

## Sole Source Justification

### Background Problem or Need

The implementation of Washington educational reform has been underway for some five years. Much effort has resulted in tangible achievements—the essential academic learning requirements, the assessment system, and the plan for accountability. This work focuses, in large measure, on Goals 1 and 2 of reform—mastering basic skills and academic content.

The work currently under way is clearly the place to start, but many have realized that other components and skills are needed. While a number of researchers and formulations of thinking and knowledge application skills have been developed, they are frequently not included in the K-12 curriculum or are provided in a fragmented fashion.

The need is to provide students with a balanced and coherent curriculum that provides students with facts, concepts, and the thinking skills required for their classification, pattern recognition, and application to problem solving. Educators are well acquainted with fact-based curriculum and, to a lesser extent, concept-based curriculum. Both of these components are necessary, but the need is to move curriculum to process-based curriculum that facilitates the communication and development of mental models and the application of knowledge to problem solving.

### Available Resources

Information related to thinking skills and to their integration in curriculum is just beginning to be available to educators. Research in three areas—cognitive psychology, information theory, and brain research—has provided much important information that is seldom provided in educational practice knowledge.

While this information has not been analyzed, synthesized, and developed for use in student teaching and learning, it will provide the critical skills that will prepare students for the requirements of the twenty-first century. It is the knowledge and pedagogy that will assist Washington students to achieve Goals 3 and 4 of educational reform.

### Identification of Resources and Grant

OSPI staff reviewed educational literature to identify consultants who could assist with the development of a process-based curriculum. The works of several prominent educators were examined (Costa, Marzano, Sternberg, Brown, Pogrow, and others) and observations of their training and presentations were made.

Contacts with Carkhuff Thinking Systems personnel emerged as the strongest work on skills for the twenty-first century and process-based education. A collaborative research and development proposal was developed with OSPI, ESD 101, and Carkhuff Thinking Systems and submitted to the Fund for the Improvement of Education, U.S. Department of Education, as a field-initiated project. The proposal was funded after peer review as a collaborative effort among the three collaborators. Carkhuff Thinking Systems is to provide development of the student and teacher

products. ESD 101 will do the production, and OSPI will manage and coordinate the effort with other project activities.

The grant award expressly incorporated the grant application which expressly identified Carkhuff Thinking Systems as a subcontractor for \$400,000 worth of contracted services.

### **Qualifications of Carkhuff Thinking Systems**

Carkhuff Thinking systems was incorporated by Dr. Robert Carkhuff as a means of doing the research and development needed to extend current human resource development technologies. Dr. Carkhuff has spent the past ten years working to identify the required skills needed for a digital world and develop technologies for teaching and learning these skills.

Dr. Carkhuff, author of more than 50 books, also heads Human Technologies, Inc., which has successfully competed with the top training and development organizations for 18 years to provide training and development for federal agencies. The work of Human Technologies Inc. is well-known and respected among federal agencies and the nation's leading corporations.

Dr. Carkhuff has received wide acclaim both nationally and internationally. The Social Science Index identified him as one of the 100 most important social scientists. Three of his books, the two volumes of *Helping and Human Relations*, and the *Development of Human Resources*, have been identified as the most cited books over the past 30 years.

His contributions to counseling, interpersonal skills, education, management, and organizational development are well known and used.

Utilizing the Carkhuff Thinking Systems expertise and development will meet a critical need in the attainment of Washington's educational reform.