DOCUMENT RESUME

ED 334 206 TM 016 608

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TITLE The Development of Two Instruments Assessing the Predispositions People Have Toward Technology Use: The Value of Integrating Quantitative and Qualitative Methods.
PUB DATE Apr 91
NOTE 27p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, April 3-7, 1991).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adults; *Assistive Devices (for Disabled); *Attitude Measures; Biomedical Equipment; *Disabilities; Interviews; Motivation; Psychological Characteristics; Quality of Life; Self Care Skills; *Technology; *Test Construction
IDENTIFIERS Assistive Technology Device Predisposition Assess; Educational Technology Predisposition Assessment; Functional Assessment Inventory

ABSTRACT

Use and non-use of assistive technology by people with physical disabilities were explored. Also examined were the beliefs subjects held about technology use and the quality of their lives. The study began in 1986 with five women with severe cerebral palsy and five men with spinal cord injuries. All participants were equipped with one or more technologies and had been preselected as a technology user or non-user. In a follow-up in 1988, two additional subjects with spinal cord injuries were added to the sample. Participants were observed and the 30-item Functional Assessment Inventory was completed for each subject to measure the degree of impairment. Psychological profiles were obtained, and subjects' attitudes were determined through interviews. Overall, successful use of a technology depended on the subject's belief that benefit would result. Factors that influenced the decision to use or forego a technology were grouped into the following categories: (1) characteristics of the purpose (mobility, communication, information acquisition, art, and recreation); (2) characteristics of the technology; (3) characteristics of the individual; and (4) psychosocial characteristics (exposure, opportunity, expectations, and peer support). The Assistive Technology Device Predisposition Assessment and the Educational Technology Predisposition Assessment were developed as a result of these interviews. Three tables and two graphs illustrate the discussion. An appendix contains the interview schedule and a sample profile. (SLD)

The Development of Two Instruments Assessing the Predispositions People Have Toward Technology Use: The Value of Integrating Quantitative and Qualitative Methods

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Paper presented at the 1991 Annual Meeting of the

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Chicago, Illinois
April 3-7

Running Head: THE DEVELOPMENT OF TWO INSTRUMENTS

The Development of Two Instruments Assessing the Predispositions People Have Toward Technology Use: The Value of Integrating Quantitative and Qualitative Methods

There has been a remarkable increase in the availability of technological devices which provide learners with options for enhancing their functioning. Examples of such devices are personal (or assistive technologies) and educational technologies.

A personal technology or assistive technology device (ATD), as defined in the "Technology-Related Assistance of Individuals with Disabilities Act of 1988" (P.L. 100-407), is "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities" (p. 3). An ATD can be low-tech (mechanical) or high-tech (electro-mechanical or computerized) and includes products that compensate for sensory and functional losses by providing the means to move (e.g., wheelchairs, lifts), speak (e.g., voice synthesizers), read (e.g., opticon systems for persons who are blind), hear (e.g., vibrotactile aids) and manage self care tasks (e.g., automatic feeders).

The purpose of educational technologies (ETs) is to make learning as accessible to as many people as possible. Their increased availability provides teachers with many options for addressing the individual's particular learning style and for enhancing the student's learning. Computer supported learning and evaluation through the use of satellite networks, LOGO and other learning environments, integrated media systems, intelligent tutors, and tailored testing, have placed us far beyond mere "computer-assisted instruction." It is important to note that personal or assistive technologies often serves as educational technologies as well.

These technologies have been seen as important enabling factors in mainstreaming, transitioning, and community integration and have been said to have the potential to equalize disabled and able-bodied people by rendering a disability irrelevant or, at least, relegating it to minor importance. Their positive role in educational and quality of life attainment has for the most part been taken for granted.

Research Objectives

This research was predicated on several assumptions:

1. "Quality of life," like such constructs as "happiness" and "success," have personal meanings for individuals that are very difficult to quantify.

2. Researchers to date have employed a variety of survey methods, using both objective and subjective measures of quality of life, only to have their more quantitative approaches leave them with as nebulous a construct as that with which they began.

3. At this point in the study of both technology utilization and the quality of life of people with disabilities, a qualitative research approach (that looks for definitions and meanings to emerge from data) might prove more fruitful than a quantitative approach (that may attempt to prematurely impose structure and meaning on the data collection).

This research, in accord with the above assumptions, set out to a) explore technology use and non-use in the words of people with physical disabilities and to b) see how these same people believe technology use or non-use is affected by, and in turn affects, the ways in which they perceive and define their quality of life over time. Specific research questions were:

1. To what factors do users and non-users attribute their utilization or non-utilization of a technology? Specifically, do they differ in attributing responsibility to personal traits, characteristics of the technology, or such influences as family and rehabilitation team expectations?

2. How do technology users differ from non-users in current physical functioning and personal characteristics such as temperament?

3. Do technology users differ from non-users in their perception of the disabled experience, their present and hoped for quality of life, and their definitions of rehabilitation success?

Methods and Data Sources

A study exploring technology use and perceived quality of life was conducted in 1986 with five women with severe, four quadrant involvement, cerebral palsy (CP) who ranged in age from 26 to 42 years old and five men with severe, four quadrant involvement, spinal cord injuries (SCI) who ranged in age from 25 to 37 and who were at least four years post injury. All participants had been equipped with one or more technologies and were pre-selected by contact therapists as being either a technology user (2 SCI, 3 CP) or technology non-user (3 SCI, 2 CP). Each participant was living independently or with family. As much as possible, the effects of variations in physical involvement, age, and the existence of cognitive impairment were controlled.

The general method employed in the research was that of a comparative case study, that is, two or more case studies are conducted in order to compare and contrast subjects' comments, scores, traits, or behaviors (Bogdan & Biklen, 1982). This approach is more attentive to the qualitative properties of data than to quantitative properties and is based on the assumption that "meaning and process are crucial in understanding human behavior, that descriptive data is [sic] what is important to collect, and that analysis is best done inductively" (Bogdan & Biklen, 1983, p. 55).

In 1988, each of the original 1986 participants were contacted to participate in a follow-up study that used the same instrumentation and design as the original. All participants in the original 1986 study agreed to participate in the follow-up study. During the two-year interval, there were no major changes in participant living status with the exception of one male SCI technology user who, upon graduation from college, moved from his family's home to live independently in Berkeley, CA. Two recently spinal cord injured individuals were added to the sample in 1988.

Qualitative Assessment of Technology Use

Participants were observed in their rehabilitation centers, homes, educational or work sites in order to get an understanding of how they performed with or without the use of technological assistance in their daily activities. Observation/interview notes were kept on whether or not participants used technologies, and on the ease, comfort and effectiveness of use and on conditions and circumstances under which they experienced difficulties. At the time of observation, in-depth interviews were also conducted according to an interview schedule designed to elicit responses relevant to the research questions addressed by the study (see Appendix).

The verbal statements and opinions each participant offered during the interviews were typed in the form of verbatim transcripts organized into topic categories later organized by participant type. Only verbatim quotes were used so that meaning would not be imputed that was not intended by the speaker.

Functional and Psychological Characteristics

People differ in their degree of disability and adjustment to it. Therefore, functional and personality trait assessments were obtained on participants so that inter-participant comparisons could be made on these dimensions and so that their use of technologies and interview responses could be placed into a broader individual context.

Functional Assessment Instrumentation. The Functional Assessment Inventory (FAI) developed by the University of Minnesota's Rehabilitation Research and Training Center is a 30-item global functional inventory covering communication, motor, physical, cognitive, adaptive behavior, and vocational factors. Each functional item on the FAI is evaluated on a four-point ordinal scale, beginning with "no significant impairment" and progressing to three levels of increasing limitations with each level operationally described.

The FAI is completed by a rehabilitation counselor or therapist familiar with the client/subject. A companion instrument, The Personal Capacities Questionnaire (PCQ), is an item-by-item translation of the FAI into first-person terms so that it can be completed by an individual on him or herself.

Inter-rater reliability for the FAI has been determined to be good, with standardized alphas of .803 and .806 being reported for ratings provided by counselors viewing videotapes of rehabilitation clients. There is evidence reported in the FAI manual for both concurrent and predictive validity when using a total FAI score.

Psychological Assessment Instrumentation. The Taylor-Johnson Temperament Analysis (T-JTA) is a 180-item inventory that provides profiles of subjects on nine traits (and their opposites): Nervous, depressive, active-social, expressive-responsive, sympathetic, subjective, dominant, hostile and self-disciplined.

Mosher (1972) notes that the T-JTA correlates adequately with such (similar) tests as the Minnesota Multiphasic Personality Inventory (MMPI) and the Edwards Personal Preference Schedule (EPPS).

Strategies for Data Analysis

Since the number of subjects for this research study was small, data analyses were descriptive only and focused on the presentation of individual case examples which were organized into participant types.

The most salient characteristics of each participating device user and non-user were used to create individual profile capsules. This includes relevant background information, individual test score patterns and data gathered from the personal interviews (see Appendix).

Patterns of individual physiological, psychological and psychosocial questionnaire scores and results were compared both within and between user participant groups in order to reveal commonalties or differences in functioning, personality characteristics and perceived social support. Data from the instruments and interviews were compared and collated to produce more comprehensive descriptions of individual perspectives and characteristics.

Listed in the left column of Table 1 are the research questions for this study. Beside each question on the left is a list in the right column of the measures relevant to the research question.

Results

Research Question 1: To What Factors Do Users and Non-users Attribute their Utilization or Non-utilization of a Technology? Specifically, Do They Differ in Attributing Responsibility to Personal Traits, Characteristics of the Technology, or Such Influences as Family and Rehabilitation Team Expectations?

The principal source of data for this research question was the personal interview. Accordingly, verbatim excerpts from the interviews were presented with the speaker noted by the person's two-letter initials. User statements are presented first, followed by those made by non-users. Some examples follow:

Users

AN (SCI): "If I come across something that needs to be done, or that hinders me in any way, then I find a way that'll work. Sometimes I can do it faster just bending over and picking something up off the floor than using a reacher."

BE (SCI): "If you want to do something bad enough, you'll figure out a way to do it and buy the adaptive equipment. [Adaptive equipment] compensates for losses, like walking. Not having adaptive equipment gives an excuse for not doing things."

SN (CP): "I can communicate with most anyone [and can get most anyplace].

Non-users

ST (SCI): [Has a van he can't drive because it isn't equipped with hand controls. His OVR counselor (LD) suggested hand controls so he could drive but he's "not interested."] "It seems awful hard to visualize me driving. I'd be a little scared, but it crosses my mind once in a while. I would like to, you know run to the store. Take the load off of Nancy sometimes. My whole family thinks I shouldn't do it." [His wife then adds:] "I would worry too much if he was okay." [For the same reason he doesn't use his Hoyer lift. His wife continues with:] "There's just one wrinkle in it, and there's a sore."

JA (CP): [Doesn't use her communication board]. "My desire is to be independent. I'd rather rely on my own voice than have mechanical assistance."

From the statements given by the users and non-users themselves, it appeared that the users attributed their successful use of devices to inner motivation, desire (to talk, for example), and an unwillingness to be held back from self-expression or independence.

Non-users, on the other hand, often cited characteristics of the devices as the reason for non-use (for example, they're too expensive, inconvenient for listeners, will cause pressure sores). Additionally, they expressed a distaste for a mechanical replacement for their functioning, admitted lack of motivation in some cases, and indicated family disincentives to aid use.

The interview responses used to address Research Question 1 suggest that the individuals involved can articulate a variety of factors involved in making a decision to use or not use technological assistance.

Research Question 2: How do Technology Users Differ from Non-users in Current Physical Functioning and Personal Characteristics such as Temperament?

The results from the instrumentation are shown in Tables 2 & 3 and Figures 1 & 2 appended.

Both in 1986 and in 1988, the C. users and non-users reported about equal communication capacities in spite of having different unaided speech intelligibility. Over time, both users and non-users improved or maintained most of their personal capacities and as a group moved toward a better adjusted pattern of traits on the

Taylor-Johnson Temperament Analysis. The value of communication ATDs in equalizing the communication capabilities of severely involved persons with CP, while assumed, indicates there may be potential for these personal technologies to help enhance people's perceptions of their capabilities in general which may, in turn, enhance their overall adjustment and sense of well-being.

In the 1986 study, SCI users and non-users reported differences in their motivation for increased independent functioning, their focus on opportunity vs. limitation, their view of the attainability and desirability of societal integration, their willingness to deal with challenge and their view of the role their disabilities played in their lives. While technology users seemed to be striving toward societal integration, non-users presented themselves as withdrawn. ATDs were seen by users as valuable enablers for their activities and independence whereas non-users tended to perceive ATDs as unnecessary, unhelpful, and as inferior replacements for their own premorbid functioning. Most of these differences persisted in the 1988 study.

The SCI non-user's reports of declines in functional capabilities over time may be an outcome of their non-use of available technologies and, additionally, may be indicative of their general attitudes toward and adjustment to their disability. The possibility exists that if they had used technologies available to them, their perceptions of their motor functioning and overall capabilities in 1988 would have been higher.

Research Question 3: Do Technology Users Differ from Non-users in their Perception of the Disabled Experience, their Present and Hoped-for Quality of Life, and their Definitions of Rehabilitation Success?

The measure for this research question was the personal interview. What follows are examples of quotes provided by individuals within the two users groups.

The Disabled Experience

Users.

Be (SCI): "In most ways the same as an abled-bodied experience. You still have to run your life. Compensate in different ways for different things. Maybe there's a few things you can't compensate for at all, and you just find other things to do."

CN (CP): "Thinking that I am disabled would be a disability. [How are you different from this and to what do you attribute it?] I find a way to do it [e.g., Express 3, electric chair]. Like Diana was sick last week and I wanted to go to a meeting. I then asked someone with a van to take me there."

Non-users.

ST (SCI): "A never ending struggle. You don't accept, or tolerate. You do in spite of it."

Users tended to see the "disabled experience" as an obstacle they need to, and can, surmount. They try to forget their disability, work around it, relegate it to lesser importance. Non-users, on the other hand, seemed to focus on their disability. They withdrew and attributed their withdrawal to a non-accepting society.

Quality of Life and Unmet Needs

Users.

BE (SCI): [On why he's going to college:] "[I had the realization that] I wasn't doing anything. I couldn't keep on going like that. There's only so long you can ride around the countryside in your wheelchair before it gets boring."

"If I had a choice, I'd rather be walking but I don't have the choice, so I have to make do with what I can do."

DE (CP): "When I was living on my own, I could do my own care. But if I didn't have my electric chair I wouldn't be able to get around by myself. {Her aids have improve her quality of life because:} "Whenever I need help, they are there. I only had help [attendant care] two hours every night when I was living on my own.

CN (CP): [My quality of life is] "Good because I am determined. I would like more of a social life."

Non Users.

SM (SCI): "On the romantic side [of quality of life], people have a tendency to move away from me... It's like, see ya' later. I mean, it's easy to find someone to say 'okay, let's go out,' when it comes to the romantic side of it, they're not sure what to do or what to expect. Too, it's hard to approach somebody when you're in a wheelchair, as opposed to the way it was before."

TE (CP): "I haven't had a vacation since I was six, never had a change of scene to get away from things altogether...to leave the aide behind."

"I live in the inner city, I have no children, no pets. But in my daydreams I live in a house in the country and have five kids, two dogs and a cat."

Users expressed more life satisfaction than non-users and felt in control of their quality of life, that it can be changed or improved. Non-users often felt the opposite. Where users spoke in terms of their disabilities being an inconvenience, non-users talked of having been defeated by their disabilities. Non-users seem to be more socially isolated.

While technological assistance was not the general focus in quality of life attainment, participants were able to articulate a technology's role in improving quality of life when asked to do so.

Definitions of "Rehabilitation Success"

Users.

BE (SCI): "Successful rehabilitation is any way you can resume a 'normal' life no matter if for you a normal life is staying at home. Just as long as you can keep on going with a decent frame of mind."

DE (CP): "Being as independent as your disability allows. Everybody is a success in their own way."

Non-users.

SM (SCI): "Anybody is successful if they are home and that's where they want to be, and living there, and doing okay. As long as they're happy and content with where they are. My idea of success hasn't changed, whether I'm in a wheelchair or not."

TE (CP): "I'm a success because I'm not in an institution. A good mental state is everything. I'm making my own decisions, I got married. I'm living as full a life as I can."

Most of the participants with disabilities agreed that the term "rehabilitation success" is relative to individual capabilities and experiences and is idiosyncratic. Most saw themselves as a success in their own way, and tended to speak in terms of doing what they themselves want to, achieving a level of independence that is personally satisfying.

Technology users expressed life satisfaction, a desire for social integration, and appeared to be self-motivated to overcome their disabilities. Non-users, on the other hand, expressed less life satisfaction, stated that social integration is not attainable or desirable, and expressed a lack of motivation to overcome their disabilities. Users presented themselves as meeting challenge head-on; non-users presented themselves as feeling defeated.

Conclusions

This study was designed to overcome methodological deficits frequently encountered in rehabilitation research. This includes the tendency to rely on either data from objective instruments (often of questionable construct validity) or a combination of direct clinical observations and subjective interview data. Few have combined methodologies in order to give more in-depth perspectives of rehabilitation outcomes, to assess changes in participant perspectives over time and to give each participant an opportunity to check the accuracy of the researcher's interpretations and to add to or revise their previous statements.

Through the intensive exploration of several issues with a limited number of individuals, a variety of perspectives were elicited that might have been missed in a broad quantitative study. For example, there is a dynamic interactive relationship among technology use, temperament, personal capacities and quality of life and this relationship can change over time. Therefore, it may be more prudent to match an individual with a technology, not solely according to how it will enhance functioning and independence, but how it will affect the individual's quality of life and life satisfaction in the <u>short-term</u>.

Persons born with a disability (like CP) may have different values and expectations from those adventitiously disabled (such as SCI persons). As noted in Scherer (1988), age at disability onset can affect one's view of technological assistance (as representing opportunity or as being an inadequate replacement for lost functioning).

Successful use of technologies depends on the individual's belief they will benefit from using the technology. This belief may need to develop over time. Therefore, understand a potential technology user's expectations of the technology in light of their present capabilities and goals. Consider whether or not they have (or will) incorporated technology use into their self-concept.

Finally, a variety of factors influencing the decision to use or forego a technology were identified. The factors can be grouped under the general categories of:

1. Characteristics and nature of the purpose of use (e.g., mobility, communication, information acquisition, art and recreation).
2. Characteristics of the technology (design factors, user's facility with it).
3. Characteristics of the person (e.g., cognitive abilities, personality traits and temperament, and preferences).
4. Psychosocial characteristics (exposure and opportunity, expectations, peer support).

Further Developments

Counselors and teachers should have information to assist their efforts in matching persons with technologies and may want to consider administering such instruments as the PCQ and T-JTA prior to a discussion of personal or educational technologies, with individuals.

Also, once characteristics differentiating users and non-users of personal and educational technologies were identified, the focus of the project turned to a method of making such information widely accessible without the need for the administration of several tests. In this way: a) Other professionals and consumers could verify the existence and importance of the influences on technology use that emerged from this research, and b) possible mismatches between a proposed technology and a potential user could be flagged. Two assessment instruments (checklist format) were developed in the hopes that an early identification of potential mismatches could reduce the incidence of non-use or inappropriate use of personal and educational technologies and the disappointment and frustration that often accompanies less than ideal use.

The two assessment instruments are: 1) **The Assistive Technology Device Predisposition Assessment (ATD PA)** (Scherer & McKee, 1989), and 2) **The Educational Technology Predisposition Assessment (ET PA)** (Scherer, McKee, & Young, 1990). These instruments are currently being pilot tested in many locations across the U.S. (including rehabilitation centers, schools, and other educational settings).

References

Bogdan, R. C. & Biklen, S. N. (1982). Qualitative Research for Education: An Introduction to Theory and Methods. Boston, MA: Allyn and Bacon.

Mosher, D. L. (1972). Taylor-Johnson Temperament Analysis. In O. Buros (Ed.), The Seventh Mental Measurements Yearbook, (pp. 959-960). Highland Park, NJ: Gryphon Press.

Scherer, M. J. (1988). Assistive device utilization and quality of life in adults with spinal cord injuries or cerebral palsy. Journal of Applied Rehabilitation Counseling, 19(2), 21-30.

Scherer, M. J. & McKee, B. G. (1989). The Assistive Technology Device Predisposition Assessment (ATD PA). Rochester, NY.

Scherer, M. J., McKee, B. G., & Young, M. A. (1990). The Educational Technology Predisposition Assessment (ET PA). Rochester, NY.

Table 1

Measures and Corresponding Research Questions

Research Question	Measure
1. To what factors do users and non-users attribute their utilization or non-utilization of a technology? Specifically, do they differ in attributing responsibility to personal traits, characteristics of the technology, or such influences as family and rehabilitation team expectations?	Personal interview data from people with physical disabilities.
2. How do technology users differ from non-users in current physical functioning and personal characteristics such as temperament?	Data from the FAI and T-JTA, with qualitative data from the personal interviews and observations.
3. Do technology users differ from non-users in their perception of the disabled experience, their present and hoped for quality of life, and their definitions of rehabilitation success?	Data from personal interviews.

Table 2.

Individual Scale Scores* on the Personal Capacities Questionnaire (PCQ) as Self-reported by CP and SCI Participants in 1986 and (1988)

	1986 (and 1988) Self-ratings				
Person	Adaptive Behavior	Voc. Qualif.	Communication	Motor Funct.	Phys. Cond.
	7 Items	6 Items	3 Items	4 Items	4 Items
CP Users					
GD	10 (3)	10 (8)	3 (2)	11 (11)	6 (5)
CN	1 (6)	3 (3)	3 (3)	11 (8)	3 (4)
DE	0 (0)	3 (1)	2 (1)	8 (6)	4 (3)
CP Non-users					
JA	3 (2)	1 (5)	3 (2)	8 (6)	3 (3)
WI	7 (4)	7 (3)	2 (2)	6 (6)	7 (8)
SCI Users					
AN	0 (3)	0 (4)	1 (1)	5 (6)	1 (1)
BE	0 (0)	4 (2)	0 (0)	7 (6)	4 (4)
SCI Non-users					
ST	4 (5)	4 (6)	0 (0)	10 (12)	7 (7)
TR	5 (11)	11 (16)	0 (0)	8 (3)	9 (6)
SM	1 (5)	1 (3)	0 (0)	7 (11)	5 (4)
SCI Recently Injured					
HY	(2)	(3)	(0)	(8)	(6)
KR	(2)	(6)	(0)	(12)	(6)

*The score for each item ranges from 0 (no limitation) to 3 (very or totally limited). Thus, the further the score from zero, the more limitation there is in that capacity.

Table 3.

Mean Scale Scores* on the Personal Capacities Questionnaire (PCQ) as Self-reported by CP and SCI Participants in 1986 and (1988)

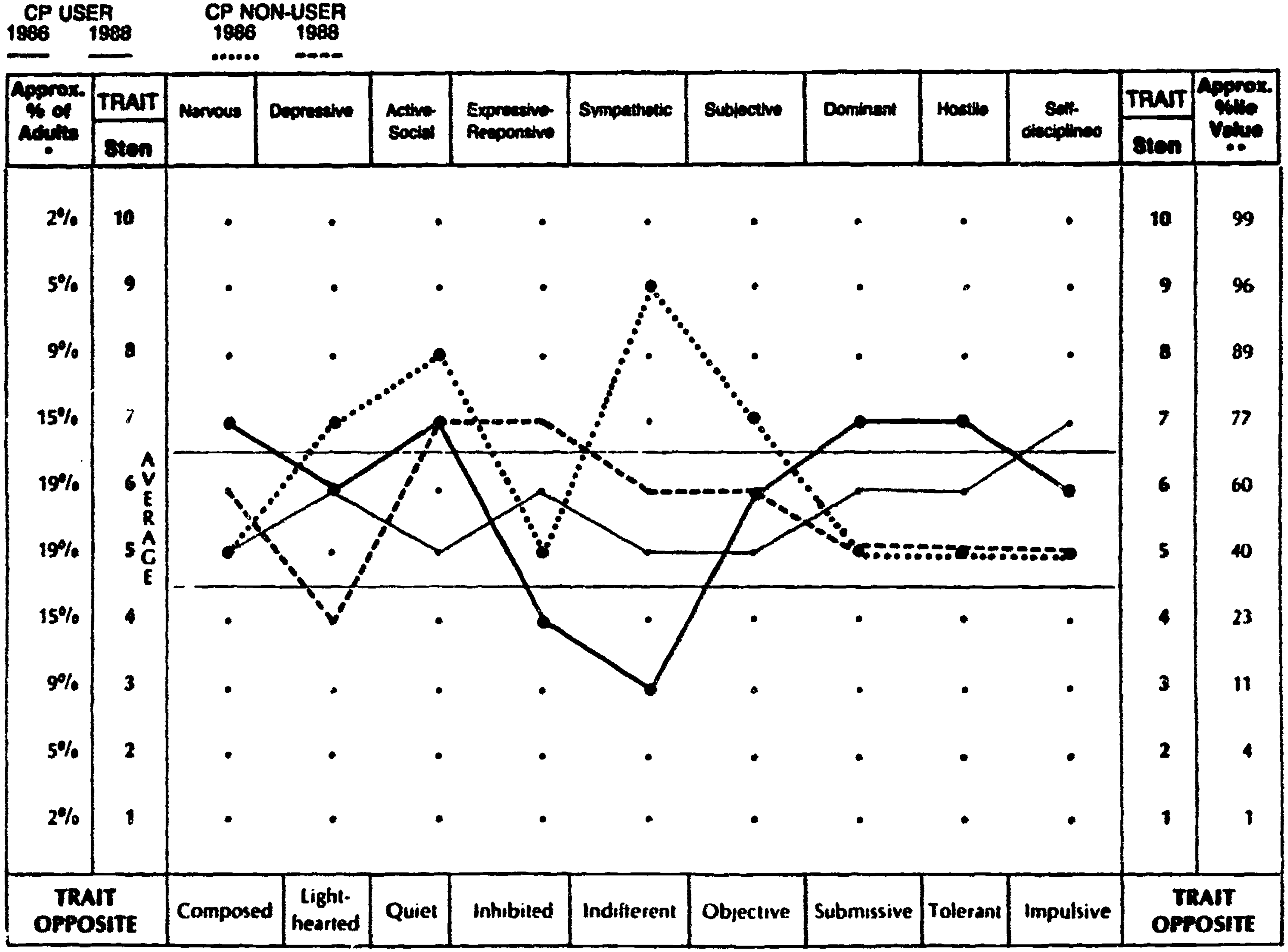
1986 (and 1988) Self-ratings

Person	Adaptive Behavior 7 Items	Voc. Qualif. 6 Items	Communication 3 Items	Motor Funct. 4 Items	Phys. Cond. 4 Items
CP Users					
1986 Mean	3.7	5.3	2.7	10.0	4.3
1988 Mean	3.0	4.0	2.0	8.3	4.0
CP Non-users					
1986 Mean	5.0	4.0	2.5	7.0	5.0
1988 Mean	3.0	4.0	2.0	6.0	5.5
SCI Users					
1986 Mean	0	2.0	.5	6.0	2.5
1988 Mean	1.5	3.0	.5	6.0	2.5
SCI Non-users					
1986 Mean	3.3	5.3	0	8.3	7.0
1988 Mean	7.0	8.3	0	8.7	5.7
SCI Recently Injured					
1988 Mean	2.0	4.5	0	10.0	6.0

*The score for each item ranges from 0 (no limitation) to 3 (very or totally limited). Thus, the further the score from zero, the more limitation there is in that capacity.

Figure 1

TAYLOR-JOHNSON TEMPERAMENT ANALYSIS
Sten Profile



* Approximate percentage of adults attaining each sten score.
** Approximate percentile value at center of each sten interval.

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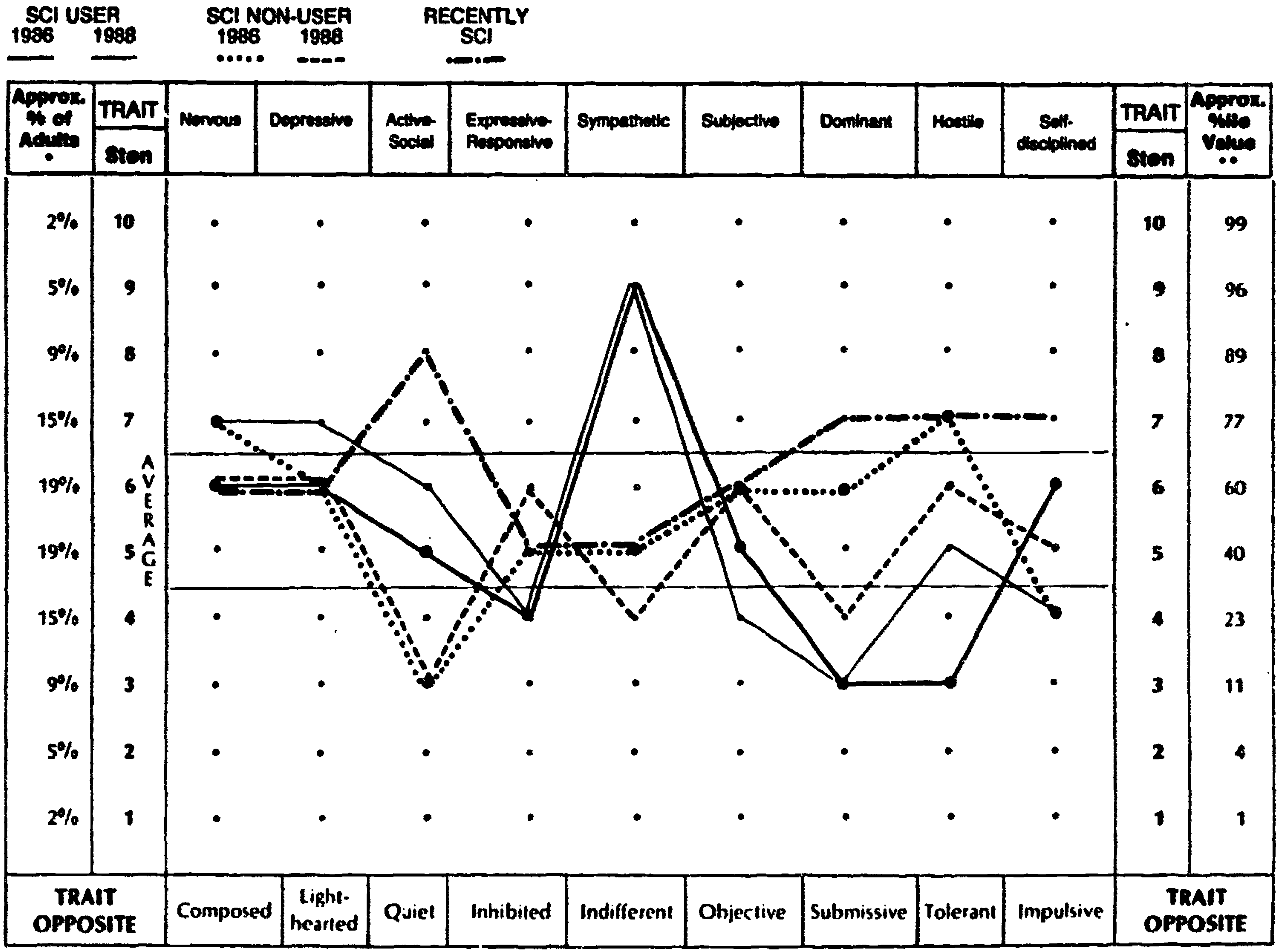
Figure 2

TAYLOR-JOHNSON TEMPERAMENT ANALYSIS
Sten Profile



* Approximate percentage of adults attaining each sten score.
** Approximate percentile value at center of each sten interval.

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Appendix

Interview Schedule for People with Physical Disabilities

The interview schedule is loosely formulated so that as much undirected information can be elicited as is possible. The object is to facilitate rather than to direct the responses. Given this goal, the interview schedule is comprised of four general topics.

Topics:

1. Interviewer: "I see you're using a [name of device]. Would you mind showing me how it works and telling me about it?"
   Purposes: *To determine the person's comfort with and ease of use of the device. To gain a beginning insight into the value the person places on the device for his or functioning and "quality of life."*
   Also include:
   a. What difference(s) has this devices made for you?
   b. How did you get this device? Who's idea was it?
   c. How is it better or worse than alternatives?
   d. In what ways would you like to change or modify it?
   e. What other devices were suggested to you to use? How do you like it/them? Why or why not?

2. Interviewer: "What things were most important to you as far as accepting this device?
   Purposes: *To identify the psychosocial factors that most impacted on the successful adoption of, or failure to adopt, the device(s). To get a beginning understanding of why some people use devices and see them as assets and others don't.*
   Also include:
   a. What personal characteristics of yours were most helpful?
   b. Were other people helpful? Who? How?

3. Interviewer: "I wonder if you can tell me what a 'rehabilitation success' means." As far as you're concerned, what is the 'disabled experience?'"
   Purposes: *To get the respondent's definitions of the above terms and to get a beginning understanding of how the responses to topic areas 1 and 2 fit with the ones here, this topic being the social "envelope" around 1 and 2.*
   Also include:
   a. How do you see yourself in view of what you just said?
   b. In what ways are you different?
   c. What are the key factors in "rehabilitation success?"

4. Interviewer: "Where would you like things to go in the future?
   Purposes: *To hear where the person would like to see future rehabilitation and technological research efforts directed both in terms of the self and more globally.*
   Also include:
   a. Why do you think that hasn't happened yet?
   b. What differences would it make for you?

Sample Profile of Individual Participants

Spinal Cord Injury

TR: A white, never married, grossly overweight, 37 year old male who received his spinal cord injury in an automobile accident four years ago. He lives in an annex area of his parents home. He contracted polio at the age of 7 and when he was 26 years old he suffered a heart attack.

TR has an electric wheelchair with a hydraulic lift, a fully-equipped van that he no longer uses, and a jacuzzi that he can no longer "fit into."

Physiological functioning. TR is paralyzed from the underside of his forearms down, giving him full voluntary control of his arms and hands. He is the least severely involved of the spinal cord injured participants in this study. He requires a wheelchair for mobility. TR gave himself low scores on physical condition, motor functioning, and vocational qualifications.

Psychological characteristics. TR's scores on the T-JTA indicate "improvement is urgent" for each of the nine traits.

TR presents himself as someone who has "given up." His own words describe this best:

> [On the polio he had at age seven and his residual left-side paralysis] "I fought and fought, and I came back from it...I'll be honest, that's one of the disheartening things about this is that I fought so hard then, and come back, and now here I'm sittin'. There's no fightin' to come back, there' nothing you can do to come back and it's very disheartening. I mean, to sit here with nothin' goin' for you, I mean, what's it about? I can't ever stand on my feet again ... when you ain't got nothin' to fight with, then you lose your will." [When it's pointed out that he still has full use of his arms & hands, he digresses].

Social support. TR reports adequate emotional, material and physical support. He sees few people outside of family, but says he's always been a "loner." As for friends, he says "I've got no friends, got rid of 'em all." When asked why, he responded, "Friends ain't friends, that's all."