1. Content Validity

Initial content or “face” validity, which is concerned with how well an instrument measures what it claims to measure, has been established by the RSI. Between 1976 and 1980, the items on the RSI were developed as a result of careful comparisons between a youngster’s actual behavior as observed randomly by at least two trained individuals, and the student’s self-reported behavior. In 1981, articles in Educational Leadership (Dunn and Reckinger, 1981) and the Learning Styles Network Newsletter (“Selecting the ‘Right’ Reading Approach…”, 1981) invited practitioners to evaluate the appropriateness and representativeness of the RSI items, as well as the clarity of the language. Eighty-seven educators representing 23 states responded; 93% stated that the RSI accurately measured the elements of reading style.

2. Concurrent Validity

A second kind of validity, concurrent validity, can be determined by submitting an instrument to experts in the field, and demonstrating high correlations with valid and reliable instruments that measure similar variables. The validity of the RSI has been recognized by “experts in the field” (Adams, 1983; Dixon, 1983; Freeley, 1983; Hamilton, 1983) and research has evidenced correlations with the Learning Style Inventory by Dunn, Dunn and Price (1979) (Carbo, 1982, 1983a, b; Price, Dunn & Sanders, 1980; “Which Learning Style Elements…,” 1980; Zenhausern, Dunn, Cavanaugh & Eberle, 1981).

In 1982, a nationwide survey was conducted by the National Center for the Study of Learning/Teaching Styles to identify those learning style instruments (K-12) that demonstrated reliability and validity, had been utilized by practitioners, and had been reported in at least one research study (“Network Undertakes Instrument Classification System,” 1982). Their “report to the field” was “based on the data collected after one full year of careful investigation” (p. 1, Freeley, 1983). The RSI was one of fourteen learning style instruments that qualified for inclusion in the Learning Styles Network’s Instruments Assessment Analysis.

Students, teachers, and parents have stated that the RSI printouts are accurate. For instance, 96% of the 147 parents who participated in a research study conducted with the RSI, indicated that the RSI printouts were accurate (The Juanita Project, 1983).

Students’ actual behavior has been compared to the RSI printout descriptions of their preferences and strengths. The following report of Hamilton's is a typical example of teacher observations (Hamilton, 1983):

…the nine students who had said (on their RSI) that they preferred snacks and worked best with snacks were the ones who consistently, day by day, week after week, and month after month continued to bring in snacks for themselves… it seemed to calm them down quite a bit, and I got quite a bit of extra work out of them (p. 3).

Dixon’s (1983) six-month observations of her high school students also corroborated the validity of the RSI printouts. She wrote:

The results (of the RSI) were very revealing and were on target with the findings experienced in the Communications Skills Lab. The descriptions matched what was observed with the students over the past six months (p. 4).

Later, in that same report, Dixon stated:

The Reading Style Inventory is most revealing: it is a diagnostic instrument, a time-saver, an eye opener, and a means for prescriptions. This fast, accurate tool can assist pupils (to) make an easy adjustment to school… The RSI is very valuable to prevent reading failure and increase reading enjoyment. Similiar data were yielded by both the Reading Style Inventory (Carbo, 1980) and the Learning Style Inventory (Dunn, Dunn & Price, 1979), when the style differences of good and poor readers and students across grade levels were compared. On the RSI (Carbo 1982, 1983b), good readers and poor readers evidenced significant differences on nine of the eleven elements that were identified with the LSI (Price, Dunn & Sanders, 1980). In addition, significant differences on the LSI subscales between right and left activators (Zenhausern, Dunn, Cavanaugh & Eberle, 1981) were identical to those obtained with the RSI (Carbo, 1982, 1983b). Comparisons with the LSI of the learning styles of students across grade levels (“Which Learning Styles Elements…,” 1980), closely matched those reported with the RSI (Carbo, 1982, 1983a).

3. Predictive Validity

A third kind of validity, which is called criterion-related or predictive validity, is “characterized by prediction to an OUTSIDE criterion and by checking a measuring instrument…against some outcome or measure” (p. 460, Kerlinger, 1973). Learning style research suggests that reading achievement increases significantly when students learn through their individual styles (Bursuk, 1969; Carbo, 1980; Daniel & Tacker, 1974; Donovan, 1978; Foster, et al., 1976; Ingersoll & DiVesta, 1974; Kaley, 1977; Krimsky, 1982; Lilly & Keller, 1973; Murrain, 1983; Pizzo, 1981; Shea, 1983; Spieres, 1983; Urbschat, 1977; Virostko, 1983; Wegman & Morency, 1975; Wheeler, 1983; Wolfe, 1983).

Research indicates that the RSI has predictive validity. Educators who have implemented the RSI prescriptions report increased reading achievement, decreased discipline problems, increased reading for pleasure, improved student attitudes, and positive changes in the teacher’s role and ability to teach reading (Brooks, 1991; Oglesby & Suter, 1995; Snyder, 1997).
References


4. Construct Validity

When considering the construct validity of an instrument, an important question is whether or not the instrument discriminates sufficiently among known groups. A series of ANOVAs was performed on the data gathered for the reliability study described above, and the scores were compared across ability and grade levels. Good, average and poor readers were found to differ significantly on ten elements of reading style; there were also significant differences among mean scores on ten reading style elements across grade levels, and the males and females differed significantly on three reading style elements.

Statistical analyses of the ability groups revealed that poor readers demonstrated significantly less visual and auditory strength and stronger tactile and kinesthetic preferences than good readers (Carbo, 1966; 1982; 1983b). Identical results were reported by Koch (1983) when the RSI was administered to good and poor readers on the college level.

Ample research corroborates these findings. Reading performance has been found to be strongly related to perceptual abilities (Dykstra, 1966; Monery, 1968); good readers have indicated decided preferences for learning through their visual and auditory modalities, while poor readers have stronger preferences for learning tactually and kinesthetically (Adams, 1978; Bakker, 1966; Milis, 1956; Murray, 1980; Price, Dunn & Sanders, 1980; Walters & Kosowski, 1963), and poor readers appear to have difficulty shifting between, and integrating, auditory and visual stimuli (Bean, 1967; Birch & Belmont, 1964, 1965; Hecker, 1971).

Across grade levels, statistical analyses of the data indicated that primary youngsters were significantly more tactile/kinesthetic, self-motivated, and teacher-motivated than intermediate and junior-high students. The younger children also demonstrated significantly lower visual and auditory strengths, and stronger preferences for structure, mobility, intake, reading in the morning and reading with adults or adults and peers. Price, Dunn and Sanders (1980) reported similar findings with the LSI.

The strong preferences which intermediate students have for choices of reading materials, prolonged reading periods, and high-interest reading materials have been verified by many investigators (Heathington, 1978; Moray, 1978; Stanchfield & Fraim, 1979). When the RSI was administered to 139 youngsters in grades four and five, the students’ reading styles matched significantly less often with basal readers, and significantly more frequently with storybooks and individualized methods, regardless of previous reading experiences in school (“Kansas Discovers Reading Materials...,” 1983).

The RSI subscales discriminated significantly between the males and females in the study on emotional stimuli. Boys were significantly more peer-motivated and less persistent and responsible than girls. Boys do comprise the great majority of poor readers in schools in the United States, but no significant differences have been found between the reading abilities of boys and girls in England, and in Germany boys are superior to girls (Johnson & Greenbaum, 1980). That research, combined with the RSI results suggests that, as hypothesized by Johnson and Greenbaum, boys may develop reading difficulties in part, due to emotional and cultural causes. They may view reading as a “girls” activity and they may be less motivated by the reading materials prevalent in most beginning reading programs (Stanchfield & Fraim, 1979).