The International Learning Style Network (ILSN) has chosen to publish Professor Rita Dunn's response to the Coffield Report. While it has been a number of years since it first was written, we feel that it is appropriate for all interested parties to have an opportunity to review Professor Dunn's response. We believe you will conclude your review with a positive outlook on the Dunn and Dunn Learning Styles Model. This response took Professor Dunn six weeks to complete. She gave much thought to her personal comments and chose to include them; thus you will find her original document intact.

Response to the Project Team Report

Submitted by Professor Rita Dunn—St. John's University, New York—September, 2003

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Objective evaluation is always desirable and central to decision making concerning adoption of new methods. However, to be worthwhile, evaluation must adhere to objective standards of scholarship. Scholarship demands that evaluation of any approach, construct, method, or program should focus on:

- Primary (original), rather than secondary or tertiary sources;
- Publications directly related to what is being evaluated, and preferably from refereed research journals;
- Accurate and objective reporting;
- Evidence of balanced and multiple sources; and
- Supportive data to corroborate perceptions (Miller, 1991).

The report on the Dunn and Dunn Learning Style Model that was e-mailed to me on July 29, 2003 lacks all the above criteria for scholarly evaluation.

**Point One: Lack of Accuracy**

Throughout this document there are: inaccurate statements about the Model, its authors, and its instrumentation; allegations that do not reflect what writers actually wrote; and statements by the Project Team that they either could not locate or could not understand either the (a) theory behind the Dunn and Dunn Model or (b) how to implement it. Those statements only reflect the secondary sources from which its members sought information—not the absence of the information in the literature. Indeed, one of the end-of-report references (Dunn & Dunn, 1992) forwarded to me by Ms. Elaine Hall on August 20th, in response to my requests, contains much of the information cited as not having been found—although the Dunn and Dunn (1999) or Dunn and Griggs (2000) higher education book would have been more appropriate. On that basis, it would appear that references included in the Team’s Report had not been read.

- For example, our research on learning styles began in the 1960s, not in 1974; our first book on learning style was published by Prentice Hall in 1972;
- Initial research on learning styles began as part of the New York State Education’s Department’s concern for poorly achieving students;
- Professor Gary Price is not an author of the Model and he is coauthor of only two of the seven assessments we use to identify learning style; and
- Statements suggesting the inability of the Project Team to locate the theory behind this Model or to understand its implementation strategies suggest that the Team tried, but could not locate them. Please see the section of this Response that provides the multitude of resources in which that information is available.

Concerning instrumentation, four of the major instruments we have researched and experimented with during the past seven years are not even mentioned in the Report—although they are described in many of our recent publications. When the Project Team publicly disparaged instrumentation associated with our Model during its July European Learning Style Network (ELSN) presentation, only the title of one assessment was printed on the transparency—the Learning Style Questionnaire. That instrument was replaced 30 years ago. It was only after I publicly brought attention to the LSDA Team’s flagrant error, that even the Learning Style Inventory (LSI) and Productivity Environmental Preference Survey (PEPS) were added to this Report. Those, too, have been replaced in favor of three entirely different instruments based on continuing research. Improvement and replacement of instruments over an almost four-decade period of continuing research reflects appropriate, positive scholarship.

Concerning the “criticisms” of our Model ostensibly taken from the literature, some of it is 15-25 years old and reflects those writers’ knowledge at the time. However, Allinson, Armstrong, and Hayes (2001), Archer, et al. (2003), Arner and Jenkins (1977),
Beck (2001), Biggers, 1980, Carey, Stanley, and Biggers (1980), Chugani & Bruer (1998), Deverensky (1978), Fourquean, Meisgeiger, & Swank (1990), Hermann (1989), Hyman and Roskoff (1984), (Jaspers (1994), Kampwirth and Bates (1980), Kavale and Forness (1987), Moreno and Mayer (1999), Luster and McAdoo (1996), Moreno and Mayer (1990), and O’Neil (1990)—publications cited by the Team as having criticized the Dunn and Dunn Model, each only criticized cognitive, learning, or thinking style generally; none actually criticized the Dunn and Dunn Model and Biggers (1980) and Carey, Stanley, and Biggers (1980) actually reported similar findings to ours. This is a crucial point for two reasons: generalizations about learning style cannot objectively be construed as criticisms of the Dunn and Dunn Model when that model is not cited in that text. Furthermore, many publications specifically cite the major differences between other learning-style models and ours. See, for example, Curry (1987), DeBello, 1990, Kirby, 1979; Miller & Edgar, 1994. Murray-Harvey (1994), O. Roberts, 1999, Sage, 1984, Tendy & Geiser, 1998-1999; Vaughan, Weaver, Underwood, & House, 1992, among others. Nevertheless, the Project Team elected to repeatedly cite such generalizations as a foundation for criticizing our Model and did not reference the objective assessments of those researchers. These and similar errors are representative of inaccurate reporting throughout this document.

**Point Two: Avoidance of Primary Sources and Reliance on Secondary Surveys During Data Collection**

A scholarly review of any learning-style model and its related instrumentation should include an explanation of that model as described by its developers. Instead, the LSDA Project Team based its review on surveys by writers who neither had been trained nor certified in the model or its practical applications. As indicated above, those descriptions often are inaccurate, but are reported as factual. Even graduate students are cautioned against using secondary sources precisely because of the possibility of publication bias or misinterpretation. Certainly, when professionals assume responsibility for assessing a model, it is incumbent upon them to examine the original researchers’ descriptions and not rely solely on secondary interpretations (Cooper & Hedges, 1994).

We and colleagues described the Dunn and Dunn Learning-Style Model in detail in 27 textbooks distributed by:

- Leading American publishers such as Allyn & Bacon, Prentice Hall, and John Wiley & Sons;
- Four major United States professional organizations—the Association for Supervision and Curriculum Development (ASCD), the National Association of Secondary School Principals (NASSP), the National League of Nursing (NLN), and Phi Delta Kappa (PDK);
- One of the largest Catholic Universities in the United States, St. John’s University;
- Independent researchers at 119 additional institutions of higher education; and
- International publishers.

None of those original sources were examined to obtain the theory, research, or practical applications related to the Dunn and Dunn Model before the report was written and publicly described to an audience attending the (ELSN) Conference in June, 2003. Had current books and manuscripts that we have written been examined, our Model, the theory that serves as its cornerstone, the various instruments related to it, its practical applications, and the research on which its prescriptions have been generated, would have been clearly understood.

Primary publications that would have provided that information for readers who sought it include:


**Point Three: Incorrect Focus on Inappropriate Populations**

It is my understanding that this LSDA Team was assigned to conduct a review of the literature on the Model as it pertains to its possible applicability to higher education. If the Team had sought information concerning whether the Dunn and Dunn Model might be effective for improving the grades, grade-point-averages, or achievement- or attitude-test scores and retention rates of college students, its members should have reported its effects on post-secondary populations. Please note that these experimental studies were the basis of my statements concerning (a) statistically higher achievement and (b) mostly medium-to-strong effect sizes with the Dunn and Dunn Learning-Style Approaches in contrast with traditional teaching—regardless of the institution at which they had been conducted (Dunn, Griggs, Olson, Gorman, & Beasley, 1995; Dunn & Griggs, 2003; Lovelace, 2003); www.learningstyles.net).

The publications listed below and highlighted in blue, describe St. John’s University doctoral research with the Model conducted with college and university students in allied health, teacher education, engineering, law, marketing, nursing, and science programs. Not one of these experimental college studies was read in its original form and then referenced in the report. Three titles were added to the Team’s end-of-report references after I had shared them with Professor Ecclestone. Those references were first forwarded to me toward the end of August. However, the studies were incorrectly described in ways that could not have been extracted from the journals I shared with Dr. Ecclestone during the ELSIN Conference.

The publications listed below and highlighted in brown, were conducted at institutions of higher education other than St. John’s University. Please note the many college disciplines cover these studies—accounting, administration, adult literacy, anesthesiology, community education, computer assisted interactive videodisc instruction, court reporting, economics, engineering, history, industrial technology, knowledge management, management education, mathematics, music appreciation, nursing, occupational training, officer training, physics, science, radiography, study habits, teacher education, and writing skills. None of these studies were included in the Project Team report, but all reflect the effects of using the Dunn and Dunn Model with college students. These 146 studies of adults offer an appropriate and extensive body of experimental investigations that the LSDA Team should have examined.


Deckinger, E. L. (2000). How I found pedagogical nirvana: Beware of the law of unintended consequences! In R. Dunn & S. A. Griggs (Eds.), Practical approaches to using learning styles in higher education (pp. 193-200). Westport, CT: Bergin & Garvey. (college students in marketing)


Mississippi. Dissertation Abstracts International, 59(07), 2342A.


Jaacks, H. S. (1999). The relationship of
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Ingham, J. (1989). An experimental investigation of
Ingham, J. M., Dunn, R., Deckinger, L., & Geisert, G.
Dunn & S. A. Griggs (Eds.), Practical approaches to using learning styles in higher education (pp. 166-173). Westport, CT: Bergin & Garvey.


Napolitano, R. A. (1986). An experimental investigation of the relationships among achievement, attitude scores, and traditionally, marginally, and underprepared college students enrolled in an introductory psychology course when they are matched and mismatched with their learning style preferences for the element of structure (Doctoral dissertation, St. John's University, 1986). Dissertation Abstracts International, 47(02), 435A.


O'Hare, L. (2002). Effects of traditional versus learning-style presentations of course content in adult health nursing on the achievement and attitudes of baccalaureate nursing students. (Doctoral dissertation, St. John’s University).


Shea Doolan, L. (2000). Teaching graduate students with a leaning-styles approach: Adding zest to the course to the ingredients. In R. Dunn & S. A. Griggs (Eds.), Practical approaches to using learning styles in higher education (pp. 135-141). Westport, CT: Bergin & Garvey.


Whitley, J., & Littleton, P. (2000). One Texas university’s approach to integrating learning styles into teacher education: Talking the talk and walking the walk. In R. Dunn & S. A. Griggs (Eds.), Practical approaches to using learning styles in higher education (pp. 54-67). Westport, CT: Bergin & Garvey.


**Point Four:**
**Misinterpretation of Effect Size**

One of the more erroneous and misinterpreted statements Professor Coffield emphasized at the ELSIN Conference and later included in the Project Team’s Report, concerns the three and a half pages devoted to Kavale and Forness defense against my two critiques of their meta-analysis published in the Special Education journal that Kavale edits. In contrast, the panel chose to ignore my criticisms of those authors’ manuscript. My criticisms were published in two journals, one of which was the *Journal of Educational Research*, the best refereed, research journal in the United States.

Kavale and Forness’ meta-analysis was composed of a compilation of studies with varied populations. Their results were so disparate from those reported by other researchers, that I wrote to ask for their references—which had not been included in the document.

After repeated requests for the references, they finally arrived. It took a great deal of time to locate the many studies, which were far from “empirical” as this report stated. They included a variety of instruments, models, age groups, and designs, many of which were testing different hypotheses. I certainly did not take issue with the fact that none of our doctoral studies was included; given their poor findings, I was relieved. It is important to note that, in that original Kavale and Forness publication, there was not a single criticism of our Model or research.

Nevertheless, I wrote a 13-point critical analysis of their work and forwarded it to Kavale, thinking it would shed light on why he and Forness had obtained those poor findings. Knowledgeable researchers comparing the studies included in the Kavale and Forness meta-analysis with ours, would recognize that the regional, national, and international prize-winning awards earned by our research was *not*, as stated on page 8 of the Learning and Skills Development Agency (LSDA) Report, omitted because it was “so inadequate that (their) data were essentially meaningless.” It is more likely that Kavale and Forness made that statement in anger or frustration because, when they failed to publish my 13-point critique, I forwarded it to the APA refereed journal in which it was published (see Appendix D).

Professor Coffield’s repeated references to the poor effect sizes that he repeatedly reiterated during the ELSIN sessions were those reported by Kavale and Forness with other models. My data resulted from the meta-analyses conducted with the Dunn and Dunn Model. To be objective, the Project Team needs to report the effect sizes published in the *Journal of Educational Research* on our model (Dunn, Griggs, Olson, et al., 1990) and in Lovelace (2003).

**Effect Size as it Relates to Research Conducted with the Dunn and Dunn Model**

The first meta-analysis of studies with the Dunn and Dunn Model was conducted with experimental research completed between during the 10-year period 1980-1990 (Dunn, Griggs, Olson, et al, 1995). The statistical methods used for the quantitative synthesis of the results of the analyzed studies were largely based on Hunter, Schmidt, and Jackson (1982) and Hedges and Olkin (1985), and were carried out by a program developed by Schwarzer (1989). Those processes are stringent compared with the ones utilized by Kavale and Forness. Another difference is that our meta-analyses were based solely on studies conducted with the Dunn and Dunn Model at multiple universities by independent researchers who explored applications of our Model. Kavale and Forness’ meta-analysis relied solely on studies restricted to other models.

The second meta-analysis of 76 experimental studies conducted at diverse universities throughout the United States with the Dunn and Dunn Model during the 20-year period 1980-2000, was completed by Lovelace (2002, 2003). The total sample size (n) was 7,196 and the total number of individual effect sizes...
was 168. Dissertations came from 17 institutions other than St. Johns University; four dissertations were conducted at the same university.

Lovelace’s data documented statistically higher test scores when the Dunns’ learning-style strategies were employed and compared with the results of traditional teaching, regardless of the university at which the study was conducted. Most effect sizes were medium to large, dependent on the elements examined. Very few effect sizes were small.

Cohen (1977, 1988) wrote several textbooks on statistical power and defined the magnitude of effect sizes as small, medium, or large. Values of $r$ that were less than or equal to 0.10 were small; values of $r = 0.25$ were defined as medium. Therefore, values for $r$ between 0.11 and 0.39 we considered to be medium. Values of $r$ that were greater than or equal to 0.40 were considered large. These values and terms were utilized to compare the statistical power of data elicited from each individual investigation in Lovelace’s meta-analysis. When clustered, 78 large effect sizes, 71 medium effect sizes, and 19 small effect sizes and were revealed, or 88.7% revealed large or medium effect sizes.

These dependent variables, the 168 individual effect sizes, were summarized using stem and leaf plots to display achievement (Figure 1) and attitude (Figure 2) distributions. None of the effect size values were negative. Traditional education never produced higher achievement or attitudes than learning-styles instruction in any of the studies investigated. Only one study showed no difference ($r = 0$) between learning styles and traditional instruction. The other 167 effect sizes were positive and favored learning-style approaches. As shown from the stem and leaf plots, the effect sizes calculated for achievement and attitude contained no major outliers.

![Figure 1 Stem and Leaf Plot for 131 Achievement Effect Sizes (r).](image1)

![Figure 2 Stem and Leaf Plot for 37 Attitude Effect Sizes (r).](image2)

In summary:

- All the various measures and evaluations of average effect size revealed the effectiveness of the Dunn and Dunn Learning-Styles Model. A
0.50 standard deviation improvement in scores was a conventional measure of practical significance.

- Tallmadge (1977) suggested that between 0.25 and 0.33 standard deviation improvement was educationally significant. Values for standard deviation improvement in achievement were between 0.67 and 0.93 and values for attitude were between 0.79 and 0.91. Therefore, the Dunn and Dunn Learning Style Model is both a practically and educationally significant construct that improves student achievement and attitudes toward learning.

- All three indicators rejected homogeneity for both achievement- and attitude- effect sizes. Mean-effect sizes for achievement and attitude were variable enough to be described as heterogeneous. Therefore, it was necessary to search for variables that moderated these effect sizes.

- The inductive cluster analysis did not suggest any moderating variables. The deductive moderator search grouped investigations by independent variables and compared their subset mean-effect sizes using ANOVAs. No significant difference was found between subset categories of 12 of 17 independent variables for achievement or for 16 of 17 variables for attitude. Therefore, there were a total of six moderating variables.

- Five variables that had a moderating effect on achievement-effect sizes were publication type, degree of preference, school type, academic level, and demographic region. Only the variable of random assignment moderated attitude-effect sizes. Average students, students with strong preferences, students from public schools, and students in rural areas revealed the highest achievement effect sizes. In addition, investigations that utilized random assignment in their design revealed higher attitude effect sizes.

- The mean effect size values (r) were all approximately 0.40. According to Rosenthal and Rubin (1982), this translates to a 40% difference in expected success rates. Therefore, students exposed to learning-styles responsive instruction have an expected success rate of 70 percent. Students taught traditionally have only a 30 percent expected success rate and, therefore,

- A 70 percent expected failure rate. This was true for both academic achievement and attitude toward learning.

<table>
<thead>
<tr>
<th>BESD</th>
<th>% Success</th>
<th>% Failure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Style</td>
<td>70</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

Rosenthal’s BESD (1994) provided a cogent example of how this understanding of effect size was used in medicine. A randomized, double blind experiment on the effects of aspirin in reducing heart attacks was ended prematurely because the results were so clear that it was determined to be unethical not to use aspirin with all patients. This occurred with an average effect size of only r = 0.034. The lowest measure of average effect size for learning styles responsive instruction using the Dunn and Dunn Model was 10 times greater. Doctors decided that it was unethical not to provide a treatment to all patients that had an effect 10 times smaller than the effect of prescribing learning-styles responsive instruction.

**Point Five:**
**Conclusions without Examination of Primary Experimental Research**

Any scholarly review of the Dunn and Dunn Model and its related instruments should have included examination of the extensive research conducted with it. St. John’s University’s Center for the Study of Learning and Teaching Styles’ website ([www.learningstyles.net](http://www.learningstyles.net)) (see Bibliography under Research). This website includes 800 studies conducted with the Dunn and Dunn Model by researchers at more than 120 different institutions.
of higher education. Despite a few references to selected studies, original documents could not have been read by the Team members who inaccurately described them with accompanying observations that reflected only aspersions, not flaws in the studies themselves.

To my perception, an objective evaluation of this strongly research-based model would have required examination of the experimental studies conducted with adults. Then, it would have been appropriate to compare our findings with those of other researchers who also conducted experimental studies with similar populations. Then, whatever the literature base may have stated would have been examined against a concrete research and implementation background.

Researchers examining outcomes with the use of the Dunn and Dunn Model considered:

- Surveys based on interpretations of primary authors’ writings by secondary sources as inappropriate without examination against primary sources. Secondary sources are frowned upon by our universities’ faculties who require that even graduate students read original documents and not rely on other persons’ interpretations;

- The results of experimental research as the basis for decision-making. Only those findings provide concrete information on cause and effect. Opinions without substantial documentation carry little weight;

- Interjections of biased comments as reflecting a lack of scholarship and objectivity; and

- Well-controlled studies as objective, unless they defy the points made herein. Researchers at more than 120 institutions of higher education, including professors at St. John’s University, should have been considered objective. It is insulting to those persons and their institutions to be considered “supporters” of the Dunn and Dunn Model merely because their findings and ours were essentially corroborative. Nevertheless, that is how the Team Report refers to them.

On what basis did the LSDA Team only consider critics as objective? Certainly, Kavale and Forness (1990) were not objective, and neither was this Project Team that devoted three pages of their report to the Kavale and Forness responses to my original criticisms of their research, but failed to include what I wrote about their research. Frankly, this report reflects a lack of objectivity and possible bias.

Point Six: Evidence of Instrument Reliability and Validity

The LSDA Project Team referenced the quarter-of-a-century-old 1977 and then the 1997 Learning Style Inventory (LSI) Manuals and the 1997 Productivity Environmental Preference Survey (PEPS) Manual by extracting information concerning how to score those instruments. The LSI is inappropriate for use with adults. Both it and the PEPS gradually have been replaced with newer instrumentation during the past six years or so. Research and field studies with three new instruments have been in progress since 1994.

Building Excellence (BE), the learning-style identification instrument we currently use with adult populations, is accompanied by a research manual that cites its reliability and validity data. BE can be taken on line and provides instant feedback concerning individuals’ learning-style strengths and how to use those strengths when studying or focusing on academically challenging material. However, no member of the Team ever contacted me to obtain factual data concerning instrumentation related to our Model.

Throughout the Team Report are negative quotations obtained from secondary and tertiary sources that described early versions of the LSI, for which we have developed several age-appropriate substitutions. It is unlikely that the panel sought objective evaluations of the LSI or PEPS. Had it done so, it surely would have found the following research publications that documented those assessments’ effectiveness in predicting how students actually learn. Both had strong content,
concurrent, and predictive validity. Both had strong reliability because each measured how the same individuals with strong learning-style preferences learned over time. Both produced statistically higher standardized achievement- and attitude-test scores for individuals with strong learning-style preferences. Both accurately predict the Dunn and Dunn methods most likely to produce improved grades for such persons.

The percentage of persons for whom the LSI and PEPS tended to be effective, varied with each person’s preferences and with specific elements. Nevertheless, academically deficient students who functioned poorly with traditional teaching frequently performed significantly better with learning-style instructional methods, as documented by the publications cited below. The LSI and PEPS measurements, combined with pedagogy, repeatedly produced statistically more positive effects than traditional teaching for students experiencing academic problems (www.learningstyles.net).


The Center for Research in Education and the Office of Special Education Programs were contracted conducted a four-year study to identify programs that might have reversed academic failure among classified Special Education (SPED) students. This Alberg, et al. report revealed that the Dunn and Dunn Model was one of very few programs, of the many that had been implemented during a 30-year funding period, which consistently increased the academic achievement of classified SPED students. That evidence of effectiveness over years was based on early studies using the LSI. An instrument that consistently identifies SPED students’ individual learning-style characteristics, prescribes instructional approaches on that basis, and statistically increases those failing students’ achievement-test scores, has documented its predictive validity.


Each of the 30 chapters in this book documents a school’s or school district’s reversal of academic failure for minority and SPED students in the United States. The schools, their locations, and their supervisors are named. In addition, the increased standardized achievement-test scores of those previously failing students are documented by school records. Any instrument that identifies academically failing students’ individual characteristics, prescribes on that basis, and statistically increases those students’ achievement-test scores, has documented its predictive validity.

Nevertheless, during its ELSIN session, the LSDA Project Team reported that it had found “no support” for the LSI or PEPS. They could not have seriously sought published evaluations of them, or they would have found:


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©2004 The International Learning Style Network (ILSN) with permission from Professor Rita Dunn
• This early publication attests to the various kinds of reliability and validity evidenced by the LSI and PEPS.


• Successful implementation of the Dunn and Dunn Model with diverse populations, as cited in the studies conducted by researchers internationally (www.learningstyles.net), attests to the various forms of validity those instruments demonstrated. We discarded them in favor of better assessments developed over time on the basis of 35 years of implementation and research.

Professor Rita Dunn’s Response to Coffield Report

Point Seven: Failure to Comprehend How the Model Could Be Implemented

Several comments in the LSDA Report indicate that the LSDA Team could not understand how the Dunn and Dunn Model could be implemented—its practical applications. The following representative publications—literally just a few among hundreds, (www.learningstyles.net), would have documented a variety of different, yet effective and successful implementation practices of the Dunn and Dunn Model. However, the single Dunn and Dunn (1992) textbook that the Team included in its end-of-report references specifically includes an Implementation Plan in Chapter 10. Apparently the Team members did not choose to include that information in their Report. The following publications all describe successful school or school-district implementation with different populations.


**Point Eight:**
**Evidence of Impact on Pedagogy and Learning**

The panel report includes the following statement:

- “There is … emerging interest in whether the (Dunn & Dunn) model could be used in the UK. In 1998, the Qualifications and Curriculum Authority (QCA) commissioned a literature review of Dunn et al’s model (Klein, 1998). More recently, the Department for Education and Skills (DES) sponsored a project undertaken by the London Language and Literacy Unit and South Bank University. The authors recommended further research to explore whether Dunn et al’s model should be used in further education (FE) colleges to improve achievement and student retention (Klein et al, 2003).”

I am unfamiliar with the above references, but apparently independent United Kingdom (UK) agencies found sufficient evidence of the positive impact of the Dunn and Dunn Model to have “commissioned a literature review.” The Model’s impact on pedagogy and learning in the United States has been repeatedly documented (Alberg, et al., 1992; Dunn & DeBello, 1999; Dunn & Griggs, 2003; *Research on the Dunn and Dunn Learning-Style Model, 2003* available on [www.learningstyles.net](http://www.learningstyles.net)).

I requested copies of the above-cited projects from Ms. Hall, and tried to personally contact Professor Klein—to no avail. Apparently, she has retired.

The Dunn and DeBello (1999) book is described herein. The Dunn and Griggs (2003) book synthesizes research conducted with the Model and documents its impact on Special Education students (Chapter 14), college students (Chapters 16, 34, 35, 36, 37, 38, 39) urban, poverty minority students (Chapter 18), and elementary, middle-school, and high-school students (Chapters 19, 51).

The Dunns’ approaches to teaching based on the Model have been extensively researched (Chapters 20, 21, 22, 23, 40, 41, 42, 43, and 44) with different populations internationally. Overall findings related to achievement (Chapter 45), attitudes (Chapter 46), homework based on the identified styles of students (Chapter 48), implementation (Chapters 49 and 51), and its applications internationally (Chapter 52) have all been synthesized in one book (Dunn & Griggs, 2003), but is corroborated by extensive research on the Model ([www.learningstyles.net](http://www.learningstyles.net)).

**Point Nine:**
**LSDA Team Scholarship, Ethics, and Negative Aspersions**

A lack of scholarship is suggested by the fact that the LSDA Project Team extrapolated from many generalized reviews of cognitive, learning, and thinking styles and then indiscriminately applied them to the Dunn and Dunn Model (which those reviews had not criticized).

A lack of thoroughness is suggested by the fact that not one of the LSDA Project Team members found any of the many publications that specifically cited the major differences between other learning-style models and ours (Curry, 1987); DeBello, 1990; Dunn, Griggs, Olson, et al., 1990; Kirby, 1979; Miller & Edgar, 1994; O. Roberts, 1999; Sage, 1984; Tendy & Geiser, 1998-1999; Vaughan,
Weaver, Underwood, & House, 1992). The differences are enormous between Models that are:

- Comprehensive and those that include only one or two variables on a bi-polar continuum;
- Founded on a strong research base and those without one;
- University- or professional-organization based and those that reflect a single individual’s endeavors;
- Implemented locally and those that are implemented nationally and internationally;
- Commercial and those that are not;
- Represented by schools that can be visited for observational purposes and those that are not; and
- Representative of individual concerns and those that are not responsible to an organizational hierarchy.

A lack of objective research is suggested by the LSDA Project Team’s decision to (a) totally disregard the extensive research on the Dunn and Dunn Model and (b) its willingness to insert negative aspersions into its Report concerning research it had not even read. Such statements were couched in terms such as, “may have ….” or “it is likely that…”, but are out of place and represent only the Team’s personal interjections. Had the original studies been examined, the panel members would have known that the “possible flaws” they suggest in their statements, had not, in fact, occurred. Seven of these involved research with adult populations—Hamlin, Lefkowitz, Ingham, Quinn, Raupers, Russo, and Van Wynen.

Each St. John’s University doctoral study is supervised by a committee of between three and five doctoral core faculty with impeccable credentials. Please review Table 1 to note 32 awards and citations that our dissertations have received.
### Table 1.

*Award Winning Research Conducted by St. John’s University Students with the Dunn and Dunn Learning-Style Model*

<table>
<thead>
<tr>
<th>Researcher, Year</th>
<th>Awards</th>
<th>Learning-Style Focus</th>
<th>Subject</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marie Carbo, 1980</td>
<td>Association for Supervision and Curriculum Development (ASCD) National Award for Best Doctoral Research (1980)</td>
<td>Effects of Teaching First-Graders Through Perceptual Strengths Versus Weaknesses</td>
<td>Reading</td>
<td>*</td>
</tr>
<tr>
<td>Regina White, 1981</td>
<td>Delta Kappa Gamma International Award for Best Doctoral Prospectus (1980)</td>
<td>Nonconforming 7th Graders’ Need for Structure vs. Options</td>
<td>Social Studies</td>
<td>*</td>
</tr>
<tr>
<td>Jeanne Pizzo, 1981</td>
<td>ASCD National Recognition for Best Doctoral Research</td>
<td>Effects of Sound Versus Quiet on 6th Graders While Learning</td>
<td>Reading</td>
<td>*</td>
</tr>
<tr>
<td>Jeff Krimsky, 1982</td>
<td>ASCD First Alternate National Recognition for Best Doctoral Research</td>
<td>Effects of Bright Light Versus Soft Illumination on 4th Graders’ While Learning</td>
<td>Reading</td>
<td>*</td>
</tr>
<tr>
<td>Joan Virostko, 1983</td>
<td>Virostko, J. Kappa Delta Pi International Award for Best Doctoral Research</td>
<td>Effects of Learning Mathematics and Reading at Third-Through Sixth Graders’ Best vs. Less-Preferred Time-of-Day</td>
<td>Mathematics and Reading on <em>Metropolitan Achievement Tests</em></td>
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<td>Thomas C. Shea, 1983</td>
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<td>Effects of Formal Versus Informal Seating</td>
<td>Ninth-Grade English Comprehension Skills</td>
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<td>Janet Perrin, 1984</td>
<td>American Association of Administrators’ National Research Finalist Recognition School</td>
<td>Effects of Learning with a Teacher Versus with Peers Versus Independently</td>
<td>First-Grade Problem Solving + Rote Memorization</td>
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<td>Joan DellaValle, 1984</td>
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<td>Effects of Mobility Versus Passivity Needs While Learning</td>
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<td>(c) ASCD Finalist Award for Best National Research</td>
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<td>Helene Hodges, 1985</td>
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<td>Phi Delta Kappa National Finalist for Outstanding Doctoral Research , 1986</td>
<td>Effects of Middle-School Delinquent Students’ Need for Mobility while Learning</td>
<td>Mathematics *</td>
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<td>Maureen Martini, 1986</td>
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<td>Effects of Learning by Listening Versus by Reading Versus on the Computer</td>
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<td>Barbara Miles, 1987</td>
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<td>Effects of Learning with a Teacher Versus with Peers Versus Independently</td>
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<td>(b) Phi Delta Kappa Eastern Regional Research Award (1990)</td>
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<td>Terrence Quinn, 1996</td>
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<td>AASA and Convention Exhibitors’ Research Award for Best Doctoral Proposal , 1994</td>
<td>Model Education + Implementation Leadership</td>
<td>School Administrative Leadership</td>
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| William F. Geiser, 1998   | (a) Phi Delta Kappa’s (PDK) Northeast Regional Award for Best Doctoral Dissertation  
(b) St. John’s University’s Outstanding Graduate Award | Effects of teaching Students to Study and Do Their Homework Through Their Learning-Style Strengths  
Middle-School Mathematics |
| Elizabeth Van Wyren, 1999 | Sigma Theta Tau’s International Honor Society’s Award for Best Doctoral Proposal, 1998 | Identifying the Current and Previous Learning Styles of Senior Citizens  
Health Care and Nursing |
| Patricia M. Raupers, 1999 | International Learning Styles Network Award for Best Experimental Research (2000) | Effects of Using Creative Applications of Newly-Learned Information to Increase Long-Term Retention  
Staff Development |
| Andrea Honigsfeld, 2000   | St. John’s University’s Outstanding Graduate Award                       | Learning Styles of Adolescents in Bermuda, Hungary, Sweden, and New Zealand  
Comparative International Studies |
| Theresa Hamlin, 2001      | International Learning-Styles Network Award for Best Experimental Research (2001) | Effects of Traditional Versus Learning-Style Versus Meta-cognition Instruction on Adult Achievement and Attitudes  
Corporate Training |
| Rose Lefkowitz, 2002      | Phi Delta Kappan Award for Best Doctoral Research (2002).                  | Effects of Traditional Versus Learning-Style Presentation of Course Content in Medical/Legal Issues in Health Care on the Achievement and Attitudes of College Students.  
Health Care |
| David Fine, 2002          | (a) Excellence in Research Award, School of Education  
(b) International Learning Styles Network Award for Best Experimental Research (2002) | Comparisons of the Learning Styles of SPED + RED Students and Effects of Responsive Teaching on Short-/Long-Term Achievement, Attitudes, + Behaviors of SPED Students  
Science |
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<td>Rhonda Farkas, 2002</td>
<td>Excellence in Research Award, School of Education</td>
<td>Effects of Traditional Versus Multisensory Instructional Package Teaching on Achievement, Attitudes, Empathy, + Transfer of Skills Through a Study of the Holocaust</td>
<td>Social Studies; the Holocaust</td>
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<td>Karen Russo, 2002</td>
<td>Excellence in Research Award, School of Education</td>
<td>Effects of Traditional Versus a Contract Activity Package on Achievement + Attitudes of Law-School Students.</td>
<td>Law Curriculum</td>
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<td>Maryann Kiely Lovelace, 2002</td>
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<td>Meta-analysis of Experimental Studies with the Dunn and Dunn Model 1980-2000</td>
<td>Meta-analysis</td>
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<td>Lois Favre, 2003</td>
<td>(a) Excellence in Research Award, School of Education; Instructional Leadership;</td>
<td>Transition of a Low Status African-American Urban School Into a Demonstration School of Excellence</td>
<td>Quasi-Experimental Study to Determine the Effects of Learning-Style Approaches on Reading and Mathematics</td>
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<td>(b) International Learning Styles</td>
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* Significant findings
2 Regional, 10 national, 11 international, 9 St John’s University Awards
A lack of respect for professional colleagues was demonstrated in both the LSDA Team Report and the statements made publicly by Professor Coffield at the ELSIN Conference when he repeatedly challenged my descriptions of the effectiveness of the Dunn and Dunn Model. Those challenges and the statement in the LSDA Report indicating that my “public presentations are much less circumspect” than my writing (see #6 below), suggest dishonesty or exaggeration on my part when I address a group. Indeed, one member of the audience verbally reminded Professor Coffield that “the fourth R stands for respect.” My statements concerning the effectiveness of the Dunn and Dunn Model are based on the research in blue and brown, the practitioners’ reports, and the publications evidencing successful implementation of this Model that are included in this Response.

Appendix D includes my vitae documenting a 54-year career as recipient of many research and professional recognitions and including extensive award-winning research and professional publications. In the United States, publicly challenging the honesty and scholarship of a professional person without either corroborating documentation or prior requests for either correction or rejection of information is considered a lack of collegial respect.

A lack of professional practice is demonstrated by the following behavior. To correct some of the misrepresentations publicly stated by Professor Coffield at the ELSIN Conference, I loaned Dr. Ecclestone several refereed research journals and a book to document that what Professor Coffield had stated concerning our Model at the Team’s session was incorrect. Some of those publications were later cited in the Report, suggesting that they had been consulted, but their data were neither discussed nor used to alter the inaccurate criticisms.

After I returned from England in mid-July, our University’s Center for the Study of Learning and Teaching Styles received a request for a couple of the publications that I had brought to Dr. Ecclestone’s attention. When I received the panel report as an E-mail attachment from her on July 29th, selected publications already had been added within the text before the Team had received them as documented by Dr. Ecclestone’s E-mail of that date requesting that I prompt our University Center’s personnel to forward them to her as quickly as possible (see Appendix A).

Therefore, those citations were added after I brought them to the Committee’s attention, but before they had been received or read, and after the report had been prepared and publicly discussed by members of the panel. And, although cited in the Report, were never used to correct some of the Report’s errors. By no standard could this be considered professional practice.

If the LSDA Report had already been printed, a Correction or Review Section could have been added, although a prior review before completing their Report would have reflected a responsible, professional approach. Is it possible that the Team’s findings reflect preconceived conclusions with respect to learning style in general and the Dunn and Dunn Model in particular?

A biased pattern of negative aspersion is inserted throughout the Team’s Report. For example, it includes the following statement:

A recent study of learning style preferences amongst males and females in different countries claims statistically significant differences, with girls showing stronger preferences in motivation, responsibility and working with others than boys, and boys showing stronger preferences for kinaesthetic (sic) learning. Yet, the authors also acknowledged that effect sizes in the study were small and asserted cautiously that “there may be certain common trends particular to boys and girls in general and within each country” but that individuals show stronger patterns of preference than gender groups (Honigsfeld and Dunn, 2003: 205). In contrast, Dunn’s public presentations are much less circumspect, reflecting a strong essentialist view that attributes and preferences are largely caused by brain dominance and
fundamental gender differences (e.g., Dunn, 2003b)."

- The citation from Dunn is accurate, as it was taken from one of the journal articles I shared with Professor Ecclestone. The comment after the statement is inaccurate and vicious, reflecting only that LSDA Team writer’s personal perceptions and not the accurate statements I made at the ELSIN Conference.

- With reference to my “public presentations” (plural), how many times have the Team members seen me present? Where is the evidence that my presentations are much less circumspect? Anything I ever have stated publicly has been documented repeatedly by research.

That references to attributes and preferences are “largely caused by brain dominance” and are related to gender were reported by and quoted from:

- Neurologist Richard Restak, M. D. (1979) in The Brain: The Last Frontier (Doubleday, 1979) and many of his subsequent books; and

- Professor Armin Thies, clinical professor at Yale University’s Medical College for the past 20 or more years.

Dr. Restak is author of the NBC documentary television series on the brain. Professor Thies is pediatric neuropsychologist and a senior member of the clinical faculty at the Child Study Center, Yale Medical School in the United States. He is board certified in the specialties of clinical neuropsychology and clinical psychology, and is a member of the American Academy of Clinical Neuropsychology. He is also a charter member and former president of the Connecticut Neuropsychological Society and is an associate editor for the Journal of Child Neuropsychology and for the Journal of Clinical Neuropsychology. A few of his publications in this field are cited in the latter part of this response.

A lack of preparedness and adequacy is suggested by the fact that the LSDA Project Team chose to challenge what these experts have published and, instead, quoted persons with far lesser credentials in its Report.

A lack of preparedness and adequacy is suggested by the Project Team’s second-day keynote session at ELSIN, during which they heard and observed his Power Point presentation documenting relationships between neuropsychology and the Dunn and Dunn Model. They then chose to ignore that scientific corroboration and, instead, challenged the information when it was referenced.

A lack of preparedness, objectivity, and adequacy for this task is suggested by the Project Team’s statement on top of page 6. The Report stipulates: “It is not within the scope of this review to engage with aspects of neuropsychology and sociobiology in depth.”

However, if the Team members accepted responsibility for reviewing this Model, they need to address it as it exists—or admit that they were less-than-competent for this particular task. The Model, in part, is based on neuropsychological and social variables; therefore, if it is being reviewed, those have to be within the Report’s scope.

Nevertheless, in a later section of their Report when they chose to quote someone with far fewer credentials in neuropsychology than Dr. Restak or Professor Thies, they did comment on the Model’s neuropsychological aspects (pp. 10-11—but of course, negatively.

I understand that one section of this Report is concerned with “external evaluations”. Had the Team exercised fairness or objectivity, it could have contacted researchers from any of the 120 institutions of higher education who independently had conducted research and published their data with the Dunn and Dunn Model to elicit their perceptions concerning it.

Had the Team been interested in a thorough evaluation, it could have contacted any of the International Learning Style Network Directors for information concerning their implementation experiences with the Dunn and Dunn Model and instrumentation in their nations. Those persons are using this Model in Australia, Bermuda, Brunei,
Denmark, Finland, Norway, Singapore, Sweden, Malaysia, New Zealand, the Philippines, and the United States and would have been excellent external evaluators.

Instruments that we currently are using, and the extensive research concerned with developing and field-testing them nationally and at International Learning Style Centers or locations in Australia, Bermuda, Brunei, Denmark, Finland, Malaysia, New Zealand, Norway, Singapore, Sweden, and the Philippines, are never mentioned in the panel’s report. Instead, it paraphrases (often incorrectly) second-and third-party criticisms of 1974 and 1982 earlier instruments, (although it cites them with later dates. It is neither professional nor scholarly to limit information sources to what is “more accessible” (page 3 of the LSDA Report) rather than to what is appropriate, legitimate, or fair.

A lack of scholarship is demonstrated in the LSDA Team’s statement:

- “The extensive range of literature and the very strong claims made for the impact of the model on achievement, behaviour, attitudes and attendance make it crucial to gain some critical distance and to provide an objective evaluation of the model and its instruments” (page 2).

That statement makes little sense.

- If there is an extensive range of literature on the model, why not examine it?
- If there are very strong claims made for the impact of the model on achievement, behavior, attitudes and attendance, why not examine the primary literature and research that purportedly documents those claims?

How do scholars justify ignoring the “extensive range of literature” on which those claims are based and, instead, examining only secondary- and tertiary-source perceptions of the general construct by persons uncertified and untrained in the Model?

There is a lack of adherence to objective reporting in so many statements that item-by-item confrontations would take considerably more time and pages. Nevertheless, examine the following:

- Errors in the panel’s report are rampant throughout and would require many additional pages for response, but the inadequacy of the panel’s information-gathering methods and bias is even worse. For example:
  - On page 3, they wrote just above Table 3: “It is not clear from the various explanations of the model (from the secondary sources) how Dunn et al, deal with the multiple interactions among these variables or whether some variables have a stronger impact on learning and motivation than others.” If they wanted clarity, they should have asked the authors or read their books or published research.
  - In the same paragraph, the panel states that it summarized the Mode’d’s variables based on an article by Jonassen and Grabowski (1993) because they found it “more accessible than the narrative descriptions in the literature.” Jonassen and Grabowski interpreted selected variables of the model incorrectly, but if the panel wanted really wanted to understand how to “deal with the multiple interactions among these variables, or understand whether some variables have a stronger impact on learning and motivation than others”, its members should have read the authors’ books describing those factors rather than read about them in other writers’ mistaken analyses, manuscripts that were not designed to provide the information the panel says it wanted.
  - On page 5 in Table 4, the percentages of respondents’ “Strong Preferences” are incorrect; they represent only one end of the continuum. In addition, they are not indicative of college-age populations and, therefore, fail to be relevant to the panel’s task. As in other sections of the report, that statement clearly indicates the panel’s lack of knowledge concerning the Model.
  - On the top of page 6, the panel wrote, “This diversity (of the Dunn’s extensive literature base) means that the supporting literature often presents theoretical explanations of preferences in rather
general terms. *Quality doctoral research always presents theoretical and practical explanations.* However, one panel member admitted that the original research conducted by the authors was not obtained. Rather, their comments were abstracted from incomplete overviews by others. One wonders what the basis for many of their personal comments was.

Throughout the report, the panel stipulates the Dunns’ belief that students’ learning styles “are set within boundaries of relatively fixed traits and characteristics” (p. 6, third paragraph from the top); note too, the statement, “… Dunn … characterizes environmental preferences as relatively fixed …” (page 6, fourth paragraph). Had they even skimmed Chapter One of Dunn and Griggs’ (1995) book (which they referenced but apparently never read), or any of several other published manuscripts that I wrote, they would have learned exactly how learning style changes, when, how rapidly, for whom, and under what circumstances.

They further demonstrate no understanding of the Model when they ask, “how far (sic) individuals can work to remedy their low preferences or change their preferences” (page 6).

They vaguely cite that “there are some methodological and statistical flaws” (in selected studies not conducted by the authors or their colleagues), but fail to indicate what they are and, with apparently, did not even read those studies.

They criticize that selected studies examine only one of the Model’s elements at a time. Thorough research on a developing model requires that each of its variables be studied separately in experimental research with varied age groups and academic levels. The individual variable studies served as a basis for the subsequent combined variable studies.

They criticize the *n* in selected studies. A population of 60 or 80 in a repeated-measures, counterbalanced design is certainly not a “small n.” Such statements demonstrate either the Team’s lack of research objectivity or experience. *In particular, the White study (1981) that they criticized for having a “small” population won the Delta Kappa Gamma International Award for Best Doctoral Dissertation Prospectus in the world.*

Apparently, the panel members believe themselves better qualified than the research committees established by this prominent organization that chose this study as the single award winner from among hundreds submitted by multiple universities internationally.

They quote “other reviews” (page 7) that found a lack of evidence for modality preferences. Those other reviews used different models, different variables, and different instruments, and therefore, provided no basis for comparison. The research on the Dunn and Dunn Model’s findings with “perceptual strengths” has (a) been awarded research prizes, (b) reversed academic failure among minority, academically poor populations, and (c) been widely adopted by practitioners precisely because the instructional approaches developed by the Dunns were effective in contrast with traditional teaching. After all is said and done, isn’t that really what counts?

In addition, quoting 1978, 1980, and mid-1980 writers who knew considerably less a quarter of a century ago than we know today, is ludicrous. Too, attributing more value to the statements of persons who are not expert in the field, in contrast with the published-in-refereed-research-journals findings of those who are recognized experts in this field, and who actually conducted the experimental research in conjunction with other acknowledged experts, equally lacks objectivity or expertise. By what *standards* did this panel operate?

The Team is biased and misrepresentative to (a) insert the expression, “Carbo (1983), *on behalf of the Dunns …*” and, after citing Carbo’s assertions concerning other people’s early modality research (prior to the 80s) with invalid instrumentation, to (b) add a faulty conclusion that the panel—not Carbo—made.
It is equally biased and misrepresentative when the panel reports:

- In a survey of 73 trainee teachers, 71.3% identified themselves as strong to moderately analytic while 49.4% identified themselves as strong to moderately reflective. These findings were used to support the claim that trainee teachers who are themselves more likely to be analytic need to be prepared to teach “a relatively high number of global processors amongst youngsters” (Honigsfeld and Schiering, 2003: 292).

- The diversity in trainee teachers’ preferences was used to reiterate the need to celebrate the individual nature of preferences and to reinforce the idea that teachers will tend to teach to their own preferences unless they are trained to provide individualized instruction.

The first half of the statement, “The diversity in trainee teachers’ preferences was used to reiterate the need to celebrate the individual nature of preferences” is partially accurate; diversity among these teacher candidates does underline the notion that learning style is an individual set of characteristics. However, insertion of the verb “to celebrate” puts a slightly ironic or sarcastic touch to the findings that were reported factually. The comment is an editorial, subjective assumption that does not belong in an objective research report.

The second half of the comment “to reinforce the idea that teachers will tend to teach to their own preferences unless they are trained to provide individualised instruction” cannot be interpreted from that paper. As a matter of fact, Honigsfeld and Schiering did not have data on this construct, nor did they even suggest that idea. I was present for their presentation and I have a copy of their manuscript. Just the opposite: They mentioned in their presentation that their current grant is to be used to further investigate the nature of teaching and learning styles and that they are going to undertake this kind of investigation in the Fall of 2003. This is just one more example of either purposeful or illogical misinterpretation by the panel members.

Another example of bias and misrepresentation in the LSDA Team Report is in the next statement:

- In a similar vein, Hlawaty and Honigsfeld (2002) cited De Bello (op cit), Curry (1987) and Tendy and Geiser (1998-1999) to support their claim that the LSI has “good or better validity and reliability than nine other instruments”, but did not name the other nine.

It is always the readers’ responsibility to locate the sources cited in any manuscript if they wish more information. Every publication is limited in length; it is impossible to cite or quote everything from the Curry (1987) report or the DeBello (1999) article. Readers are required to check these sources for themselves. However, by adding that little aspersion, “but did not name the other nine,” the panel suggests that this is a lack of evidence. Actually, it suggests the panel’s lack of familiarity with research journals that they should have examined.

On page 13, Hughes (1992), Knapp (1994), Shewy (1994), and Westman (1992) never “reviewed the” model; they reviewed selected assessments in accord with their understanding of instrumentation. The instruments reviewed at the time were pioneering, in that few previous assessments existed to identify the variables in this model. It takes time—often years, to refine and improve instrumentation. We have a strong track record for having done that and for publicly explaining our efforts in professional journals. As indicated previously, we currently use other instruments that were developed gradually, over time, based on our utilization of previous one, which nevertheless, demonstrated consistent predictive validity with elementary, middle-school, secondary, and adult populations.

At the bottom of page 13 they wrote, “if that is ‘the only way the authors could think of to improve the reliability …’”. That exact procedure and a rewording of the questions is a widely accepted, accurate way of demonstrating reliability. This is just another example of a derogatory comment indicative of both panel bias and limited knowledge.
On page 14: “There are also concerns about Dunn et al.’s claims for internal consistency;”—but no Dunn statement concerning internal consistency is quoted.

On page 16: The Team quotes other authors with different findings concerning the learning styles of gifted populations. Our extensive publications and research concerned with the learning styles of gifted students are available in libraries and on our University’s website (www.learningstyles.net). For example, see Milgram, Dunn, & Price (1993) in which we identified the learning-and multiple-intelligence styles of approximately 6,000 gifted versus non-gifted adolescents from nine different cultures. Also Chapter One in Dunn and Griggs (1995) reveals how students’ learning styles vary by academic level, age, gender, nationality.

Their statement that (page 18) Nelson’s (1983) and Lenehan’s (1984) studies are “open to criticism” on the bases the panel stated is absolutely spurious, and inaccurate, and documents that these persons never read the studies and are merely obfuscating objective results. Those studies were well controlled, beautifully executed, and published in two of the best college refereed research journals in the United States. The panel member(s) who constructed that observation are either unknowledgeable or biased.

The description of our first meta-analysis on pages 18 and 19 of the LSDA Report is inaccurate. Incorrectly describing someone’s published research is unprofessional, unscholarly, and unforgivable. See pages 20-25 of this Response in which I explain our meta-analytic studies in detail.

Page 18, fourth paragraph: The Team wrote, “Such advice is running ahead of the empirical support ……” See Dunn, Thies, and Honigsfeld (2001) for at least 80 or more experimental studies that provided empirical support for the prescriptions suggested.

Page 18, fifth paragraph: “These studies are open to criticism that the observed benefits reflect a „level of intervention effect“ rather than a „nature of intervention effect“, since all groups received traditional instruction and the most successful group had homework prescriptions’ as an additional element.”

This representative paragraph evidences that (a) the original document either was never read or was misinterpreted, (b) the LSD Report is inaccurate and negatively biased, and (c) scholarship and integrity are absent from it.

In an experimental design, either all groups experience all treatments (a Repeated Measures Design) or each group experiences alternative treatments (an Experimental Control design). We have employed both designs in different studies. In the Nelson (1983) experiment, both groups experienced the same Traditional Teaching and then students who were having trouble with the science subject matter were randomly assigned to two different Treatments—Resource Room with Tutors versus Homework Prescriptions based on Learning-Style strengths.

In the Nelson (1983) study, the entire freshman group was tested for learning style with the PEPS. Half the group received no feedback. One fourth of the group was told their Learning-Style strengths, but provided no additional information. One fourth of the group received Homework Prescriptions based on Learning-Style strengths.

That community college had experienced a 30% dropout rate of its freshman class for at least a 10-year period. The half of the group that had no feedback, evidenced a 30% dropout rate. The quarter that received feedback only, evidenced a 28% dropout rate. However, the group with Homework Prescriptions evidenced an 18% dropout rate. Anyone interested in reading the original studies can obtain them on PROTEMDIGITAL. However, both have been published in refereed research college journals and are available for examination publicly. The analyses of other studies on pages 18 and 19 are equally flawed.

Page 19, bottom: “The overarching message is that all elements are equally important …” Nothing could be further from the truth. When suggesting how to begin implementing learning styles, we
always advise practitioners to start with those elements that affect most students. That is evident in many texts we have written. Had the Team actually read our publications carefully, they could not have misrepresented the research that reports that elements are not equally important.

Top of Page 20: “This means that the key attraction for practitioners (i.e. that the model can improve *their* students’ learning) is set against a research literature that seeks to validate the effects of specific elements, regardless of the particular needs of the groups under study.” Learning style addresses the particular needs of *individuals* within each group and has nothing to do with “the baseline ability of students.” The LSDA Team just does not understand either the learning-style construct or our Model. Nor does it appear that it made a strong effort to learn about either.

Top of Page 20: In order to evaluate the model, the research design should test the baseline ability of students and proceed to conduct controlled intervention experiments with elements which have been identified by the LSI or PEPS as the strongest preferences for that population. We certainly have done that many times.

Page 21, bottom: The Team stated that, “…the model is based on the idea that preferences are relatively fixed, not amenable to change…” This is another inaccurate statement. Chapter One of Dunn and Griggs (1995) is devoted to a description of how learning style characteristics tend to change, over time, differently for different academic students and for those for whom specific elements appear to be either crucial or varied.

Page 21, bottom: The Team stated that, “It also assumes that teachers teach the way they learn”, another incorrect statement. Had the Team read the Dunn and Dunn (1992) book that it referenced as if it *had* read it, it would have noticed that Chapter 10 was devoted to identifying teachers’ teaching styles and suggests ways in which individual teachers can expand their current styles. Indeed, research documents that teachers tend to teach the way they were taught.

Page 21, bottom: “Our continuum of learning styles shows that other models are not based on fixed traits but on approaches and strategies that are context-specific, fluid and amenable to change. Extensive reports have verified the differences among models. Ours is different, has a strong research base established by independent researchers at 120 different institutions of higher education, and has demonstrated effective implementation. This item was elaborated on earlier in this Response.

Page 21, bottom: “References to brain research, time of day and modality preferences in Dunn et al’s model are at the level of popular assertion and not supported by empirical evidence.” This item was elaborated on earlier in this Response when I described Dr. Restak’s and Professor Thies’ credentials and publications. Rather that being a “popular assertion,” this is based on their widely published work.

Page 22, second paragraph. Nothing is true of all subjects at all levels.

Page 22, bottom third: The Report states, “Third, supporters claim that a self-report measure is objective”. They go further, claiming that the model is the most reliable and valid model available, citing the same studies repeatedly in long lists. Yet, despite a large database claiming to prove reliability and validity, the studies we reviewed, together with the external criticisms, suggest profound problems with these claims, particularly in relation to the objectivity and quality of supporting evidence. There is evidence of self-referential circularity where studies cited by Dunn and Griggs, 1995 were carried out by their own doctoral students whose theses and dissertations all support the model.”

- A self-report instrument certainly can be objective. That students achieved statistically better standardized achievement-test scores after responding to a self-report instrument that later prescribed responsive approaches based on their identified styles, demonstrates that.
• The Dunn and Dunn Model is the most reliable and valid (learning-style) model available as documented repeatedly by independent researchers, government agencies, and practitioners that are listed in this Response.
• The data base of more than 800 published studies document reliability and validity of the Model.
• I suspect that not one of the LSDA Team members read even one of our doctoral studies in its original form.
• The only external criticisms were of selected early instruments that were replaced. None were of our Model.
• If there is a lack of objectivity and the quality of supporting evidence, it is in this LSDA Report.
• Certainly our publications reference our research. It would have been scholarly if the LSDA Report had.

Dunn and Griggs (1995) reported a study of multicultural groups in the United States that was conducted under the sponsorship of The National Association of Secondary School Principals. Dr. Griggs and I conducted that study. Our doctoral students were not at all involved.

Top of Page 22: “Since supporters claim reliability and validity to promote its widespread use as a scientifically robust model, evaluation should be carried out by external, independent sources that have no interest in promoting it.” If researchers who conducted studies with the Dunn and Dunn Model from 119 other colleges and universities are not “external, independent sources who have no interest in promoting” this Model, I cannot imagine who would be.

This series of challenges could continue ad infinitum and I have spent sufficient time attempting to demonstrate to the persons who employed this LSDA Team the many flaws in its Report.

Conclusions

Because of the blatant lack of scholarship and professionalism indicated by the methods the panel used to develop its report on the Dunn and Dunn Model, and based on the public presentation its members delivered at the ELSIN June Conference, which appeared to be negative about every learning-style model developed in the United States and all but one developed in the UK, I believe that the panel members:

• Are unqualified to conduct a professional evaluation of learning-style models with which they have no experience or understanding;
• Lack judgment and/or experience in scholarly evaluation; and/or are biased.

I strongly suspect that the panel divided its task concerning the 13 models to be reviewed and that only Professor Coffield, whose evidenced passionate dislike of learning style—which he confuses repeatedly in terms of definitions, models, and implementation strategies, and does not understand—was the main thrust behind the Dunn and Dunn review. I also suspect that he may be less than knowledgeable about quantitative research.

There inevitably will be challenges to new approaches and constructs. Challenges should be welcomed and soberly considered. However, new approaches and constructs should be measured by the quality of the experimental and qualitative research that supports them and the increased instructional effectiveness they yield for students. The report that I received is so lacking in fidelity to any standard of principle, professionalism or propriety (and includes so many biased interjections) that I lack faith in the Project Team’s objectivity and scholarship. Therefore, I publicly protest the publication and dissemination of the Team’s Report, and will share my comments with you and others.
Professor Rita Dunn’s Response to Coffield Report

Appendix A

E-mail Received from Dr. Ecclestone, July 29, 2003

Subj: Fwd: Evaluation of the Dunn, Dunn and Price model
Date: 7/29/2003 8:44:15 AM Eastern Standard Time
From: Kathryn.Ecclestone@ncl.ac.uk
To: rdunn241@aol.com
File: DunnFiNAL25Juky.zip (114147 bytes) DL Time (45333 bps): < 1 minute

 UNIVERSITY OF NEWCASTLE SCHOOL OF EDUCATION, LANGUAGE AND COMMUNICATION SCIENCES
Joseph Cowen House St Thomas Street Newcastle NE1 7rU

Dear Professor Dunn,

You may remember that we spoke at the ELSIN conference in Hull at the beginning of July; I am a member of a research team at the University of Newcastle, working on a project for a government funded agency in the UK to evaluate the major models of learning styles and their implications for pedagogy in post-16 education. When we spoke, I mentioned to you that an important part of the methodology of the project is to send a draft of our evaluation of a particular model to its author. We have evaluated 13 models in detail and sent them to authors and so far, 11 have replied. I am therefore attaching our review of the Dunn, Dunn and Price model to this email, as you asked. We would be grateful if you would comment and we will take account of your comments in the final version of the report. The evaluations of the 13 models all encompass the same areas: the origins of the model and instrument; theoretical principles of the model; main features of the instrument; claims for reliability and validity; claims for impact on pedagogy and learning; evaluations of the model by authors or supporters; external evaluations; our conclusions. Our deadline for sending the report to our sponsors is 31 July. We will have a little time for amendments in August and September. In order to take account of your response to our evaluation, we would therefore need your comments by Friday 8 September. Of course, we would be very pleased to have them sooner if that is possible. I also wondered if you would check an order I placed by telephone on the 14a of July with your publications centre, and again by telephone on the 25a of July. The order was for your 2003 publication with Shirley Griggs and for the 1987 paper by Lynn Curry. The woman I spoke with at your publications centre said they would send the book and paper, plus invoice, to me at the University but they have not yet arrived. We would also be grateful for any references to your model in post-16 education and for a copy of the Auberg report for the National Board of Education which commends your model: we have not been able to trace a copy of the original. We look forward to hearing from you: could you send comments by email to Elaine.Hall@ncl.ac.uk? Very best wishes,
Dr Kathryn Ecclestone

Appendix B

References Received from Elaine Hall on August 19, 2003 in Response to Request for Original Studies
