



Center for Research in Educational Policy

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## Freedom to Learn Program

### Michigan 2007-2008 Evaluation Report

Prepared for Prepared for Freedom to  
Learn and the One-to-One Institute





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## EXECUTIVE SUMMARY

### Introduction

This report summarizes the 2007-2008 evaluation results of a leadership survey given to Michigan Freedom to Learn (FTL) program teachers. The major goal of the FTL program was to improve student learning and achievement in Michigan schools through the integration of 21<sup>st</sup> Century technology tools with teaching and learning in K-12 classrooms. A key component of FTL was a rigorous and comprehensive evaluation study designed to gauge the impacts of the program relative to its primary goals.

### Goals

The current evaluation had three main goals:

- GOAL 1 To determine which school administrators (principals or assistant principals) were perceived to have fulfilled the primary leadership role effecting implementation of the FTL program.
- GOAL 2 To identify specific roles of school administrators and to what degree that FTL teachers and Lead Teachers perceive the roles effected the FTL program implementation.
- GOAL 3 To determine if leadership roles vary on the basis of implementation level.

### Participants

The survey data obtained directly from the Internet survey service provider indicated that 173 respondents at 61 different FTL schools accessed the online FTL Leadership questionnaire.

Of the 124 participants who *completed* the 64 item survey:

- 66 participants identified themselves as Classroom Teachers (53.2%),
- 50 as Lead Teachers (40.3%)
- 8 as "Other" (6.5%).

### Design

This study used a global descriptive design that employed a mixed-methods approach (Johnson & Onwuegbuzie, 2004), utilizing validated data collection instruments. Data collection procedures for the two primary data sources used for this study were the Leadership Effectiveness Assessment Device (*LEAD*) survey, plus previously collected FTL SOM and SCU data.

### Measures

#### **FTL Program Leadership Evaluation Surveys**

- Leadership Effectiveness Assessment Device (*LEAD*) Survey: Measures perceptions of leadership at the school implementation level.

#### **Direct Classroom Observation Measures**

- School Observation Measure (SOM): Measures usage of 24 instructional strategies.
- Survey of Computer Use (SCU): Measures student use of technology and software.

## Procedures

*LEAD Survey.* Information regarding online completion of the *LEAD* survey was distributed via email to the FTL Lead Teachers, who then distributed the information to FTL teachers at his or her school. The information included a brief introduction and overview of the *LEAD* survey, instructions for completing the online survey, the URL for the survey, and the school-specific ID and Password needed to access and submit the survey. The Lead Teachers were contacted beginning February 2008.

*Extant SOM and SCU Data.* The School Observation Measure (SOM) (Ross et al., 1999) was designed to capture the frequency with which 24 instructional practices are implemented during direct observation of classrooms. The practices range from traditional (e.g., direct instruction and independent seatwork) to alternative, predominantly student-centered methods associated with educational reforms (e.g., cooperative learning, project-based learning, inquiry, discussion, using technology as a learning tool). The SOM and SCU data were collected during 3-hour multi-class observations in FTL schools.

## Results and Conclusions

The results and conclusions of the present study are presented in association with each of the FTL program evaluation research questions in the following section.

### **1. *What was the composition of the responding FTL sample by schools and respondents within schools as Classroom Teachers, Lead Teachers, or "Other"?***

Of the 124 *LEAD* survey respondents who completed the 64 item survey, 66 of them identified themselves as FTL Classroom Teachers (53.2%), while the remaining 58 (46.8%) identified themselves as either FTL Lead Teachers (50) or some Other Respondent (8).

### **2. *How did the respondents rate the effectiveness of FTL implementation at their schools, both in the aggregate and by the role played by the respondent?***

Of the 124 *LEAD* survey respondents who both responded to the implementation effectiveness item and completed all 64 *LEAD* items, nearly two-thirds (63.7%) found the program to have been "largely" (40.3%) to "very" (23.4%) effectively implemented at their schools. To determine whether Classroom Teachers or Lead Teachers/Others differed in how they rated FTL implementation effectiveness at their schools, an analysis indicated that there was no statistically significant difference observed among the two respondent subgroups.

### **3. *To what extent did the effectiveness ratings of administrators seen as most responsible for leading the FTL implementation—Principal, Assistant Principal, or "Other Administrator"—differ by a) the type of the respondent providing the rating, b) the kind of administrator being rated, and c) combinations of these variables?***

In response to the question concerning which administrator was perceived as being the most responsible for leading the FTL implementation at their location, 69 indicated the "Principal" (55.6%), six (4.8%) indicated the "Assistant Principal," and 49 (39.5%) indicated some "Other Administrator." Among Classroom Teachers, there was no significant difference observed in the FTL implementation effectiveness ratings attributed to Principals/Assistant Principals and Other Administrators. Among the 58 Lead Teachers/Others who completed the survey, no significant difference was found by the two types of administrators rated.

When FTL effectiveness ratings were analyzed irrespective of the type of respondent providing the ratings, no significant differences were observed for either the 75 Principals/Assistant Principals or the 49 Other Administrators. When the type of respondent (as Classroom Teacher or Lead Teacher/Others) was crossed with the kind of implementation leader rated (as either

Principal/Assistant Principal or Other Administrator), analyses suggested no statistically significant difference either for the subgroups nested within the 124 *LEAD* survey completers.

**4. To what extent did respondent ratings as to the perceived size of the role played by the leader differ a) the type of the respondent providing the rating, b) the kind of administrator being rated, and c) combinations of these variables?**

With respect to the size of the role played by the administrator leading the implementation, sixty-five, or 52.4%, of the *LEAD* survey completers indicated that the role of the administrator leading the implementation had been “large” to “very large”. Only 28 of 124 *LEAD* survey completers (22.6%) offered that the leader had played only a “small” role to “almost no role”. With respect to the larger group of 160 respondents, the responses of the 66 Classroom Teachers and 58 Lead Teachers/Others in the group of *LEAD* survey completers were homogeneous with respect to the size of the leader’s role. Notably, the perceived size of the role played in the implementation by the type of administrator as either Principal/Assistant Principal or Other Administrator differed markedly, as Other Administrators were perceived to have played a somewhat larger role.

Among the 124 *LEAD* survey respondents, 69 indicated the Principal (55.6%), six (4.8%) indicated the Assistant Principal, and 49 (39.5%) indicated that an Other Administrator played the most significant perceived role in the FTL implementation. Of these 49 Other Administrators, approximately 80% were variously categorized as “technical advisors”, “directors”, “consultants”, “coordinators”, “administrators”, “curriculum directors”, “instructional specialists”, “librarians”, “media specialists”, “superintendents”, and “past administrators”. The remaining 20% of the Other Administrators were categorized as Lead Teachers, Classroom Teachers, or either “no administrator” or some administrator whose exact position was not described. Results indicated that Lead Teachers/Others believed Other Administrators to have played a larger role in the FTL implementation than did either the Classroom Teachers with respect to Principals/Assistant Principals; or Lead Teachers/Others in regards to Principals/Assistant Principals. As rated by Lead Teachers/Others, the role size of Principals/Assistant Principals was significantly lower than the administrative role size of Other Administrators.

**5. To what extent were respondent ratings as to the implementation effectiveness of FTL associated with the perceived size of the role played by the leader according to the role of the respondent, type of administrator being rated, and combinations of these variables?**

For the 124 respondents who completed the *LEAD* survey, all of the observed correlations between perceived implementation effectiveness and the perceived size of leader’s role were homogeneous. When examined by the type of rater, the correlations between ratings of FTL implementation effectiveness and the perceived size of the role of the leader were not significantly different from one another when the responses of the 66 Classroom Teachers and those of the 58 Lead Teachers/Others were examined. Similarly, the correlations appeared to be largely homogeneous by the type of administrator rated: for the 75 respondents who rated Principals/Assistant Principals as playing the most significant leadership role in the FTL implementation, and the 49 respondents who rated Other Administrators as more important.

**6. To what extent did respondent ratings on the eight LEAD scales differ across all FTL respondents and FTL respondent subgroups?**

The data analyses for this question revealed statistically significant multivariate differences among the means on the eight *LEAD* scales across all 124 respondents and in the interaction of the pattern of differences in the eight scale means across the two different types of administrators thought most responsible for leading the FTL implementation. In comparing the scale means across all 124 respondents, the greatest differences systematically involved the *Monitor* and *Mentor* roles. Means for these two roles tended to be significantly lower than means observed for the *Producer*, *Coordinator*, *Facilitator*, *Innovator*, and *Broker* roles. In comparing the patterns of differences between the two

categories of administrators being rated, a series of independent analyses indicated that FTL Principals/Assistant Principals were perceived as having exercised three *LEAD* roles more than Other Administrators: specifically, the *Director* role, the *Monitor* role, and the *Broker* role.

**7. To what extent do respondent ratings of FTL implementation effectiveness correlate with the eight LEAD scales and the instrument as a whole?**

For all 124 FTL survey completers, scores on the overall *LEAD* survey were moderately but significantly correlated with implementation effectiveness ratings. Individual *LEAD* scales were also statistically related to respondents' perceptions of FTL implementation effectiveness, with the strongest association observed between effectiveness ratings and the non-directive, collegial *Facilitator* role, and the weakest association observed between effectiveness and its near-opposite, the *Director* role. With respect to the individual items constituting the *Facilitator* scale, the strongest correlation was seen between implementation effectiveness and the item "makes it easy for teachers to collaborate with one another". Contrastingly, with respect to the individual items constituting the *Director* scale, the weakest correlation was observed between implementation effectiveness and the item "specifies goals and objectives that guide teachers' planning and everyday practices". With respect to breakouts of the data by type of rater and the type of administrator rated, the highest correlations were observed between FTL implementation effectiveness and the *Facilitator* role for Classroom Teachers,; the *Producer* role for Lead Teachers/Others; the *Broker* role for those identifying Principals/Assistant Principals as playing the most important FTL implementation role; and the *Facilitator* role for Other Administrators. Conversely, the lowest correlations that consistently observed in responses by all *LEAD* survey respondents were between FTL implementation effectiveness and the *Director* role, for both the Principals/Assistant Principals and for Other Administrator FTL implementation leadership roles.

**8. What differences exist among FTL subgroups and their scores on the overall LEAD?**

Analyses of the *LEAD* survey response data suggested no statistically significant differences by the two groups of raters (Classroom Teachers and Lead Teachers/Others). However, differences did emerge when the identified leadership roles of the raters was introduced as a factor. Therein, a single significant difference was found; specifically between: 40 Classroom Teachers rating Principals/Assistant Principals, 26 Classroom Teachers rating Other Administrators, 35 Lead Teachers/Others rating Principals/Assistant Principals, and 23 Lead Teachers/Others rating Other Administrators. The analyses employed suggested that Classroom Teachers' ratings of the overall leadership of Principals/Assistant Principals were significantly higher than Classroom Teachers' ratings of Other Administrators.

**9. What relationships between existing school-level scores on the Multi-Class SOM and SCU and FTL Respondent ratings of the implementation effectiveness of the initiative, the size of the role played by the leader, and leadership ratings on the LEAD?**

Data previously obtained at 87 FTL schools on the *Multi-Class School Observation Measure (SOM)* and the *Multi-Class Survey of Computer Use (SCU)* were merged with data derived from the present study that had been aggregated from the level of the individual FTL respondent. When the different data files were merged, 40 different FTL school matches were found with respect to the *Multi-Class SOM* and the *Multi-Class SCU*.

In investigating the matrix of correlations, the *SOM* item concerning "Computer for instructional delivery" was seen to correlate positively with five of the *LEAD* roles; most strongly with the *Producer*, *Facilitator*, and *Innovator* roles, as well as with the overall *LEAD*. Further, three *LEAD* scales evidenced robust correlations with the *SOM* item concerning "High level of student attention/interest/engagement," specifically, the *Producer*, *Monitor*, and *Innovator* roles. Both the *Producer* and the *Innovator* role also correlated significantly with the four-item *SOM* composite.

With respect to the perceived size of the administrator's role, the strongest correlation observed was for the Computer Usage *SOM* composite. Although FTL implementation effectiveness did not seem to correlate significantly with any of the individual *SOM* items, significant correlations were observed between it and the Computer Usage *SOM* Composite, as well as with the Composite of the Four *SOM* items [which four?].

At the 28 FTL schools for which *SCU* data were available on students' "basic" computer skills, the respondents' sense of what FTL implementation effectiveness meant correlated both systematically and robustly with students' "computer literacy" and "keyboarding" skills, and the composite (average) of these two items. With respect to the *LEAD* scales, systematic and robust correlations were observed particularly between the *SCU* outcomes and the *Mentor* and *Innovator* roles. While the *Mentor* role was only modestly associated with students' "computer literacy" skills, it correlated strongly with students' "keyboarding" skills and the composite of the two *SCU* "computer basics" items. Even more strongly associated with these *SCU* outcomes was the *Innovator* role; that role correlating with both *SCU* items individually as well as with the composite of the two items. The total *LEAD* score was observed to correlate especially with students' "keyboarding skills" and modestly with the composite of the *SCU* "basic skills" items.

At the 40 FTL schools with *SCU* scores on the Production, Internet, Educational Software, and Testing scales, means were computed for each school by averaging the scores obtained across each of the constituent items. Two of the *SCU* scales appeared to be associated with respondent perceptions of FTL implementation effectiveness: use of the Internet and use of Educational Software. Associated with four of the eight *LEAD* scales—specifically, the *Director*, the *Mentor*, the *Innovator*, and the *Broker* roles—as well as the overall *LEAD* score, was the *SCU* scale concerning the use of Testing software.

## Implications

Overall, the FTL implementation was viewed as successful by a majority of responding constituents. Slightly more than half of the respondents viewed their principals as playing the key role as leaders in the FTL implementation, while a significant percentage of the respondents viewed "others" (neither principals nor assistant principals) as playing the key role as leaders in the FTL implementation.

While FTL implementation effectiveness did not correlate significantly with any of the individual School Observation Measure (*SOM*) items, as previously measured in the FTL implementation, some significant correlations were observed between the identified *LEAD* roles and the Computer Usage *SOM* Composite, including positive correlations between five of the identified *LEAD* roles, with the *Producer*, *Facilitator*, and *Innovator* roles most evident, respectively. The strongest correlation observed was for the Computer Usage *SOM* composite and the perceived size of the leader's role, with a noteworthy correlation found between the perceived size of the leader's role and "High levels of student engagement" in the *Producer*, *Monitor*, and *Innovator* roles. Interestingly, no significant relationships were observed between the *Director* and *Coordinator* roles with any of the *SOM* items or item composites.

Student computer use (*SCU*) as previously measured in the FTL implementation was positively correlated with the identified leadership roles of *Mentor* and *Innovator*. These are leadership roles defined by personal interaction and risk-taking attributes, respectively.

The strongest associations, as observed in *LEAD* survey results, were between effectiveness ratings and the non-directive, collegial *Facilitator* role; the weakest association observed was between implementation effectiveness and the *Facilitator* role's near-opposite, the *Director* role. The *Director* role is characterized mostly by stressing productivity and efficiency goals, and not creative solution-seeking.

# Michigan Freedom to Learn

## 2007-2008 EVALUATION REPORT

This report summarizes the 2007-2008 evaluation results of the Michigan Freedom to Learn (FTL) program. The major goal of the Freedom to Learn (FTL) Program is to improve student learning and achievement in Michigan schools through the integration of 21<sup>st</sup> Century technology tools with teaching and learning in K-12 classrooms. The program builds outward from the middle school pilot, "Learning Without Limits." The primary core of FTL is the professional development provided to teachers, administrators, and program professionals, such as Lead Teachers, Super Coaches, and Site Advisors. Developing innovative instructional support tools and facilitating access to high quality digital resources are also important components of the program.

A key component of the FTL initiative has been to continuously obtain valid data from a rigorous and comprehensive evaluation study to gauge the impacts of the program relative to its primary goals. The Center for Research in Educational Policy (CREP) at The University of Memphis proposed the following evaluative research as an extension of the multi-year comprehensive evaluation plan. Specifically, the evaluation examined the effectiveness of leadership in Michigan's Freedom to Learn (FTL): One-to-One Teaching and Learning Initiative as perceived by FTL teachers and Lead Teachers.

The overall purpose of this evaluation was to examine the roles of school leadership (principals, assistant principals, or others) in relationship to effective implementation of the FTL laptop program. Evidence of these roles was determined by surveying FTL classroom teachers and Lead Teachers and comparing the results by level of FTL implementation at each school as measured by classroom observation data.

The evaluation had three main goals: (a) to determine which school administrators (principals, assistant principals, or others) were perceived to have fulfilled the primary leadership role effecting implementation of the FTL program; (b) to identify specific roles of school administrators and to what degree that FTL Classroom Teachers and Lead Teachers perceived how the roles affected the FTL

program implementation; and (c) to determine if implementation level varied on the basis of leadership roles.

The study context, evaluation questions, research design, instrumentation, methods, and timeline are provided in the sections to follow.

## RESEARCH GOALS

The current evaluation research had three main goals:

- GOAL 1 To determine which school administrators (principals or assistant principals) are perceived to have fulfilled the primary leadership role effecting implementation of the FTL program.
- GOAL 2 To identify specific roles of school administrators and to what degree that FTL teachers and Lead Teachers perceive the roles effected the FTL program implementation.
- GOAL 3 To determine if leadership roles vary on the basis of implementation level.

## PARTICIPANTS

According to a summary of the data taken directly from the Internet survey service provider, 173 respondents at 61 different FTL schools (one school unidentified) accessed the online FTL *LEAD* leadership questionnaire. Of the 124 participants who actually completed the *LEAD* survey, 66 of them identified themselves as FTL Classroom Teachers (53.2%), 50 (40.3%) identified themselves as FTL Lead Teachers, and eight (6.5%) as some Other respondent.

## DESIGN

A global descriptive design was used for the evaluation. This design employed a mixed-methods approach (Johnson & Onwuegbuzie, 2004) utilizing validated data collection instruments. Validated survey and observation instruments, and student performance-based assessments served as the critical data sources in the comprehensive evaluation model. Data collection procedures for the two primary data sources used for this study were the Leadership Effectiveness Assessment Device

(LEAD<sup>®</sup>) survey plus FTL School Observation Measure (SOM<sup>®</sup>) and the Survey of Computer Use (SCU<sup>®</sup>) data previously collected during multi-class observations.

## INSTRUMENTS AND PROCEDURES

Two primary data sources were used for this study: 1) FTL teacher and Lead Teacher responses to the *Leadership Effectiveness Assessment Device (LEAD)* survey (Appendix) and 2) extant observation data from the *School Observation Measure (SOM)* and the *Survey of Computer Use (SCU)* to determine level of FTL implementation at each school. A description of the instruments and data collection procedures follows.

### Leadership Effectiveness Assessment Device (LEAD) Survey

High levels of interest in the impact of principals on school performance have resulted in several national and regionally-based statements of professional standards and issued in a growing number of reviews of the empirical literature. Taking both sorts of documents into account, the *Leadership Effectiveness Assessment Device (LEAD)* expresses their contents as observable behaviors and maps such behaviors onto a comprehensive model of organizational and leadership effectiveness called the Competing Values Framework (CVF). Within the *LEAD*, the CVF is evoked as an “organizing mechanism, a sense-making device, a source of new ideas, and a learning system” (Cameron, Quinn, DeGraff, & Thakor, 2006, p. 6) to help articulate “best practices” in educational leadership in way that is more cognitively tractable and growth-enabling.

#### ***Development of the Competing Values Framework as a Map of Effectiveness***

Subjecting a list of effectiveness criteria to the judgments of a panel of organizational theorists, researchers Robert Quinn and John Rohrbaugh (1983) found that most of the similarities and dissimilarities among these judgments could be explained in terms of a perceptual map defined by two major dimensions—specifically, internal versus external focus and centralized control versus decentralized flexibility—and forming four “quadrants.” As shown in Figure 1 below, these four effectiveness quadrants include the following:

- (1) the *rational goal model*, the emphasis of which is on attending to the “bottom line” and articulating a clear course of action to achieve it;

- (2) the *internal process model*, wherein the emphasis is on maintaining a smooth-running, efficient organization that persists over the long-term;
- (3) the *human relations model*, the emphasis of which is on building teamwork and cultivating employees' skills and competencies; and
- (4) the *open systems model* wherein the emphasis is on innovation and the acquisition of "slack" resources to support the organization's growth.

Because even- and odd-numbered quadrants were observed to highlight conflicting but critical organizational concerns, the map as a whole was named the Competing Values Framework.

### ***Application of the Competing Values Framework to Leadership Effectiveness***

Later refinement and application of the CVF to the phenomenon of leadership (see, for example, Cameron, Quinn, DeGraff, & Thakor, 2006; Quinn, 1984; Quinn 1988; Quinn, Faerman, Thompson, McGrath, & St. Clair, 2007) suggested the presence of two distinct clusters of activities or "roles" within each of the four effectiveness quadrants: one "role" speaking directly to a particular model's desired *outcomes*, the other "role" addressing prerequisite *processes* aimed at those outcomes. Signature activities linked to each of these eight CVF "roles" are, from the top right in Figure 1, as follows:

- (1) The *innovator role*: concerns searching for innovation and improvements, solving problems in creative ways, and envisioning needed changes.
- (2) The *broker role*: concerns exerting upward influence, acquiring needed resources, and spanning boundaries between the organization and its environment.
- (3) The *producer role*: concerns getting the work done, focusing on customer needs, and sustaining an achievement orientation.
- (4) The *director role*: concerns designing a course of action, clarifying priorities; and communicating the organizations goals.
- (5) The *coordinator role*: involves bringing a sense of order into the workplace and ensuring that organizational processes run smoothly and efficiently.
- (6) The *monitor role*: involves collect information, ascertaining progress, and holding regular reviews of various kinds.
- (7) The *facilitator role*: involves teambuilding engendering cohesion and consensus, and managing interpersonal conflicts.
- (8) The *mentor role*: involves individual capacity building, listening empathically to others' concerns, and treating each staff member in a caring way.

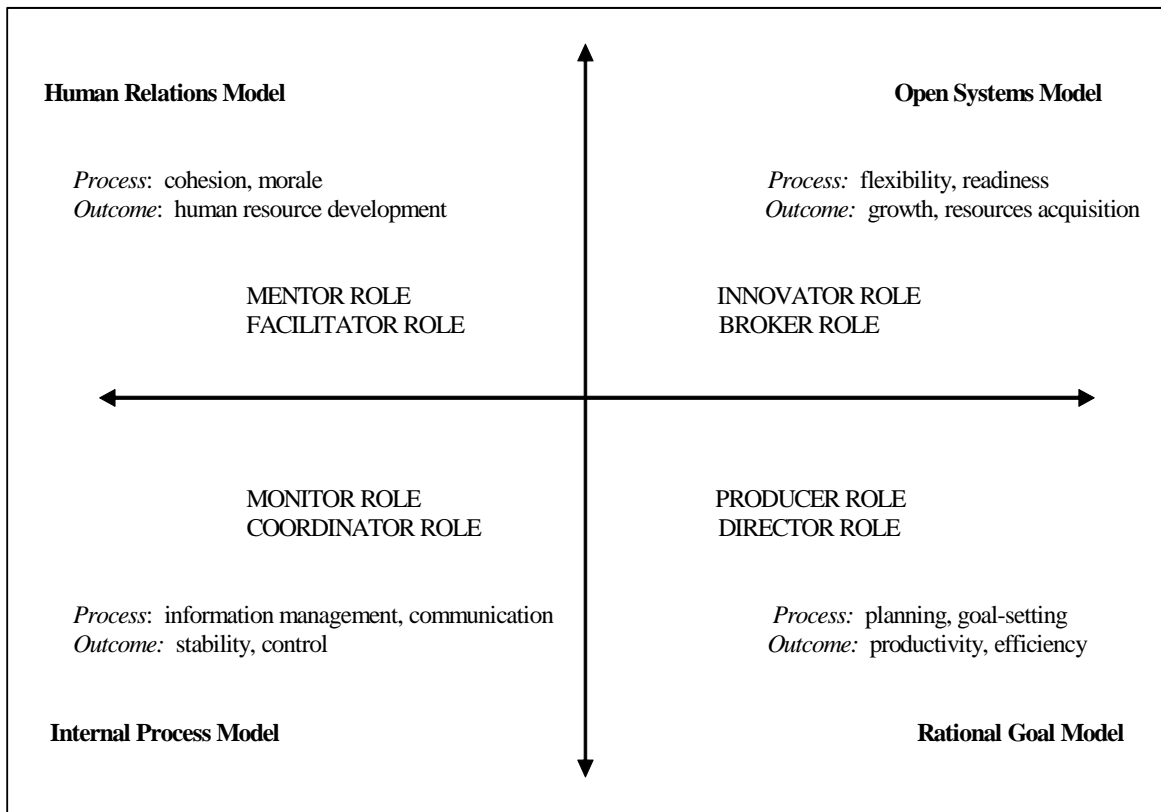


Figure 1. Competing Values Framework: Organizational effectiveness and leadership roles

In the vernacular of the Competing Values Framework, the multi-step process that Quinn and his associates (2007) label “becoming a master manager” entails 1) recognizing that there are, in fact, multiple roles to be played (referred to as “cognitive complexity”); 2) acquiring the requisite skills associated with the roles (called “behavioral complexity”); and 3) enacting appropriate roles contingent upon the situation (known as “behavioral differentiation”) and in a value-maximizing way (alluded to variously as “interpenetration,” “synergy,” and “ever-increasing integrity”).

**Application of the Competing Values Framework to Educational Settings**

Largely developed with for-profit organizations in mind, the CVF has been more often and more completely applied in college and university settings. Within K-12 contexts, the framework has recently inspired empirical studies of school effectiveness (Barath, 1999; Griffin, 2003); but, at present, accounts of how the CVF might be applied to the phenomenon of principal effectiveness have been

suggestive only (Davies & Coates, 2005). Perhaps the most pertinent example concerns a nationwide study conducted in the United Kingdom and entitled *Leading Schools in Times of Change* (Day, Harris, & Hadfield, 1999; Day, Harris, Hadfield, Tolley, Beresford, 2000). Therein, researchers associated with the National College of School Leadership (NCSL) explicitly noted how their findings concerning highly effective school “headship” seemed to mirror the structure and dynamics of the Competing Values Framework, which fact prompted them to offer that “it is worth examining further the ‘competing values theoretical framework’ . . . for much may be applied to current and future educational contexts” (p. 168). However, in these same researchers’ more recent review of the literature on *Successful School Leadership: What It Is and How It Influences Pupil Learning* (Leithwood, Day, Sammons, Harris, & Hopkins, 2006), the CVF is at best employed as an organizing device, albeit with different labels applied to its four quadrants: namely, “building vision and setting directions” substituted for the CVF’s *rational goal model*; “understanding and developing people” replacing the CVF’s *human relations model*; “redesigning the organization” taking the place of the CVF’s *open systems model*; and “managing the teaching and learning program” serving as the proxy for the CVF’s *internal process model* (see Table 1 for parallels between the 2006 and 2000 NCSL statements).

#### ***Item Development and Content Validation of the LEAD Instrument***

Given the perceived usefulness of the CVF in studying school leadership but the absence of an appropriate instrument, recent statements of educational leadership standards (Bottoms & O’Neill, 2001; Council of Chief School Officers, 1996; National Association of Secondary School Principals, 2004) as well as present and past reviews of research (Cotton, 2003, Hallinger & Heck, 1997; Leithwood, Day, Sammons, Hopkins, & Harris, 2006; Leithwood, Louis, Anderson, & Walstrom, 2004; Marzano, Waters, & McNulty, 2005) were consulted to determine specific behaviors that aligned with the four quadrants of the CVF and the leadership roles within them. From these documents, a pool of items was developed by doctoral students and faculty members within the Department of Instruction and Curriculum Leadership, College of Education, University of Memphis. To secure content validity, these items were subsequently reviewed by a panel of school principals and professors of educational leadership who were familiar not only with the principal effectiveness literature but also with the CVF

itself. Subsequent to this content validity assessment, the items were tested for structural validity by placing the individual items on cards, submitting the cards to a panel of teachers, and asking the panel to sort related items into eight stacks of eight cards. Without prior knowledge of either the CVF or its roles, the panel correctly grouped six out of eight items per role, for an average “hit” rate of 75%. For the remaining 25% that were incorrectly grouped, items that were identified with a CVF role within the same quadrant were merely edited for greater clarity. However, more erratically-grouped items were discarded, alternative effectiveness behaviors were identified, and different items were written to these alternatives.

Table 1

*Structural and thematic parallels between Leithwood et al. (2006) and Day et al. (2000)*

Leithwood et al., 2006	Day et al., 2000
<p><b>Building vision and setting directions.</b> This category of practices carries the bulk of the effort to motivate leaders' colleagues. It is about the establishment of shared purpose as a basic stimulant for one's work. The more specific practices in this category are building a shared vision, fostering the acceptance of group goals and demonstrating high-performance expectations.</p>	<p><b>Rational goal model.</b> In this quadrant, the primary emphasis is on the pursuit and attainment of well-defined objectives; Herein, norms and values are associated with productivity, performance, goal fulfillment, and achievement. Motivations are competition and successful achievement of predetermined ends. Cultural dimensions which reflect this model are: <i>vision</i> – a concern with clearly defining where the organization is heading; <i>emphasis on quality: pressure to produce</i> – where employees feel pressured to meet targets and deadlines; and <i>performance feedback</i> – where clear feedback is available about job performance.</p>
<p><b>Understanding and developing people.</b> While practices in this category make a significant contribution to motivation, their primary aim is building not only the knowledge and skills that teachers and other staff need in order to accomplish organizational goals but also the dispositions (commitment, capacity and resilience) to persist in applying the knowledge and skills. The more specific practices in this category are providing individualized support and consideration, fostering intellectual stimulation, and modeling appropriate values and behaviours.</p>	<p><b>Human relations model.</b> In this CVF quadrant, the primary emphasis is on norms and values associated with belonging, trust and participation. Motivational factors are attachment, cohesiveness and group membership. Cultural dimensions linked to this are: <i>concern for employee welfare</i> –the extent to which employees feel valued and trusted; <i>autonomy</i> – designing jobs in ways which give employees wide scope to enact work; <i>emphasis on training</i> – a concern with developing employee skills; and <i>supervisory support</i>.</p>
<p><b>Redesigning the organization.</b> The specific practices included in this category are concerned with establishing work conditions which, for example, allow teachers to make the most of their motivations, commitments and capacities. School leadership practices explain significant variations in teachers' beliefs about and responses to their working conditions. Specific practices are building collaborative cultures, restructuring and re-culturing the organization, building productive relations with parents and the community, and connecting the school to its wider environment.</p>	<p><b>Open systems model.</b> In this CVF quadrant, the primary emphasis is on change and innovation. Herein, norms and values are associated with growth, resource acquisition and adaptation. Motivational factors are growth, variety, and stimulation. Cultural dimensions which reflect this orientation are: <i>outward forms</i> – where the organization is attuned to the external environment; <i>flexibility; innovation and reviewing objectives</i> – a concern with reviewing and reflecting upon progress in order to improve.</p>
<p><b>Managing the teaching and learning program.</b> As with redesigning the organization, the specific practices included in this category aim to create productive working conditions for teachers, in this case by fostering organizational stability and strengthening the school's infrastructure. Specific practices are staffing the teaching program, providing teaching support, monitoring school activity and buffering staff against distractions from their work.</p>	<p><b>Internal process model.</b> In this CVF quadrant, the emphasis is on, stability, internal organization and adherence to rules. Herein, norms and values are associated with efficiency, co-ordination and uniformity. Motivating factors are needs for security, order and rules and regulations. Scales which reflect this model are: <i>formalization</i> – a concern with formal (often written) rules and procedures; <i>efficiency</i>; and <i>tradition</i> – a concern with maintaining existing policies, practices and procedures.</p>

## School Observation Measure (SOM)

The SOM was developed to determine the extent to which different common and alternative teaching practices are used throughout an entire school (Ross, Smith, & Alberg, 1999). The standard or *multi-class SOM* procedure involves observers' visiting 10-12 randomly selected classrooms, for 15 minutes each, during a three-hour visitation period. The procedure used for the initial study involved randomly visiting all FTL classrooms in schools with 3 or more FTL classes. The observer examined classroom events and activities descriptively, not judgmentally. Notes were taken relative to the use or nonuse of 24 target strategies. The notes form also contained two global items that use a three-point scale (low, moderate, high) to rate, respectively, the use of academically-focused instructional time and the degree of student attention and interest.

*Targeted* observations were conducted to examine classroom instruction during prearranged 45- to 60-minute sessions in which randomly selected FTL teachers implemented a prepared lesson that integrated the use of laptops. Notes forms were completed every 15 minutes of the lesson and were then summarized on a SOM Data Summary Form.

To ensure the reliability of data, observers received a manual providing definitions of terms, examples and explanations of the target strategies, and a description of procedures for completing the instrument. The target strategies include traditional practices (e.g., direct instruction and independent seatwork) and alternative, predominately student-centered methods associated with educational reforms (e.g., cooperative learning, project-based learning, inquiry, discussion, using technology as a learning tool). The strategies were identified through surveys and discussions involving policy makers, researchers, administrators, and teachers, as those most useful in providing indicators of schools' instructional philosophies and implementations of commonly used reform designs (Ross, Smith, Alberg, & Lowther, 2001).

After receiving the manual and instruction in a group session, each observer participated in sufficient classroom-based practice exercises to ensure that his/her data were comparable with those of experienced observers. In a 2004 reliability study reported by Sterbinsky, Ross, and Burk, observer

ratings were within one category for 96% of the multi-class observations and for 91% of the targeted observations.

## Survey of Computer Use (SCU)

A companion instrument to SOM is the Survey of Computer Use (SCU) (Lowther & Ross, 2001). The SCU was completed as part of the SOM observation sessions, during which SCU data were also recorded in 15-minute intervals and then summarized on an overall data form. The SCU was designed to capture exclusively *student* access to, ability with, and use of computers rather than teacher use of technology by recording four types of data: (a) computer capacity and currency, (b) configuration, (c) student computer ability and (d) student activities while using computers. Computer capacity and currency is defined as the age and type of computers available for student use and whether or not Internet access was available. Configuration refers to the number of students working at each computer (e.g., alone, in pairs, in small groups). Student computer ability was assessed by recording the number of students who were computer literate (i.e., easily used software features/menus) and the number of students who easily used the keyboard.

The second section of the SCU focuses on student use of computers with regard to: the types of activities, the subject areas of activities, and the software being used. The computer activities are divided into four categories based on the type of software tool: production tools, Internet/research tools, educational software, and testing software. Within each category, primary types of software are identified. For example, under Production Tools, the software includes: word processing, databases, spreadsheets, draw/paint/graphics, presentation (e.g., PowerPoint®), authoring (e.g., KidPix®), concept mapping (e.g., Inspiration), and planning (MS Project®). For the Internet/Research Tools, three types of software are included: Internet browser, CD reference materials, and communications (e.g., email, listservs, and chat rooms). The Educational Software category also has three types of software: drill/practice/tutorial, problem-solving (e.g., Riverdeep™) and process tools (e.g., Author's Toolkit™). Testing Software has individualized/tracked (Accelerated Reader™) and generic types. With this type of recording system, several activities can be noted during the observation of one student working on a computer. For example, if a student gathered data from the Internet, created a graph from the data, and then imported the graph into a PowerPoint presentation, the observer would

record three types of software tools as being observed: Internet browser, spreadsheet, and presentation.

This section of the SCU ends by identifying the subject area of each computer activity. The categories include: language arts, mathematics, science, social studies, other, and none. The computer activities and software being used are summarized and recorded using a five-point rubric that ranges from (0) Not Observed to (4) Extensively observed. The final section of the SCU is an "Overall Rubric" designed to assess the degree to which the activity reflects "meaningful use" of computers as a *tool* to enhance learning. The rubric has four levels: 1 – Low-level use of computers, 2 – Somewhat meaningful, 3 – Meaningful, and 4 - Very meaningful. Reliability data for the SCU (Sterbinsky & Burke, 2004) show that observer ratings were within one category for 97% of the multi-class observations and for 91% of the targeted observations.

## DATA COLLECTION

The data collection procedures for the two primary data sources used for this study were: 1) Leadership Effectiveness Assessment Device (*LEAD*) survey and 2) extant SOM and SCU data are described below.

*LEAD Survey.* Information regarding online completion of the *LEAD* survey was distributed via email to the FTL Lead Teachers, who then distributed the information to FTL teachers at his or her school. The information included a brief introduction and overview of the *LEAD* survey, instructions for completing the online survey, the URL for the survey, and the school-specific ID and Password needed to access and submit the survey. The Lead Teachers were contacted beginning February 2008.

### *Extant SOM and SCU Data.*

Data from SOM and SCU multi-class observations was used to derive implementation levels for each school. The multi-class observations were used to capture routine classroom practices that typically occur on a regular basis in FTL classrooms. Therefore, this type of observation involves an extended timeframe (3 hours) in which multiple FTL classrooms in one school were randomly observed. For instance, one multi-class observation consisted of an observer spending 3 hours in an FTL school conducting 15-minute observations in up to 10 randomly selected FTL classrooms. At the

conclusion of the 3 hours, the observer records the frequency with which the various instructional practices were observed.

The 2005-2006 FTL evaluation data was used to determine the implementation level for each of the 86 schools for which multi-class observations were conducted. The SOM and SCU data represent classroom practices that were observed in 599 FTL classrooms. The data was extracted from CREP's Enterprise Class Relational Database and transferred to SPSS for data analysis.

## RESULTS

The results of the study are presented below by measurement strategy. In the Conclusion section, findings are synthesized across instruments to address achievement of FTL program goals. Regardless of design employed, Effect Sizes (*ES*) were computed using Cohen's *d* formula (Cohen, 1988) to determine the educational importance of differences. An *ES* indicates the number of standard deviations by which the "treatment" group surpasses the "control" group. According to Cohen, an *ES* having an absolute value greater than 0.25 is considered educationally important.

### LEAD Survey Results

Statistical procedures were utilized to answer each of the research questions and are described as follows:

***Question 1: What was the composition of the responding FTL sample by schools and respondents within schools as Classroom Teachers, Lead Teachers, or "Other"?***

According to a summary of the data taken directly from the Internet survey service provider, some 173 respondents at 61 different FTL schools (one school unidentified) accessed the online FTL Leadership questionnaire. At about half of the schools ( $n = 30$ ), only one person accessed the questionnaire (49.1%). Within the remaining 49.9% ( $n = 31$ ), two persons responded at 13 schools (21.3%), and between three and 25 persons responded at 18 schools (29.5%). At these 18 schools, the median number of respondents was five.

Subsequent to the initial contact, progressively fewer of the initial pool of 173 responded to the remaining demographic questions. To the question about the role played in FTL by the respondent, four persons gave no answer. Of the 169 respondents remaining, 93 identified themselves as Classroom Teachers (55.0%), 64 as Lead Teachers (37.9%), and the remaining 12 as "Other" (7.1%). Included among these "other" respondents were self-described counselors ( $n = 2$ ), librarians/media specialists ( $n = 1$ ), technical directors ( $n = 1$ ), administrators or administrative staff ( $n = 3$ ), and classroom and lead teachers ( $n = 5$ ) who appeared to have played multiple roles in the implementation. When these "other" respondents were combined with the group that they seemed

most to resemble, the ratio of Classroom Teachers ( $n = 93$ ) to Lead Teachers/Others ( $n = 76$ ) approximated 55% to 45% for the group of 169 respondents to this question.

Providing some indication that these two groups went on to complete the *LEAD* at comparable rates, a breakout of the 124 *LEAD* “completers” revealed that some 66 of them identified themselves as FTL Classroom Teachers (53.2%), while the remaining 58 (46.8%) identified themselves as either FTL Lead Teachers ( $n = 50$ ) or some Other Respondent ( $n = 8$ ).

**Question 2: How did the respondents rate the effectiveness of FTL implementation at their schools, both in the aggregate and by the role played by the respondent?**

In replying to the critical question about the effectiveness with which the FTL program was implemented, only 23 of the 169 respondents (13.6%) rated the implementation as “ineffective” in any sense, while the remaining respondents believed the program to have been implemented effectively to some degree: 43 persons (25.4%) as “somewhat effectively,” 67 persons (39.6%) as “largely effectively” and 36 persons (21.6%) as “very effectively.” Among the 124 respondents who completed the *LEAD*, only 16 respondents (12.9%) rated the FTL implementation as “ineffective” to any degree, most of the remaining respondents perceiving it to have been implemented either “somewhat effectively” ( $n = 29$ , 23.4%) , “largely effectively” ( $n = 50$ , 40.3%), or “very effectively ( $n = 29$ , 23.4%).

For both the larger group of 169 respondents and the subset of 124 respondents who completed the *LEAD*, Table 2 provides a breakdown of the FTL implementation effectiveness ratings by type of respondent, categorized as being one of a group of Classroom Teachers or a group of Lead Teachers/Others.

Table 2

*Frequency of FTL Implementation Effectiveness Ratings by Type of Respondent*

FTL Implementation Effectiveness Ratings	Classroom Teachers ( $n = 93$ )		Lead Teachers/ Others ( $n = 76$ )		Classroom Teachers ( $n = 66$ )		Lead Teachers/ Others ( $n = 58$ )	
	All Respondents ( $N = 169$ )				<i>LEAD</i> Completers ( $N = 124$ )			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Ineffectively	17	18.3	6	7.9	10	15.2	6	10.3
Somewhat Effectively	25	26.9	18	23.7	15	22.7	14	24.1
Largely Effectively	31	33.3	36	47.4	24	36.4	26	44.8
Very Effectively	20	21.5	16	21.1	17	25.8	12	20.7

Because the respondents' single-item assessment of FTL implementation effectiveness represents an *ordinal* measure, the Mann-Whitney *U* Test, a non-parametric analog of the independent *t*-test, was used to determine whether Classroom Teachers or Lead Teachers/Others differed in their implementation effectiveness ratings based on "mean ranks." The results of these tests indicated that, for neither the larger group of 169 ( $U = 3078, Z = -1.520, p = .131$ ) nor the smaller group of 124 LEAD "completers" 169 ( $U = 1891, Z = -.121, p = .904$ ), did the responses of Classroom Teachers (*Median* = 5.00 for both  $n = 93$  and  $n = 66$ ) and Lead Teachers/Others (*Median* = 5.00 for both  $n = 76, n = 58$ ) differ from one another. Statistics pertinent to these computations are provided in Table 3.

Table 3

*Mean Rank FTL Implementation Effectiveness Ratings by Types of Respondents within Groups of Respondents*

Classroom Teachers			Lead Teachers/ Others			Classroom Teachers			Lead Teachers/ Others		
All Respondents (N = 169)						LEAD Completers (N = 124)					
<i>n</i>	Mean Rank	Sum of Ranks	<i>n</i>	Mean Rank	Sum of Ranks	<i>n</i>	Mean Rank	Sum of Ranks	<i>n</i>	Mean Rank	Sum of Ranks
93	80.1	7449.00	76	91.0	6916.00	66	62.2	4102.00	58	62.9	3648.00

**Question 3: To what extent did the effectiveness ratings of administrators seen as most responsible for leading the FTL implementation—Principal, Assistant Principal, or “Other Administrator”—differ by a) the type of the respondent providing the rating, b) the kind of administrator being rated, and c) combinations of these variables?**

Regarding the administrator considered to be most responsible for leading the FTL implementation, slightly more than half of the 160 respondents to this question ( $n = 84$ ) said the Principal (52.5%), an additional six respondents said the Assistant Principal (3.5%), and the remaining 70 respondents said some “Other Administrator” (43.8%). Within this group of 70, described as some Other Administrator were 28 technical “advisors,” “directors,” “consultants,” “coordinators,” or “administrators” (40%); nine “curriculum directors” and “instructional specialists” (12.8%); five “librarians” or “media specialists” (7.1%); five “superintendents” (7.1%); and five “past administrators” (7.1%). Of the remaining 26% of Other Administrators, Lead Teachers were mentioned seven times (10%), a classroom teacher or several classroom teachers six times (8.6%), and “no one” or “no

administrator in particular” four times (5.7%). In roughly 2% of all cases, no textual description was offered for the Other Administrator.

Among the 124 respondents who completed the *LEAD*, similar percentages were observed. For *LEAD* “completers,” 69 indicated the Principal (55.6%), six (4.8%) indicated the Assistant Principal, and 49 (39.5%) indicated some Other Administrator. Of these 49 Other Administrators, about 80% were as previously categorized for the larger group of 160, with the remaining 20% categorized as Lead Teachers, Classroom Teachers, or either “no administrator” or some administrator whose exact position was not described. For both the larger group of 160 Respondents and the subset of 124 respondents completing the *LEAD*, Table 4 provides a breakdown of the target administrator—either Principal/Assistant Principal or Other Administrator—by type of respondent rater.

Table 4

*FTL Administrator Seen as Most Responsible for Leading the Implementation by Type of Rater*

Administrator Most Responsible for Leading the Implementation	Classroom Teachers (n = 87)		Lead Teachers/ Others (n = 73)		Classroom Teachers (n = 66)		Lead Teachers/ Others (n = 58)	
	All Respondents (N = 160)				<i>LEAD</i> Completers (N = 124)			
	n	%	n	%	n	%	n	%
Principal/ Assistant Principal	49	56.3	41	56.1	40	60.6	35	60.3
Other Administrator	38	43.7	32	43.9	26	39.4	23	39.7

*FTL Implementation Effectiveness Ratings Compared by Type of Rater*

For the 87 Classroom Teachers within larger group of 160, there was no significant difference among the 87 Classroom Teachers in FTL implementation effectiveness ratings by type of administrator, whether Principal/Assistant Principal (n = 49, *Median* = 5.00) or Other Administrator (n = 38, *Median* = 5.00) ( $U = 883.5, Z = -.421, p = .647$ ). The same was true among the 66 Classroom Teachers within the smaller group of 124 *LEAD* “completers” with respect to the implementation effectiveness ratings of Principals/Assistant Principals (n = 40, *Median* = 5.00) and Other Administrators (n = 26, *Median* = 5.00) ( $U = 497.5, Z = -.307, p = .759$ ).

However, the results varied slightly for the 73 Lead Teachers/Others in the larger group of 160 versus those found for the 58 Lead Teachers/Others in the group of 124 LEAD “completers.” While there was no difference found in FTL “mean rank” administrator effectiveness ratings for the latter, smaller group of 58 ( $n = 35$ ,  $Median = 5.00$ ;  $n = 23$ ;  $Median = 5.00$ ;  $U = 324.5$ ,  $Z = 1.316$ ,  $p = .188$ ), a marginal difference emerged that favored Other Administrators when Lead Teachers/Others’ ratings of FTL implementation effectiveness were compared by the type of administrator ( $n = 41$ ,  $Median = 5.00$ ;  $n = 32$ ;  $Median = 5.00$ ;  $U = 478.5$ ,  $Z = -2.109$ ,  $p < .05$ ). As can be seen in Table 5, within which statistics pertinent to these computations are presented, Lead Teachers/Others in the group of all 160 respondents tended to rate as more effective Other Administrators (Mean Rank = 42.55) as opposed to Principals/Assistant Principals (Mean Rank = 32.67).

Table 5

*Mean Rank FTL Implementation Effectiveness Ratings for Leaders Seen as Most Responsible for the Implementation by Type of Respondent, within Groups of Respondents*

Administrator Most Responsible for Leading the Implementation	Classroom Teachers ( $n = 87$ )			Lead Teachers/Others ( $n = 73$ )			Classroom Teachers ( $n = 66$ )			Lead Teachers/Others ( $n = 58$ )		
	All Respondents (N = 160)						LEAD Completers (N = 124)					
	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>
Principal/Assistant Principal	49	44.97	2203.50	41	32.67	1339.50	40	34.06	1362.50	35	27.27	954.50
Other Administrator	38	42.75	1642.50	32	42.55	1361.50	26	32.63	848.50	23	32.89	756.50

*FTL Implementation Effectiveness Ratings Compared by Kind of Administrator Rated*

Irrespective of the type of the respondent, Mann-Whitney  $U$  tests also suggested that there was no difference in the FTL implementation effectiveness ratings by the kind of administrator perceived as being the most responsible for leading the FTL implementation (Table 6). For the larger group of 160, the “mean rank” of the FTL effectiveness ratings of the 90 Principals/Assistant Principals ( $Median = 5.00$ ) proved to be no different from that of the 70 Other Administrators ( $Median = 5.00$ ) who were rated ( $U = 2296$ ,  $Z = .915$ ,  $p = .360$ ). Similar results were obtained with respect to the 75 Principals/Assistant Principals ( $Median = 5.00$ ) and 49 Other Administrators ( $Median = 5.00$ ) whose effectiveness in leading the FTL implementation was rated by the 124 LEAD “completers” ( $U = 1721$ ,  $Z = .622$ ,  $p = .534$ ).

Table 6

*Mean Rank FTL Implementation Effectiveness Ratings by Types of Leaders within Groups of Respondents*

Principals/Assistant Principals			Other Administrators			Principals/Assistant Principals			Other Administrators		
All Respondents (N = 160)						LEAD Completers (N = 124)					
<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>
90	77.68	6991.00	70	84.13	5889.00	75	60.95	4571.50	49	64.87	3178.50

*FTL Implementation Effectiveness Ratings Compared by Type of Rater and Kind of Administrator Rated*

When the type of respondent (as Classroom Teacher or Lead Teacher/Others) was *crossed* with the kind of implementation leader rated (as either Principal/Assistant Principal or Other Administrator), four subgroups within the two groups were created (Table 7). Among the larger group of 160, no statistically significant differences were observed among the subgroups of 49 Classroom Teachers rating Principal/Assistant Principals (30.6%), 38 classroom teachers rating Other Administrators (22.8%), 41 Lead Teachers/Others rating Principals/Assistant Principals (25.6%), and 32 Lead Teachers/Others rating Other Administrators (20.0%), using a non-parametric Analysis of Variance (ANOVA) called the Kruskal-Wallis *H* test ( $\chi^2(3) = 5.45, p = .143$ ). Likewise, among the smaller sample of 124 LEAD “completers,” the Kruskal-Wallis *H* test revealed no statistically significant difference in implementation effectiveness ratings ( $\chi^2(3) = 1.775, p = .620$ ) among the four comparably-sized subgroups of 40 Classroom Teachers rating Principal/Assistant Principals (32.3%), 26 classroom teachers rating Other Administrators (20.0%), 35 Lead Teachers/Others rating Principals/Assistant Principals (28.2%), and 23 Lead Teachers/Others rating other administrators (18.5%), Statistics pertinent to these analyses are provided in Table 7.

Table 7

*Mean Rank Comparisons of FTL Implementation Effectiveness Ratings Crossed by Two Types of Raters and Two Types of Leaders Seen as Most Responsible*

Adminsitrator Most Responsible for Leading the Implementation	Classroom Teachers (n = 87)			Lead Teachers/ Others (n = 73)			Classroom Teachers (n = 66)			Lead Teachers/ Others (n = 58)		
	All Respondents (N = 160)						LEAD Completers (N = 124)					
	n	%	Mean Rank	n	%	Mean Rank	n	%	Mean Rank	n	%	Mean Rank
Principal/ Assistant Principal	49	30.6	78.85	41	25.6	76.28	40	32.3	63.34	35	28.2	58.23
Other Administrator	38	22.8	73.82	32	20.0	96.38	26	20.0	60.33	23	18.5	70.00

**Question 4: To what extent did respondent ratings as to the perceived size of the role played by the leader differ a) the type of the respondent providing the rating, b) the kind of administrator being rated, and c) combinations of these variables?**

With respect to the size of the role played by the administrator leading the implementation, some 35 respondents in the group of 160 respondents (21.9%) offered that the leader had played only a “small” role to “almost no” role, an additional 38 respondents said the leader played a “moderate” role (23.8%), 39 more (24.4.%) perceived the leader’s role to be “large,” and a somewhat larger group of 48 respondents (30%) declared that the leader had played a “very large” role. As with the percentages of 124 respondents who completed the entire instrument and rated implementation effectiveness, similar percentages of LEAD “completers” rated the time invested by the leader in a manner similar to larger group of 160: 28 (22.6%) offering that the leader had played only a “small” role to “almost no” role, 31 (25%) saying that the leader’s role was “moderate,” an additional 31 (25%) perceiving the leader to have played a “large” role, and 34 (27.4%) describing the leader’s role as “very large.”

For both the larger group of 160 respondents and the subset of 124 respondents who completed the LEAD, Table 8 provides a breakdown by size of the role that the leader played in the FTL implementation. Frequencies are presented for Classroom Teachers and Lead Teachers/Others.

Table 8

*Frequencies of the Size of the Leader's Role Played in FTL Implementation by Type of Respondent*

Size of the Leader's Role In FTL Implementation	Classroom Teachers ( <i>n</i> = 87)		Lead Teachers/ Others ( <i>n</i> = 73)		Classroom Teachers ( <i>n</i> = 66)		Lead Teachers/ Others ( <i>n</i> = 58)	
	All Respondents ( <i>N</i> = 160)				LEAD Completers ( <i>N</i> = 124)			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Small to No role	16	18.4	19	26.0	11	16.7	17	29.3
Moderate Role	26	29.9	12	16.4	20	30.3	11	19.0
Large Role	17	19.5	22	30.1	16	24.2	15	25.9
Very Large Role	28	32.2	20	27.4	19	28.8	15	25.9

*Size of the Administrator's Role in Leading the FTL Implementation Compared by Type of Rater*

Again, because respondents' single-item ratings of the size of the leader's role in implementing FTL are considered *ordinal* measures, a combination of the non-parametric analogs to the independent *t*-test (the Mann-Whitney *U* test) and the Analysis of Variance (the Kruskal-Wallis *H* test) were employed to assess group differences by FTL rater (Classroom Teacher and Lead Teacher/Other), FTL target (FTL Principals/Assistant Principals and Other Administrators) and the four combinations of rater and target.

As shown in Table 9, with respect to the larger group of 160 respondents, the responses of the 87 Classroom Teachers (*Median* = 5.00) and the 73 responses of Lead Teachers/Others (*Median* = 5.00) were homogeneous with respect to the leader's role size ( $U = 3078, Z = -.344, p = .741$ ). The same was true of the 66 Classroom Teachers (*Median* = 5.00) and 58 Lead Teachers/Others (*Median* = 5.00) in the smaller group of 124 LEAD "completers" ( $U = 1744, Z = -.875, p = .382$ ).

Table 9

*Mean Rank Comparisons of the Size of the Leader's Role in FTL Implementation Effectiveness Ratings by Types of Raters*

Classroom Teachers			Lead Teachers/ Others			Classroom Teachers			Lead Teachers/ Others		
All Respondents ( <i>N</i> = 160)						LEAD Completers ( <i>N</i> = 124)					
<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>
87	81.62	7101.00	73	79.16	5779.00	66	65.08	4295.00	58	59.57	3455.00

*Size of the Administrator's Role in Leading the FTL Implementation Compared by Kind of Administrator Rated*

The type of the respondent, notwithstanding, the perceived size of the role played in the implementation by the kind of administrator as Principal/Assistant Principal or Other Administrator differed markedly for all 160 respondents as well as the subset of 124 LEAD “completers.” For the former, larger group, the “mean rank” of the 90 Principals/Assistant Principals (*Median* = 4.00) appeared to be significantly smaller than that observed for the 70 Other Administrators rated (*Median* = 5.00) ( $U = 2143, Z = -3.565, p < .001$ ). Likewise, for the group of 124 LEAD “completers,” the leadership role played by the 75 Principals/Assistants (*Median* = 4.00) as reflected in their “mean rank” statistic, appeared to be significantly smaller than the comparable figure for 49 Other Administrators (*Median* = 5.00) ( $U = 1307.5, Z = -2.784, p < .01$ ). Statistics employed in computing these tests are provided in Table 10.

Table 10

*Mean Rank Comparisons of the Size of the Leader's role in FTL Implementation Effectiveness Ratings by Types of Administrators within Groups of Respondents*

Principals/Assistant Principals			Other Administrators			Principals/Assistant Principals			Other Administrators		
All Respondents (N = 160)						LEAD Completers (N = 124)					
<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>	<i>n</i>	<i>Mean Rank</i>	<i>Sum of Ranks</i>
90	69.31	6238.00	70	94.88	6642.00	75	55.43	4157.50	49	73.32	3292.50

As was done with implementation effectiveness ratings, respondents were grouped into four cells *crossed* by the type of rater and the kind of administrator rated, and Kruskal-Wallis  $H$  tests were conducted to determine differences between the four subgroups in terms of their perceptions of the size of the FTL leader's role. For the group of 160 respondents as well as for the group of 124 respondents, both these analyses indicated highly significant between-group differences ( $\chi^2(3) = 15.815, p < .001$ ;  $\chi^2(3) = 10.773, p < .05$ , respectively); but in following up on these results using a series of Mann-Whitney  $U$  tests (at  $p < .008$ ), which of the four subgroups differed varied slightly. With respect to the group of all 160 respondents, the subgroups of (1) 49 Classrooms Teachers rating Principals/Assistant Principals as well as (3) 41 Lead Teachers/Others rating Principals/Assistant

Principals was significantly lower than those of (4) 32 Lead Teachers/Others rating Other Administrators ( $U = 509.0, Z = -2.753, p = .006$ ;  $U = 336.5, Z = -3.652, p < .001$ , respectively). With respect to the group of 124 LEAD completers, only the subgroup of (3) 35 Lead Teachers/Others rating Principals/Assistant Principals was significantly lower than from those of (4) 23 Lead Teachers/Others rating Other Administrators ( $U = 231.0, Z = -2.788, p = .005$ ). Given in Table 11 are statistics pertinent to these analyses.

Table 11

*Mean Rank Comparisons of the Size of the Leader's Role Crossed by Two Types of Raters and Two Types of Leaders Seen as Most Responsible*

Adminsitrator Most Responsible for Leading the Implementation	Classroom Teachers ( $n = 87$ )			Lead Teachers/ Others ( $n = 73$ )			Classroom Teachers ( $n = 66$ )			Lead Teachers/ Others ( $n = 58$ )		
	All Respondents (N = 160)						LEAD Completers (N = 124)					
	<i>n</i>	%	<i>Mean Rank</i>	<i>n</i>	%	<i>Mean Rank</i>	<i>n</i>	%	<i>Mean Rank</i>	<i>n</i>	%	<i>Mean Rank</i>
Principal/ Assistant Principal	49	30.6	78.85	41	25.6	76.28	40	32.3	63.34	35	28.2	58.23
Other Administrator	38	22.8	73.82	32	20.0	96.38	26	20.0	60.33	23	18.5	70.00

**Question 5: To what extent were respondent ratings as to the implementation effectiveness of FTL associated with the perceived size of the role played by the leader according to the role of the respondent, type of administrator being rated, and combinations of these variables?**

As suggested in the scatter plots following (Figure 2), whether or not an FTL questionnaire respondent had completed the LEAD, the Spearman correlation between his or her rating of implementation effectiveness and his or her perception of the size of the leader's role was largely the same in terms of both direction and magnitude, specifically ( $\rho = 0.41, p < .001$ ).

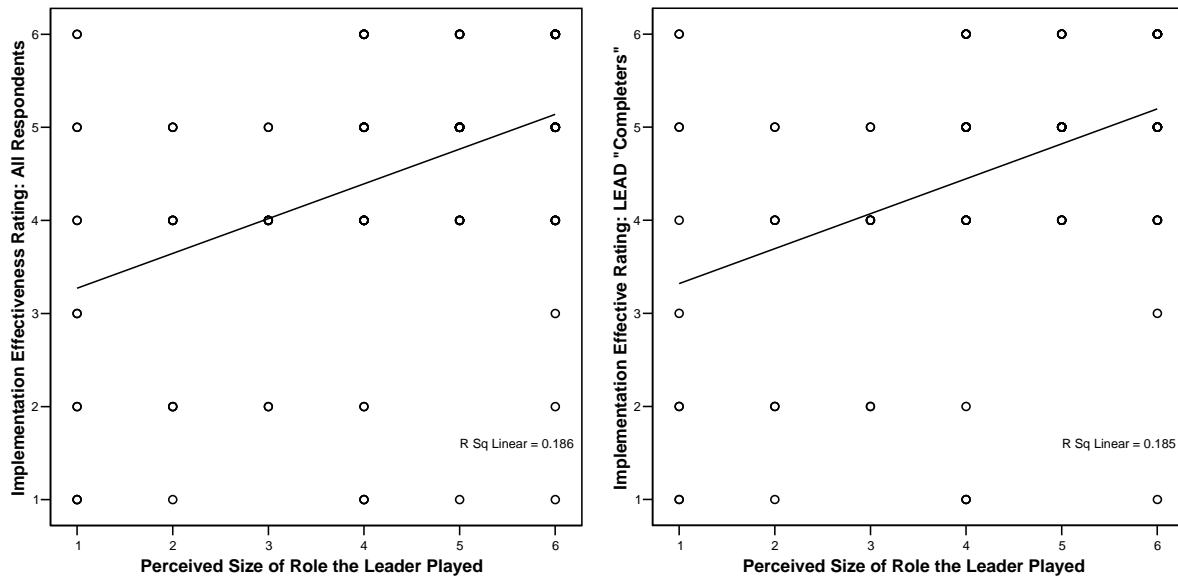


Figure 2. Scatter plots of the relationship between FTL respondents' implementation effectiveness ratings and their perceptions of the size of the role played by the leader ( $N = 160$ ,  $n = 124$ , respectively).

Among the 160 respondents who had implementation effectiveness ratings and assessed the size of the leader's role, the strength of the correlation differed somewhat when the responses of 87 Classroom Teachers ( $\rho = 0.346$ ,  $p < .001$ ) and those of 76 Lead Teachers/Other Administrators ( $\rho = 0.507$ ,  $p < .001$ ) were examined separately. Conversely, when these 160 paired ratings were subdivided by the target of the ratings, there was minimal difference in the strength of relationship when the leader being rated was a Principal/Assistant Principal ( $n = 90$ ,  $\rho = 0.397$ ,  $p < .001$ ) or some Other Administrator ( $n = 70$ ,  $\rho = 0.398$ ,  $p < .001$ ).

For the 124 respondents who completed the *LEAD*, all of the observed correlations between perceived implementation effectiveness and the perceived size of leader's role were more homogeneous. When examined by the type of rater, the Spearman correlations between ratings of FTL implementation effectiveness and the perceived size of the role of the leader were not significantly different from one another when the responses of the 66 Classroom Teachers ( $\rho = 0.387$ ,  $p < .001$ ) and those of the 58 Lead Teachers/Others ( $\rho = 0.430$ ,  $p < .001$ ) were examined. Similarly, for this group of *LEAD* "completers," the Spearman correlations appeared to be largely homogeneous by the type of leader administrator rated: for the 75 completers who rated Principals/Assistant

Principals the observed Spearman correlation equaled 0.425,  $p < .001$ ; for the 49 completers who rated Other Administrators the observed Spearman correlation equaled 0.366,  $p < .01$ .

In crossing the type of rater with the leader being rated, more heterogeneity in the size of the correlations was observed. For the entire sample of 160 respondents, the strongest relationship between perceived implementation effectiveness and the perceived size of the leader's role was seen for 41 Lead Teachers/Others rating Principals/Assistant Principals ( $\rho = 0.555$ ,  $p < .001$ ), followed by 38 Classroom Teachers rating Other Administrators ( $\rho = 0.443$ ,  $p < .01$ ), 32 Lead Teachers/Others rating Other Administrators ( $\rho = 0.371$ ,  $p < .05$ ), and 49 Classroom Teachers rating Principals/Assistant Principals ( $\rho = 0.293$ ,  $p < .05$ ). For the group of 124 respondents completing the *LEAD*, the strongest relationship between perceived implementation effectiveness and the perceived size of the leader's role was seen for 35 Lead Teachers/Others rating Principals/Assistant Principals ( $\rho = 0.520$ ,  $p < .001$ ), followed by 26 Classroom Teachers rating Other Administrators ( $\rho = 0.480$ ,  $p < .01$ ). As contrasted with the larger group of 160, however, the order of magnitude for the observed Spearman correlations shifted for the remaining two subgroups among *LEAD* "completers." For 40 Classroom Teachers rating Principals/Assistant Principals, the Spearman correlation between the perceived effectiveness of the FTL implementation and size of the administrator's role equaled 0.348,  $p < .05$ . Interestingly, however, no significant relationship between the two variables was observed for the 23 Lead Teachers/Others who rated Other Administrators ( $\rho = 0.244$ ,  $p = .262$ ).

***Question 6: To what extent did respondent ratings on the eight LEAD scales differ across all FTL respondents and FTL respondent subgroups?***

A one-within, two-between "mixed" Multivariate Analysis of Variance (MANOVA) was used to test for differences in the 124 FTL respondent mean ratings on the eight *LEAD* scales. Apropos the means presented in Table 12, this "mixed" MANOVA design examines whether (1) the eight scale means differ on average across all 124 FTL respondents, (2) the eight scale means differ by the *rater* (either Classroom teachers or Lead Teacher/Others), (3) the eight scale means differ by the *target being rated* (either Principals/Assistant Principals or Others Administrators), and (4) the eight scale means differ by the four combinations of rater and target.

Table 12

*Means and standard deviations tested by the four-factor “mixed” MANOVA*

Scale	All (N = 124)		CT (n = 66)		LT (n = 58)		P/AP (n = 75)		OA (n = 49)		CT/P&AP (n = 40)		CT/OA (n = 26)		LT/P&AP (n = 23)		LT/OA (n = 58)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
	Producer	4.74	0.77	4.70	0.77	4.80	0.77	4.86	0.69	4.57	0.86	4.94	0.69	4.33	0.76	4.76	0.69	4.85
Director	4.54	0.90	4.49	0.86	4.61	0.94	4.78	0.77	4.19	0.96	4.87	0.70	3.90	0.75	4.67	0.85	4.51	1.08
Coordinator	4.76	0.87	4.70	0.82	4.82	0.93	4.80	0.84	4.70	0.92	4.88	0.80	4.43	0.80	4.70	0.90	5.01	0.96
Monitor	4.38	0.98	4.35	0.95	4.42	1.02	4.61	0.85	4.04	1.07	4.73	0.71	3.77	1.00	4.47	0.99	4.34	1.08
Faciliator	4.62	0.86	4.57	0.84	4.67	0.89	4.75	0.78	4.42	0.94	4.79	0.74	4.23	0.88	4.69	0.83	4.64	0.98
Mentor	4.38	0.91	4.34	0.86	4.42	0.96	4.49	0.85	4.20	0.97	4.59	0.80	3.96	0.81	4.38	0.90	4.48	1.07
Innovator	4.64	0.93	4.60	0.89	4.69	0.97	4.73	0.92	4.51	0.93	4.83	0.87	4.25	0.83	4.61	0.98	4.80	0.98
Broker	4.70	0.79	4.66	0.74	4.74	0.85	4.86	0.74	4.46	0.82	4.92	0.66	4.26	0.69	4.79	0.83	4.67	0.91
Overall	4.60	0.82	4.55	0.78	4.65	0.87	4.73	0.76	4.39	0.87	4.82	0.70	4.14	0.72	4.63	0.83	4.66	0.94

Scale: CT = Classroom Teacher; LT = Lead Teacher; P/AP = Principal/Assistant Principal; OA = Other Administrator

As detailed in the accompanying MANOVA table (Table 13), statistically significant multivariate differences—corrected for the heterogeneity of the variances for the eight item scales—were observed among the means on the eight *LEAD* scales across all respondents ( $F(5.7, 687.5) = 27.43, p < .001$ ) and in the pattern of the differences observed among the eight scale means across the two different types of administrators deemed most responsible for leading the FTL implementation ( $F(5.7, 687.5) = 7.54, p < .001$ ). In contrast, the eight *LEAD* scale means proved to be relatively homogeneous when considered by the two kinds of raters (the “two-way interaction” of the rater and the pattern of the eight scale mean differences) and by the four combinations of the kinds of raters and the types of leaders targeted by such ratings (the “three-way interaction” by the rater and by the target and the differences in the scale mean ratings).

Table 13

*Two-Between, One-Within Mixed MANOVA table by LEAD Scale Means, the Type of Rater, and the Kind of Target Rated*

	SS	df <sup>a</sup>	MS	F	p
LEAD Scale Roles	21.17	5.73	3.69	27.43	0.00
LEAD Roles X Rater	0.13	5.73	0.02	0.17	0.98
LEAD Roles X Target	5.82	5.73	1.02	7.54	0.00
LEAD Roles X Rater X Target	0.72	5.73	0.13	0.94	0.46
Error	92.63	687.53	0.13		

<sup>a</sup> Greenhouse-Geisser Correction.

*Analysis of the first significant effect: Differences among the eight scale means*

In comparing the scale means across all 124 respondents and using the original means and standard deviations, the most robust effect size differences were observed for the following contrasts, as seen in the accompanying Figure 3:

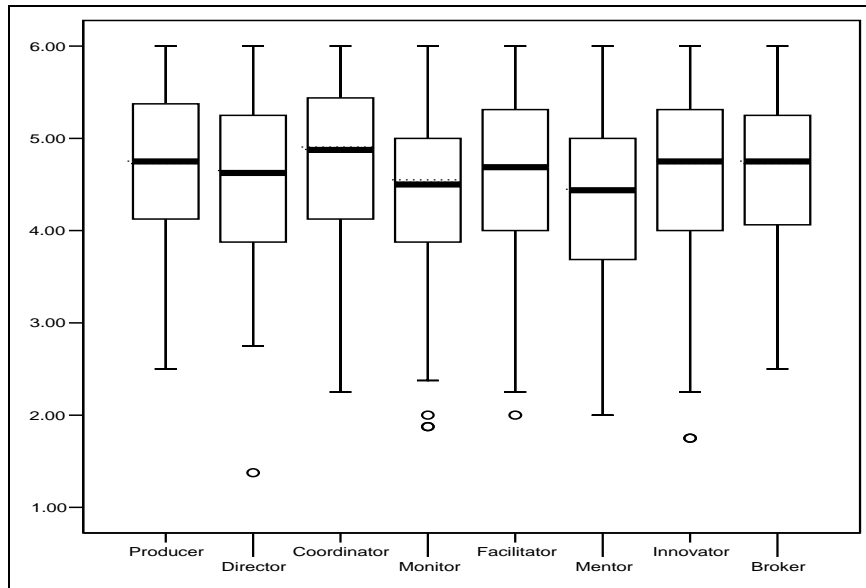


Figure 3. Plot of eight LEAD means for all FTL respondents (N = 124)

- (1) The **Producer** mean ( $M = 4.74$ ,  $SD = 0.77$ ) was observed to be substantially higher than two other scale means—specifically, the *Monitor* mean ( $M = 4.38$ ,  $SD = 0.98$ ,  $d = 0.41$ ) and the *Mentor* mean ( $M = 4.38$ ,  $SD = 0.91$ ,  $d = 0.43$ ).
- (2) Like the Producer mean, the **Coordinator** mean ( $M = 4.76$ ,  $SD = 0.87$ ) proved to be substantially higher than the both the *Monitor* mean ( $M = 4.38$ ,  $SD = 0.98$ ,  $d = 0.40$ ) and the *Mentor* mean ( $M = 4.38$ ,  $SD = 0.91$ ,  $d = 0.42$ ).
- (3) In addition to being lower than the Producer and Coordinator means, the **Monitor** mean ( $M = 4.38$ ,  $SD = 0.98$ ) was also substantially lower than the *Facilitator* mean ( $M = 4.62$ ,  $SD = 0.86$ ,  $d = -0.25$ ), the *Innovator* mean ( $M = 4.64$ ,  $SD = 0.93$ ,  $d = -0.27$ ), and the *Broker* mean ( $M = 4.70$ ,  $SD = 0.79$ ,  $d = -0.35$ ).
- (4) In its turn, the **Facilitator** mean ( $M = 4.62$ ,  $SD = 0.86$ ) appeared to be substantially higher than the *Mentor* mean ( $M = 4.38$ ,  $SD = 0.91$ ,  $d = 0.27$ ).
- (5) (5) Finally, apart from previously mentioned differences between it and the Producer, Coordinator, and Facilitator means, the **Mentor** mean ( $M = 4.38$ ,  $SD = 0.91$ ) appeared to be substantially lower than both the *Innovator* mean ( $M = 4.64$ ,  $SD = 0.93$ ,  $d = -0.28$ ) and the *Broker* mean ( $M = 4.70$ ,  $SD = 0.79$ ,  $d = -0.38$ ).

*Analysis of the second significant effect: Differences among the eight scale means*

In following up on the eight mean ratings of the 75 Principals/Assistants and 49 Other Administrators on the *LEAD*, a series of independent *t*-tests (at  $p < .006$ ) indicated that FTL Principals/Assistant Principals were perceived as having exercised three *LEAD* roles more than Other Administrators (Figure 4).

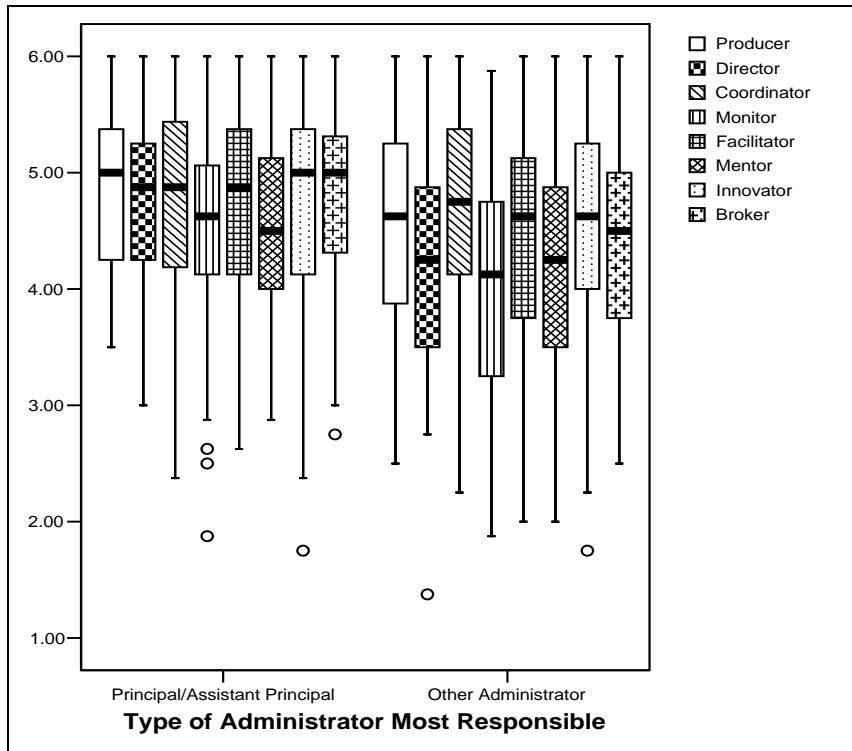


Figure 4. Plot of eight LEAD means by type of administrator perceived to be most responsible ( $n = 75$  for Principals/ Assistant Principals,  $n = 49$  for Other Administrators)

- (1) With means and standard deviations of  $M = 4.78$ ,  $SD = 0.77$  and  $M = 4.19$ ,  $SD = 0.96$ , respectively, Principals/ Assistant Principals tended to exercise the role of the **Director** more than their Other Administrative counterparts ( $t(122) = 3.77$ ,  $p < .000$ ,  $d = 0.69$ ).
- (2) As compared to Other Administrators ( $M = 4.04$ ,  $SD = 1.07$ ), Principals/Assistant Principals ( $M = 4.61$ ,  $SD = 0.85$ ) apparently tended to **Monitor** more thoroughly or more often ( $t(122) = 3.29$ ,  $p = .001$ ,  $d = 0.60$ ).
- (3) Finally, the results of the independent  $t$ -test ( $t(122) = 2.84$ ,  $p = .005$ ,  $d = 0.52$ ) suggested that FTL respondents found the **Broker** role to be on the whole more characteristic of Principals/Assistant Principals ( $M = 4.86$ ,  $SD = 0.74$ ) than Other Administrators ( $M = 4.46$ ,  $SD = 0.82$ ).

**Question 7: To what extent do respondent ratings of FTL implementation effectiveness correlate with the eight LEAD scales and the instrument as a whole?**

For the entire group of 124 FTL respondents, as well as for the four major respondent subgroups, Spearman rank correlations were run on the respondents' single-item assessment of FTL implementation effectiveness and means on the eight *LEAD* scales and FTL implementation effectiveness and the mean on the instrument as a whole. Across all 124 respondents, scores on the overall *LEAD* were moderately but highly significantly correlated with implementation effectiveness ratings ( $\rho = 0.36, p < .001$ ). As detailed in Table 14, individual *LEAD* scales were also statistically related to respondents' perceptions of FTL implementation effectiveness, with the *strongest* association observed between effectiveness ratings and the non-directive, collegial **Facilitator** role ( $\rho = 0.41, p < .001$ ) and the weakest association observed between effectiveness and its near-opposite, the **Director** role ( $\rho = 0.24, p < .01$ ).

With respect to the individual items constituting the **Facilitator** scale, the *strongest* Spearman correlation was seen between implementation effectiveness and the item "makes it easy for teachers to collaborate with one another" ( $\rho = 0.42, p < .001$ ). Contrastingly, with respect to the individual items constituting the **Director** scale, the *weakest* Spearman correlation was observed between implementation effectiveness and the item "specifies goals and objectives that guide teachers' planning and everyday practices" ( $\rho = -0.15, p < .10$ ).

Table 14

*Spearman correlations between FTL implementation effectiveness ratings and LEAD scale and total scores*

Group	Producer	Director	Coordinator	Monitor	Facilitator	Mentor	Innovator	Broker	Total
All Respondents	0.35 ***	0.24 **	0.35 ***	0.30 ***	0.41 ***	0.35 ***	0.35 ***	0.33 ***	0.36 ***
Classroom Teachers	0.34 **	0.29 *	0.41 ***	0.38 ***	0.48 ***	0.39 ***	0.43 ***	0.35 **	0.41 ***
Lead Teachers/ Others	0.37 **	0.19	0.27 *	0.21	0.35 **	0.31 *	0.26 *	0.30 *	0.30 *
Target: Principals/Assistants	0.28 *	0.21	0.30 **	0.23 *	0.32 **	0.30 **	0.30 **	0.34 **	0.30 **
Target: Other Administrators	0.46 ***	0.32 **	0.41 **	0.49 ***	0.57 ***	0.44 **	0.46 ***	0.34 **	0.46 ***

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

By *LEAD* scale, other individual items that correlated most strongly with implementation effectiveness were as follows:

- For the **Producer** scale, “insists that cognitively challenging work be required of all students” ( $\rho = 0.32, p < .001$ ).
- For the **Director** scale, “focuses the work of faculty committees and related organizations on school priorities” ( $\rho = 0.32, p < .001$ ).
- For the **Coordinator** scale, “is equitable and efficient in how school resources are managed” ( $\rho = 0.37, p < .001$ ).
- For the **Monitor** scale, “employs electronic tools to make school data management and analysis more efficient” ( $\rho = 0.37, p < .001$ ).
- For the **Mentor** scale, “secures training for faculty on subjects they’d like to learn more about” ( $\rho = 0.41, p < .001$ ).
- For the **Innovator** scale, a virtual tie between “encourages faculty to try out innovative instructional methods and techniques” ( $\rho = 0.33, p < .001$ ) and “uses brainstorming and related strategies to generate ideas and see new relationships” ( $\rho = 0.34, p < .001$ ).
- For the **Broker** scale, “is active in professional and civic organizations that influence decisions about schools” ( $\rho = 0.39, p < .001$ ).

For the other major breakouts of the data by subgroup, the *highest* correlations were observed between FTL implementation effectiveness and the **Facilitator** role for Classroom Teachers ( $\rho = 0.48, p < .001$ ), the **Producer** role for Lead Teachers/Others ( $\rho = 0.37, p < .001$ ), the **Broker** role for the target leader Principals/Assistant Principals, and the **Facilitator** role for the target leader Other Administrators ( $\rho = 0.57, p < .001$ ). Conversely, the *lowest* correlations were consistently observed between FTL implementation effectiveness and the **Director** role for Classroom Teachers ( $\rho = 0.29, p < .05$ ), for Lead Teachers/Others ( $\rho = 0.19, p = .15$ ), for the target leader Principals/Assistant Principals ( $\rho = 0.21, p = .26$ ), and, finally, for the target leader Other Administrator ( $\rho = 0.32, p < .01$ ).

Given the previously described relationship observed between FTL respondents' ratings of implementation effectiveness and the size of the role played by leader (specifically,  $\rho = 0.41$ ,  $p < .001$ ), Spearman correlations for the group as a whole, as well as for major respondent subgroups, were also obtained between the perceived size of the leader's role in FTL implementation, the eight *LEAD* scale roles, and the overall *LEAD* mean score. For all 124 FTL respondents, inspection of Table 15 reveals statistically significant relationships between role size, and the overall *LEAD* score, and all eight *LEAD* scale means. With a high of  $\rho = 0.50$ ,  $p < .001$  for Principals/Assistant Principals as the target rated, robust associations were consistently observed between the perceptions of all FTL subgroups and overall *LEAD* score, as well as between those perceptions and individual *LEAD* scale scores across the matrix of correlations.

Scatter plots depicting the relationships between FTL respondents' overall *LEAD* scores with their ratings of FTL implementation effectiveness and their sense of the size of the role played by the leader in implementing FTL are presented in Figure 5.

Table 15

*Spearman correlations between FTL respondents' perceived ratings of the size of the leader's role and LEAD scale and total scores*

Group	Producer	Director	Coordinator	Monitor	Facilitator	Mentor	Innovator	Broker	Total
All Respondents	0.34 ***	0.25 **	0.39 ***	0.31 ***	0.40 ***	0.37 ***	0.39 ***	0.32 ***	0.37 ***
Classroom Teachers	0.39 **	0.28 *	0.46 ***	0.40 ***	0.52 ***	0.46 ***	0.42 ***	0.41 ***	0.44 ***
Lead Teachers/ Others	0.31 *	0.23	0.32 *	0.24	0.31 *	0.31 *	0.35 **	0.25	0.31 *
Target: Principals/Assistants	0.43 ***	0.44 ***	0.47 ***	0.44 ***	0.51 ***	0.46 ***	0.50 ***	0.48 ***	0.50 ***
Target: Other Administrators	0.36 *	0.24	0.33 *	0.38 **	0.39 **	0.37 **	0.35 *	0.31 *	0.36 **

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

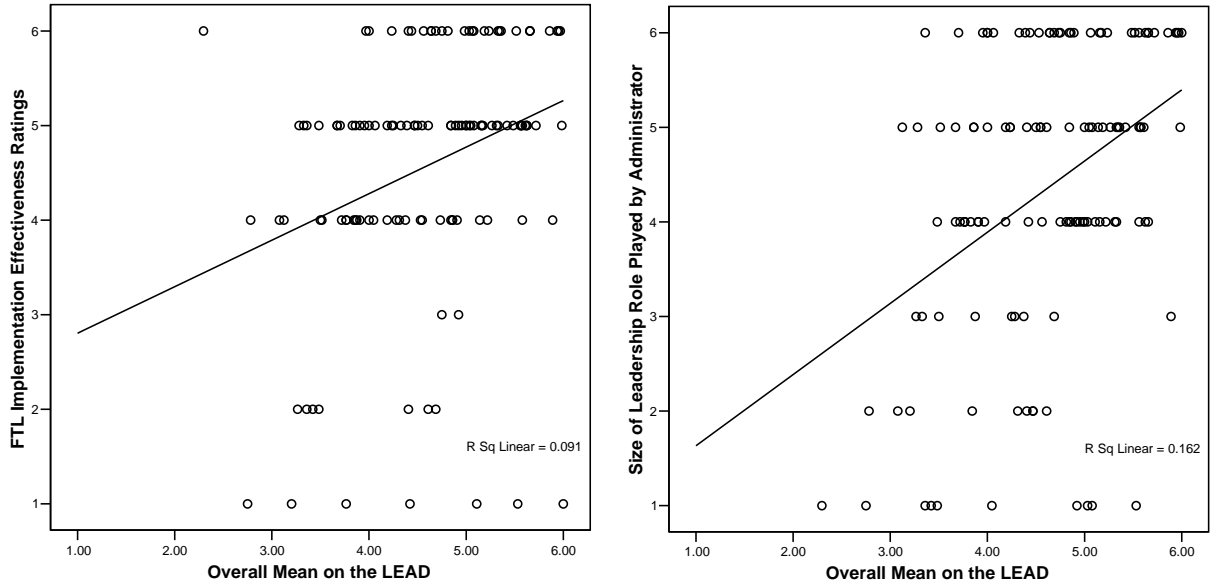


Figure 5. Scatter plots of the associations between the overall *LEAD* mean and FTL respondent ratings of implementation effectiveness and the perceived size of the role played by the leader in the implementation.

**Question 7: What differences exist among FTL subgroups and their scores on the overall LEAD?**

As an extension of Question 6, a univariate 2X2 Analysis of Variance (ANOVA) was conducted on the overall means obtained on the *LEAD*. Consistent with the results of the multivariate analysis, the univariate ANOVA, the results of which are shown in Table 16, suggested no differences in the perceptions of the 66 Classroom Teachers ( $M = 4.55$ ,  $SD = 0.779$ ) and 58 Lead Teachers/Others ( $M = 4.65$ ,  $SD = 0.867$ ), the two groups of raters ( $F(1, 120) = 1.36$ ,  $p = 0.25$ ). However, differences did emerge when the target of the raters—namely, the 75 Principals/Assistant Principals ( $M = 4.73$ ,  $SD = 0.762$ ) and 49 Other Administrators ( $M = 4.39$ ,  $SD = 0.866$ )—was introduced as a factor. As the ANOVA table shows, a significant difference emerged not only in the ratings of these two targets ( $F(1,120) = 4.98$ ,  $p < 0.05$ ) but also in the combination of raters by targets ( $F(1, 120) = 5.90$ ,  $p < .05$ ). In following up on this two-way interaction, the means pertinent to the four combinations of raters and targets were tested—specifically, 40 Classroom Teachers rating Principals/Assistant Principals ( $M = 4.81$ ,  $SD = 0.700$ ), 26 Classroom Teachers rating Other Administrators ( $M = 4.14$ ,  $SD = 0.722$ ), 35 Lead Teachers/Others rating Principals/Assistant Principals ( $M = 4.63$ ,  $SD = 0.826$ ), and 23 Lead Teachers/Others rating Other Administrators ( $M = 4.66$ ,  $SD =$

0.945)—and a single significant difference was found. All post hoc tests employed suggested that Classroom Teachers' ratings of the overall leadership of Principals/Assistant Principals were significantly higher than Classroom Teachers' ratings of Other Administrators ( $d = 0.89$ ).

Table 16

*ANOVA Summary Table of overall LEAD scores, by the Type of Rater, and the Kind of Target Rated*

	SS	df	MS	F	p
Rater	0.85	1	0.85	1.36	0.25
Target	3.11	1	3.11	4.98	0.03
Rater X Target	3.68	1	3.68	5.90	0.02
Error	74.96	120	0.62		

Scale	M (TN)	All Respondents (N = 124)				Principals/Assistant Principals (n = 75)				Other Administrators (n = 49)			
		M (MI)	SD (MI)	t	d	M (MI)	SD (MI)	t	d	M (MI)	SD (MI)	t	d
Producer	<b>4.97</b>	4.74	0.77	-3.22**	-0.29	4.86	0.69	-1.41	-0.16	4.57	0.86	-3.20**	-0.44
Director	<b>5.08</b>	4.54	0.90	-6.69***	-0.59	4.78	0.77	-3.43***	-0.39	4.19	0.96	-6.51***	-0.91
Coordinator	<b>4.95</b>	4.76	0.87	-2.52*	-0.22	4.80	0.84	-1.64	-0.19	4.70	0.92	-1.95	-0.27
Monitor	<b>4.87</b>	4.38	0.98	-5.55***	-0.49	4.61	0.85	-2.67**	-0.30	4.04	1.07	-5.47***	-0.76
Facilitator	<b>4.80</b>	4.62	0.86	-2.38*	-0.21	4.75	0.78	-0.61	-0.07	4.42	0.94	-2.82**	-0.39
Mentor	<b>4.77</b>	4.38	0.91	-4.79***	-0.43	4.49	0.85	-2.81**	-0.32	4.20	0.97	-4.08***	-0.57
Innovator	<b>4.94</b>	4.64	0.93	-3.61***	-0.32	4.73	0.92	-2.01*	-0.23	4.51	0.93	-3.26**	-0.45
Broker	<b>4.88</b>	4.70	0.79	-2.54*	-0.23	4.86	0.74	-0.259	-0.03	4.46	0.82	-3.64**	-0.51

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

**Question 8: What relationships between exist school-level scores on the Multi-Class SOM and SCU and FTL Respondent ratings of the implementation effectiveness of the initiative, the size of the role played by the leader, and leadership ratings on the LEAD?**

Data previously obtained at 87 FTL schools on the *Multi-Class School Observation Measure (SOM)* and the *Multi-Class Survey of Computer Use (SCU)* were merged with data derived from the present study that had been aggregated from the level of the individual FTL respondent and averaged

across FTL schools. When the different data files were merged, 40 different FTL school matches were found with respect to the *Multi-Class SOM* and the *Multi-Class SCU*. Within the subset of schools having *Multi-Class SCU* data, 28 schools had data on students' "basic" computer skills (that is, general computer literacy and keyboarding). For all three of these sets of FTL schools, means and standard deviations on the eight *LEAD* scales and the overall *LEAD*, respondent perceptions of FTL implementation effectiveness, and respondent perceptions of the size of the leader's role in implementing FTL were computed and correlations were observed between these measures and particular *Multi-Class SOM* and *Multi-Class SCU* items and item scales.

*Correlations with the Multi-Class School Observation Measure (SOM)*

For the set of 40 schools having in common *Multi-Class SOM* and *LEAD* data, descriptive statistics were as follows:

Table 17

*School Level Means for 40 FTL Schools on the Eight LEAD Scales, the LEAD Overall, Implementation Effectiveness, and the Size of the Leader's Role*

Scale	<i>M</i>	<i>SD</i>
Producer	4.68	0.63
Director	4.48	0.67
Coordinator	4.75	0.64
Monitor	4.29	0.79
Facilitator	4.55	0.66
Mentor	4.28	0.72
Innovator	4.53	0.65
Broker	4.60	0.62
Overall	4.52	0.61
Effectiveness	4.16	1.31
Role Size	4.02	1.26

Given the laptop computer's potential for "disrupting class", (Christensen, Horn, & Johnson, 2008), all *SOM* dimensions might have been chosen for further investigation. However, because the *SOM* does not provide the kind of textured information needed to be certain that the laptop computer was indeed used apropos particular instructional practices, only the two "low-inference" *SOM* items mentioning

computer use—specifically, “Computer for instructional delivery” ( $M = 1.25$ ,  $SD = 1.10$ ) and “Technology as a learning tool or resource” ( $M = 2.13$ ,  $SD = 1.11$ )—and the two SOM “quality control” items—namely, “High academically focused class time” ( $M = 3.38$ ,  $SD = 0.740$ ) and “High level of student attention/interest/engagement” ( $M = 3.10$ ,  $SD = 0.810$ )—were employed in subsequent analyses. Along with the four item means for the 40 schools, means and standard deviations were also computed for the composite of the two computer-usage items ( $M = 1.69$ ,  $SD = 0.774$ ), the composite of the two “quality control” items ( $M = 3.24$ ,  $SD = 0.725$ ), and the composite of the four items ( $M = 2.46$ ,  $SD = 0.627$ ).

Table 18

*Pearson Correlations between Ratings of FTL Implementation Effectiveness and the Size of the Leader’s Role with Selected SOM Items for 40 schools*

FTL Teachers' and Lead Teachers' Ratings	Computer for instructional delivery	Technology as a learning tool or resource	Computer Usage SOM Composite	High academically focused class time	High level of student attention/interest/engagement	Classroom Quality Control SOM Composite	Composite of Four SOM Items
Size of Leader's Role	0.20	0.24	0.32 **	0.06	0.29 *	0.19	0.31 *
Implementation Effectiveness	0.18	0.21	0.28 *	0.13	0.25	0.21	0.29 *

\*\* $p < .05$ , \* $p < .10$ , two-tailed.

As can be seen in the reduced correlation matrix above, the strongest correlation observed was for the Computer Usage SOM composite ( $r = .32$ ,  $p < .05$ ) and the perceived size of the leader’s role. However, also worthy of note is the correlation between perceived size of the leader’s role and “High levels of student engagement” ( $r = .29$ ,  $p < .10$ ) and the correlation between that variable and the Composite of Four SOM Items ( $r = .31$ ,  $p < .10$ ). Although FTL implementation effectiveness did not seem to correlate significantly with any of the individual SOM items, significant correlations were observed between it and the Computer Usage SOM Composite ( $r = .31$ ,  $p < .10$ ), as well as with the Composite of the Four SOM items ( $r = .29$ ,  $p < .10$ ).

When the reduced matrix of correlations involving LEAD scale and total scores is examined horizontally, the SOM item concerning “Computer for instructional delivery” can be seen to correlate positively with five of the LEAD roles—most strongly with the **Producer** ( $r = .37$ ,  $p < .05$ ), **Facilitator** ( $r$

= .34,  $p < .05$ ), and **Innovator** roles ( $r = .35, p < .05$ )—as well as with the overall *LEAD* ( $r = .31, p < .05$ ). Three *LEAD* scales evidence robust correlations with the *SOM* item concerning “High level of student attention/interest/engagement”, specifically, the **Producer** ( $r = .34, p < .05$ ), **Monitor** ( $r = .33, p < .05$ ), and **Innovator** ( $r = .35, p < .05$ ) roles. Although no significant relationships were observed between the *Director* and *Coordinator* roles and any of the *SOM* items or item composites, systematic relationships are observed for both the **Producer** and the **Innovator** roles, including correlations with the four-item *SOM* composite ( $r = .32, p < .05$  and  $r = .37, p < .05$  respectively).

Table 19

*Pearson Correlations between LEAD Scale and Total Scores with Selected SOM Items for 40 schools*

<i>SOM</i> Items	Producer	Director	Coordinator	Monitor	Facilitator	Mentor	Innovator	Broker	Total
Computer for instructional delivery	0.37 **	0.24	0.29 *	0.21	0.34 **	0.22	0.35 **	0.30 *	0.31 **
Technology as learning tool/resource	-0.02	-0.09	0.06	-0.02	-0.08	-0.02	0.09	-0.09	-0.02
Composite: Computer-Use Items	0.25	0.11	0.25	0.13	0.18	0.14	0.31 **	0.15	0.21
High academically focused class time	0.19	0.05	0.15	0.15	0.12	0.15	0.22	0.17	0.16
High level of student interest/engagement	0.34 **	0.12	0.26	0.33 **	0.26	0.20	0.35 **	0.26	0.29 *
Composite: Quality Control Items	0.29 *	0.09	0.22	0.26	0.20	0.19	0.30 **	0.23	0.25
Composite of Four <i>SOM</i> items	0.32 **	0.12	0.28 *	0.23	0.23	0.20	0.37 **	0.23	0.27 *

\*\* $p < .05$ , \* $p < .10$ , two-tailed.

*Correlations with the Multi-Class Survey of Computer Use (SCU)*

When school-level data from the present study were merged with data previously collected on the *Multi-Class Survey of Computer Use* and obtained at 87 FTL schools, a set of 40 matches were also observed. Of these 40 FTL schools, a subset of 28 FTL schools had additional *SCU* data on students’ “basic” computer literacy skills. At these 28 schools, descriptive statistics and correlations observed between data collected on the *LEAD*, FTL implementation effectiveness, and size of the leader’s role and relevant *SCU* items were as follows:

Table 20

*Pearson Correlations between LEAD Scale and Total Scores, FTL Teachers' Rating of Implementation Effectiveness and the Size of the Leader's role with SCU Items for 28 schools*

Scale	<i>M</i>	<i>SD</i>	Student computer literacy ( <i>M</i> = 2.71, <i>SD</i> = 0.46)	Student keyboarding ( <i>M</i> = 2.57, <i>SD</i> = 0.50)	Composite of "Basics" Items ( <i>M</i> = 2.64, <i>SD</i> = 0.45)
Producer	4.62	0.68	0.13	0.35 *	0.26
Director	4.43	0.73	0.08	0.24	0.18
Coordinator	4.74	0.66	0.19	0.36 *	0.30
Monitor	4.23	0.85	0.05	0.24	0.16
Facilitator	4.52	0.73	0.22	0.34 *	0.31
Mentor	4.21	0.80	0.35 *	0.53 ***	0.48 ***
Innovator	4.43	0.68	0.47 ***	0.53 ***	0.54 ***
Broker	4.55	0.69	0.27	0.40 **	0.37 *
LEAD	4.46	0.67	0.24	0.41 **	0.35 *
Effectiveness	4.12	1.34	0.51 ***	0.59 ***	0.59 ***
Role Size	3.99	1.28	-0.11	0.18	0.05

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .10$

Although teachers' sense of the size of FTL leader's role did not appear to be associated with any of these selected *SCU* items or the composite of these items, their sense of what FTL implementation effectiveness meant correlated both systematically and robustly with students' "computer literacy" ( $r = 0.51, p < .01$ ) and "keyboarding" skills ( $r = 0.59, p < .01$ ), and the composite (average) of these two items ( $r = 0.59, p < .01$ ). With respect to the *LEAD* scales, systematic and robust correlations were observed particularly between these *SCU* outcomes and the **Mentor** and **Innovator** roles. While the **Mentor** role was only modestly associated with students' "computer literacy" skills ( $r = 0.35, p < .10$ ), it correlated strongly with students' "keyboarding" skills ( $r = 0.53, p <$

.01) and the composite of the two *SCU* “computer basics” items ( $r = 0.48, p < .01$ ). Even more strongly associated with these *SCU* outcomes was the **Innovator** role. If the correlations observed in this study are generally indicative, a leader’s application of the behaviors associated with this role would minimally seem to reap dividends as regards students’ “computer literacy” ( $r = 0.47, p < .01$ ) and “keyboarding” skills ( $r = .53, p < .01$ ) and perhaps other aspects of their “general” computer use ( $r = 0.54, p < .01$ ). Largely because of these robust correlations between these two *LEAD* scales and the *SCU* items—abetted by a few other relationships observed apropos these items and the **Producer**, **Coordinator**, and **Broker** roles—the total *LEAD* score was observed to correlate especially with students’ “keyboarding skills” ( $r = 0.41, p < .05$ ) and modestly with the composite of the *SCU* “basic skills” items ( $r = 0.35, p < .10$ ).

At the 40 FTL schools with *SCU* scores on the Application, Internet, CAI, Testing scales, means were computed for each school by averaging the scores obtained across each of the constituent items. For the set of four *SCU* items concerning with the meaningfulness of the activities in terms of “critical thinking,” a weighted mean was computed by multiplying the observed score for meaningfulness by a factor of 1 for “low meaningful” through a factor of 4 for “very meaningful” and taking an average of the four weighted scores. For each of the 40 FTL schools, Pearson correlations were computed between scores on these five *SCU* scales and *LEAD* scale and total scores, FTL implementation effectiveness ratings, and the perceived size of the role of the leader in implementation.

Table 21

*Pearson Correlations between LEAD Scale and Total Scores, FTL Teachers' Rating of Implementation Effectiveness and the Size of the Leader's role with SCU Items for 40 schools*

Scale	<i>M</i>	<i>SD</i>	Application ( <i>M</i> = 0.31, <i>SD</i> = 0.22)	Internet ( <i>M</i> = 0.63, <i>SD</i> = 0.35)	CAI ( <i>M</i> = 0.21, <i>SD</i> = 0.27)	Testing ( <i>M</i> = 0.11, <i>SD</i> = 0.23)	Critical Thinking ( <i>M</i> = 3.48, <i>SD</i> = 1.89)
Producer	4.68	0.63	-0.11	0.07	0.24	0.24	-0.05
Director	4.48	0.67	-0.08	-0.11	0.22	0.28 *	-0.08
Coordinator	4.75	0.64	-0.01	0.11	0.13	0.21	-0.06
Monitor	4.29	0.79	-0.08	-0.07	0.16	0.25	0.06
Facilitator	4.55	0.66	-0.06	0.02	0.13	0.25	-0.06
Mentor	4.28	0.72	-0.06	0.01	0.21	0.32 **	-0.14
Innovator	4.53	0.65	-0.09	0.07	0.25	0.27 *	-0.07
Broker	4.60	0.62	-0.05	-0.02	0.22	0.37 **	-0.07
LEAD	4.52	0.61	-0.07	0.01	0.21	0.30 *	-0.06
Effectiveness	4.16	1.31	0.08	0.30 *	0.35 **	0.15	0.05
Role Size	4.02	1.26	0.08	0.10	0.22	0.09	0.25

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .10$

As Table 21 shows, few statistically significant correlations were observed overall. Two of the SCU scales appeared to be associated with respondent perceptions of FTL implementation effectiveness: use of the Internet ( $r = 0.30$ ,  $p < .10$ ) and use of CAI ( $r = 0.35$ ,  $p < .05$ ). Associated with four of the eight LEAD scales, as well as the overall LEAD ( $r = 0.30$ ,  $p < .10$ ), was the SCU scale concerning the use of Testing software: specifically, the **Director** ( $r = 0.28$ ,  $p < .10$ ), the **Mentor** ( $r = 0.32$ ,  $p < .05$ ), the **Innovator** ( $r = 0.27$ ,  $p < .10$ ), and the **Broker** ( $r = 0.37$ ,  $p < .05$ ) roles.

## Implications

The responses from the *LEAD* survey concerning how effectively the FTL program was implemented indicated that nearly two-thirds of the respondents (63.7%) found the FTL program to have been “largely” (40.3%) to “very” (23.4%) effectively implemented at their schools. In identifying which administrator played a key role in the FTL implementation, over 55% indicated the school Principal, approximately 5% indicated the Assistant Principal, and nearly 40% indicated Other Administrator. For the 124 respondents who completed the *LEAD* survey, there were consistent correlations between perceived implementation effectiveness, as measured by previously collected SCU and SOM data, and the perceived size of leader’s role.

For the entire group of survey completers, scores on the *LEAD* survey were moderately but significantly correlated with implementation effectiveness ratings and the following implications can be found in the study’s results:

- Overall, the FTL implementation was viewed as successful by a majority of responding constituents.
- Slightly more than half of the respondents viewed their principals as playing the key role as leaders in the FTL implementation.
- A significant percentage of the respondents viewed “others” (neither principals nor assistant principals) as playing the key role as leaders in the FTL implementation.
- While FTL implementation effectiveness did not correlate significantly with any of the individual School Observation Measure (*SOM*) items, as previously measured in the FTL implementation, some significant correlations were observed between the identified *LEAD* roles and the Computer Usage *SOM* Composite:
  - Positive correlations were found between five of the identified *LEAD* roles, and were most evident with the *Producer*, *Facilitator*, and *Innovator* roles, respectively.
  - The strongest correlation observed was for the Computer Usage *SOM* composite and the perceived size of the leader’s role.

- Also noteworthy was the correlation found between the perceived size of the leader's role and "High levels of student engagement", specifically in the *Producer*, *Monitor*, and *Innovator* roles.
- No significant relationships were observed between the *Director* and *Coordinator* roles with any of the *SOM* items or item composites.
- Student computer use (SCU) as previously measured in the FTL implementation was positively correlated with the identified leadership roles of *Mentor* and *Innovator*. These are leadership roles defined by personal interaction and risk-taking attributes, respectively.
- The strongest associations, as observed in *LEAD* survey results, were between effectiveness ratings and the non-directive, collegial *Facilitator* role; the weakest association observed was between implementation effectiveness and the *Facilitator* role's near-opposite, the *Director* role. The *Director* role is characterized mostly by emphasizing productivity and efficiency goals, and not creative solution-seeking.

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**Appendix**  
**Leadership Effectiveness Assessment Device (LEAD)**  
**For Freedom to Learn (FTL) Teachers and Lead Teachers**

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1. What role did you play in implementing the FTL program at your school?

- Classroom Teacher
- Lead Teacher
- Other (*please specify*) \_\_\_\_\_

2. In general, how effectively was the FTL program implemented at your school?

- Very effectively
- Largely effectively
- Somewhat effectively
- Somewhat ineffectively
- Largely ineffectively
- Very ineffectively

3. Who among of the following administrators was the **most** responsible for leading your school's implementation of the FTL program?

- Principal
- Assistant Principal
- Other (*please specify title*) \_\_\_\_\_

4. How large a role did this administrator play in supporting the implementation of the FTL program at your school?

- A very large role
- A large role
- A moderate role
- A small role
- A very small role
- Almost no role at all

## Rating Leadership Effectiveness

Presented below are sixty-four behaviors that are characteristic of highly effective school leaders. For the administrator you have chosen above, consider each behavior and indicate the degree to which it is characteristic of that administrator **with respect to implementing the FTL program**. The rating scale is as follows:

- 6 = Definitely Characteristic
- 5 = Mostly Characteristic
- 4 = Somewhat Characteristic
- 3 = Somewhat Uncharacteristic
- 2 = Mostly Uncharacteristic
- 1 = Definitely Uncharacteristic

KEY	STATEMENT	Degree to which behavior is characteristic
FA1	Shares his/her authority to make decisions on significant school issues.	6 5 4 3 2 1
FA2	Treats everyone in the school as if they were part of a community or family.	6 5 4 3 2 1
FA3	Respects diversity in peoples' backgrounds, experiences, and outlooks on life.	6 5 4 3 2 1
FA4	Fosters an environment where people feel valued and supported.	6 5 4 3 2 1
FA5	Establishes conditions that make it easy for teachers to collaborate with one another.	6 5 4 3 2 1
FA6	Hosts social gatherings that nurture good fellowship and build school morale.	6 5 4 3 2 1
FA7	Solicits faculty input before committing the school to a particular project or course of action.	6 5 4 3 2 1
FA8	Helps people who disagree settle their differences and find common ground.	6 5 4 3 2 1
ME1	Acquires books, videotapes, and other media that help teachers grow professionally.	6 5 4 3 2 1
ME2	Includes some form of staff development in nearly every faculty meeting.	6 5 4 3 2 1

KEY	STATEMENT	Degree to which behavior is characteristic
ME3	Assists novice teachers and incoming faculty with finding a mentor or collaborator.	6 5 4 3 2 1
ME4	Tutors and coaches individuals to strengthen their talents and abilities.	6 5 4 3 2 1
ME5	Commends individuals when they get more education in their chosen fields.	6 5 4 3 2 1
ME6	Secures training for faculty on subjects they would like to learn more about.	6 5 4 3 2 1

ME7	Provides one-on-one counseling and advice to help others deal with personal or professional issues.	6 5 4 3 2 1
ME8	Delegates important tasks and responsibilities to enhance others' capacity for leadership.	6 5 4 3 2 1
IN1	Encourages faculty to try out innovative instructional methods and techniques.	6 5 4 3 2 1
IN2	Brings up current educational research and opinion to stimulate teacher thought and reflection.	6 5 4 3 2 1
IN3	Supports the arts and other activities that enhance creativity.	6 5 4 3 2 1
IN4	Invests in computers and emerging technologies so their instructional potential can be explored.	6 5 4 3 2 1
IN5	Is open to non-traditional ways of designing curricula, delivering instruction, and assessing students.	6 5 4 3 2 1
IN6	Uses brainstorming and related strategies to generate ideas and see new relationships.	6 5 4 3 2 1
IN7	Appreciates expressions of originality and imagination.	6 5 4 3 2 1
IN8	Foresees a brighter future for the school and the students who attend it.	6 5 4 3 2 1
BR1	Pursues grants and other opportunities to get extra school funds and materials.	6 5 4 3 2 1
BR2	Cultivates partnerships with businesses, colleges, and community agencies to better meet school needs.	6 5 4 3 2 1
BR3	Conveys a positive impression of the school to those outside it.	6 5 4 3 2 1
KEY	STATEMENT	Degree to which behavior is characteristic
BR4	Draws parents into the educational process using different means and information channels.	6 5 4 3 2 1
BR5	Takes advantage of central office resources and expertise to advance the school's interests.	6 5 4 3 2 1
BR6	Networks with other school principals to overcome common problems and resource constraints.	6 5 4 3 2 1
BR7	Influences how other principals and administrators frame issues and make policy.	6 5 4 3 2 1
BR8	Takes part in professional and civic organizations that impact decisions about schools.	6 5 4 3 2 1
CO1	Protects instructional time from disturbances, interruptions, and distractions.	6 5 4 3 2 1
CO2	Keeps all of the school's day-to-day operations running smoothly.	6 5 4 3 2 1
CO3	Enforces school policies and procedures in a consistent, evenhanded way.	6 5 4 3 2 1

CO4	Maintains a school environment free of drugs, fighting, and violence.	6 5 4 3 2 1
CO5	Makes sure that school facilities and equipment are properly cared for.	6 5 4 3 2 1
CO6	Ensures that needed instructional tools and materials are continuously provided for.	6 5 4 3 2 1
CO7	Is efficient and equitable in how the school's resources are managed.	6 5 4 3 2 1
CO8	Handles disciplinary problems in a way that prevents their reoccurrence.	6 5 4 3 2 1
MO1	Examines students' test scores to assess school strengths and deficiencies.	6 5 4 3 2 1
MO2	Reviews teachers' lesson plans, assignments, and tests for their instructional value.	6 5 4 3 2 1
MO3	Evaluates teacher effectiveness based on multiple measures and kinds of criteria.	6 5 4 3 2 1
KEY	STATEMENT	Degree to which behavior is characteristic
MO4	Routinely tours the school's hallways and grounds to gauge its climate and functioning.	6 5 4 3 2 1
MO5	Employs computer-based tools to make school data management and analysis more efficient.	6 5 4 3 2 1
MO6	Conducts periodic classroom observations to monitor classroom activity.	6 5 4 3 2 1
MO7	Undertakes formal surveys and interviews to collect information about school-related matters.	6 5 4 3 2 1
MO8	Uses practitioner research and scholarly inquiry to inform school-based decisions	6 5 4 3 2 1
PR1	Concentrates everything the school does on attaining learner success.	6 5 4 3 2 1
PR2	Insists that cognitively challenging work be required of all students.	6 5 4 3 2 1
PR3	Urges students to compete in academically-oriented contests and events.	6 5 4 3 2 1
PR4	Calls for swift remediation of low-achievers to arrest further failure.	6 5 4 3 2 1
PR5	Promotes in- and out-of-school programs that push high-achievers scholastically.	6 5 4 3 2 1
PR6	Models hard work and dedication to educational excellence.	6 5 4 3 2 1
PR7	Confronts others when their performance is poor or their attitudes are counter-productive.	6 5 4 3 2 1

PR8	Celebrates gains in student proficiency and other “small wins” to inspire greater effort and achievement	6 5 4 3 2 1
DI1	Prescribes a plan that defines school priorities and how they will be enacted.	6 5 4 3 2 1
DI2	Specifies goals and objectives that guide teachers’ planning and everyday practices.	6 5 4 3 2 1
DI3	Updates the school’s goals and objectives in light of changed circumstances or fluctuations in student performance.	6 5 4 3 2 1

KEY	STATEMENT	Degree to which behavior is characteristic
DI4	Establishes and adheres to an agenda when conducting meetings and forums.	6 5 4 3 2 1
DI5	Transacts all schools business in a manner that is purposeful and to-the-point.	6 5 4 3 2 1
DI6	Makes clear to students the mission of the school and its expectations of them as learners.	6 5 4 3 2 1
DI7	Rejects or eliminates programs that are poorly aligned with the school’s priorities.	6 5 4 3 2 1
DI8	Ensures that the school’s priorities drive the work of faculty committees and other school organizations.	6 5 4 3 2 1

*NOTE:* Items were unlabelled and mixed when the questionnaire was originally administered.