intervals from four to five weeks produced reliability coefficients of .77 to .93 for EI, .78 to .92 for SN, .56 to .91 for TF, and .63 to .89 for JP (Myers & McCaulley, 1985).

Carskadon (1979) reported test-retest reliability scores on Form G at seven weeks intervals for male and female students. The following scores were indicated for each scale: EI, .79 for males, .86 for females; SN, .84 for males, .87 for females; TF, .48 for males, .87 for females; JP, .63 for males, .80 for females.

### **Data Collection**

The instrument (MBTI) was administered during the 1998 Summer Workshop for Beginning Technical Education Teachers. Three regional teacher educators and the department chair in technical education from West Virginia University Institute of Technology were responsible for administration of the MBTI. Results were returned along with an interpretation of individual participant results provided by a certified MBTI interpreter.

### **Data Analysis**

Data were analyzed using the Statistical Package for the Social Sciences (SPSS Version 8.0 for Windows). Descriptive statistics were used to summarize the data.

## **Results**

Table 1 depicts categorical information about the respondents. The respondents included more male (61.8%) beginning technical education teachers than female (38.2%). From this sample of beginning technical education teachers, slightly more than one-fifth (23.6%) had completed a bachelor's degree and higher. Teachers with an associate degree or less represented slightly more than three-fourths (76.4%) of the teachers.

Ratio data regarding the respondents was reported in Table 2. The mean age of respondents was 40.08 (SD = 7.01). Beginning technical education teachers in this study indicated that they had some work experience prior to teaching with a mean of 17.41 years (SD = 8.63).

Table 3 displays the distribution of beginning technical education teachers from the present sample among 10 of the 16 MBTI personality types. The four major MBTI type components were: ESTJ (32%), ESFJ (18%), ISFJ (12%), and ISTJ (9%). A majority (over 30%) of the trade and industrial education teachers had a preference for ESTJ type personality. There was an even distribution of MBTI personality types (ESTJ, ESFJ, ISFJ, and ISTJ) among health occupations education teachers.

#### Variables of Interest

Table 4 indicates clarity of preferences as perceived by respondents for selected variables. Male respondents had a “clear preference” (M = 23.19 – 27.19) for sensing and judging respectively. Female respondents also reported a “clear preference” for sensing and judging (30.84 and 27.00). Respondents within the 50 – 59 age bracket had a “clear” to almost “very clear preference” for judging (M = 40.00) as compared to the other three MBTI indices (EI, SN, and TF). Recipients with an associate degree and a master’s degree reported a “moderate” to “very clear preference” for thinking (M = 19.50 - 41.00).

### **Discussion and Conclusions**

The four MBTI personality types – ESTJ, ESFJ, ISFJ, and ISTJ – accounted for over two-thirds of the respondents of beginning technical education teachers. Individuals with these psychological types are often seen as practical and realistic. They tend to solve problems by

relying on past concrete experiences and prefer organization and structure. Preference for six MBTI types (ENTP, INTP, ISTP, ENFJ, ENTJ, and ESTP) was consistently low. A large proportion of trade and industrial education teachers reported a preference for extraversion-sensing-thinking-judging (ESTJ). These results were consistent with findings from previous studies (Barrett, 1991, McClain & Horner, 1988; Sikora, 1997).

Trade and industrial education teachers were more likely to have characteristics of ESTJs. This finding suggests that trade and industrial education teachers in this study were likely to be:

- Practical and realistic; and
- Systematic and pragmatic.

Health occupations education teachers had an even distribution of MBTI personality types (ESTJ, ESFJ, ISFJ, and ISTJ). This finding suggests that health education teachers in this study were likely to be:

- Practical and realistic;
- Warm, sympathetic, and helpful;
- Personable, cooperative, and tactful;
- Concrete and specific; and
- Logical and analytical.

In this study, only 22% of the health occupations education teachers had a preference for ESTJ. This finding appears to be somewhat similar to a study reported by Hicks and Gable (1998/1999). In their study, (Hicks and Gable, 1998/1999) health occupations education teachers only represented a mere 25.4% of ESTJs. Other studies reported that persons who chose teaching as a career usually have a preference for ESFJ (Myers, 1962; Lawrence, 1982; Myers & McCaulley, 1985). However, only 22% of this study's health occupations education teachers revealed a preference for ESFJ. Hicks and Gable (1998/1999) reported that only 16.9% of the health occupations education teachers in their study preferred ESFJ. Myers found

in her nursing study that Sensing, Feeling, and Judging individuals were most interested in nursing.

Both health occupations education and trade and industrial teachers were more likely to have a preference for SN and JP indices. According to Myers and McCaulley (1985), the SN index is designed to reflect a person's preference between two opposite ways of perceiving; one may rely primarily upon the process of sensing (S), which reports observable facts or happenings through one or more of the five senses; or one may rely more upon the less obvious process of intuition (N), which reports meanings, relationships and/or possibilities that have been worked out beyond the reach of the conscious mind.

The findings on the JP index is consistent with Myers and McCaulley's theory. Myers and McCaulley (1985) reported that the JP index is designed to describe the process a person uses primarily in dealing with the outer world. A person who prefers judgment (J) has a reported a preference for using a judgment process (either thinking or feeling) for dealing with the outer world. A person who prefers perception (P) has reported a preference for using a perceptive process (either S or N) for dealing with the outer world.

Health occupations education and trade and industrial teachers were more likely to have a preference for thinking. This finding suggests that the TF index affects choices as to which kind of judgment to trust when one needs or wishes to make a decision (Myers & McCaulley, 1985).

### **Recommendations**

1. A replication of this study should be conducted with a larger sample size.
2. Teacher educators should provide prospective beginning secondary technical education teachers with ample opportunity to use all types of learning strategies and to strengthen those types which are not normally preferred.
3. Inservice training programs on personality type should be developed to assist beginning secondary technical education teachers in understanding their own personality preferences,

and the preferences of their students. Such an understanding could allow teachers to improve their instructional competencies which could in turn improve the learning outcomes of their students.

4. Further research should be done to determine if occupational experience have any influence on personality type population frequencies within trade and industrial and health occupations education profession.

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Table 1.

Categorical Demographic Information (N = 34)

| Variable of Interest                                      | Frequency | Percent     |
|---|-----------|-------------|
| <b>Gender:</b>  |           |             |
| Female  | 13        | 38.2        |
| Male  | <u>21</u> | <u>61.8</u> |
|   | 34        | 100.0       |
| <b>Highest Educational Level:</b>                         |           |             |
| High School Graduate                                      | 6         | 17.6        |
| Trade/Technical/Training                                  | 4         | 11.8        |
| Some College (no degree)                                  | 8         | 23.5        |
| Associate Degree  | 8         | 23.5        |
| Bachelor's Degree   | 6         | 17.6        |
| Master's Degree   | <u>2</u>  | <u>6.0</u>  |
|   | 34        | 100.0       |
| <b>Occupational Career Field (as classified by MBTI):</b> |           |             |
| (before entering teaching)                                |           |             |
| Architecture/Engineering                                  | 4         | 11.8        |
| Art/Design Music  | 2         | 6.0         |
| Business  | 1         | 3.0         |
| Science   | 3         | 8.8         |
| Medicine/Health Services                                  | 9         | 26.2        |
| Machine Trade   | 6         | 17.6        |
| Structural Work   | 7         | 20.6        |
| Processing  | <u>2</u>  | <u>6.0</u>  |
|   | 34        | 100.0       |
| <b>Level of Job Satisfaction:</b>                         |           |             |
| (before entering teaching)                                |           |             |
| Very Satisfied  | 23        | 67.6        |
| Somewhat Satisfied  | 10        | 29.4        |
| Somewhat Dissatisfied                                     | <u>1</u>  | <u>3.0</u>  |
|   | 34        | 100.0       |

Table 2.

Ratio Demographic Information (N = 34)

| Variable of Interest                       | Mean  | Std. Dev. |
|--|-------|-----------|
| Age (years)                                |       |           |
| Range 27-56                                | 40.08 | 7.01      |
| Years employed<br>(in pervious occupation) |       |           |
| Range 5-40                                 | 17.41 | 8.63      |

Table 3.

Distribution of Selected Beginning Technical Education Teachers by MBTI Type and Content Area

| MBTI Type | Teachers by Content Area |      |                   |      |                     |      |
|-----------|--------------------------|------|-------------------|------|---------------------|------|
|           | All Teachers             |      | Health Occp. Edu. |      | Trade and Ind. Edu. |      |
|           | (N = 34)                 |      | (n = 9)           |      | n = 25              |      |
|           | N                        | %    | n                 | %    | n                   | %    |
| ESTJ      | 11                       | (32) | 2                 | (22) | 9                   | (36) |
| ESFJ      | 6                        | (18) | 2                 | (22) | 4                   | (16) |
| ISFJ      | 4                        | (12) | 2                 | (22) | 2                   | (8)  |
| ISTJ      | 3                        | (9)  | 2                 | (22) | 1                   | (4)  |
| ENTP      | 2                        | (6)  | 0                 | (0)  | 2                   | (8)  |
| INTP      | 2                        | (6)  | 0                 | (0)  | 2                   | (8)  |
| ISTP      | 2                        | (6)  | 0                 | (0)  | 2                   | (8)  |
| ENFJ      | 1                        | (3)  | 1                 | (11) | 0                   | (0)  |
| ENTJ      | 1                        | (3)  | 0                 | (0)  | 1                   | (4)  |
| ESTP      | 1                        | (3)  | 0                 | (0)  | 1                   | (4)  |

Note. <sup>a</sup> Percentages are rounded to the nearest full point; therefore, totals may not equal 100 percent.

Table 4.

Continuous Scores and Distribution of MBTI<sup>a</sup> Preferences as Perceived by Participants for Selected Variables (N = 34)

| Variable of Interest              | n  | Preference<br>for EI  | Preference<br>for SN  | Preference<br>for TF  | Preference<br>for JP  |
|-----------------------------------|----|-----------------------|-----------------------|-----------------------|-----------------------|
|                                   |    | <u>M</u><br><u>SD</u> | <u>M</u><br><u>SD</u> | <u>M</u><br><u>SD</u> | <u>M</u><br><u>SD</u> |
| <b>Gender:</b>                    |    |                       |                       |                       |                       |
| Male                              | 21 | <u>19.00</u><br>12.09 | <u>23.19</u><br>17.96 | <u>19.57</u><br>12.65 | <u>27.19</u><br>15.43 |
| Female                            | 13 | <u>16.23</u><br>9.67  | <u>30.84</u><br>14.31 | <u>17.46</u><br>16.31 | <u>27.00</u><br>14.09 |
| <b>Age:</b>                       |    |                       |                       |                       |                       |
| 25-29                             | 1  | <u>37.00</u><br>0.00  | <u>33.00</u><br>0.00  | <u>37.00</u><br>0.00  | <u>35.00</u><br>0.00  |
| 30-39                             | 17 | <u>14.17</u><br>10.63 | <u>23.35</u><br>17.61 | <u>18.64</u><br>13.95 | <u>25.70</u><br>15.74 |
| 40-49                             | 12 | <u>19.83</u><br>10.17 | <u>25.33</u><br>16.37 | <u>20.33</u><br>14.80 | <u>24.16</u><br>14.15 |
| 50-59                             | 4  | <u>23.50</u><br>11.47 | <u>38.50</u><br>15.00 | <u>10.00</u><br>8.86  | <u>40.00</u><br>6.21  |
| <b>Education:</b>                 |    |                       |                       |                       |                       |
| High school grad.                 | 6  | <u>23.66</u><br>12.24 | <u>29.00</u><br>20.06 | <u>17.00</u><br>16.54 | <u>24.66</u><br>9.41  |
| Trade and Technical               | 4  | <u>21.00</u><br>13.36 | <u>32.50</u><br>19.48 | <u>24.50</u><br>14.17 | <u>35.50</u><br>5.74  |
| Some college and<br>no degree     | 8  | <u>16.00</u><br>11.16 | <u>27.75</u><br>16.69 | <u>12.50</u><br>9.18  | <u>28.75</u><br>19.31 |
| Associate degree                  | 8  | <u>11.75</u><br>10.95 | <u>18.75</u><br>17.87 | <u>19.50</u><br>12.99 | <u>19.00</u><br>16.42 |
| Bachelor's degree                 | 6  | <u>23.33</u><br>6.62  | <u>24.33</u><br>14.06 | <u>16.66</u><br>12.73 | <u>33.00</u><br>9.54  |
| Master's degree                   | 2  | <u>11.00</u><br>8.48  | <u>33.00</u><br>16.97 | <u>41.00</u><br>19.80 | <u>26.00</u><br>24.04 |
| <b>Vocational Content Area:</b>   |    |                       |                       |                       |                       |
| Health Occupations<br>Education   | 9  | <u>19.00</u><br>10.09 | <u>29.66</u><br>13.92 | <u>13.22</u><br>13.32 | <u>28.77</u><br>13.39 |
| Trade and Industrial<br>Education | 25 | <u>17.56</u><br>11.69 | <u>24.84</u><br>17.88 | <u>20.76</u><br>13.89 | <u>26.52</u><br>15.38 |
| <b>For Entire Population:</b>     | 34 | <u>17.94</u><br>11.16 | <u>26.11</u><br>16.86 | <u>18.76</u><br>13.95 | <u>27.11</u><br>14.72 |

Note. The preference score limits are: slight 1 to 9, moderate 11 to 19, clear 21 to 39, and very clear 41 or higher. The cutoff points were established by Isabel Myers; they should be treated as approximations, not precise division points.

<sup>a</sup>MBTI components: EI = Extraversion, Introversion; SN = Sensing, Intuition; TF = Thinking, Feeling; JP = Judging, Perception.

## **Characteristics of Adult Learners**

Compiled by: Jo Ann M. Whiteman and Larry Hudson  
Contributing Authors:

|                     |                 |                      |                       |
|---------------------|-----------------|----------------------|-----------------------|
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### **OVERVIEW**

The purpose of this qualitative research was to compile and compare comments about adult learners from actual adult learners to research on characteristics of adult learners to validate self-perceptions. Participants were selected using a readily accessible population from the course. References were actually provided by the participants.

While compiling and reviewing the statements, it was interesting to learn that in many instances the adult learner and the traditional student have similar characteristics. There are circumstances such as family responsibilities, financial circumstances, career obligations and limited time frames that lend a slightly different tone to the adult learning situation. With these added responsibilities the adult learner expects to acquire relevant knowledge in a timely manner.

The perceptions and Creed included below, define some of the adult learner's characteristics; namely, serious, applied, persevering, experienced, self-directed, impatient, anxious, willing, excited, focused, concerned with excellence and quality work, responsible, goal oriented, wanting to be appreciated and respected.

**Importance of knowing characteristics about the adult learner as early as possible during a course or workshop-**

“When we think of those individuals we consider ‘great communicators,’ what is it that makes them so great? The answer is that they know and understood their audience. There is no different in the classroom setting. As ‘great Teachers’ (communicators) we also need to know and understand our audience (students). These are just some of the questions that we should be asking our audience:

- \* Why are they in our classroom?
- \* What are their expectations?
- \* How do they learn (learning styles)?
- \* What is their background?
- \* What are their dreams?

How can a teacher begin to connect with their students without knowing the answers to at least those basic questions? I don't think they can. We're in the ‘people business,’ whether we want to think of it that way or not. In the business world, to know and understand your customers is the quickest way to success.” J.Z.

“I feel that with any learner, any age if there is a personal connection, they are prone to accept the information you are trying to convey.” T.B.

“It seems to reason that as a teacher, if you don't know the characteristics of your learners (whatever age they may be), you can't do the most effective job of instructing. For planning a workshop, lesson, or seminar, knowing your audience is step one.” M.E.

“It is important to make sure the instructor understands the learner characteristics as soon as possible to make sure the goals and objectives are appropriate and being completed at a rate that ensures successful learning. Repeating things already known, teaching far above the basic understanding or going too fast will only discourage the learners. The instructor needs to know what experiences and skills the learners already have and what directions they hope take. If the learners have a great deal of experience the instructor can move along more quickly. If there are learners in need of more support, the instructor can arrange more assistance. The instructor also needs to know what methods to use when instructing and know if alternative methods, materials or resources are needed.” S.P.

“A student will have a more effective and productive experience in an environment that makes them comfortable. It is up to the instructor to find that comfort zone. The earlier that the instructor finds that zone, the more the student will absorb.” A.V.

## **Characteristics of adult learners in general-**

“In all the articles that I found, every one of them mentions that most adult learners have external factors that they must deal with such as jobs, families and financial responsibilities. Many adult learners also go back to school after many years. They may have dropped out of school due to numerous reasons and have come back to school to further their education, because of the changing economy, job changes or advancements.” C.S.

“I believe adult students need to be recognized for their unique backgrounds, educations and experiences and this uniqueness needs to be included in the class. To provide an environment that allows for these differences to be expressed without ridicule or distain is of the utmost priority.” B.R.

“Since adults are self-directed, instruction should allow learners to discover things for themselves, providing guidance and help when mistakes are made. Adults need to be involved in the planning and evaluation of their instruction. Experience (including mistakes) provides the basis for learning activities. Adults are most interested in learning subjects that have immediate relevance to their job or personal life.” T.P.

## **Characteristics**

“Serious student - Usually in a hurry - Time is limited - Wanting to understand why - Must see a use for what they are learning - Applied learner - Must see logic in the material being learned – Practical.” JW

“I am a highly motivated and very organized person. I like to get things done ahead of time and not wait till the last minute. Taking web courses has expanded my horizon and I realize it is not so bad coming out of my comfort zone.” PK

“I am detailed and organized when doing a task. When it comes to learning, I am a visual and hands on learner. If you tell me that something is good, I want to know why, what it is, where to go to get it, how can it help me or others and show me how to. Don't beat around the bush; tell me what I want to hear.” CS

“A perfect example of making sure you nail down every detail. I found myself liking to get the information and tossing it around in my brain for a while instead of receiving all the information at once.” DB

“I am a young adult learner, but being out of undergraduate school for 6 years, entering the workforce, and realizing you can't get ahead without an advanced degree, make most people contemplate returning for more education. I am more interested in learning what I need to know for my particular job. If it applies to my life, great! If it doesn't I am impatient and want to move on to something that I feel does apply to me. I am more time conscious now, I know how to work ahead of deadlines, and get things in on time without asking for an extension. I am afraid of jumping in to new things cold. I want to stand or fall on my own. I hate tests that expect you to memorize and regurgitate information. I think I am a good example of an adult learner because I am self-reliant, and dedicated to enhancing my life.” AWE

“I can only compare myself to the younger version. The younger version of myself had none of the following characteristics:

\* persistence.

\* organizational skills.

\* highly motivated.

\* impatient...wanting it all NOW.

This is why web courses are the best form of learning for an individual such as myself. Driving 45 min., each way, to sit in a classroom, is in my assessment a total waste of time.” JZ

“As an adult, I have a DESIRE to learn. I take pride in my work and put forth my best effort. I am doing this for myself, whereas most other things in my life I do for others. My schedule is very hectic and although my heart is in it, there are times that my mind is on overload and can not except another thought. My time constraints are my greatest challenge. There are days that there is no time or energy left and it is then that the desire to learn and do my best motivates me to accomplish the goals set before me.” TG

“I am a visual learner for the most part, auditory secondly. I am a serious student and I need to find significance in what I am learning. I want to apply what I learn to my life in some way.

I am very organized, self-motivated and I tend to look for a unique way to express or use what I learn. I think I am a life long learner since I am always yearning to learn more in the areas that interest me personally.

My characteristics as a learner are to feel successful and yet I want to be challenged. I prefer to use a logical and practical approach to learning and I enjoy sharing my knowledge with others (teaching). I have a great desire to learn and I want to stay ahead of schedule.

I don't intend to come across as a 'know it all' person, although I may appear to act that way at times. I humbly apologize! I am but a mere grain of sand in the realm of knowledge! I get so excited about what I have learned and in that excitement I want to share my knowledge with others. I thoroughly enjoy sharing, expressing or teaching what I have learned to others around me.” EY

“The North American Plains brothers have this conception of time that when the spirit moves them then the job will be done. I've seen this perception of time put to work up close and personal. I think that when it comes to long term planning I can empathize with these gentlemen. My point is that I really have to work hard at long term planning, but when the fertilizer hits the propeller, I am there with a solution. This probably comes from years in the military and being an outdoors type. A wise man once said, 'First come the test than the lessons'. When you are on nature's terms, you have senses you wouldn't have in a more gentile situation. In the military many times the same thing applies. Again my point is that my characteristics for learning sometimes can get more instinctive than let's say 'literature enhanced'. But this is what makes life and education interesting: the chance to improve a life characteristic. Even to acquire one. Being a teacher has greatly helped me toward my goal of long range planning proficiency. Why, because I must.” PR

“The characteristic that most makes me an adult learner is that I do NOT want to be treated like a child. It wastes my time to have everything repeated a million times. If I didn't understand, I'll

ask - otherwise, just go on to the next topic. If certain things are of major importance, just tell me so and I'll write it down. I am a responsible person - if something needs to get done, it'll get done. I don't need to be prodded.” JE

“Not just comparing me to other students, but also comparing me to myself just ten years ago, wow, I am a lot different. I guess I could say I am more serious about my education and direction. I am not here because I've just graduated high school and what else is there to do anyway!?! Over the years, I have "learned the ropes" and can get a lot more accomplished in less time. Unlike many first time or non-traditional students, I've been attending school pretty regularly for the past ten years, so I don't feel too "on guard" or frightful of surprises. I feel pretty comfortable knowing what may or may not happen and what to expect.

I'm required this semester to take a course that is a prerequisite to my program. After attending the first night I feel like it is really irrelevant to where I am going and what I want to be learning. I found myself very uncomfortable and very impatient sitting there. I think adult learners either chose to learn something maybe new or fun because they're curious about it, or, they're on a mission to get something or get somewhere. Well, right now I feel like I'm on a mission, kind of antsy, tell me what I have to do...I'm ready to do it!” JH

“Structured – I’m not sure if I was born with this trait or if I learned it as a product of my environment. I do well in a structured environment. School has always been a very structured place, and that is fine with me. The military was very structured and probably had a large influence on my need for order and structure. Prior Experiences – It’s hard to believe, but I am middle-aged. I have many experiences to share – many of which would probably be relevant in just about any learning

situation. That is the positive or helpful side of prior experiences. Prior experiences can be a barrier to preconceived notions – open-mindedness also. I have to admit that sometimes it takes much convincing to change my mind about certain things. The wiser I become, the more open-minded I become. Although I still have preconceived notions about things, I am learning to gather

Success and facts first and then develop notions. Feedback – I like experiencing success; I also know that more often than not, hard work goes along with success. Feedback from mentors and teachers is welcome – probably time constraints – I have a full-time essential job. I have a family. I have recreational needs. I go to school. Relevancy – If I am I need to sleep. Shown that something is relevant to my goal(s), and then learning becomes much easier and enjoyable. Responsible – Being responsible came with adulthood for me. Being responsible means that you can count on me to do the right thing – as distasteful as it may be at times.” DW

“I am aware of the value of the knowledge I am seeking and recognize the work necessary to obtain it. I am looking to travel the most direct route to my goals and am angered by what I consider to be useless detours. I also take responsibility for mapping my own roads and appreciate those who work hard supplying needed course corrections to keep the traffic flowing for all of us. And at the same time I treasure the beautiful scenery and restful diversions along life's highways and byways. Happiness and balance are as dear as the achievements. As an adult learner, I have many experiences to flavor the present input and require evidence, references and tools with the drama. The more I learn, the more I become conscious of, and wish to know and be a part of.” MH

“To be honest it seems kind of strange to be called an adult learner. I am sure I am, I'm 25 that seems like enough years to me to make me an adult. I certainly gained the responsibility of an

adult, gained with a couple of years of teaching. Third, I have lost my patience for wasted time. Of all the resources that are available to any adult learner I believe that time is the most limited. I do not have time to waste, if five minutes can be saved, I'll save it, don't waste time, and I am always looking for a faster way to get the work done." JP

“Constraints: My most significant characteristic change from undergraduate work is the number of constraints that I have in my life. From a time perspective, my career consumes my time; one of the lessons that I have learned so far, however, is the necessity of balance in your life. I will not allow myself to place a greater emphasis on my "work" than I will on my "life." (Can you tell this is a sore spot?) The flexibility that web courses offer feels ideal to remove any worry about conflicting commitments. I feel a strong sense of guilt as an adult learner of letting others, and myself, down.

Lust for Learning: I have always enjoyed learning more depth on topics and about new topics. I'm starting to call that a lust because it seems that I may leave learning and education for a short period of time, but I keep coming back to it!

Motivation/Dedication: As so many others have mentioned, I am definitely more selective, or maybe discriminating, about my motivation as an adult learner. While I may be more motivated overall, if I sense a "waste of time" then the motivation drops off quickly and I focus on the critical task of learning the material and moving on to something else.

Confidence: As an Adult Learner I understand my own goals and myself much better. I also feel very comfortable working with others in a group situation. These both contribute to a sense of comfort in learning and interacting, even if the material is unfamiliar.

Learner: I think that the key for me is self-direction. Unlike a child I am in charge of what I will learn. I take responsibility for what I need to learn and how to go about obtaining that education.” MR

“A characteristic that makes me an adult learner is that I am making my own decisions. It was my choice to enroll in this course, which makes me much more motivated to learn the content and do well. It is interesting for me to look back now and compare myself as a "child learner" and now as an "adult learner". As a child, I was learning because I had to and I performed well for everyone else (my parents, my teachers). Now as an adult, I am doing this for myself because I enjoy and want to learn.” AV

“As an adult learner, I want to get things done and get them done correctly. I don't want to be treated like a child and I don't want to waste time. Learning and education is very important to me and I want to get the most out of it that I can, both for my learning and myself and for my students and their learning. I am a busy woman. I work full time, am a wife and mother, and go to graduate classes part-time. I am a professional and wish to make that impression in both work and as a student. I am a perfectionist and try to give everything my all, especially as a learner. I want people to expect great things from me and to be able to count on me to get the job done. I think adult learners differ greatly from younger learners because their expectations and personal goals are much more serious. I know for me, I've been a much better student as an adult learner because I value the time, commitment, and desire to learn more than I did at a younger age.” LM

## **Characteristics which make ME an adult learner.**

“Some of the Characteristics that make ME an adult learner are; I am an adult, having reached legal age. I am continuing to mature, an ongoing process. I am a student. I am skeptical, particularly of absolutes. I can be cynical. I am tolerant of ambiguity and intolerant of intolerance, prejudice and stereotyping. I like to challenge pedantry and orthodoxy. Details are important to me. I am equally a visual and auditory learner. I am analytical and intuitive. I acknowledge a difference between knowledge and wisdom. I do not require a practical reason for learning something. I am not impulsive nor am I a procrastinator. I realize that the more I learn the less I know, even about myself. I am logical although not always practical. I find reality more fascinating than fiction. I am comfortable with the theory of an expanding universe. I do not like to categorize others or myself unnecessarily. I see contradictions as commonplace and natural. I feel that I as well as you am unique. I believe that learning how to learn is the most important thing that one can learn and if I can teach this I am successful. I rarely say “I” as many times as I have in this paragraph. But since it is about me it couldn’t be avoided without being more awkward than it is.” RC

“My characteristics as an adult learner are probably quite typical in being derived from experience, physiology, personality, need, circumstance, and objective. Experience developed from years of being a student under a vast variety of teachers having different methods gives me a certain level of impatience with the less effective instructional methods. I have always enjoyed the process of discovery. After experiencing quality instruction, it is too easy to be critical of different techniques. My solution is to focus on the content.

Compared to the resiliency of youth, my physiology is differently vulnerable to the health consequences of the mouse on carpal tunnel, the sedentary time on vascular function, the monitor on

vision degradation and disruption of the brains electrical activity. As these and new health factors become better understood, I feel the need to put higher priority on health protection.

The need for knowledge in my field, automotive technology, is critical as in other technical pursuits in this era of escalating rate of change and unprecedented access to information. I need not only to keep up to date, but also to do so ever more efficiently. Need drives my motive to learn. A need to satisfy curiosity leads to learning about whatever is new. A need more effectively to convey it leads to investigating the characteristics of adult learners.

The circumstance of an adult learner creates priorities directly affecting the learning process. Priorities of family, job, commitments, responsibilities, dependents, health, life involvement all may change the adult learners priority available to a class compared to secondary education when school is, ideally, the most important job. My circumstance characteristic places class on the list about seventh.

Objective is more important to me as an adult learner because of the limits of circumstance. My objectives for learning are goal achievement, entertainment, or satisfaction of curiosity.” GM

“Being twenty-two years of age, single, with no dependents I still consider myself an adult learner. Adult learners like myself are responsible for their own actions. I set realistic goals for myself but am understanding if life requires for the goals to be modified. I realize that issues that hold importance in my life might not hold true for the next person and to be sympathetic to all walks of life. Most importantly, my life has numerous components that daily change and I must have the ability to change with them.” HP

“I am a serious, motivated student. As an adult learner I have found that returning back to school as a thirty something has been the single most difficult thing I have ever done next to raising my two sons. I am a kinesthetic learner and learn best by doing the task at hand. I have to work at my visual and audio learning.” JD

“Although I am only 20, there are clearly things about me that make me different from my peers. Without getting too personal, my life has taken so many changes in the past two years, that I feel like I've been given a second chance to buckle down and do it right. And isn't that what being an adult learner is about? Getting another chance (or finally taking one)? After changing my major two times and finally learning how to focus, I have clear goals and a plan. You won't find me at parties or complaining about the mountains of work before me, because it is all my choice. I am different because I go to class to learn, come away with something, and accomplish my dreams. I realize that school is for me!” JB

“I have grown up under the military way of education. They teach at different levels for different purposes. They teach everyone an introductory course through boot camp, officer candidate school, direct commission orientation and the academy. This is a condensed, no non-sense, teach exactly what the person needs to know to be able to learn their job in the Coast Guard and survive the dangerous life we end up living.

Then everyone goes through on the job training that teaches the new person what they need to know to function at their new unit and to become a part of the functioning team.

This training is also very specific. It only teaches what the person needs to know to do the job.

Now we get into technical training. There are three levels training. First, there is the basic level of training that teaches exactly what the student needs in background studies like physics, chemistry, biology and other scientific fields, and then teach the basic skills the student needs to return to their unit. This only prepares the student for on the job training that makes the person ready to become a technician. This is called "A" school.

Second, there is advanced training that prepare the technician to assume higher responsibilities. Here the student goes deeper into the background and core subjects.

This helps the student with his job experiences to help solve problems in their field of expertise and take on projects that improve the Coast Guard and their service to this country. This training is very similar to engineering technician training at colleges throughout this country. It is broad in foundation, research oriented and project based. This is called a "B" school.

Third, there is specific training that teaches everything a technician needs to know to maintain, repair and overhaul a whole system that is not able to be taught on the job. It is very task orientated, very specific and very narrow in scope. This is called "C" school.

After this, a technician would actually go to college for further training and this would be at the level of engineer. If the individual continues in his field, we now get graduate training in the managerial, administrative and educational fields. Very few enlisted personnel get this level of training outside of the military system. This training is given to officers in the Coast Guard.

I have gone through most of these levels of training. I need to get exactly what I need to know as a technician in my field of expertise when I am learning a new, specific skill related to my field of expertise. I need to know background subjects that relate directly to my specialty when I move into a higher level of responsibility, such as lead technician. I need to know what is expected of me and how to accomplish my collateral duties such as administration, leadership, management

and education that go with promotions into positions of leadership. This is usually a very broad field of study.

I am a husband, a father, a licensed technician, supervisor, community volunteer office holder, student and educator. I know that I have limited time to do each of these duties. I have to plan very carefully how I spend my time, and know what to give up (with out guilt) when there is a conflict.

I have to be very mature about my studies, be the kind of student I expect my student to be and work at the level my courses are taught at. That means I have to take each course individually. I should not work a college course like I would work a vocational course or a workshop. Each is different and requires their own special level of work and attention, because each has their own special purpose and focus.

I am an adult. I expect to be taught like an adult. On a course that teaches a specific skill, only teach what I need to know to do that job. On a course that teaches a broader or new field, limit it to the subjects and fields I need to know. On college courses, lead me to the resources I need to research the subject and help direct my self-study.

I am a complicated individual, able to accomplish many things under difficult conditions. I do not need self-esteem training, career training, employment training or self-improvement training to be included in my courses. These subjects might be needed for adult learners who have not finished school, been to school in a long time, been continually on assistance, unemployable or unemployed for a long time, or incarcerated. These students learn life skills and career skills better when they are included with courses that teach them a trade and can directly associate the skills to their jobs and future, but that is not me.” BR

“I think overall, I am more determined, have more pride, and have much less time to do all the things I desire. I am very eager to learn things that I can use. I pay more attention to detail and I am focused. I do become irritated by courses I don't find useful or when they are taught in an uninteresting or inapplicable (is this a word?) manner.

I learn best by doing. I like to learn by interacting with others and by sharing information. I think being an adult; I understand that it is not possible to "know it all" if you want to know anything. It is also important to value the strengths others have and "use" their skills in a collaborative way. This way everyone benefits and the project benefits.

Also, as an adult learner, I have an extremely hectic schedule and am saddened when my personal life (now that I have one) suffers. It's exciting to be learning and doing new things and I am motivated to keep learning and growing.” SR

“The characteristics that make me an adult learner are that I am going to back to school after being away for a significant period of time, I work and attend school, I have been in the workforce for a number of years; and on a personal note; I feel what makes me an adult learner is that I chose to go back to school to make a change in my career and to better myself. I feel that I am more focused and motivated this time around because I am here for myself and not my parents, as was the case the first time.” TP

“Characteristics, which make me an adult learner, are numerous. The most obvious characteristic is that I am an adult. I have long ago left my childhood. I am not sure the exact date I became an adult? When I was age 18 the law said I was an adult. I was given the right to vote and other adult responsibilities. The law defined me as an adult and I became responsible for my own

actions. But I am not sure each one of us becomes an adult at the magical age of 18. I don't think I felt like an adult at that age?

With getting older and gaining more and more responsibilities I begin to realize I was truly an adult. Now I identify myself as an adult and I have chosen to return to college and get a degree makes me a degree learner. I believe that all people learn thru out their lives. Because I have chosen to go back to college as an adult, learning is an important part of my adult life at this time.

When you've got a career or for some other reason time is precious, you don't want to be bogged down by infantile processes. You are there to learn and burn. How can you get anymore direct than that? This is what most adult learners demand and since most of the time they are paying for it, they should get what they pay for.” DS

## Creed of the adult learner

- I am a highly motivated and very organized person.
- I like to get things done ahead of time and not wait till the last minute. P.K.
- I am afraid of jumping in to new things cold.
- I want to stand or fall on my own.
- I hate tests that expect you to memorize and regurgitate information.
- I think I am a good example of an adult learner because I am self-reliant, and dedicated to enhancing my life. A.W.E.
- I have a DESIRE to learn.
- I take pride in my work and put forth my best effort.
- I am doing this for myself, whereas most other things in my life I do for others. T.G.
- I am a visual learner for the most part, auditory secondly.
- I am a serious student.
- I need to find significance in what I am learning.
- I want to apply what I learn to my life in some way.” E.Y.
- I am not here because I've just graduated high school and what else is there to do anyway!? J.H.
- I am aware of the value of the knowledge I am seeking and recognize the work necessary to obtain it.
- I am looking to travel the most direct route to my goals and am angered by what I consider to be useless detours.
- I take responsibility for mapping my own roads and appreciate those who work hard supplying needed course corrections to keep the traffic flowing for all of us. M.H.
- I understand myself and my own goals much better as an adult learner.
- I also feel very comfortable working with others in-group situations. M.R.
- I set realistic goals for myself but, am understanding if life requires for the goals to be modified.
- I realize that issues that hold importance in my life might not hold true for the next person and to be sympathetic to all walks of life. H.P.
- I want to get things done and get them done correctly.
- I don't want to be treated like a child and I don't want to waste time.” L.M.

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Journal of Health Occupations Education  
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## THE HEALTH SCIENCE CAREER PATH MODEL and THE NATIONAL CONSORTIUM ON HEALTH SCIENCE AND TECHNOLOGY EDUCATION

Nancy Langley Raynor

In today's global economy, more education is required by the health care industry than ever before. In future decades, even more demand will be made of education to provide skilled health care professionals.

A major element of education reform is to provide curriculum relevance. Students who grasp relationships of what they are learning become motivated to work harder and to enroll in more rigorous courses. Students who work harder, prepare themselves better for further education and/or employment. Better prepared students exiting high school will be able to meet the challenges of the ever increasing demands of a challenging career in health care.

The National Consortium on Health Science and Technology Education has as a mission to respond to national policy on the preparation and employment of health care personnel. The purpose is to contribute to effective and efficient delivery of health care and preparation of a qualified workforce through fostering collaboration among educational agencies, the health care community, legislative and policy -making bodies, and labor. Founded in 1991, more than 30 organizations are members of NCHSTE. Their constituency represents over 800,000 potential or employed health care workers, publishers, and university/college researchers

The Consortium does not represent any single health career. Its goals include the following: 1) to promote and strengthen collaboration among health care stakeholders, 2) to respond to legislation, regulations, and initiatives (private and public) related to health science, technology education and

practice, 3) to support and influence research on health care workforce critical issues, and 4) to influence the design and delivery of education programs responsive to health care workforce needs.

The Consortium offers a variety of products and services. Among these are the National Health Care Skill Standards, The National Health Science Career Path Model, The National Health Care Skill “Core” Standards Accountability Criteria, Tools for Integration, over 160 validated integrated instructional plans (K-12) and aligned assessment modalities, Health Care Partnership Guidelines, Speakers’ Bureau, Resource Clearinghouse, National Networks, Informed Interpretation of Past, Present, and Future Initiatives; Research, Information Databases, High Performance Professional Development, Counseling and Consulting Services, NCHSTE Website, etc. (Note: In general, qualifying organizations have used Perkins fiscal resources for payment of membership.)

The NCHSTE has developed a National Health Science Career Path Model with funding from the U.S. Department of Education, the National Skills Standards Board, and the National School to Work Office. This project is entitled ***Building Linkages: Integrating National Academic and National Health Care Skill Standards***. It partners educators, healthcare employers, and professional organizations’ representatives to develop and refine a healthcare career path model that will result in students leaving high school better prepared for immediate employment and/or further education. This has been accomplished by 1) providing a structure to develop awareness, exploration, orientation, and preparation opportunities for students in healthcare, 2) Organizing student goals and linking them with postsecondary education and employment opportunities (a career path, and by 3) Establishing partnerships with health care employers, public and postsecondary education and professional organizations to develop and maintain the career path. Seventeen states have been involved in the development of the Health Science Career Path Model. The Health Science Career

Path Model utilizes National Health Care Skill Standards, which are the bases for health science curriculum across the country.

Products that are currently available include 160 validated, integrated instructional plans (Kindergarten-12<sup>th</sup> grade), aligned assessment modalities, Health Care Partnership Guidelines, Integration Tools, etc. Portable skill certificates will provide evidence that students have met national competencies. In addition, a national assessment, based on the National Health Care “Core” Standards, is being built to afford students, potential employees, and employees an opportunity to add value to their career path portfolio. Assessments are projected to be ready for administration by 2002. (Note: Purchase of such products are generally considered legitimate expenditure of School to Work fiscal resources.)

For further information about the above project, or the consortium refer to the NCHSTE website: <http://NCHSTE.org> or the Consortium’s headquarters at the following address:

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Journal of Health Occupations Education  
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WEB References  
For  
Health Occupations Educators  
Compiled by Ramit Kapoor  
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“Course Construction Health Occupations Education”  
Summer 1999

Introduction:

A collection of relevant Web sites is started with this Journal issue. You are requested to submit sites you find for inclusion. The compiler, Journal editors, or Health Occupations division do not warrant that all sites are working as people change Web sites frequently. However, we are sincere in our effort to start a list, to be added to by you the readers. Send Web sites lists to Larry Hudson. Thanks.

Department of Health & Human Services

<http://www.hhs.gov/>

“THE DEPARTMENT OF HEALTH AND HUMAN SERVICES is the United States government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves” (U.S. Dept. of Health website).

Healthfinder

<http://healthfinder.gov/>

“Healthfinder® is a free gateway to reliable consumer health and human services information developed by the U.S. Department of Health and Human Services. healthfinder® can lead you to selected online publications, clearinghouses, databases, web sites, and support and self-help groups, as well as the government agencies and not-for-profit organizations that produce reliable information for the public” (Healthfinder Website).

Health Oasis-Mayo Clinic

<http://www.mayohealth.org/>

A team of Mayo physicians, scientists, writers and educators directs this site.

“Our presence on the Web is a natural extension of Mayo's long-standing commitment to provide health education to our patients and the general public. The breadth and depth of Mayo's expertise allows us to present the most up-to-date information on a wide variety of medical topics. Mayo Clinic Health Oasis is the only Web site that gives you access to the experience and knowledge of the more than 1,200 physicians and scientists at Mayo” (Mayo Website).

InteliHealth

<http://www.intelihealth.com/IH/ihtIH/WSIHW000/408/408.html>

Last year's winner of the prestigious Webby Award for Best Health Site, has been nominated again in 2000.

Internet Hospital Directory

<http://dialspace.dial.pipex.com/r.bowyer/hospital.htm>

The Internet Hospital Directory is one of the most comprehensive lists of Hospitals accessible via the World Wide Web and exists in order to provide an easily accessible source of Hospital WWW addresses indexed not only alphabetically but also by country & state in the USA and via regional map

Medicalogic Website

<http://www.medicalogic.com/>

Medscape Website

<http://www.medscape.com/>

Total eMed

<http://www.totalymed.com/>

Medical Transcriptionists and Stenographers. Occupational Outlook Handbook

<http://stats.bls.gov/oco/ocos152.htm>

“Medicalogic and Medscape Agree to Merge; Medicalogic Also to Acquire Total eMed - Combination will Create the Premier Online Health Record, News and Information Standard For Medical Professionals and Consumers” (Medscape Website).

National Institute of Health

<http://www.nih.gov/>

“Founded in 1887, the National Institutes of Health today is one of the world's foremost medical research centers, and the Federal focal point for medical research in the U.S. The NIH, comprised of 25 separate Institutes and Centers, is one of eight health agencies of the Public Health Service which, in turn, is part of the U.S. Department of Health and Human Services” (NIH Website).

Nursing and Psychiatric Assistants: Occupational Outlook Handbook

<http://stats.bls.gov/oco/ocos165.htm#training>

Radiation therapist: Radiologic technologists

<http://stats.bls.gov/oco/ocos105.htm>

Radiographer: Moving into a high-tech career

<http://www.stkate.edu/Admission/MPLS/Radio.html>

Surgical technologists: Occupational Outlook Handbook

<http://stats.bls.gov/oco/ocos106.htm>

World Health Organization

<http://www.who.int/>

Journal of Health Occupations Education  
Spring 2000, Volume 14, Number 1

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Journal of Health Occupations Education  
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### **Editorial Policy:**

The Journal of Health Occupations Education, unofficial publication of the Health Occupations Education Division of the Association for Career & Technical Education (ACTE), was developed to facilitate communication among members of the profession on current research and findings in the field, trends and issues in health care, and media sources which impact on Health Occupations Education. Submission of manuscripts is encouraged. All submissions are reviewed by the editors, research articles are “blind” referred through electronic mail word attached file. No payment is made to authors. The views expressed in the Journal of Health Occupations Education are those of the authors and do not necessarily represent official position of the Health Occupations Education Division or the Association for Career & technical Education.

### **Journal Access:**

Since the Journal is now published solely on the Web there is no subscription fee.

### **Duplication:**

Educators are authorized to reproduce this publication without making a written request provided that (a) duplication is for an educational purpose in a nonprofit institution, (b) copies are made available without charge beyond the cost of the reproduction, and (c) copy includes full citation. This authorization does not apply to material copyrighted by others. Any such materials are so identified.

### **Submission of Articles:**

Authors should e-mail in Word format as an attached file the article. All articles should be in 12 pt. Font and double-spaced with margins of one inch on all sides. Tables should be numbered, titled, cited, and inserted in the text. References must be listed at the end of the article. The Publications Manual of the American Psychological Association (APA) current Edition will be used for style of writing. <http://www.ldl.net/~bill/apatwo.htm>

### **CD-ROM:**

A CD-ROM of the current issue and 21 back issues is in the planning stages. Support is expected from the Health Occupations Education Division. Past Journals have already been scanned and saved in PDG (Adobe Acrobat) format. Each issue is searchable by keyword. It is proposed that the CD-ROM would cost \$25.00, including processing. A great addition to a program or school library or for personal use. If interested please contact Larry Hudson, Editor.