Development of a Student Perceptions Instrument To Assess Contributions of the Learning Environment to the Enhancement of Student Learning in Higher Education Settings.

To ensure high quality courses and services at Louisiana State University Evening School (Baton Rouge), a program evaluation was designed to aid in decision making. The plan developed and initially implemented in 1991-92 represents a beginning effort in a continuous process of evaluation. The initial focus was on instruction. The object of this study was to explore students' perspectives of the program as a whole and to develop an instrument that can provide a large quantity of data that instructors can use to enhance students' learning. After a review of existing instruments, a 68-item Student Assessment of Teaching and Learning (SATL) was drafted and administered to an initial sample of 755 evening school students. Reliability and validity were studied, and various exploratory factor analyses were completed to examine the original content classification of SATL items. Results provide empirical support for the construct validity and reliability of the measure, which is a welcome alternative to usual student rating forms in that it focuses on teaching and learning higher order thinking skills. Results further suggest that student perceptions of the teaching and learning environment have little or no relationship to student beliefs about expected course grades. Implications for future use of the SATL are discussed. Six tables and one figure present study findings. The SATL is included. (SLD)
Development of a Student Perceptions Instrument to Assess Contributions of the Learning Environment to the Enhancement of Student Learning in Higher Education Settings

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Purpose

To ensure the high quality of credit courses/programs and services offered through the LSU Evening School, a program evaluation plan was designed to profile current performance and provide information for making decisions about programs, procedures, and policies. Such a plan for evaluation was seen as a necessary component of any program innovation, so that ownership of the evaluation is shared with stakeholders, both internal and external, and decisionmakers can make informed decisions. The effective planning and implementation of such an evaluation has the potential for increasing support for Evening School programs from both the academic community and external stakeholders.

The plan developed and initially implemented during 1991-92 represents a beginning effort in a continuous process of analyzing, planning, implementing, revising, and renewing the change effort to address new challenges. It is envisioned that this effort will help the division to prepare for the Southern Association of Colleges and Schools (SACS) accreditation visit and establish a process for continually improving performance which is data-based. The existence of such a process lets students, parents, faculty, staff, and business and community groups know that the quality of services and student learning is valued in the Evening School at LSU.

During the initial program evaluation efforts, a framework was developed to profile current performance relative to three broad domains: (1) Instruction, (2) Student Services, and
Administration. This long-range plan provided for data to be collected from a variety of data sources to reflect the multiple perspectives of students, faculty, staff, and the external community (See Figure 1.) Initial efforts during 1991-92 focused on the first domain, Instruction, and the development of an instrument to assess student perceptions of teaching which would provide specific, confidential feedback to instructors for faculty development purposes. Specifically, this report summarizes the results of developing and field testing an instrument in Evening School classes at LSU, to assess students’ perceptions of important teaching and learning environment variables in higher education contexts. This sensitivity to context is important in developing instruments to gather students’ perceptions to provide feedback for teaching enhancement, since students in continuing education classes are often non-traditional, adult learners. The focus of concern in this study is students’ perspectives of the program as a whole and the development of an instrument that can provide a large quantity of specific data that instructors can use to analyze their teaching and make modifications to enhance the learning of students in their courses. It is not an evaluation of individual instructors. The data collected in this study was used for planning purposes and to provide specific feedback to instructors for their use.

Of particular interest is the instrument focus on newer assessment concerns (e.g., teaching thinking skills) which are not addressed in other student perceptions measures. An important purpose of the study was to empirically test a response format which taps students’ perceptions of the extent to which their personal learning is enhanced by various research-based indicators of effective teaching and learning. The construct validity of the instrument and initial reliabilities were also empirically examined.
Figure 1: LSU Evening School Program Evaluation Model

To be answered by: ✦ SURVEYS
✦ INTERVIEWS
✦ OBSERVATION
✦ RECORDS
✦ REPORTS
Perspectives

The quality of undergraduate teaching and learning environments on college campuses is a recent national concern. The call to "reaffirm teaching as the university's primary task" is echoed by the Carnegie Foundation for the Advancement of Teaching in its proposal to redefine "scholarship" in ways that emphasize the importance of improving undergraduate teaching and learning environments. Literature reviews by Purtle (1982) and Aleamoni (1987) reveal that considerable evidence supports the use of student ratings as one data source in the assessment of course characteristics and the quality of instruction, particularly when such information is used for formative evaluation purposes. While some learning environment instruments have been developed for use in higher education settings (e.g., the College and University Classroom Environment Inventory (CUCEI), Fraser, Treagust, & Dennis, 1986), no measures are known that attempt to assess students' perceptions in higher education settings of the extent to which teaching and learning environment variables enhance learning, particularly in newer, important areas such as the development of higher order thinking skills. Fraser, Treagust, Williamson & Tobin (1987), citing the strong tradition of classroom environment research using student perceptions measures at the primary and secondary school levels, suggest that this research should form a basis for the development of classroom learning environment perceptions suitable for use in higher education contexts. Menges (1992) also recommends that researchers in teaching in higher education contexts look to the more advanced research base of effective teaching in elementary and secondary schools as a starting point in investigating teaching and learning in higher education classes. During the last ten years, much has been learned about important teaching behaviors and their contribution to student engagement and the enhancement
of student learning (Brophy, 1986; Porter & Brophy, 1988). Research in the study of learning environments has revealed that student outcomes in various educational settings depend to a large extent on the nature of the actual classroom environment (Fraser & Fisher, 1983; Fraser et al., 1987; Marcelo, 1990). Logan and Ellett (1988) suggest that even though higher education settings are somewhat different teaching and learning contexts than public school classrooms, it seems reasonable that the recent process product-research literature, literature on classroom learning environments and research on student learning, should provide an initial focus for the development of an instrument to measure effective teaching and learning environments in higher education contexts. In addition, the extent to which students’ learning is enhanced in higher education classroom contexts is an important assessment concern, from both formative and summative evaluation perspectives.

Methodology

**Literature Review:** Initially, some 30 different instruments targeting student evaluations of instruction and assessments of learning environments in higher education classes were reviewed as to content and response format. None of these instruments was found to have a primary focus on the actual processes and interactions of teaching and learning within the higher education classroom learning environment. With few exceptions, these instruments focused upon the evaluation of course content, activities, materials and/or personal characteristics of the instructor. Moreover, since students attending classes taught through the Evening School are composed largely of non-traditional, adult learners, a primary focus of this study was the development of a student perceptions measure that would provide specific feedback to professors as they worked to create courses which would take into consideration the special needs and concerns of adult learners.
An initial student perceptions assessment framework for use in higher education learning environments was developed for this study. Instrument contents were derived from a synthesis of literature, models and perceptions measures in the study of classroom learning environments (Moos, 1974; Fraser, Anderson & Walberg, 1987; Fraser & Fisher, 1983; Fraser et al., 1987, Ellett, Loup & Chauvin, 1991; Loup, Ellett & Chauvin, 1992) and from a synthesis of process-product research (Brophy, 1986) and review of large-scale teacher performance assessment instruments developed to evaluate teaching in public school contexts in Georgia, Florida, and Texas (Ellett, Garland & Logan, 1987) and more recent assessment concerns such as the teaching of thinking skills and learning equity reflected in the System for Teaching and Learning Assessment and Review (STAR) (Ellett, Loup & Chauvin, 1991). The resulting 68 item draft of a student perceptions measure, the Student Assessment of Teaching and Learning (SATL), was designed to assess the interactive nature of the classroom teaching and learning environment in higher education settings. A copy of the SATL is included in the appendix.

Assessment Domains: The initial draft of the 68 assessment items of the SATL consisted of indicators of effective teaching and learning grouped by four instrument categories:

I. Preparation and Classroom Management (11 indicators)
II. Interpersonal Skills (10 indicators)
III. Enhancement of Learning (24 indicators)
IV. Student Evaluation Practices (10 indicators)

The response format for each of these indicators was a three-point forced choice format: (1) Ineffective--does not positively enhance student learning, (2) Effective--for the most part, positively enhances student learning, and (3) Highly Effective--consistently enhances student
learning to a high degree. A SATL assessment indicator is a comprehensive statement of teaching and learning activity rather than a course characteristic or simple statement describing a teaching behavior.

Additionally, in a second part of the instrument (10 items) students were asked to rate the degree to which each type of learning (critical analysis and/or problem solving, creative thinking, learning factual information, etc.) is emphasized in the particular course. In a third part (3 items), students were asked to give an overall evaluation of the quality of teaching, the contribution of the course to their learning, and an overall course grade.

**Sample:** The original sample for this study consisted of 755 students enrolled in 34 LSU Evening School courses during the spring semester, 1992. Students in the sample were enrolled in classes in 12 different locations where Evening School courses are taught: Broadmoor High School, LSU main campus, Baton Rouge General School of Nursing, Sherwood Center, Alexandria, Eunice, Lake Charles, New Orleans, Plaquemine, Shreveport, Vicksburg, and West Monroe. A wide range of subject areas was represented, including English, French, history, mathematics, speech and communications, biology, finance, journalism, microbiology, philosophy, psychology, religion, sociology, Spanish, zoology, human ecology, kinesiology, educational administration, curriculum and instruction, economics, management, industrial engineering, petroleum engineering, art, library science, vocational education and experimental statistics. Courses were at all levels, 1000-5000 and 7000, and represented introductory level survey courses as well as doctoral-level special topics courses. Class sizes ranged from nine to 55 students.

**Data Collection:** An initial field trial of the SATL was completed during the spring of
1992 with a random sample of students in Evening School classes at LSU using a cross-section of courses which represent a wide variety of higher education contexts. One purpose of this field trial was to establish initial estimates of item and instrument category descriptive statistics and internal consistency reliabilities. A second purpose was to generate student perceptions data for examining construct validity characteristics using a series of exploratory factor analyses. The SATL was administered confidentially to students in class groups and required approximately 15 minutes to complete.

Classes were randomly selected within subject areas and locations to represent a wide variety of classroom contexts in the study. Instructors in the sample were contacted by letter and asked to cooperate in having their students complete the student perception instruments as part of a development effort to design a consistent student course/instructor perception instrument for Evening School courses. It was explained that the focus of the study was students' perspectives of the program as a whole and that the data would be used for planning purposes and to provide meaningful feedback to instructors. Class summaries were considered to be confidential and were not reported to academic departments.

Both the instrument and the process were piloted, and instructors were asked for their feedback as well as that of their students. An Instructor Input Sheet was included to gather information about the appropriateness and comprehensiveness of the items, the length of time required for administration, etc.

Instructors were asked to plan time (approximately 20 minutes) during the last two weeks of class, but not during the exam, for students to complete the task. Students were asked to complete the instrument, a demographic sheet, and a comment/response sheet, which asked for
comments about the instructor/course, the clarity of directions and items, appropriateness of items for this particular course, and any important aspects of teaching and learning that were not included in the instrument. Students were also asked to indicate how long it took them to complete the instrument.

Student perception instruments were distributed and returned by campus mail and U.S. mail. Follow-up calls were made to instructors after the end of the semester. Of the 34 classes in the original sample, 28 participated in the study, for a response rate of 82%. Two of the classes did not participate for extenuating circumstances. In one, the professor left at midterm and a graduate student was teaching the course; in another, the course had an unusual schedule and began and ended three weeks before the regular semester in order to accommodate the public schools involved in the program. In this class, students were gone before the instruments arrived.

In these 34 classes, 755 students were enrolled at the beginning of the semester. Demographic data in Table 1 indicate that a majority of students are female (67.2%) and majority of students are over the age of 25 (66.8%). Only 7.4% of students in the sample were of the traditional college age. Slightly more than one-half were enrolled in a degree program. Almost two-thirds were part-time students, and 47% had not taken a college course within one to three years of this semester. For more than 22% of the students in the sample, this was their first college course in 10 or more years. Data were collected from 380 students. Considering traditionally high withdrawal rates in continuing education courses, this number seems reasonable.

**Data Analyses:** A variety of data analyses were completed to examine the reliability and
construct validity characteristics of the SATL. These included:

1. Descriptive statistical summaries for each item (assessment indicator)
2. A variety of principal component, oblique and orthogonal factor analyses
3. Alpha reliability analyses for SATL (Parts I, II, III) subscale scores
4. Intercorrelations among SATL (Parts I, II, III) subscale scores
5. Intercorrelations among expected course grades and SATL (Parts I, II, III) items

Results

A variety of exploratory factor analyses were completed to examine the original content classification of SATL items into the four Assessment Domains. Results of a one-factor solution indicated that the 55 items comprising Assessment Domains I, II and III meaningfully loaded on a single factor (range of loadings = .38 to .83), with 46 of 55 loadings exceeding .60 (Table 2). This solution accounted for 45% of the total variation in the data. Subsequently, a series of oblique and orthogonal solutions extracting from two to ten factors was completed. For oblique solutions, a large number of items cross-loaded on more than one factor. Results of a four-factor, orthogonal solution best depicted the alignment of SATL indicators with the various Assessment Domains. Factor loadings for this solution ranged from .36 to .77 with 21 loadings at or exceeding .60 (Table 3). This solution accounted for 56.23% of the total variance in the data, with 12 of 55 indicators (items) cross-loading on more than one factor. Examination of cross-loadings suggested that more generic concepts related to student/teacher communications (e.g., clarity in directions, explanations and grading) tended to conceptually align with more than one SATL assessment domain. For the most part, the patterning of loadings confirmed the logical classification of indicators by domains and represented the best statistical and conceptual
fit with the original structure of the SATL.

Descriptive statistics for items and factored dimensions (domains/subscales) indicated that instructors received relatively consistent scores (80.7% to 86.4% of the maximum possible score) across SATL Assessment Domains (Table 4). Lowest percentages were noted for the Assessment Domain, Enhancement of Learning, which includes newer assessment concepts such as involving students in higher order thinking. Alpha reliability coefficients for each SATL Assessment Domain ranged from .89 (I: Preparation and Classroom Management) to .96 (III: Enhancement of Learning) (Table 5). Other alpha reliability coefficients were as follows: Interpersonal Skills, .91; Student Evaluation Practices, .93; Types of Learning, .90; and Overall Evaluation, .92. Intercorrelations among SATL subscales for the total sample of students ranged from .76 (p < .0001) (Enhancement of Learning and Interpersonal Skills) to .20 (p < .0001) (Student Evaluation Practices and Overall Evaluation). Intercorrelations between the SATL Overall Course Evaluation component and the four SATL domains (subscales) ranged from .20 (p < .0001) to .29 (p < .0001) (Table 6). Intercorrelations of students' perceptions of expected grades at both the beginning and conclusion of the course were typically negative, relatively moderate in magnitude, and not statistically significant.

Importance/Significance

The results of this study are important from four major perspectives. First, they provide empirical support for the construct validity and reliability of a new, comprehensive measure of students' perceptions of characteristics of teaching and learning environments in higher education settings, particularly in classes composed of non-traditional adult learners, which represent
different contexts within the higher education setting. The focus of the SATL on characteristics of teaching and the enhancement of learning makes it unique in the higher education learning environment assessment literature. While other student perceptions of learning environment characteristics for use in higher education settings have been developed (e.g., the CUCEI), these do not have as a central focus students' views of the extent to which research-based indicators of teaching and learning activities and learning environment variables enhance learning. The SATL is unique in this regard relative to its focus on teaching and learning higher order thinking skills, and it can provide important information for formative and summative evaluation purposes, and for future research and theory development in the study of learning environments in higher education. From an evaluation of teaching perspective, the SATL provides a rich alternative to the wide variety of student rating forms typically used in higher education settings that have a simpler and more narrow focus on instructor or course evaluations.

Secondly, the results suggest that students' perceptions of the teaching and learning environment as measured by the SATL have little or no relationship to students' beliefs about expected course grades at either the beginning or the end (after final examinations) of a course. This finding suggests that the SATL response format is relatively independent of such student expectations and calls into question past criticisms of the use of student perception measures to assess (evaluate) higher education classrooms. Thus, such student perceptions may be relatively free of the influence of halo and pitchfork effects associated with grades that are commonly believed to influence students' perceptions of the quality of teaching in higher education classrooms.

Third, the results showed that the SATL assessment indicators targeting the teaching,
development and learning of higher order thinking skills received the lowest ratings by students. These findings suggest that these higher education learning environments were not characterized by the teaching and learning of higher order cognitive skills, but instead were perceived by students as primarily focused on factual knowledge acquisition using traditional, receptive teaching and learning modes.

Finally, the results have implications for using the SATL in the future study of learning environment characteristics, and for conducting studies to establish systematic lines of inquiry and to develop more comprehensive theories of effective teaching and learning environments in higher education settings. Written comments solicited from students and instructors indicate that the SATL is easy to administer, clear, and adequately addresses important aspects of the course and instructor. It takes approximately 20 minutes to administer and yields useful summary data to instructors to analyze important aspects of teaching and learning.

Follow-up and Next Steps

Student perception data collected using the SATL were summarized for each instructor using the percentages of each response (highly effective in enhancing learning, effective in enhancing learning, ineffective in enhancing learning) for each assessment indicator, grouped by subscales. Computer printouts of SATL results were provided in a confidential manner to each instructor in the sample, along with procedures to follow in analyzing the results and reflecting upon changes that may be considered to enhance learning in their classes. No attempt was made to evaluate individual instructors.
In the fall of 1993, continued development of the SATL using all Evening School classes at LSU is recommended. Specifically, this next phase would involve the following:

(1) Assess all courses taught through the Evening School at the end of the fall 1992 and spring 1993 semesters to provide specific, confidential feedback to individual professors and to examine the strengths and weaknesses of program as a whole.

(2) For half of the students in each class, use a new, 5-point response format, which would allow for greater variation in item responses. Compare the results with those from the 3-point response format used with the remainder of the class.

(3) Develop a self-assessment version of the SATL and encourage instructors to assess themselves on a parallel version of the student perceptions instrument. Compare the self-assessment score and the mean score for the student perceptions instrument for each subscale and item.

(4) Observe a random sample of classes using the SATL and knowledgeable observers (developers). For these classes, triangulate the scores of the outside observer, students, and the instructor. Plan and conduct conferences with the instructor to share data for enhancement and to gain input into the observation process, usefulness of data, etc. from the instructor.

(5) Conduct a content verification survey of faculty about applicability to their teaching and learning context.

(6) Develop a technical administration manual to accompany the SATL.

In gathering data from instructors about their own teaching and students’ learning, a second perspective in the program evaluation model will be gained relative to the Instruction
domain (Instruction X Faculty) (Figure 1). This systematic gathering of data from a variety of perspectives related to key domains of the higher education learning environment, combined with the use of such data in a continuous cycle of analyzing, planning, implementing, and evaluating outcomes, has the potential to significantly impact educational opportunities for non-traditional learners in Evening School classes at LSU.
TABLE 1

Summary of Demographic Information for the Total Sample of SATL Respondents (n=339)

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex: Female</td>
<td>67.2</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>2. Age: Under 21</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>21 - 25</td>
</tr>
<tr>
<td></td>
<td>26 - 30</td>
</tr>
<tr>
<td></td>
<td>31 - 35</td>
</tr>
<tr>
<td></td>
<td>36 - 40</td>
</tr>
<tr>
<td></td>
<td>41 - 45</td>
</tr>
<tr>
<td></td>
<td>46 - 50</td>
</tr>
<tr>
<td></td>
<td>51 - 55</td>
</tr>
<tr>
<td></td>
<td>Over 55</td>
</tr>
<tr>
<td>3. Enrolled in a degree program:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>4. Present course part of degree program:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>5. Student Classification:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Freshman</td>
</tr>
<tr>
<td></td>
<td>Sophomore</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
</tr>
<tr>
<td>6. Intent to Enter Degree Program:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
7. **Full-Time student (9 hours +)**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.8</td>
<td>64.2</td>
</tr>
</tbody>
</table>

8. **Present or prior courses taken on LSU Campus:**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>76.8</td>
<td>23.2</td>
</tr>
</tbody>
</table>

9. **Prior courses taken in Continuing Education:**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.8</td>
<td>48.5</td>
</tr>
</tbody>
</table>

10. **Length of time since last college course:**

<table>
<thead>
<tr>
<th>1st course</th>
<th>1 - 3 years</th>
<th>4 - 9 years</th>
<th>10 or more years</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td>47.0</td>
<td>17.5</td>
<td>22.9</td>
</tr>
</tbody>
</table>

11. **Grade anticipated at beginning of semester:**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.6</td>
<td>39.5</td>
<td>11.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. **Grade anticipated at end of semester:**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5</td>
<td>38.6</td>
<td>12.9</td>
<td>1.4</td>
<td>0.7</td>
</tr>
</tbody>
</table>
## TABLE 2

Summary of SATL Indicators of Effective Teaching and Learning
Factor Pattern Loadings for a One-Factor Solution
for Each Assessment Domain (n=339)

<table>
<thead>
<tr>
<th>INDICATOR NUMBER</th>
<th>FACTOR PATTERN LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSESSMENT DOMAIN I: Preparation and Classroom Management</strong></td>
<td></td>
</tr>
<tr>
<td>1. Objectives for the course are clearly communicated.</td>
<td>.63</td>
</tr>
<tr>
<td>2. Objectives for each class are clearly communicated.</td>
<td>.65</td>
</tr>
<tr>
<td>3. Student responsibilities and expectations are clearly explained.</td>
<td>.62</td>
</tr>
<tr>
<td>4. The professor is well-prepared for class.</td>
<td>.58</td>
</tr>
<tr>
<td>5. Class starts and ends on time.</td>
<td>.38</td>
</tr>
<tr>
<td>6. Time during class is efficiently used for teaching and learning.</td>
<td>.60</td>
</tr>
<tr>
<td>7. The course activities over the semester are well-organized.</td>
<td>.64</td>
</tr>
<tr>
<td>8. Class activities help to achieve the objectives of the course.</td>
<td>.68</td>
</tr>
<tr>
<td>9. Assigned readings (textbook and/or other) are meaningful.</td>
<td>.57</td>
</tr>
<tr>
<td>10. Outside assignments help to achieve the course objectives and are integrated with class activities.</td>
<td>.57</td>
</tr>
<tr>
<td>11. Teaching and learning techniques motivate students to learn.</td>
<td>.79</td>
</tr>
<tr>
<td><strong>ASSESSMENT DOMAIN II: Interpersonal Skills</strong></td>
<td></td>
</tr>
<tr>
<td>12. The professor is enthusiastic about teaching this course.</td>
<td>.59</td>
</tr>
<tr>
<td>13. The professor is enthusiastic about students’ learning in this course.</td>
<td>.67</td>
</tr>
<tr>
<td>14. The professor maintains a climate conducive to learning.</td>
<td>.69</td>
</tr>
<tr>
<td>15. The professor relates the subject to everyday life.</td>
<td>.65</td>
</tr>
<tr>
<td>16. Students are encouraged to express their own ideas.</td>
<td>.59</td>
</tr>
<tr>
<td>17. Students are encouraged to participate in discussions.</td>
<td>.52</td>
</tr>
<tr>
<td>18. A climate of mutual courtesy and respect is maintained.</td>
<td>.69</td>
</tr>
<tr>
<td>19. The professor demonstrates interest in the progress of individual students.</td>
<td>.71</td>
</tr>
<tr>
<td>20. The professor is willing to provide outside help and guidance.</td>
<td>.65</td>
</tr>
<tr>
<td>21. The professor is sensitive to the needs and feelings of students.</td>
<td>.70</td>
</tr>
<tr>
<td><strong>ASSESSMENT DOMAIN III: Enhancement of Learning</strong></td>
<td></td>
</tr>
<tr>
<td>22. The professor arouses and maintains students’ interest in the subject.</td>
<td>.78</td>
</tr>
<tr>
<td>23. Teaching methods stimulate interest in the course.</td>
<td>.83</td>
</tr>
<tr>
<td>24. The professor’s speech is audible and easily understood.</td>
<td>.63</td>
</tr>
<tr>
<td>25. Directions and explanations related to course content are clear.</td>
<td>.70</td>
</tr>
<tr>
<td>26. Thought-provoking questions are asked.</td>
<td>.67</td>
</tr>
<tr>
<td>27. Questions are asked that allow students to compare and contrast ideas.</td>
<td>.63</td>
</tr>
</tbody>
</table>
28. The professor draws students into discussions among themselves. .59
29. During classes students are encouraged to interact and learn from one another. .59
30. Topics are summarized before moving on to new topics. .66
31. Important topics or ideas are summarized at the end of class. .67
32. The professor helps students to organize information and understand relationships among the topics in the course. .72
33. Difficult material is clearly explained. .73
34. Students are encouraged to ask questions in class. .60
35. Students’ questions are clearly answered. .72
36. Learning activities are implemented at an appropriate pace. .68
37. Course content is at an appropriate level of difficulty. .69
38. Difficult parts of the lesson are emphasized to help students learn. .79
39. The professor seems to know when the students do not understand. .73
40. When students are confused, the professor clarifies as needed. .75
41. Students receive feedback about their learning during the lesson. .77
42. Adjustments are made in the lesson, as needed, to help students learn. .78
43. Teaching aids (such as visuals) are used in a way that enhances learning and broadens understanding. .65
44. Learning materials (such as books, handout, lab equipment) are used in a way that enhances learning and broadens understanding. .62
45. Students are encouraged to apply course content to solve problems or understand real life situations. .60

ASSESSMENT DOMAIN IV: Student Evaluation Practices

46. The basis for grading is made clear. .62
47. The basis for the course grade reflects an appropriate balance among tests, papers, assignments, participation, etc. .65
48. Tests reflect the course content. .68
49. The test questions are clearly phrased. .69
50. The tests are of reasonable length. .69
51. The test questions provide a fair chance for students to demonstrate their knowledge of the subject. .69
52. Course assignments are graded fairly. .69
53. Tests and assignments are returned in a reasonable length of time. .64
54. Sufficient feedback is provided on all graded work. .70
55. Students have opportunities to determine their own progress in the course. .67

Eigen Value = 24.45
Proportion of Total Variance Explained by 1-Factor Solution = 44.45%
TABLE 3
Summary of SAIL Indicator Factor Pattern Loadings
for a Four-Factor Orthogonal Solution
for Each Assessment Domain (n=339)

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
</table>

ASSESSMENT DOMAIN I:
Preparation and Classroom Management

1. .54  
2. .58  
3. .61  
4. .60  
5. .46  
6. .59  
7. .69  
8. .49  .43  
9. .36  .46  
10. .51  
11. .52  .51

ASSESSMENT DOMAIN II:
Interpersonal Skills

12. .57  
13. .68  
14. .47  .48  
15. .51  
16. .77  
17. .73  
18. .60  
19. .60  
20. .57  
21. .64  

22
<table>
<thead>
<tr>
<th>ASSESSMENT DOMAIN III: Enhancement of Learning</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
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</thead>
<tbody>
<tr>
<td>22.</td>
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<td>.41</td>
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<td>23.</td>
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<td>24.</td>
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<td>36.</td>
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<td>45.</td>
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ASSESSMENT DOMAIN IV:
Student Evaluation Practices

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
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</thead>
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<tr>
<td>47.</td>
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<tr>
<td>54.</td>
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</table>

Proportion of Total Variance in Data Set Explained by Each Factor in the 4-Factor Solution

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>16.86</td>
<td>14.10</td>
<td>13.09</td>
<td>12.18</td>
</tr>
</tbody>
</table>

Proportion of the Total Variance in the Data Set Explained by a 4-Factor Solution = 56.23%
<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Max. Poss. Score</th>
<th>% M* Max. Poss.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Classroom Management (11)b</td>
<td>448</td>
<td>27.79</td>
<td>5.49</td>
<td>33</td>
<td>84.2</td>
</tr>
<tr>
<td>Interpersonal Skills (10)</td>
<td>445</td>
<td>25.92</td>
<td>5.07</td>
<td>30</td>
<td>86.4</td>
</tr>
<tr>
<td>Enhancement of Learning (24)</td>
<td>445</td>
<td>58.08</td>
<td>13.40</td>
<td>72</td>
<td>80.7</td>
</tr>
<tr>
<td>Student Evaluation Practices (10)</td>
<td>435</td>
<td>25.18</td>
<td>5.65</td>
<td>30</td>
<td>83.9</td>
</tr>
</tbody>
</table>

*M% Max = Subscale Mean Score/Max. Possible Score

b Number of Items in Subscale
TABLE 5
Summary of Standardized Alpha Reliability Coefficients for SATL Subscales for the Total Sample of Students (n=339)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I</td>
<td></td>
</tr>
<tr>
<td>Preparation and Classroom Management (11)</td>
<td>.89</td>
</tr>
<tr>
<td>Interpersonal Skills (10)</td>
<td>.91</td>
</tr>
<tr>
<td>Enhancement of Learning (24)</td>
<td>.96</td>
</tr>
<tr>
<td>Student Evaluation Practices (10)</td>
<td>.93</td>
</tr>
<tr>
<td>Part II</td>
<td></td>
</tr>
<tr>
<td>Types of Learning (10)</td>
<td>.90</td>
</tr>
<tr>
<td>Part III</td>
<td></td>
</tr>
<tr>
<td>Overall Evaluation (3)</td>
<td>.92</td>
</tr>
</tbody>
</table>

*Number of Items on Subscale
TABLE 6
Summary of Intercorrelations Among SATL Subscales for the Total Sample of Students

<table>
<thead>
<tr>
<th>SUBSCALES</th>
<th>PCM</th>
<th>IS</th>
<th>EL</th>
<th>SEP</th>
<th>TL</th>
<th>OE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation and Classroom Management (PCM)</td>
<td>1.00</td>
<td>.75</td>
<td>.75</td>
<td>.68</td>
<td>.57</td>
<td>.27</td>
</tr>
<tr>
<td>Interpersonal Skills (IS)</td>
<td>1.00</td>
<td>.76</td>
<td>.62</td>
<td>.57</td>
<td>.29</td>
<td></td>
</tr>
<tr>
<td>Enhancement of Learning (EL)</td>
<td>1.00</td>
<td>.70</td>
<td>.65</td>
<td>.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Evaluation Practices (SEP)</td>
<td></td>
<td>.46</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of Learning (TL)</td>
<td>1.00</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Evaluation (OE)</td>
<td></td>
<td>1.00</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001 (all)
REFERENCES


INSTRUCTIONS TO RESPONDENTS

This form is designed to assess teaching and learning in college classes. There are three parts to the instrument and a demographic sheet. Part I asks questions about teaching, learning, and course characteristics. Part II asks about the types of learning in the course. Part III asks for overall evaluations of the course and additional comments.

Do not sign your name.

DIRECTIONS: Part I

*Teaching/Learning/Course Characteristics*

Three scale points are provided for each item. Read each item carefully and then select the one scale point which best reflects your judgement about the teaching/learning or course characteristic.

The three scale points that follow must be read carefully before completing the assessment form. Refer to these scale point descriptions as you read and score each item.

1 - INEFFECTIVE... This scale point should be selected if, in your view, the particular teaching/learning aspect or course characteristic does not positively enhance student learning.

2 - EFFECTIVE... This scale point should be selected if, in your view, the particular teaching/learning aspect or course characteristic, for the most part, positively enhances student learning.

3 - HIGHLY EFFECTIVE... This scale point should be selected if, in your view, the particular teaching/learning aspect or course characteristic consistently enhances student learning to a high degree.

PLEASE CAREFULLY READ AND SCORE EACH ITEM INDEPENDENTLY. That is, try not to let your response to one item influence your response to the next item.

All responses are contributed anonymously. You should not sign your name to the instrument or the accompanying response form.
PART I

INEFFECTIVE IN ENHANCING LEARNING = 1
EFFECTIVE IN ENHANCING LEARNING = 2
HIGHLY EFFECTIVE IN ENHANCING LEARNING = 3

PREPARATION AND CLASSROOM MANAGEMENT

1. Objectives for the course are clearly communicated.
2. Objectives for each class are clearly communicated.
3. Student responsibilities and expectations are clearly explained.
4. The professor is well-prepared for class.
5. Class starts and ends on time.
6. Time during class is efficiently used for teaching and learning.
7. The course activities over the semester are well-organized.
8. Class activities help to achieve the objectives of the course.
9. Assigned readings (textbook and/or other) are meaningful.
10. Outside assignments help to achieve the course objectives and are integrated with class activities.
11. Teaching and learning techniques motivate students to learn.

INTERPERSONAL SKILLS

12. The professor is enthusiastic about teaching this course.
13. The professor is enthusiastic about students' learning in this course.
14. The professor maintains a climate conducive to learning.
15. The professor relates the subject to everyday life.
16. Students are encouraged to express their own ideas.
17. Students are encouraged to participate in discussions.
18. A climate of mutual courtesy and respect is maintained.
19. The professor demonstrates interest in the progress of individual students.
20. The professor is willing to provide outside help and guidance.
21. The professor is sensitive to the needs and feelings of students.

ENHANCEMENT OF LEARNING

22. The professor arouses and maintains students' interest in the subject.
23. Teaching methods stimulate interest in the course.
24. The professor's speech is audible and easily understood.
25. Directions and explanations related to course content are clear.
26. Thought-provoking questions are asked.
27. Questions are asked that allow students to compare and contrast ideas.

28. The professor draws students into discussions among themselves.

29. During classes students are encouraged to interact and learn from one another.

30. Topics are summarized before moving on to new topics.

31. Important topics or ideas are summarized at the end of class.

32. The professor helps students to organize information and understand relationships among the topics in the course.

33. Difficult material is clearly explained.

34. Students are encouraged to ask questions in class.

35. Students' questions are clearly answered.

36. Learning activities are implemented at an appropriate pace.

37. Course content is at an appropriate level of difficulty.

38. Difficult parts of the lesson are emphasized to help students learn.

39. The professor seems to know when the students do not understand.

40. When students are confused, the professor clarifies as needed.

41. Students receive feedback about their learning during the lesson.

42. Adjustments are made in the lesson, as needed, to help students learn.

43. Teaching aids (such as visuals) are used in a way that enhances learning and broadens understanding.

44. Learning materials (such as books, handout, lab equipment) are used in a way that enhances learning and broadens understanding.

45. Students are encouraged to apply course content to solve problems or understand real life situations.

STUDENT EVALUATION PRACTICES

46. The basis for grading is made clear.

47. The basis for the course grade reflects an appropriate balance among tests, papers, assignments, participation, etc.

48. Tests reflect the

49. The test questions are clearly phrased.

50. The tests are of reasonable length.

51. The test questions provide a fair chance for students to demonstrate their knowledge of the subject.

52. Course assignments are graded fairly.

53. Tests and assignments are returned in a reasonable length of time.

54. Sufficient feedback is provided on all graded work.

55. Students have opportunities to determine their own progress in the course.
PART II - Types of Learning

DIRECTIONS: Use the four-point scale below to evaluate the degree to which each type of learning is emphasized in this course. (DO NOT rate how much you have learned ...Only the amount of emphasis on each type of learning).

4 = Very much emphasis
3 = Much emphasis
2 = Some emphasis
1 = No emphasis

Rate the emphasis placed on each type of learning listed below:

56. learning factual information
57. developing concepts
58. understanding and applying principles and rules
59. understanding and applying theories
60. critical analysis and/or problem solving
61. creative thinking
62. developing knowledge of self and others
63. developing professional, career, and job-related skills
64. developing written communication skills
65. developing oral communication skills

PART III - Overall Evaluation

DIRECTIONS: Using the following grading scale, write in a number (not a letter grade) in responding to each of the following questions.

A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = Below 60

66. How would you grade the quality of teaching in this course?
   Tens
   Ones

67. What was the contribution of the course to your learning?
   Tens
   Ones

68. How would you grade this course overall?
   Tens
   Ones
## DEMOGRAPHIC INFORMATION

1. **Sex:**
   - Female
   - Male

2. **Age:**
   - under 21
   - 21 - 25
   - 26 - 30
   - 31 - 35
   - 36 - 40
   - 41 - 45
   - 46 - 50
   - 51 - 55
   - over 55

3. Are you enrolled in a degree program?
   - Yes
   - No

4. If yes, is this course part of your degree program?
   - Yes
   - No

5. If you are in a degree program, what is your classification?
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Graduate

6. If no, do you intend to enter a degree program?
   - Yes
   - No

7. Are you a full-time student (9 semester hours or more)?
   - Yes
   - No

8. Have you taken a course on the LSU campus (including courses for which you are currently enrolled)?
   - Yes
   - No

9. Have you taken a course through Continuing Education before this semester?
   - Yes
   - No

10. If not, how long has it been since you last took a college course?
    - This is my first course
    - 1 - 3 years
    - 4 - 9 years
    - 10 or more years

11. At the beginning of the semester, what grade did you think you would be able to obtain in this course?
    - A
    - B
    - C
    - D
    - F

12. What grade do you expect to receive now?
Please comment on any other aspect of this course that impacts your learning (e.g., facilities, library resources, textbook, supplementary materials, etc.) Write your comments in the space provided.

Approximately how long did it take you to fill out this form?

Were the directions clear? If not, what was not clear?

Are there any important aspects of teaching, learning or this course that were not included in this instrument?

Are there any items that are not appropriate for this subject/course?

THANK YOU FOR YOUR COOPERATION!