

LEARNING STYLES INVENTORY VALIDATION METHODOLOGY AND RESULTS

INTRODUCTION

The goal in developing a learning styles inventory for Career Cruising was to provide users with a simple, straightforward, easy to use tool to help them understand their personal learning style. The results of the assessment should provide users with clear, easy to understand feedback with concrete techniques that can aid in studying and retaining information.

An initial draft of the assessment instrument was developed based on a survey of research in the area of learning styles. Higher Education Strategy Associates then conducted a validation test of the new assessment against the Dunn and Dunn *Lives* test. The purpose of the validation was twofold:

- Determine whether the two tests give similar assessments with respect to visual, auditory and tactile learning styles; and
- Identify the questions to cull from the new test, leaving the 20 best questions.

About Career Cruising

Career Cruising is a leading developer of online career guidance resources for the North American marketplace. Established in 1997, Career Cruising is currently used by over fourteen thousand institutions across North America, including schools, employment agencies, libraries, colleges and universities.

With an established reputation for quality content, innovative technology and exceptional customer service, Career Cruising has emerged as a powerful tool for districts, counties, states or provinces looking to implement a comprehensive and easy-to-use career guidance system.

About Higher Education Strategy Associates

Higher Education Strategy Associates (HESA), formerly known as EPI Canada, is a premier education think tank and consultancy lead by world-renowned education critic Alex Usher. HESA offers a broad array of services and products to Canadian and international clients. The lead researcher for this project was Dr. Lori McElroy, Senior Scientist at Higher Education Strategy Associates.

HESA services include strategic analysis and planning, institutional positioning, policy and budgeting analysis, strategic human resourcing, and educational product and survey development. HESA has worked with clients across the globe, including the World Bank, the Organization for Economic Cooperation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the King Faisal Foundation.

SAMPLE GROUP

To validate the test we had students complete both the new test and the Dunn and Dunn test. The tests were administered to two separate groups of students, all in grade 11. The following table summarizes the students who participated in the validation.

Profile of Participants

Group	Male	Female	Total
1	10	4	14
2	3	10	13
Total	13	14	27

QUESTION ANALYSIS

A total of 26 questions were included in the initial assessment. There were six questions that did not discriminate between learning styles since the majority of students gave the same answer to the question. These questions were deleted, and the learning modalities were scored based on the final 20 questions.

LEARNING STYLES ASSESSMENT

Results Format

In order to compare the results of the two assessments a correlation model was developed to relate the outcome of the Career Cruising Learning Style Inventory with the Dunn and Dunn Lives test. The format in which each assessment's results are provided differs in several ways.

The Career Cruising Learning Styles Inventory provides a numerical and graphical breakdown of students' responses against each learning modality. Based on the breakdown of their answers, the user is identified as having a primary, primary/secondary, dual, or multi-modality learning style.

The Dunn and Dunn test does not give a numerical score for each modality. Instead it rates each modality from "does not learn best by" to "learns best by", on a five-point scale: "strong preference (against)", "preference (against)", "it depends", "preference (for)", and "strong preference (for)".

Modalities

The Dunn and Dunn test has separate "Kinaesthetic" and "Tactile" scales; we considered these both to be related to the "Tactile" scale on the new test.

Comparison Methodology

To compare the two tests we identified four (4) groups of students based on their scores on the new test: primary visual mode, primary auditory scorers, primary tactile scores, or multi-modality. Students with two primary scores (i.e. dual modality learners) were counted in both groups.

Distribution of Result Types

New Test Result	Number of Students
Primary Modality	17
Dual Modality	8
Multi-Modality	2

We then identified whether the students in each group had a preference or a strong preference on the Dunn and Dunn for the same modality. These we consider to be consistent results. Students who had a 'does not learn best by' score for this modality were considered to be inconsistent. Those with an 'it depends' score are also considered consistent, since it indicates some preference for this modality. Results for the two Multi-modality learners are not shown on the table since they have no preference for any one modality. The results are summarized in the following table.

Result Correlation

New Test Result	Dunn and Dunn Results	
	Preferred/It Depends	Not Preferred
Primary Visual Mode	6	0
Primary Auditory Mode	12	1
Primary Tactile Mode	12	2

CONCLUSION

As the results in the table show, the two tests yield very similar results, even though they measure learning preferences in very different ways. Out of 33 comparisons there were only three (3) results that were inconsistent.