

Parent and Teacher Opinions of Eight Different Ways of Thinking and Learning

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### Abstract

Parents and teachers at seven elementary schools were surveyed to determine their opinions of the importance of Gardner's eight different ways of thinking and learning. Parent and teacher opinions were highest in the four areas of logical-mathematical, intrapersonal, linguistic and interpersonal, which were all rated very important. Next in importance were spatial-visual, bodily-kinesthetic and naturalistic. Music, while considered important, was rated lowest. The lower rating of music may be consistent with a lower valuing of the arts as compared to logical-mathematical and linguistic areas.

### Introduction

The purpose of this study was to determine parent and teacher opinions of the importance of Howard Gardner's (1993) eight different ways of thinking and learning. The eight ways of thinking are: Linguistic, logical-mathematical, spatial-visual, bodily-kinesthetic, musical, interpersonal, intrapersonal and naturalistic. Parental and teacher attitudes toward the various ways of learning and thinking were assessed to serve as a baseline for planning and implementing possible curriculum changes in several schools.

Howard Gardner defined intelligence as the ability "to resolve general problems or difficulties as they are encountered" (Gardner, 1983, Pg. 60), and defined the following eight intelligences: Verbal-linguistic, logical-mathematical, spatial, musical, bodily-Kinesthetic, interpersonal, and naturalistic. In his book, *Multiple Intelligences (MI): New Horizons in Theory and Practice* (2006), Gardner discussed changes in the theory of MI over several years and states that many classrooms and schools have implemented MI ideas.

Visser, Ashton, & Vernon (2006) used two tests based on Gardner's eight intelligence domains with 200 adults. Factor analysis of the two tests showed large g factor or general intelligence loadings for tests of cognitive abilities (linguistic, logical-mathematical, spatial, naturalistic, interpersonal) but lower loadings of other MI abilities such as bodily-kinesthetic. These results supported previous findings that highly diverse tests of purely cognitive abilities are associated with general intelligence, while abilities involving sensory, motor, or personality are less strongly associated with general intelligence.

Tettetal, Jordan & Harper (1997) examined the impact of a multiple intelligences curriculum in a large suburban elementary school using qualitative research techniques. Students, teachers,

and parents showed very positive opinions regarding the impact of schoolwide implementation of the MI based curriculum.

## Methodology

Parent and teacher attitudes toward Gardner's eight intelligence domains or ways of thinking and learning were assessed at seven elementary schools in a three county rural area. Surveys were received from 127 parents and 151 teachers from the seven schools. The survey consisted of a list of Gardner's eight ways of thinking, including a short definition of each. Parents and teachers were asked to rate each of the eight ways of thinking on a five point Likert scale from not-at-all important (rating of 1) for children's learning to extremely important (rating of 5). The eight ways of thinking and learning were listed on the survey as: Linguistic (word smart), logical-mathematical (number reasoning), spatial-visual (picture smart), bodily-kinesthetic (body smart), musical, interpersonal (people smart), intrapersonal (self-smart), and naturalistic (nature smart).

## Results and Discussion

Parents' highest ratings were in the four areas of logical-mathematical, intrapersonal, linguistic and interpersonal. The means for these four areas were 4.2 to 4.4 (very important) on a scale of 1 to 5. No parents rated these areas below a three (important). Next in importance were spatial-visual, bodily-kinesthetic and naturalistic (means 3.7 to 3.9 or important). The lowest rated was musical with a mean of 3.4. Several parents gave music a rating of one (not at all important). The parental opinions of the ways of thinking, such as logical-mathematical and linguistic were consistent with valuing the traditional curriculum (reading, math and writing). Their low rating of music may be consistent with a low valuing of the arts (music, art, drama and dance).

The teachers' opinions of the ways of thinking and learning were similar to the parents in that teachers also rated logical-mathematical intrapersonal, interpersonal and linguistic relatively high (means 4.4 to 4.5 or very important). Teachers also rated spatial-visual, bodily-kinesthetic and naturalistic (means 3.7 to 4.3) next in importance, and music as relatively lower (3.9) in importance. While teachers were somewhat consistent with parents in their opinions of the relative importance of the ways of thinking, teacher ratings were higher than parents in spatial-visual abilities and musical thinking.

The results of this survey of parent and teacher opinions of Gardner's eight ways of thinking and learning are somewhat consistent with Visser, Ashton & Vernon's findings that linguistic, mathematical, spatial, interpersonal and naturalistic abilities were associated with a large

general intelligence factor, while abilities involving sensory, motor or personality were less strongly associated with general intelligence.

#### References

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