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ABSTRACT

This paper presents the results of a series of summary analyses of descriptive statistics concerning 5,720 Louisiana teachers who were assessed with the System for Teaching and Learning Assessment and Review (STAR)--a comprehensive on-the-job statewide teacher assessment system--during the second pilot year (1989-90). Data were collected by about 3,000 principals, master teachers, and other Louisiana educators in STAR assessor certification programs during fall 1989 and spring 1990 professional development sessions. The 1989-90 STAR is used to: (1) assess the quality of teaching and learning on sets of assessment indicators (AIs) that define 21 teaching and learning components (TLCs); and (2) train principals master teachers, supervisors, college faculty, and other educators to complete thorough assessments of beginning and experienced teachers' classroom performances for the purpose of renewable professional certification (RPC). The STAR is organized into four performance dimensions defined by subelements/TLCs, with a total of 140 AIs. Data were summarized by computing frequencies of acceptable and unacceptable decisions for each of the STAR TLCs, as well as the individual AIs within each component. The results are presented as summaries for AIs by each STAR TLC: for elementary and secondary education, for beginning and experienced teachers, within cognitive group, within performance group, and between cognitive and performance groups. Summary comparisons between 1989 (first pilot year) and 1989-90 (second pilot year) STAR TLCs are included. Appendix A presents five data tables. Appendix B outlines the organizational structure of the 1989 STAR. (RLC)

Classroom Assessments of 6000 Teachers: What do the Results Show About the Effectiveness of Teaching and Learning?

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Overview

The System for Teaching and learning Assessment and Review (STAR) (Ellett, Loup & Chauvin, 1989-90) is a comprehensive, on-the-job teacher assessment system designed to collect information and make important decisions about the quality of effective teaching and student learning in classrooms within an interactive framework of professional development and support. The Louisiana STAR is being developed and piloted in response to two specific legislative mandates: 1) the Teaching Internship Law (1984); and 2) the Children First Act (1988). These two legislative acts, considered collectively, call for the development and implementation of a statewide teacher assessment/evaluation system for the purpose of induction of beginning teachers into the profession and the periodic evaluation of all Louisiana teachers for the purpose of renewable certification.

The Teaching Internship law requires that all beginning teachers in Louisiana be assessed by a three-member support team consisting of the school principal, a "master" teacher, preferably within the school, and currently, a college faculty member. The basic purpose of the internship program, as described by law, is to provide a professional support network for new teachers during their early year(s) of employment. Following successful completion of this first "intern" year (which may be extended to a second year, if needed), the new teacher then enters the regular periodic cycle of experienced teacher evaluations for renewable certification.

Requirements contained in the Children First Act (1988) stipulate that all Louisiana teachers undergo periodic (five year) classroom evaluations based on a standardized process/system for the purposes of renewable state certification. Additionally, the Children First Act contains a provision for the revision of the state teacher salary schedule, and a plan for a Model Career Options Program (MCOP) for teachers. Under this latter plan, teachers who receive a "superior" rating

under the new evaluation system will qualify for consideration in the MCOP.

Reflecting a continuation of efforts begun initially during the Spring of 1989 (first STAR pilot year), the STAR assessment process/system was further developed and refined during FY 1989-90 (second pilot year) through a program of seven-day professional assessor certification sessions conducted statewide (1989-90), involving approximately 6000 Louisiana educators. Thus, the further refinement/piloting of the STAR system during second year R&D activities represents ongoing development of a "state-of-the-art" assessment/evaluation system to fulfill legislative mandates set forth in both the Teaching Internship Law (1984) and the Children First Act (1988).

The second pilot year of research and development of the STAR occurred during FY 1989-90. The observational data examined in this study was collected during the 1989-90 school year, and they represent a statewide continuation of initial efforts begun during the Spring of 1989 (first STAR pilot year) to collect actual performance data with the STAR in Louisiana classrooms. These data were collected by STAR assessor trainees (principals, master teachers and other Louisiana educators) as part of participant requirements for successful completion of the STAR professional development program for certify assessors. This study reports the results of a series of summary analyses of descriptive statistics on a large sample of Louisiana teachers (N=5720) assessed with the STAR during this second pilot year (1989-90).

Purpose

The purpose of this study is to provide descriptive summaries of STAR second pilot year assessment data collected in all parishes in Louisiana by participants (principals, master teachers and other Louisiana educators) in STAR assessor certification programs during the Fall, 1989 and Spring, 1990 professional development sessions. This series of data analyses were completed as a continuing examination of various levels of teacher classroom performance relative to the STAR assessment indicators, teaching and learning components and performance dimensions.

Methods and Procedures

Sample

The sample for this study consisted of 5720 teachers representing classrooms from every parish in Louisiana. These teachers were randomly selected from alphabetical faculty listings provided by educators participating in the STAR assessor certification program during the second pilot year (1989-90). This large sampling of Louisiana teachers encompasses a wide variety of both subject areas and teaching and learning contexts, and thus reflects the kinds of assessment situations in which teachers will be observed/assessed for the purposes of induction and renewable certification.

Instrumentation/Observation Process

The System for Teaching and learning Assessment and Review (STAR) (Ellett, Loup & Chauvin, 1989-90) was used to collect all data for the analyses. The 1989-90 STAR (second pilot year edition) consists of four Performance Dimensions: 1) Preparation, Planning and Evaluation; 2) Classroom/Behavior Management; 3) Learning Environment; and 4) Enhancement of Learning. These four Performance Dimensions are defined by a series of Teaching and Learning Components, each of which are further operationalized by sets of assessment indicators. These assessment indicators constitute the fundamental units of STAR process observation and decision making. The total number of assessment indicators comprising the 1989-90 STAR (second pilot year edition) was 140. The organizational structure of the 1989-90 STAR is illustrated in APPENDIX B.

Performance Dimension I of the STAR (Preparation, Planning and Evaluation) is designed to allow the assessor to make pre-observation decisions relative to the teacher's ability to effectively prepare a Comprehensive Unit Plan (CUP) for a five- to seven-day unit of teaching and learning for one class of students of the teacher's choice. Multiple copies of the CUP are prepared by the teacher and submitted to each member of the assessment team for independent review. Teachers in this study were not required to prepare CUPs, and they were only assessed on Performance Dimensions II (Classroom/Behavior Management), III (Learning Environment) and IV (Enhancement of Learning). In order for assessors to have adequate knowledge of lesson

content/contexts for the classroom observations/assessments in this study, teachers did provide daily a lesson plan prior to each observation.

An important element of the STAR observation/assessment process is the emphasis placed on the assessment of both the teaching and learning taking place in the classroom. To this end, STAR assessors are trained to assume observation positions so as to maintain a clear view of not only the teacher, but most importantly, all of students. During an observation the assessor functions as an observer of teacher and student actions/behaviors/responses and a data collector ("notetaker"). In addition to documenting important teacher/student interactions, various physical classroom and learning environment conditions/events are recorded as well. Following the observation, the assessor compiles and synthesizes the observation notes and uses the STAR assessment document and Annotated Assessment Guide to make final assessment decisions on each assessment indicator. Before arriving at an assessment decision of either "acceptable" or "unacceptable" on each STAR indicator, the STAR assessor follows a systematic assessment decision-making process: 1) scanning the content of the indicator, 2) reviewing all pertinent classroom context and observational data contained in the notes, and 3) considering/comparing various examples and considerations contained in the Annotation and decision-making rule for the indicator. In following this procedure for each of the assessment indicators comprising the STAR, the assessor ensures that assessment decisions reflect as much as possible the holistic classroom environment and teaching/learning context. An example of the assessment indicators, annotations and decision-making rules for the STAR Teaching and Learning Component of TIME is provided in APPENDIX B.

As a "holistic" assessment system reflecting the quality of both teacher planning/performance and student learning, the STAR represents a "state-of-the-art" teaching/learning assessment framework that incorporates, and at the same time moves beyond, the strengths of prior assessment systems developed in other states. The content of the STAR assessment system reflects the current research on effective teaching and learning. A detailed description of the conceptual and research basis of the STAR can be found in a companion

research document (Claudet & Ellett, 1989, Claudet & Ellett, 1990) and will not be discussed here. As the second pilot year of research and development on the STAR is completed, further results from continued studies of the STAR (second pilot year) are providing further support for the validity and reliability of the STAR as an on-the-job teacher assessment system/process.

Data Collection

The STAR pilot assessment process makes provision for the assessment of teachers for internship and certification purposes by a three-member team. After examining and assessing the CUP, each member of the team arranges a subsequent classroom observation of teaching and learning with the teacher for a full lesson period (minimum of thirty minutes). These classroom observations take place during the unit prescribed by the CUP, and serve as opportunities for assessors to observe the teacher carry out the teaching/learning plans in the classroom. In the analyses reported here, no CUPs were assessed and only single observations of lessons occurred. The data for this study were collected by some 3000 trained STAR assessors as part of field observations associated with certification requirements for the second pilot year as a STAR assessor. For the sample of 5720 completed and useable teacher assessments comprising this summary analysis, each teacher was assessed only once, and each STAR assessor was required to complete two assessments.

Data Analyses

Data from the 1989-90 (Second Pilot Year) STAR assessments were summarized by computing frequencies of "acceptable" and "unacceptable" decisions for each of the STAR components, as well as the individual assessment indicators within each component. Frequencies were computed for the total sample of teachers (n=5720), and a "between-groups" comparison was made of elementary (K-6) and secondary (7-12), and of beginning and experienced teacher groups (Claudet, Hill, Ellett & Naik, 1990). Additional analyses of acceptable/unacceptable decision frequencies were also completed through a breakdown of the total sample (n=5720) into two further sub-groups -- "cognitive-oriented" vs. "performance-oriented" classrooms (Claudet, Hill Ellett & Naik, 1990). These analyses were completed as part of a continuing examination (begun

in the Spring of 1989 - First Pilot Year) of performance data collected from Louisiana's classrooms, and to compare assessment results from this data both within and across a variety of subgroups and teaching/learning contexts. As part of the analyses, percentages of the maximum possible ("mastery") scores were also computed for each STAR Teaching and Learning Component (II, III & IV).

Results

Summaries for STAR Teaching and Learning Components

A summary of the percentage of maximum possible scores for each STAR Teaching and Learning Component is shown in Table 1. The results of acceptable decisions made by STAR assessors for the total number of assessment indicators comprising each Teaching and Learning Component summed over 5720 assessments completed are indicated through a percentage of the maximum possible. For example, the Teaching and Learning Component of TIME in Dimension II, (Classroom and Behavior Management) with 8 assessment indicators times 5720 assessments yields a maximum number of 45,760 assessment decisions. For the component TIME, the last column indicates that 72.39% of all assessment decisions were assessed as acceptable.

The percentage of acceptable and unacceptable assessment decisions for each indicator for each Teaching and Learning Component within each STAR Performance Dimension was computed for the total sample (n) of classrooms and for elementary and secondary classroom settings. As shown, the percentage of maximum possible scores for the STAR Performance Dimension II (Classroom and Behavior Management) components ranged from a high of 74.17% (Classroom Routines) to a low of 36.87% (Student Engagement). The results for student engagement shown represent the percentage of classrooms that were assessed as maintaining mean student engagement in learning task rates at or above 90%. For the total sample, less than half of the 5720 mean engagement rate estimates were below the 90% target standard and slightly less than half (48.48%) were viewed as acceptable in the component of Managing Task-Related Behavior.

For STAR Performance Dimension III (Learning Environment), the results shown in Table 1 indicate a higher percentage of acceptable assessment decisions for the Physical Learning

Environment (88.03%) than for the Psychosocial Learning Environment (66.40%).

Considerable variation is shown in STAR Performance Dimension IV (Enhancement of Learning). The percentage for acceptable scores for components ranged from a high of 94.70% for Oral and Written Communication to a low of 21.56% for the indicators in Thinking Skills Less than half of the indicator assessment decisions were acceptable for Lesson and Activities Initiation (34.45%), Content Accuracy and Emphasis (49.14%), Thinking Skills (21.56%), Monitoring Learning Tasks and Informal Assessment (43.15%), and Feedback (33.22%).

Summaries for Assessment Indicators By Each STAR Component for Elementary and Secondary

Classroom and Behavior Management: Table 2 presents a summary of acceptable and unacceptable assessment decision percentages for the total sample (n) of classrooms and also by elementary (E) and secondary (S) classrooms for each assessment indicator for each STAR Teaching and Learning Component for Performance Dimension II (Classroom and Behavior Management).

TIME: Efficient management and use of time is the focus of this STAR Teaching and Learning Component. Percentages of acceptable assessment decisions for indicators for the total sample ranged from a high of 92.9% (Minor interruptions are managed quickly and efficiently or there are no interruptions) to a low of 21.4% (Expectations for maintaining and completing timelines for tasks are communicated to students). Similarities for elementary (E) and secondary (S) classrooms were noted for percentages of unacceptable decisions. The largest differences were evident for indicators number 1 (Learning activities begin promptly) and number 8 (Learning activities continue until the end of the allocated time period) with the unacceptable percentages being consistently higher for the secondary classrooms.

CLASSROOM ROUTINES: The focus of this STAR Teaching and Learning Component in on the efficient and effective management of classroom routines necessary for student enhancement of learning. As shown in Table 2, the total number of classroom percentages for acceptable decisions for assessment indicators ranged from a high of 98.1% (Aids, materials and

equipment are available and ready to use) and to a low of 56.9 (The attention of students is ensured before directions for routines are given or students are attending). The results for the E and S groups were similar. However, the elementary classrooms consistently scored slightly higher than the secondary classrooms in each indicator.

STUDENT ENGAGEMENT: The percentage for student engagement represents the percentage of assessments that generated overall classroom engagement in learning tasks rates at or above 90%. For the 5720 classrooms observed, less than half (36.7%) of the mean engagement estimates were below the targeted standard. The difference in the percentage of unacceptable decisions for elementary and secondary settings was approximately 3% favoring the elementary group.

MANAGING TASK-RELATED BEHAVIOR: The focus of this STAR Teaching and Learning Component is on monitoring and managing students' task-related behavior. The percentage of acceptable assessment decisions ranged from 43.3% (Efforts to redirect students who are persistently off task are successful or there is no persistent off-task behavior) to 53.7% (Verbal and/or non-verbal techniques are used to redirect students who are persistently off-task or there us no persistent off-task behavior). Slightly more to less than half of all indicator assessment decisions were acceptable. The difference in the percentage of unacceptable decisions for elementary and secondary groups was approximately 5%, with larger percentages of unacceptable assessment decisions for the secondary group.

MONITORING AND MAINTAINING STUDENT BEHAVIOR: This STAR Teaching and Learning Component focuses on the concern for effective management of acceptable and unacceptable student behavior. Percentages of acceptable assessment decisions for the total sample of classrooms ranged from a high of 66.6% (Uses techniques to stop unacceptable behavior or none are needed or there is no unacceptable behavior) to a low of 35% (Students are provided verbal and/or non-verbal feedback about acceptable and unacceptable behavior). Percentages of unacceptable decisions reflect similarities for the elementary and secondary groups.

Learning Environment: Table 3 presents summary data of acceptable and unacceptable decisions for assessment indicators from STAR Performance Dimension III, Learning Environment. Results are highlighted for the two Teaching and Learning Components.

PSYCHOSOCIAL: Assessment indicators in this STAR Teaching and Learning Component focus on the quality of the classroom climate and positive interpersonal relationships between the teacher and students and among students. The percentage of acceptable assessment decisions ranged from a high of 86.6% (Warmth and friendliness are demonstrated throughout the lesson) to a low of 37.8% (Enthusiasm for teaching, learning and the subject being taught is communicated to students). Percentages of unacceptable decisions were similar for the elementary and secondary groups, with the exception of indicator number 5 (Comments, questions, examples and/or other contributions are sought from students throughout the lesson) (E=47%; S=50.5%). Approximately 7% more unacceptable assessment decisions were made for the secondary groups. High percentages of acceptable assessment decisions for indicators number 1 (Establishes a classroom climate of courtesy and respect) (N=85%) and number 2 (Warmth and friendliness are demonstrated throughout the lesson) (N=86.6%) and rather low percentages of acceptable assessment decisions for indicators number 4 (Enthusiasm for teaching, learning and the subject being taught is communicated to students) (N=37.8%) and number 10 (The lesson in personalized for students) (39%) should be noted.

PHYSICAL: The focus of this STAR Teaching and Learning Component reflects a concern for the elements of a physical learning environment that enhances the learning of all students. The acceptable assessment decisions for this component were rather high as compared to previous components reviewed. The acceptable decisions ranged from a high of 94.2% (The classroom is neat, safe and arranged in an orderly manner) to a low of 76.6% (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose). Results indicate the greatest difference between the percentages of unacceptable assessment decisions for indicator number 2 (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose) (E=19.4%; S=27%).

Enhancement of learning: Table 4 presents a summary of acceptable and unacceptable decision percentages for the total sample of classroom observations and also by elementary and secondary classroom groups for each assessment indicator operationalizing each Teaching and Learning Component in STAR Performance Dimension IV, Enhancement of Learning.

LESSON AND ACTIVITIES INITIATION: This STAR Teaching and Learning Component is composed of a set of ten assessment indicators that focus on the beginning of the lesson and on the beginning of various teaching and learning activities as they arise during a lesson. For this set of assessment indicators the percentages of acceptable decisions ranged from a high of 61.1% (Procedural directions necessary to implement learning tasks are clear and complete) to a low of 13.9% (Clearly communicates the challenge of learning task(s) to students as needed). The percentages of acceptable decisions for the assessment indicators in this component were substantially lower than the percentages for the other components noted above. Of the ten indicators described, only three had percentages of acceptable decisions for the total classroom sample that were above 50% - and these only marginally so: 53.5% (Student attention is ensured before directions and explanations for learning activities are provide **or** students are attending), 61.1% (Procedural directions necessary to implement learning tasks are clear and complete), and 51.9% (Encourages all students to participate). Overall, the percentages of unacceptable decisions were considerably higher for these indicators than for those in Dimensions Two and Three already described. There also was a strong consistency in the pattern of percentages of acceptable and unacceptable decisions among the elementary and secondary groups. Of the high percentages of unacceptable decisions obtained for this set of assessment indicators, six indicators received particularly high unacceptable percentages: number 2 (Activities are initiated with motivating introductions which are content related) (E=71.5%; S=77.1%), number 3 (Clearly communicates specific learning outcomes to students) (E=71.1%; S=72.7%), number 4 (The purpose and importance of learning activities are communicated to students) (E=83.1%; S=79.8%), number 5 (Expectations about student engagement in learning tasks are communicated at the beginning of activities) (E=73.8%; S=74.0%), number 7 (Clearly communicates the challenge of learning task(s)

to students as needed) (E=86.4%; S=85.9), and number 10 (As new ideas/concepts/activities are introduced, they are related to past and future learning) (E=80.5%; E= 77.0%).

TEACHING METHODS: This STAR Teaching and Learning Component addresses the teacher's ability to utilize teaching methods that facilitate the achievement of planned learning objectives and encourage student interaction and active involvement in learning tasks. For the total sample of classrooms (N) reviewed, the percentages of acceptable decisions ranged from a high of 87.1% (Teaching methods and learning tasks or topics within an activity are sequenced in a logical order) to a low of 25.2% (Provision is made for lesson/activities closure). There was a close consistency between the elementary and secondary group percentages in this component with rather large percentages of unacceptable decisions occurring for indicator numbers 3-5 (within the range of 37.0 - 52.2%). Significantly high percentages of unacceptable decisions were obtained for both elementary and secondary groups for indicator number 6 (Provision is made for lesson/activities closure) (E=73.4%; S=76.0%).

AIDS AND MATERIALS: This STAR Teaching and Learning Component reflects assessment concerns regarding the teacher's ability to use planned aids ("things teachers use to show or work with the class to enhance students' learning") and materials ("things that students use to enhance their learning") during the lesson in a manner that enhances students' learning. Percentages of acceptable decisions for the total sample of classrooms (n) were rather closely grouped within a range of a high of 72.5% (The use of teaching aids is appropriate for methods and objectives; and Teaching aids are used at appropriate times in the lesson) to a low of 47.8% (Learning materials are used properly and accommodate the range of needs and abilities of students). Of the eight indicators comprising this component, differences between the E and S groups in the percentages of unacceptable decisions were rather negligible with the exception of indicators number 5 (The use of learning materials is appropriate for learning tasks and objectives) (E=27.0; S=32.5%) and number 7 (Learning materials are used at appropriate times in the lesson (E=26.9%; S=32.45). Additionally, rather modest percentages of acceptable decisions (within the range of 62.8% to 72.5%) were obtained for the majority of the assessment indicators in this

component with the exception of three indicators: number 4 (The use of teaching aids broadens understandings and enhances learning) (E=51.6%; S=49.2%), number 6 (Learning materials are used properly and accommodate the range of needs and abilities of students) (E=46.8%; S=48.6%), and number 8 (Use of learning materials broadens student understandings and enhances learning) (E=49.0%; S=47.2%).

CONTENT ACCURACY AND EMPHASIS: The set of seven assessment indicators comprising this Teaching and Learning Component focuses on the teacher's adequate command of subject knowledge, the teacher's ability to differentiate lesson content at more than one cognitive level and to emphasize structural frameworks for learning material as well as important elements within these. Results for the total sample of classrooms (n) indicate a considerable range of percentages of acceptable decisions across indicators. These percentages ranged from a high of 93.5% (Content knowledge is accurate and up-to-date) to a low of 19.2% (Emphasizes the value and importance of topics and activities). Differences between the percentages of unacceptable decisions for the E and S groups were negligible in most instances. Of particular interest are the rather high percentages of unacceptable decisions for four assessment indicators in this component: number 1 (Students are given opportunities to learn at more than one cognitive and/or performance level) (E=67.9%; S=68.0%), number 2 (Emphasizes the value and importance of topics and activities) (E=83.1%; S=78.7%), number 6 (Essential elements of content knowledge and/or performance tasks are emphasized) (E=72.7%; 70.0%), and number 7 (Potential areas or points of difficulty are emphasized throughout the lesson) (E=73.6%; 73.9%).

THINKING SKILLS: The set of eleven indicators in this Teaching and Learning Component centers around assessment considerations of the teacher's ability to actively involve students throughout the lesson in the development of higher order thinking. These indicators are concerned with both the "what" (content) and the "how" (teaching methods and learning tasks) of thinking. Key concepts embedded in this important STAR component are the teacher's ability to actively involve students in learning, and to provide students with ample opportunities to develop concepts and skills in generating, structuring, transferring and restructuring knowledge.

The overall results indicated a far larger percentage of unacceptable decisions for this Teaching and Learning Component than for all of the Components in Dimensions Two and Three, as well as being considerably lower than the percentages for the other Components in Dimension Four. For the total sample of 5720 classrooms (n), the percentages of unacceptable decisions ranged from a high of 86.1% (Encourages students to use mental imagery) to a low of 61.8% (Wait time is used to enhance student learning). All of the percentages of unacceptable decisions for these eleven indicators without exception were significantly high (above 70.0%). There was a close consistency between elementary and secondary groups in percentages of unacceptable decisions per indicator, with noticeable exceptions occurring for only two indicators: number 2 (Involves students in developing concepts) (E=70.7%; S=76.8%), and number 7 (Wait time is used to enhance student learning) (E=57.8%; S=65.4%).

CLARIFICATION: This STAR Teaching and Learning Component focuses attention on the teacher's ability to identify and clarify areas of misunderstanding and confusion as teaching and learning proceed. The results for the five assessment indicators operationalizing this Component in terms of the total sample of classrooms (n) indicated a rather narrow range of percentages of acceptable decisions from a high of 63.7% (Clarifications are made for individuals or small groups rather than for the entire class **or** this type of clarification is not necessary) to a low of 44.2% (Areas of misunderstanding or difficulty are identified before students ask questions **or** no misunderstanding or difficulty occurs). There was a close consistency between elementary and secondary groups across the five indicators with regard to percentages of unacceptable decisions. As the percentages of unacceptable decisions were in the moderately high range for the majority of these indicators (ranging from 36.1% to 43.4%); of special note are the two indicators with significantly higher percentages of unacceptable decisions: number 1 (Areas of misunderstanding or difficulty are identified before students ask questions **or** no misunderstanding or difficulty occurs) (E=55.0%; S=56.4%) and number 3 (Bases for learner difficulties or misunderstandings are sought **or** no misunderstandings or difficulties occur **or** probing is not necessary) (E=53.8%; S=55.5%).

PACE: The three assessment indicators in this Teaching and Learning Component reference the teacher's ability to monitor and adjust the pace of teaching and learning activities in order to most effectively enhance student learning. The percentages of acceptable decisions for the indicators in the total sample of classrooms (n) ranged from a high of 74.3% (Provides sufficient time for students to complete learning task(s) to a low of 32.5% (Summarizes or reviews during the lesson to monitor/assess the pace of teaching and learning). The differences in the percentages of unacceptable decisions between elementary and secondary groups were negligible. Of particular interest, however, is the significantly higher percentages of unacceptable decisions (relative to the other indicators) obtained for assessment indicator number 2 Summarizes or review during the lesson to monitor/assess the pace of teaching and learning) (E=65.5%; S=69.4%).

MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT: This STAR Teaching and Learning Component addresses the teacher's command of a rather complex array of monitoring and informal assessment strategies for gauging the students' understanding of both content and learning tasks. Interestingly, for this component, similar to the Thinking Skills Component, results for the total sample of classrooms (n) indicated rather high percentages of unacceptable decisions across the indicators. The percentages of unacceptable decisions for the six assessment indicators in this component encompassed a range which included a high of 80.4% (A variety of levels of learning is assessed as appropriate) and a low of 43.3% (Monitors students' initial engagement in learning tasks). For assessment indicator numbers 1 through 4, the secondary sample group averaged approximately five percentage points higher in percentages of unacceptable decisions over the elementary sample group. For the remainder of the indicators (numbers 5 and 6) there were no appreciable differences between the two groups in percentages. Of particular interest is the very high unacceptable percentages obtained for indicator number 5 (A variety of levels of learning is assessed as appropriate) (E=80.4%; S=80.5%).

FEEDBACK: The teacher's relative success in guiding and enhancing students' learning through providing specific feedback about their performances and mastery of learning objectives is the assessment focus of this STAR Teaching and Learning Component. An extremely narrow

range of rather high percentages of unacceptable decisions was obtained for the four indicators comprising this component. The percentages of unacceptable decisions for the total sample of classrooms (n) ranged from a high of 73.7% (Provides specific feedback to students when they have mastered learning objective(s)) to a low of 63.4% (Revisits students who have responded inadequately). Differences between the E and S groups on percentages of unacceptable decisions were negligible. It is important to note that, like other key components in this Dimension - including Thinking Skills and Monitoring Learning Tasks and Informal Assessment, all of the indicators within this Feedback Component obtained significantly high percentages of unacceptable decisions (average unacceptable percentage for elementary was 66.0%, for secondary, 67.5%).

ORAL AND WRITTEN COMMUNICATION: This final STAR Teaching and Learning Component reflects an assessment consideration for the adequacy and appropriateness of oral and written communications from the teacher to the students. Of the seventeen components in Dimensions II through IV, this component received the highest percentage of acceptable decisions (see Table 1). For the four indicators comprising this component, all percentages of acceptable decisions for the total sample (N) exceeded 91%.

Summaries for Assessment Indicators By Each STAR Component for Beginning and Experienced Teachers

Summary data by beginning and experienced teachers were compiled in table form and printed elsewhere (Claudet, Hill, Ellett & Naik, 1990).

Classroom and Behavior Management: Summary data for percentages of acceptable and unacceptable assessment decisions for the total sample (n) and also by beginning (B) and experienced (E) teachers for each assessment indicator for each Teaching and Learning Component for Performance Dimension II (Classroom and Behavior Management) follow.

TIME: This STAR Teaching and Learning Component focuses on efficient allocation and use of time for teaching and learning activities. The percentages for acceptable assessment decisions ranged from a high of 92.9% (Minor interruptions are managed quickly and efficiently or

there are no interruptions) to a low of 21.4% (Expectations for maintaining and completing timelines for tasks are communicated to students). The greatest difference in unacceptable decisions between beginning and experienced teachers is noted with indicator number 3 (There are no unnecessary delays during the lesson) (BT=34.3%; ET=21.9%). Other indicators of considerable difference in unacceptable assessment decisions include number 6 (Learning activities reasonably match the time allocated for learning) (BT=27.5%; ET=20.3% and number 7 (Supplemental activities are provided as needed to fill the time allocated for learning) (BT=50.9%; ET=44.5%). The percentage of unacceptable decisions for the other indicators for the beginning and experienced teachers was quite similar.

CLASSROOM ROUTINES: Focusing on the efficient and effective management of classroom routines necessary for the enhancement of learning this STAR Teaching and Learning Component includes four assessment indicators. Acceptable decision percentages for the total sample (N) of classrooms ranged from a high of 88.1% (Aids, materials and equipment are available and ready for use) to a low of 69.6% (The teacher gives clear administrative directions for classroom routines or no directions are needed). The greatest variation between beginning and experienced teachers is noted in indicator number 1 (The attention of students is ensured before directions for routines are given or students are attending). The percentage for unacceptable assessment decisions for the BT is 50.5% and 42.4% for the ET.

STUDENT ENGAGEMENT: Results for this assessment indicator represent the percentage of assessments that maintained a mean student engagement rate at or exceeding 90%. The percent of classrooms assessed as acceptable was less than half (36.7%). An approximate 5% difference was noted between the beginning and the experienced teachers, with unacceptable decisions being greater for the beginning teachers.

MANAGING TASK-RELATED BEHAVIOR: This STAR Teaching and Learning Component focuses on monitoring and managing students' task-related behavior. Percentages for the assessment indicator decisions ranged from a high of 53.7% (Verbal and/or non-verbal techniques are used to redirect students who are persistently off-task or there is no persistent

off-task behavior) to a low of 43.3% (Efforts to redirect students who are persistently off-task are successful or there is no persistent off-task behavior). It should be noted that the percentage of unacceptable assessment decisions was consistently lower for the experienced teachers on each assessment indicator.

MONITORING AND MAINTAINING STUDENT BEHAVIOR: The concerns reflected in this STAR Teaching and Learning Component deal with effective management of acceptable and unacceptable student behavior. The percentage of acceptable assessment decisions for this component ranged from 66.6% (Uses techniques to stop unacceptable behavior or none are needed or there is no unacceptable behavior) to 35% (Students are provided verbal and/or non-verbal feedback about acceptable and unacceptable behavior). Percentages of unacceptable assessment decisions for indicators number 4 (Students are provided verbal and/or non-verbal feedback about acceptable and unacceptable behavior) (BT=65.9%; ET=65.2%), number 5 (Feedback provided to students about their behavior is consistent with behavioral expectations) (BT=66.3%; ET=62.6%), and number 6 (Uses positive feedback as a means of cuing behavior expectations for students as needed) (BT=68.7%; ET=64.7%) should be noted as rather large percentages of unacceptable decisions. For other assessment indicators, the difference in the percentage of unacceptable decisions for beginning and experienced teachers was approximately 10% and the unacceptable percentages were consistently higher for the beginning teachers.

Learning Environment: A summary was compiled of percentages of acceptable and unacceptable assessment decisions for each assessment indicator for the two STAR Teaching and Learning Components in Performance Dimension III, Learning Environment. Results for the two Teaching and Learning Components are highlighted.

PSYCHOSOCIAL: Assessment indicators in this STAR Teaching and Learning Component focus on the quality of classroom climate and positive interpersonal relationships between the teacher and students and among students. The percentages of acceptable assessment decisions varied from a high of 86.6% (Warmth and friendliness are demonstrated throughout the lesson) to a low of 37.8% (Enthusiasm for teaching, learning and the subject being taught is communicated to

students). The percentage of unacceptable assessment decisions for beginning and experienced teachers was quite similar. It is worth noting that in this particular STAR Teaching and Learning Component, the percentage of acceptable assessment decisions for beginning teachings was slightly greater in indicators number 3 (Comments to or about students are free of sarcasm, ridicule, and derogatory, demeaning or humiliating remarks) (BT=79.2%; ET=77%), number 5 (comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson) (BT=53.1%; ET=52.5%), number 9 (Shows patience, empathy or understanding for students who respond poorly or who difficulty **or** no students have difficulty) (BT=76%; ET=74.1%), and number 10 (The lesson is personalized for students) (BT=40.8%; ET=39.2%).

PHYSICAL: This focus of this STAR Teaching and Learning Component reflect concerns for the elements of a physical learning environment that enhances student learning. Overall, the percentages of acceptable assessment decisions for assessment indicators within this component were rather high. The percentage for acceptable decisions ranged from a high of 94.2% (The classroom is neat, safe, and arranged in an orderly manner) to a low of 76.6%(Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose). Little difference was noted in the assessment results between the beginning and experienced teachers.

Enhancement of Learning: Highlights of summary data follow for acceptable and unacceptable decision percentages for the total sample of classroom observations and also by beginning and experienced teachers for each assessment indicator for each Teaching and Learning Component in STAR Performance Dimension IV (Enhancement of Learning).

LESSON AND ACTIVITIES INITIATION: Unlike the relatively lower percentages of unacceptable decisions obtained for STAR components in Dimensions II and III for the beginning and experienced teacher groups, the percentages of unacceptable decisions in Dimension IV are significantly higher for both of these groups, beginning noticeably with this first Dimension IV Component. The percentages for the unacceptable assessment decisions for beginning group ranged from a high a 88.7% (Clearly communicates the challenge of learning task(s) to students as needed) to a low of 46.5% (Procedural directions necessary to implement learning tasks are clear

and complete). The percentages of unacceptable decisions for the experienced teacher group rather closely followed this range with a high of 86.7% and a low of 38.2% for the same two indicators. The differences between the beginning and experienced teachers relative to the percentages for each indicator were negligible for the most part, with the largest variation in percentages of unacceptable decisions occurring for indicators number 1 (BT=54.7%; ET=46.4%), number 5 (BT=46.5%; ET=38.2%), and number 6 (BT=81.4%; ET=73.0%). Of particular concern are the significantly high percentages of unacceptable decisions for four indicators in this component: number 4 (The purpose and importance of learning activities are communicated to students) (BT=83.0%; ET=81.6%0, number 6 (Expectations about student engagement in learning tasks are communicated at the beginning of activities) (BT=81.4%; ET=73.0%), number 7 (Clearly communicates the challenge of learning task(s) to students as needed (BT=88.7%; ET=86.7%), and nun ber 10 (As new ideas/concepts/activities are introduced, they are related to past and future learning) (BT=82.6%; ET=78.6%).

TEACHING METHODS AND LEARNING TASKS: For the six assessment indicators comprising this component, the percentages of acceptable decisions were fairly well differentiated from high to low across the indicators for both groups with the highest percentages of positive decisions occurring for the first two indicators. The percentages of acceptable decisions for the beginning teacher group ranged from a high of 82.6% (Teaching methods and learning tasks or topics within an activity are sequenced in a logical order) to a low of 25.1% (Provision is made for lesson/activities closure). The range of percentages of acceptable decisions for the experienced group closely paralleled BT group percentages with a high percentage of 88.3% and a low percentage of 23.8% on the same indicators respectively. There was a close consistency between percentages for the BT and ET groups, with the largest variation being 6.5 percentage points for indicator number 5 (Methods and learning tasks used enhance mastery of learning objectives) (BT=44.0%; ET=50.5%). Overall, the ET group experienced slightly higher percentages than the ET group on these indicators. Of noteworthy interest is the rather percentages of unacceptable percentages of unacceptable decisions for both BT and ET groups for indicator number 6

(Provision is made for lesson/activities closure) (BT=74.9%; ET=76.2%).

AIDS AND MATERIALS: In this component, the percentages of acceptable decisions for the BT group ranged from a high of 71.5% (The use of teaching aids is appropriate for methods and objectives) to a low of 41.0% (Use of learning materials broadens student understandings and enhances learning). Although the percentages of acceptable decisions for the ET paralleled the BT group fairly well (the ET group had slightly higher percentages for the majority of indicators) the range of high and low percentages fell on different indicators for the ET group: a high of 73.7% (Teaching aids are used at appropriate times in the lesson) and a low of 47.9% (Learning materials are used properly and accommodate the range of needs and abilities of students. For the eight assessment indicators in this Teaching and Learning Component the percentages of acceptable decisions for both the BT and ET groups varied somewhat relative to the specific focus of individual indicators. The indicators receiving the highest percentages of acceptable decisions for both groups were those dealing primarily with assessment considerations of the teacher's and students' effective and timely use of appropriate aids and materials (indicator numbers: 1,3,5 and 7). The highest percentages of unacceptable assessment decisions were obtained by three indicators dealing specifically with the effective use of aids and materials and the resultant effect on students' learning enhancement: number 4 (The use of teaching aids broadens understandings and enhances learning) (BT=55.0%; ET=49.8%), number 6 (Learning materials are used properly and accommodate the range of needs and abilities of students) (BT=57.6%; ET=52.1%), and number 8 (Use of learning materials broadens student understandings and enhances learning) (BT=59.0%; ET=51.5%).

CONTENT ACCURACY AND EMPHASIS: In this Teaching and Learning Component a wide range of percentages of acceptable decisions occurred across this seven indicator set. There was a close consistency between BT and ET groups on percentages of acceptable decisions across indicators, with the high and low percentages occurring on the same indicators. The highest percentages of acceptable decisions for the BT and ET groups was obtained for indicator number 3 (Content knowledge is accurate and up-to-date) (BT=90.1%; 94.5%), while the lowest percentages

of acceptable decisions for the BT and ET groups were derived for indicator number 2 (Emphasizes the value and importance of topics and activities) (BT=18.6%; ET=19.0%). Overall, the ET group experienced slightly higher percentages of acceptable decisions than the BT group. Four indicators obtained significantly higher percentages of unacceptable decisions compared to the other three. These four assessment indicators, interestingly, involved the most direct assessment concerns regarding the teacher's ability to "utilize" content and "emphasize" content knowledge in ways that would most effectively enhance students' learning: number 1 (Students are given opportunities to learn at more than one cognitive and/or performance level) (BT=68.7%; ET=67.7%), number 2 (Emphasizes the value and importance of topics and activities) (BT=81.4%; ET=81.0%), number 6 (Essential elements of content knowledge and/or performance tasks are emphasized) (BT=74.7%; ET=71.1%), and number 7 (Potential areas or points of difficulty are emphasized throughout the lesson) (BT=77.4%; ET=73.7%).

THINKING SKILLS: This Dimension IV Teaching and Learning Component is somewhat singular in that all of the unacceptable assessment decisions for the eleven indicators comprising this set were all greater than 63%. Across the eleven indicators the percentages of unacceptable decisions between the BT and ET groups consistently paralleled each other very closely. The percentages of unacceptable decisions for the BT and ET groups were: high percentages - (BT=85.7%; ET=86.9%) (Provides opportunities for the extension of learning to new contexts), and low percentages - (BT=63.6%; ET=62.3%) (Wait time is used to enhance student learning). Of the three critical indicators dealing with the "what" of thinking (content) (indicators one through three), all of these indicators obtained percentages of unacceptable decisions greater than 73%. The highest percentages of unacceptable decisions occurred for indicator number 3 (Involves students in developing principles and/or rules) (BT=85.5%; ET=84.7%). While for the remaining seven "how" of thinking indicators (teaching methods and learning tasks) both BT and ET group unacceptable percentages were similarly very high, of special note are the percentages of unacceptable decisions for indicator numbers 10 and 11: number 10 (Encourages creative thinking) (BT=84.6%; ET=85.8%), and number 11 (Provides opportunities for the extension of learning to new contexts

(BT=85.7%; ET=86.9%). For these two indicators, teachers from both BT and ET sample groups received less than 16% acceptable decisions.

CLARIFICATION: The five assessment indicators operationalizing this component reflect somewhat moderate percentages of acceptable decisions by both Bt and ET groups. An interesting, if predictable, characteristic of these percentages is that experienced teachers' percentages of acceptable decisions for these five indicators were all somewhat higher than those for beginning teachers. Percentages of acceptable decisions for the BT group ranged from a 62.4% (Clarifications are made for individuals or small groups rather than for the entire class **or** this type of clarification is not necessary) to a low of 37.6% (Bases for learner difficulties or misunderstandings are sought **or** no misunderstandings or difficulties occur **or** probing is not necessary). The ET group ranged from a high of 64.2% (Clarifications are made for individuals or small groups...) to a low of 44.5% (Areas of misunderstanding or difficulty are identified before students ask questions **or** no misunderstanding or difficulty occurs). An average difference of 6.1 percentage points was evident between percentages of acceptable decisions for the Bt and ET groups. Of particular interest are the relatively high percentages of unacceptable decisions in both BT and ET groups for indicator numbers 1 (BT=62.0%; ET=55.5%) and number 3 (BT=62.4%; ET=54.5%).

PACE: For the three assessment indicators comprising this Teaching and Learning Component, the percentages of acceptable decisions for the BT and ET groups were consistently parallel. Two of the indicators (numbers 1 and 3) obtained moderately high percentages of acceptable decisions: number 1 (Learning activities are implemented at an appropriate pace) (BT=67.3%; ET=64.0%), and number 3 (Provides sufficient time for students to complete learning task(s) (BT=74.3%; ET=70.1%). Assessment indicator number 2, however, had disproportionately high percentages of unacceptable decisions: number 2 (Summarizes or reviews during the lesson to monitor-/assess the pace of teaching and learning) (BT=67.5%; ET=68.3%). This occurrence of very high percentages of unacceptable decisions for this indicator is consistent with similarly high percentages throughout other areas of Dimension IV mentioned above, as well as in the following

"Monitoring" component.

MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT: The percentages of unacceptable decisions for the six assessment indicators in this Teaching and Learning Component ranged from moderately high to very high. The differences in the percentages of unacceptable decisions between the BT and ET groups were slight (the largest variation being 5.5 percentages points). Overall, the percentages of unacceptable decisions for the BT group were a few points higher than for the ET group. Of particular note are the very high percentages of unacceptable decisions obtained by both the BT and ET groups for indicator number 5 (A variety of levels of learning is assessed as appropriate) (BT=82.8%; ET=80.7%).

FEEDBACK: Rather high percentages of unacceptable decisions occurred for both the BT and ET sample groups for the four indicators in this Teaching and Learning Component. The percentages of unacceptable decisions for the BT sample group ranged from a high of 79.4% for indicator number 4 (Provides specific feedback to students when they have mastered learning objective(s)), to a low of 65.5% for indicator number 3 (Revisits students who have responded inadequately). The percentages of unacceptable decisions for the ET sample group were fairly consistent, with some slight variations. The percentages of unacceptable decisions for the ET sample group ranged from a high of 73.4% for indicator number 4, to a low of 62.8% for indicator number 1 (Provides specific feedback to students about responses which are adequate and inadequate). Overall, the percentages of unacceptable decisions for the BT group were slightly higher than for the ET group. The largest variations between the two groups occurred for indicator number 4 (Provides specific feedback to students when they have mastered learning objective(s)) (BT=79.4%; ET=73.4%), and for indicator number 1 (Provides specific feedback to students about responses which are adequate and inadequate) (BT=68.3%; ET=62.8%).

ORAL AND WRITTEN COMMUNICATION: This Teaching and Learning Component received the highest percentages of acceptable decisions of the seventeen components in Dimensions II through IV (See Table I). All of the four indicators received percentages of acceptable decisions for both BT and ET groups exceeding 91.0%, with indicator numbers 1 through 3 receiving percentages that exceeded 95.0%.

Summary Analysis for Assessment Indicators By Each STAR Component "Within" Cognitive Group (Subject Areas: Language, Math, Science, and Social Sciences)

Classroom and Behavior Management: Summary data were compiled for percentages of acceptable and unacceptable assessment decisions for each assessment indicator for each Teaching and Learning Component for Performance Dimension II (Classroom and Behavior Management)(Claudet, Hill, Ellett & Naik, 1990). The groups are categorized by subject areas: the "Language" category encompasses foreign languages, English, reading, and language arts; "Math" includes mathematics, algebra, and calculus; "Science" represents environmental science, biology, physics, chemistry, and life science; and "Social sciences" includes social studies, history, geography, and civics. Results are highlighted for each component.

TIME: This STAR Teaching and Learning Component focuses on efficient allocation and use of time for teaching and learning activities. The percentages for acceptable assessment decisions ranged from a high of 94.2% (Minor interruptions are managed quickly and efficiently **or** there are no interruptions) in the science group to a low of 18.4% (Expectations for maintaining and completing timelines for tasks are communicated to students) for the math group. All group percentages for acceptable decisions were lowest in this assessment indicator (L=20.3%; M=18.4%; S=20.8%; SS=25%). The rather high percentages of unacceptable assessment decisions for indicator number 7 (Supplemental activities are provided as needed to fill the time allocated for learning) are also worth noting. For this assessment indicator, the largest difference in the percentage of unacceptable decisions was noted between the math and social science groups with the unacceptable percentages higher for math classrooms. The difference in percentages for unacceptable decisions in assessment indicator number 1 (Learning activities begin promptly) (L=9.2%; M=9.0%; S=15.3%; SS=16.1%) is also worth noting.

CLASSROOM ROUTINES: The efficient and effective management of classroom routines necessary for the enhancement of learning is the focus of this STAR Teaching and Learning Component. Percentages of acceptable decisions for assessment indicators ranged from a high of 90.0% (Aids, materials and equipment are available and ready for use) for the math group to a low of 49.4% (The attention of students is ensured before directions for routines are given **or**

students are attending) for the science group. The percentage of unacceptable decisions was highest for the science group for each assessment indicator and lowest for the math group on three of the four comparisons. The greatest difference evident in the percentage of unacceptable decisions was noted in indicator number 2 (The teacher gives clear administrative directions for classroom routines **or** no directions are need) between math and science groups (M=27.8%; S=37.1%).

STUDENT ENGAGEMENT: Results for this Teaching and Learning Component show the percentage of classrooms that were assessed as maintaining mean student engagement in learning tasks at or exceeding 90%. The percentage of acceptable decisions for this assessment indicator for each subject area was less than half of the sample for each area. The acceptable decisions ranged from a high of 40.% for the social science group to a low of 34.1% for the science group with the difference being approximately 6%.

MANAGING TASK-RELATED BEHAVIOR: This STAR Teaching and Learning Component consists of six assessment indicators focusing on monitoring and managing students' task-related behavior. Percentages of acceptable assessment decisions for the various subject areas ranged from a high of 56.4% (Verbal and/or non-verbal techniques are used to redirect students who are persistently off-task **or** there is no persistent off-task behavior) for the math group to a low of 31.5% and 31.7% (Active involvement is sought from students who are passively involved in learning **or** no students are only passively involved) for the social science and science groups. Percentages of acceptable assessment decisions for language and math classes were lowest for indicator number 6 (Efforts to redirect students who are persistently off-task are successful **or** there is no persistent off-task behavior) (L=43.6%; M=45.1%). The greatest differences in percentages of unacceptable decisions were noted between math and science classes for assessment indicators number 2 (Active involvement is sought from students who are passively involved in learning**or** no students are only passively involved) (M=54%; S=68.3%), number 3 (Pays attention to/monitors momentary off-task behavior throughout the lesson **or** there is no momentary off-task behavior) (M=44.8%; S=57.1%), number 4 (Verbal and/or non-verbal

techniques are used to redirect students who are persistently off-task **or** there is no persistent off-task behavior) (M=43.6%; S=56%) and number 5 (Uses techniques for maintaining the engagement of students who have been redirected **or** there is no persistent off-task behavior) (M=50.4%; S=63.1%). These summary results suggest that STAR assessors viewed indicators in this component more favorably for math classes than science classes. The percentage of decisions for each subject area for each assessment indicator was slightly below to above 50% unacceptable.

MONITORING AND MAINTAINING STUDENT BEHAVIOR: The focus of this STAR Teaching and Learning Component is on effective management of acceptable and unacceptable student behavior. Percentages of acceptable decisions were greatest for indicator number 3 (Uses appropriate methods to prevent/diffuse situations in which unacceptable behavior may occur **or** there is no unacceptable behavior) for the math group (M=67.7%). Language, science, and social science groups' percentages for acceptable decisions were greatest for indicator number 7 (Uses techniques to stop unacceptable behavior **or** there is no unacceptable behavior) (L=67.8%; S= 60.1%; SS=62.9%). The rather high percentages of unacceptable decisions for assessment indicators number 4 (Students are provided (verbal and/or non-verbal) feedback about acceptable and unacceptable behavior), number 5 (Feedback provided to students about their behavior is consistent with behavioral expectations), and number 6 (Uses positive feedback as a means of cuing behavior expectations for students as needed) are also worth noting. Percentages of unacceptable assessment decisions were greatest for the science group for six of the nine indicators in this Teaching and Learning Component and greatest for the other three indicators in the social science group.

Learning Environment: Summary data of acceptable and unacceptable decisions for assessment indicators from STAR Performance Dimension III, Learning Environment were compiled. Results are highlighted for the two Teaching and Learning Components.

PSYCHOSOCIAL: Assessment indicators in this STAR Teaching and Learning Component focus on the quality of the classroom climate and interpersonal relationships between teacher and

students and among members of the class. The percentages of acceptable decisions for each subject area varied from a high of 87.6% (Warmth and friendliness are demonstrated throughout the lesson) for the math group to a low of 30.6% (Enthusiasm for teaching, learning and the subject being taught is communicated to students) for the social science group and 30.6% (The lesson is personalized for students) for the math group. The greatest percentage of acceptable assessment decisions for each group was noted for assessment indicator number 2 (Warmth and friendliness are demonstrated throughout the lesson) (L=86.5%; M=87.6%; S=87.1%; SS=84.2%). The rather high percentages of unacceptable decisions for indicators number 5 (Comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson) (L=41.6%; M=46.1%; S=52.6%; SS=56.3%) and number 12 (Students are given reasons for actions, decisions or directives made by the teacher as needed) (L=43.1%; M=40.7%; S=40.1%; SS=40.4%) are also worth noting. The greatest difference between groups for percentages of unacceptable assessment decisions was noted for indicator number 10 (The lesson is personalized for students) with an approximate 16% difference between math and science groups (M=69.4%; S=53.4%). Indicators number 5 (Comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson) (L=41.6%; M=46.1%; S=52.6%; SS=56.3%) and number 6 (Considers, recognizes and/or comments on students contributions) (L=32.1%; M=33.3%; S=44.2%; SS=39.5%) depict notable differences in percentages of unacceptable assessment decisions between groups. It should also be noted that the percentages of unacceptable decisions were greatest for the social science group on six of the twelve assessment indicators.

PHYSICAL: The focus of this STAR Teaching and Learning Component reflects a concern for the elements of a physical learning environment that enhances the learning of all students. Each of the four indicators in this component had acceptable percentages slightly below or above 75%. The percentages of acceptable decisions ranged from a high of 95.6% (The classroom is neat, safe and arranged in an orderly manner) for the language group to a low of 73.9% (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose) for

the social science group. Results also show this indicator having the greatest difference in unacceptable decisions between groups (L=18.3%; M=22.3%; S=23.2%; SS=26.1%).

Enhancement of Learning: Summary data were compiled for percentages of acceptable and unacceptable decisions for each assessment indicator for each Teaching and Learning Component for Performance Dimension IV. Results are highlighted for each component.

LESSON AND ACTIVITIES INITIATION: For the ten assessment indicators comprising this first Dimension IV Teaching and Learning Component higher percentages of acceptable decisions were obtained for the majority of indicators (numbers 1, 2 (language only), 5-10) for the Language and Math sample subgroups over the Science and Social Studies classroom subgroups. Overall, the variations in percentages between the Language and Math subgroups, as well as the Science and Social Studies subgroups, were negligible. In two cases, the Science subgroup obtained percentages of acceptable decisions that were slightly higher than the other three classroom groups: indicator 3 (Clearly communicates specific learning outcomes to students) (S=30.0%; L=28.4%; M=28.3%; SS=25.9%), and indicator 4 (The purpose and importance of learning activities are communicated to students) (S=19.0%; M=18.9%; L=17.7%; SS=17.2%). Also, in one instance, the Social Studies subgroup received the highest percentage of acceptable decisions: indicator 10 (As new ideas/concepts/activities are introduced, they are related to past and future learning) (SS=25.9%; S=23.0%; M=21.1%; L=20.4%).

TEACHING METHODS AND LEARNING TASKS: For the six assessment indicators in Teaching and Learning Component, as for the preceding indicator, the Math and Language sample groups received generally higher percentages of acceptable decisions as compared with the Science and Social Studies sample groups. The Math sample subgroup, for five out of the six indicators, received the highest percentages of acceptable decisions. There was one notable exception to this, however, (with the Math sample group receiving the lowest percentage, and the Language sample group receiving the highest percentage) in the distribution of acceptable decisions for indicator 6, (Provision is made for lesson/activities closure) (L=27.4%; S=26.4%; SS=25.7%; M=23.6%). For the most part, the variations among ranges of percentages between the sample groups was slight to

moderate, with larger variations occurring for indicator 1 (Use of methods is appropriate for the complexity of lesson content (L=75.1%; M=77.9%; S=71.2%; SS=61.8%), indicator 3 (Uses two or more methods that enhance student interest and actively involve students in learning tasks) (L=57.1%; M=59.6%; S=49.2%; SS=42.4%), and indicator 4 (The teacher and the students interact in more than one group size) (L=58.8%; M=68.3%; S=47.8%, SS=41.3%).

AIDS AND MATERIALS: In this Teaching and Learning Component, the percentages of acceptable decisions for the Language, Math and Science subgroups were, for the most part, rather closely distributed, while the percentages of acceptable decisions for the Social Studies subgroup averaged 9.6 percentage points below the lower percentage range of the other three subgroups. The widest variation in percentages of acceptable decisions among the four subgroups occurred for indicator 2 (Teaching aids are used properly and accommodate the range of student needs and abilities) (M=64.5%; L=63.7%; S=61.3%; SS=36.5%).

CONTENT ACCURACY AND EMPHASIS: For the seven assessment indicators comprising this Teaching and Learning Component the variation in percentages of acceptable decisions among the four subject area subgroups was relatively slight, with the Math subgroup receiving the highest percentages of acceptable decisions for the majority of indicators (indicators 3-7). Although the Language and Math subgroups did obtain the higher percentages (as compared with the Science and Social Studies subgroups -- similar to the previous Dimension IV indicators) in over 50% of the indicators (indicators 3-5, & 7), there were some interesting exceptions to this pattern where the Science and/or Social Studies subgroups received the higher percentages for certain indicators (with the Language and/or Math percentages dropping appreciably): indicator 1 (Students are given opportunities to learn at more than one cognitive and/or performance level) (S=39.3%; L=33.7%; SS=33.5%; M=29.1%), indicator 2 (Emphasizes the value and importance of topics and activities) (SS=23.9%; S=23.4%; L=17.6%; M=16.6%), and indicator 6 (Essential elements of content knowledge and/or performance tasks are emphasized) (M=32.8%; S=30.4%; SS=28.3%; L=25.8%).

THINKING SKILLS: As already mentioned above, this STAR Teaching and Learning Component is rather unique in that it obtained the lowest overall percentages of acceptable assessment decisions of the seventeen STAR components comprising Dimensions II-IV (21.56% of Maximum, n=5720). For the eleven indicators in this component, the percentages of acceptable decisions were rather closely distributed across the four subject area subgroups, with a few notable exceptions. There were some larger variations among subgroups in three indicators: indicator 4 (Encourages students to think of and recall examples from their own experiences) (L=28.0%; M=12.4%; S=29.6%; SS=25.7%), indicator 7 (Wait time is used to enhance student learning) (L=44.0%; M=40.3%; S=36.3%; SS=32.1%), and indicator 8 (Encourages critical analysis and/or problem solving) (L=16.2%; M=25.9%; S=21.2%; SS=13.8%). As the percentages of acceptable decisions were, for the most part similar across the subgroups, there were some interesting variations among individual subgroups. In six of the eleven indicators the Math subgroup received the lowest percentages of acceptable decisions: indicator 1 (21.1%), indicator 4 (12.4%), indicator 5 (11.8%), indicator 6 (26.0%), indicator 10 (10.2%), and indicator 11 (12.3%). However, in three other indicators the Math subgroup received the highest percentages: indicator 3 (19.4%), indicator 8 (25.9%) and indicator 9 (22.0%). Also, the "wait time" indicator obtained somewhat higher percentages for the Language and Math subgroups (L=44.0%; M=40.3%) than for the Science and Social Studies subgroups (S=36.3%; SS=32.1%).

CLARIFICATION: For the six indicators comprising this Teaching and Learning Component, the Language and Math subgroups received overall higher percentages of acceptable decisions as compared with the Science and Social Studies subgroups. This is consistent with a similar pattern for other components noted earlier. Interestingly, in five of the six indicators, the Science subgroup obtained the lowest percentages of acceptable decisions of the four subgroups.

PACE: Similarly, in this Teaching and Learning Component, the Language and Math subgroup obtained somewhat higher percentages of acceptable decisions than the Science and Social Studies subgroup. The largest variation in percentages across the four subject area subgroups occurred for indicator 1 (Learning activities are implemented at an appropriate pace)

(L=70.1%; M=64.8%; S=61.1%; SS=60.3%).

MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT: In this Teaching and Learning Component the high performance of the Language and Math subgroup as compared with the Science and Social Studies subgroup is also apparent. Of the six indicators in this component the most significant variations in percentages among the four subject area subgroups occurred in: indicator 1 (Monitors students' initial engagement in learning tasks) (L=58.8%; M=58.3%; S=44.2%; SS=48.2%), indicator 2 (Monitors students' engagement during learning tasks) (L=54.2%; M=58.3%; S=41.3%; SS=40.8%), indicator 4 (Solicits a range of responses from students for informal assessment purposes) (L=41.2%; 44.3%; 29.0%; 33.0%), and indicator 6 (Adjustments within the lesson are made as needed **or** no adjustments are necessary) (L=48.6%; M=50.4%; S=40.9%; SS=40.8%).

FEEDBACK: For the four indicators in this Teaching and Learning component, there were substantially higher percentages of acceptable decisions obtained by the Language and Math subgroups, as compared to the Science and Social Studies subgroups. The Math subgroup received the highest acceptable percentages for all four indicators, while the Social Studies subgroup received the lowest percentages for all four indicators. The most significant variations in percentages across the four subject area subgroups occurred for indicator 3 (Revisits students who have responded inadequately) (L=37.4%; M=45.0%; S=25.6%; SS=24.3%), and indicator 4 (Provides specific feedback to students when they have mastered learning objectives) (L=25.5%; M=30.8%; S=17.5%; SS=15.8%).

ORAL AND WRITTEN COMMUNICATION: This Teaching and Learning Component was the only component of the seventeen in Dimensions II-IV that obtained an overall percentage of maximum possible acceptable decisions in the above 90% range (94.70% of Maximum, n=5720). Within this component, there was no appreciable variation noted in percentages of acceptable decisions obtained for four subject area subgroups for indicators 1-3. Indicator four registered slight variation among the four subgroups, with the Language subgroup obtaining the highest percentage of acceptable decisions, while the Social Studies subgroup obtained the lowest:

indicator 4 (Communication is precise with few false starts, interrupters or inappropriate qualifiers) (L=92.5%; M=91.9%; S=90.5%; SS=87.9%).

Summary Analysis for Assessment Indicators By Each STAR Component "Within" Performance Group (Subject Areas: Art, Band, Elective Courses, and Physical Education)

Classroom and Behavior Management: A summary of the percentage of acceptable and unacceptable assessment decisions for each assessment indicator for each STAR Teaching and Learning Component for Performance Dimension II (Classroom and Behavior Management) was compiled (Claudet, Hill, Ellett & Naik, 1990). The results were computed for classroom settings in art (A), band (B), electives (EL), and physical education (PE). Electives include business education, health occupations, home economics, and trade and industrial classrooms. The results are highlighted below.

TIME: This STAR Teaching and Learning Component focuses on the efficient allocation and use of time for teaching and learning activities. Percentages of acceptable assessment decisions vary from a high of 92.4% in elective courses for indicator number 5 (Minor interruptions are managed quickly and efficiently **or** there are no interruptions) to a low of 23.3% for physical education for indicator number 2 (Expectations for maintaining and completing timelines for tasks are communicated to students). Percentages of acceptable decisions for indicator number 2 (Expectations for maintaining and completing timelines for tasks are communicated to students) were the lowest for each subject area (A,B,EL,PE). The greatest difference for unacceptable decisions is noted for indicator number 8 (Learning activities continue until the end of the allocated time period). The unacceptable percentages range from a high of 30.5 for electives to a low of 12.9% for band classes.

The mean percentages of maximum possible for each subject area in Performance Dimension II (Classroom Behavior and Management) and the Star Teaching and Learning Component A (Time) were: Art, 72.0%, Band 78.9%, Electives 72.4%, and Physical Education, 71.7%. These summary results suggest that STAR assessors viewed band settings more favorably than other areas.

CLASSROOM ROUTINES: The concern for efficient and effective management of classroom routines necessary for enhancement of students' learning is reflected in the STAR Teaching and Learning Component. The percentages of acceptable decisions ranged from a low of 55.4% (A) (The attention of students is ensured before directions for routines are given **or** students are attending) to a high of 87.1% (PE) (Aids, materials and equipment are available and ready for use). The difference in percentages for unacceptable decisions was greatest for indicator number 1 (The attention of students is ensured before directions for routines are given **or** students are attending) (B=31.4%; EL=47.6%). The difference between percentages for number 4 (Routine tasks are dealt with in an efficient manner) (A=23.8%; B=17.1%; EL=14.1%; PE=20.4%) is also worth noting.

STUDENT ENGAGEMENT: Decisions for this STAR Teaching and Learning Component show the percentage of classroom settings that maintained an overall classroom engagement rate in learning tasks at or exceeding 90%. The percentages of assessment decisions range from a low of 29.7% (A) to a high of 42.9% (B). The difference in the percentage of unacceptable decisions was 13.2% favoring the subject area of band. The difference between elective courses and physical education was negligible.

MANAGING TASK-RELATED BEHAVIOR: The indicators comprising this STAR Teaching and Learning Component address a concern for monitoring and managing students' task related behavior. Results indicate percentages for acceptable assessment decisions range from a low of 39.2% (PE) (Efforts to redirect students who are persistently off-task are successful **or** there is no persistent off-task behavior) to a high of 67.1 (B) (The teacher provides frequent changes in stimuli throughout the lesson to ensure learner attention and engagement in learning task(s)). Differences between subject areas in the percentages of unacceptable decisions for indicators number 1 (The teacher provides frequent changes in stimuli throughout the lesson to ensure learner attention and engagement in learning task(s)) (A=50.5%; B=32.9%; EL=50.0%; PE=47.1%) and number 3 (Pays attention to/monitors momentary off-task behavior throughout the lesson **or** there is no momentary off-task behavior) are worth noting.

MONITORING AND MAINTAINING STUDENT BEHAVIOR: Addressed in this STAR Teaching and Learning Component is a concern for effective management of acceptable and unacceptable student behavior. Percentages for acceptable assessment decisions are lowest for each subject area for indicator number 6 (Uses positive feedback as a means of cuing behavior expectations for students as needed) (A=28.7%; B=40.0%; EL=30.6%; PE=30.4%) and highest for indicator number 7 (Uses techniques to stop unacceptable behavior **or** none are needed **or** there is no unacceptable behavior) (A=63.4%; B=77.1%; PE=63.3%) with the exception of elective courses which a higher percentage was viewed acceptable for indicator number 3 (Uses appropriate methods to prevent/diffuse situations in which unacceptable behavior may occur **or** there is no unacceptable behavior) (EL=70%). The greatest difference in percentages of unacceptable assessment decisions between subject areas is noted in indicator number 2 (Behavior of the entire class is effectively monitored throughout the lesson)(A=42.6%; B=32.9%; EL=44.1%; PE=48.3%). The difference in the percentage for band and physical education is 15.4% favoring the band classroom settings.

Learning Environment: Summary data were compiled of acceptable and unacceptable assessment decisions for assessment indicators from STAR Performance Dimension III, Learning Environment. Results are highlighted for the two Teaching and Learning Components.

PSYCHOSOCIAL: The focus of this STAR Teaching and Learning Component is on the quality of the classroom climate and positive interpersonal relationships between the teacher and students and among students. The percentages of acceptable decisions for indicators vary across groups ranging from a high of 88.2% (Warmth and friendliness are demonstrated throughout the lesson) for the elective group to a low of 25.4% (The lesson is personalized for students) for the physical education group. The greatest percentage of acceptable assessment decisions for art, elective courses, and physical education are found in indicator number 2 (Warmth and friendliness are demonstrated throughout the lesson) (A=85.1%; EL=88.2%; PE=83.8%). For the band group, assessment indicator number 11 (Is fair and impartial in dealings with students) (B=82.9%) shows the greatest number of acceptable decisions. Indicator number 10 (The lesson is personalized for

students) (A=64.4%; B=48.2%; EL=48.2%; PE=74.6%) appears to indicate the greatest number of unacceptable decisions with the exception of the elective group (Enthusiasm for teaching, learning and the subject being taught is communicated to students) (EL=61.8%). The rather high percentage of unacceptable assessment decisions for indicator number 5 (Comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson) (A=58.4%; B=38.6%; EL=48.2%; PE=67.5%) is worth noting. The greatest difference '28.9%) between groups is also noted in this assessment indicator.

PHYSICAL: This set of four assessment indicators focuses on a concern for the elements of a physical learning environment that enhances the learning of all students. The percentage of acceptable assessment decisions were rather high for this Teaching and Learning component with the exception of indicator number 2 (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose) for the physical education group (45.4%). The lowest percentage of acceptable decisions for each group was for this indicator (A=70.3%; B=74.3%; EL=70.6%; PE=45.4%). The percentage of acceptable decisions range from a high of 95.7% (The functional elements of the learning environment are arranged to effectively implement learning activities) for the band group to a low of 45.4% (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose) for the physical education group. Assessment results show the largest difference between the percentages of unacceptable decisions for indicator number 3 (The functional elements of the learning environment are arranged to effectively implement learning activities) for the art (12.9%) and the band (4.3%) groups.

Enhancement of Learning: A summary was compiled of acceptable and unacceptable assessment decision percentages for each indicator for each STAR Teaching and Learning Component for Performance Dimension IV, (Enhancement of Learning). The results are highlighted for each component.

LESSON AND ACTIVITIES INITIATION: For the ten indicators comprising this Teaching and Learning Component, there was slight to moderate variation in acceptable decision percentages in four the indicators (indicators 1-3, & 5). The Band subgroup received moderate to

significantly higher percentages than the other three performance subgroups in eight indicators (indicators 3-11). A significant higher percentage of acceptable decisions relative to the other three subgroups was obtained by the Band subgroup for indicator 8 (Encourages all students to participate) (A=55.4%; B=71.4%; E=48.8%; P.E.=57.5%); whereas the P.E. subgroup received a significantly lower percentage of acceptable decisions as compared to the other subgroups for indicator 10 (As new ideas/concepts/activities are introduced, they are related to past and future learning) (A=26.7%; B=34.3%; E=31.8%; P.E.=12.5%).

TEACHING METHODS AND LEARNING TASKS: For the six assessment indicators in this Teaching and Learning Component variation in percentages of acceptable decisions across the four performance subgroups was moderate for the most part, with some significant variations occurring in specific indicators. For all six indicators, the Band subgroup obtained the highest percentages of acceptable decisions, while in four of the six indicators (indicators 1-3, & 5) the P.E. subgroup received the lowest percentages. The indicators demonstrating the widest variation in percentages of acceptable decisions among subgroups were indicator 3 (Uses two or more methods that enhance student interest and actively involve students in learning tasks) (A=49.5%; B=71.4%; E=49.4%; P.E.=46.7%), and indicator 5 (Methods and learning tasks used enhance mastery of learning objectives) (A=55.4%; B=62.9%; E=46.5%; P.E.=45.0%).

AIDS AND MATERIALS: In this Teaching and Learning Component the Art and Band performance subgroups obtained moderate to significant higher percentages of acceptable decisions as compared to the electives (business educ., health educ., & home economics courses) and P.E. subgroups. In the two indicators dealing specifically with using aids and materials in ways that "broaden and enhanced student learning", the differences between these two groupings were especially pronounced: indicator 4 (The use of teaching aids broadens understandings and enhances learning) (A=58.4%; B=64.3%; E=48.2%; P.E.=43.8%), and indicator 8 (Use of learning materials broadens student understandings and enhances learning) (A=62.4%; B=77.1%; E=52.4%; P.E.=46.3%). The Band subgroup obtained the highest percentages of acceptable decisions for seven of eight indicators, while the P.E. subgroup obtained the lowest percentages of acceptable

decisions for six of eight indicators. Of particular interest are the relatively high percentages of unacceptable decisions for the P.E. subgroup (as compared to the other performance subgroups) for three indicators: indicator 4 (A=41.6%; B=35.7%; E=51.8%; P.E.=56.3%), indicator 6 (A=30.7%; B=27.7%; E=44.7%; P.E.=55.0%), and indicator 8 (A=37.6%; B=22.9%; E=47.6%; P.E.=53.8%).

CONTENT ACCURACY AND EMPHASIS: For the seven assessment indicators in this Teaching and Learning Component, the Band subgroup obtained significantly higher percentages of acceptable decisions as compared with the other three subgroups in four indicators: indicator 1 (Students are given opportunities to learn at more than one cognitive and/or performance level) (A=34.7%; B=40.0%; E=30.6%; P.E.=15.4%), indicator 5 (Directions and explanations related to lesson content and/or learning tasks are effective) (A=56.4%; B=71.4%%; E=57.1%; P.E.=56.7%), indicator 6 (Essential elements of content knowledge and/or performance tasks are emphasized) (A=27.7%; B=45.7%; E=26.5%; P.E.=24.2%), and indicator 7 (Potential areas or points of difficulty are emphasized throughout the lesson) (A=28.7%; B=55.7%; E=21.2%; P.E.=23.8%). Of particular note are the significantly high percentages of unacceptable decisions obtained by the P.E. subgroup (compared to the other three performance subgroups) for indicators 1 and 2: indicator 1 (Students are given opportunities to learn at more than one cognitive and/or performance level) (A=65.3%; B=60.0%; E=69.4%; P.E.=84.6%), and indicator 2 (Emphasizes the value and importance of topics and activities) (A=79.2%; B=70.0%; E=67.6%; P.E.=87.1%).

THINKING SKILLS: In the eleven indicators comprising this Teaching and Learning Component, there was slight to moderate variation in evidence among percentages of acceptable decisions in the Art, Band and Elective subgroups, with the percentages obtained for the P.E. subgroup significantly lower than these other three subgroups in ten of eleven indicators. In three specific indicators, the Band and Elective subgroups received appreciably higher percentages of acceptable decisions than the Art and P.E. subgroups: indicator 1 (Associations are taught and used in learning) (A=16.8%; B=28.6%; E=27.1%; P.E.=10.8%), indicator 2 (Involves students in developing concepts) (A=12.9%; B=21.4%; E=17.1%; P.E.=10.0%), and indicator 7 (Wait time is used to enhance student learning) (A=23.8%; B=41.4%; E=32.9% P.E. 15.8%). Also, of interest

are the significantly higher percentages of acceptable decisions obtained by the Art and Band subgroups (as compared to the Elective and P.E. subgroups) for indicator 10 (Encourages creative thinking) (A=32.7%; B=21.4%; E=10.6%; P.E.=4.2%), and, to a lesser extent, indicator 11 (Provides opportunities for the extension of learning to new contexts) (A=17.8%; 21.4%; E=14.1%; P.E.=7.9%). In indicator eleven just mentioned, and in indicator 5 (Encourages students to use mental imagery) (A=24.8%; B=11.4%; E=11.8%; P.E.=7.1%), the Art subgroup received the highest percentages of acceptable decisions.

CLARIFICATION: For the five assessment indicators comprising this Teaching and Learning Component, characteristics noted above in earlier components in Dimension IV are reflected here as well. For four of the five indicators, the Band performance subgroup received moderately higher percentages of acceptable decisions than the other three subgroups. Also, in four of the five indicators the P.E. subgroup obtained the lowest percentages. The widest variation in percentages of acceptable decisions among the four performance subgroups occurred in indicator 2 (Different words or examples are used in clarification **or** no clarification is needed) (A=48.5%; B=65.7%; E=58.8%, P.E.=50.4%), and indicator 3 (Bases for learner difficulties or misunderstandings are sought **or** no misunderstandings or difficulties occur **or** probing is not necessary) (A=42.6%; B=54.3%; E=47.1%; P.E.=42.1%). Of particular note are the somewhat higher percentages of acceptable decisions obtained by the Art and Elective subgroups for indicator 4 (Clarifications are made for individuals or small groups rather than for the entire class **or** this type of clarification is not necessary) (A=74.3%; B=65.7%; E=74.1%; P.E.=60.0%). This may be due, simply, to the nature of the "kinds" of learning activities normally occurring in these types of classrooms, allowing slightly more opportunities for individual attention.

PACE: Of the three assessment indicators comprising this Teaching and Learning Component, indicator 3 (Provides sufficient time for students to complete learning task(s)) obtained the most consistency in percentages of acceptable decisions across the four performance subgroups (A=79.2%; B=77.1%; E=75.3%; P.E.=72.9%). For the other two indicators, the Band subgroup obtained significantly higher percentages of acceptable decisions than the other three subgroups:

indicator 1 (Learning activities are implemented at an appropriate pace) (A=73.3%; B=84.3%; E=68.8%; P.E.71.3%), indicator 2 (Summarizes or reviews during the lesson to monitor/assess the pace of teaching and learning) (A=21.8%; B=48.6%; E=27.6%; P.E.=23.8%). Of special note are the moderately to significantly high percentages of unacceptable decisions obtained by all four subgroups for indicator 2 (A=78.2%; B=51.4%; E=72.4%; P.E.=76.3%) over the other two indicators.

MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT: Consistent with results obtained for earlier components in Dimension IV, the Band subgroup received significantly higher percentages of acceptable decisions for all six of the indicators in this component as compared with the other three performance subgroups. The Art, Elective and P.E. subgroups experienced slight to moderate variation among themselves in percentages of acceptable decisions for these six indicators. Of particular interest are the very high percentages of unacceptable decisions obtained by the Art, Elective and P.E. subgroups for indicators 4 and 5: indicator 4 (solicits a range of responses from students for informal assessment purposes) (A=73.3%; B=55.7%; E=74.7%; P.E.=81.3%), indicator 5 (A variety of levels of learning is assessed as appropriate) (A=89.1%; B=71.4%; E=80.0%; P.E.=87.9%).

FEEDBACK: This assessment component also reflected characteristics noted above in earlier Dimension IV components. For the four assessment indicators comprising this Teaching and Learning Component, moderately to significantly higher percentages of acceptable decisions occurred in the Art and Band subgroups over the Elective and P.E. subgroups. The Band subgroup obtained the highest percentages of acceptable decisions for all four indicators, while the P.E. subgroup received the lowest percentages of acceptable decisions for three out of four indicators.

ORAL AND WRITTEN COMMUNICATION: In the four indicators comprising this Teaching and Learning Component, although all of the percentages of acceptable decisions were relatively high (see Table 1, Component J: 94.70% of Maximum, N=5720), there was some slight variation in percentages of acceptable decisions across the four subgroups. In three of the four indicators the Band subgroup received slightly higher percentages of acceptable decisions than the

other three subgroups (indicators 2-4). While for indicator 1 (Written language used in lesson presentation is accurate) the Art and Elective subgroups obtained slightly higher percentages of acceptable decisions (A=94.1%; B=88.6%; E=93.5%; P.E.=83.3%).

Summary Analysis For Assessment Indicators By Each STAR Component "Between" Cognitive and Performance Groups

Classroom and Behavior Management: Summaries of acceptable and unacceptable decisions for assessment indicators for Performance Dimension II, Classroom and Behavior Management for performance and cognitive type classroom settings were compiled in table form (Claudet, Hill, Ellett & Naik, 1990). Comparisons of the results are highlighted below.

TIME: These eight indicators focus on the efficient allocation and use of time for teaching and learning activities. As shown in Tables 10 and 11, the percentage of acceptable decisions for assessment indicators in this component varied between groups. The average percentage of acceptable decisions was considerably greater for the cognitive classroom settings (L;M;S;SS) for indicators number 1 (Learning activities begin promptly) and number 5 (Minor interruptions are managed quickly and efficiently **or** there are no interruptions). The average percentage of acceptable decisions for the performance classroom settings (A;B;EL;PE) was greater for indicator number 2 (Expectations for maintaining and completing timelines for tasks are communicated to students). Each group consistently scored highest (Minor interruptions are managed quickly and efficiently **or** there are no interruptions) and lowest (Expectations for maintaining and completing timelines for tasks are communicated to students) on these two indicators. The overall percentages of acceptable decisions for this component ranged from a high of 78.9% for band to a low of 69.8% for science.

CLASSROOMS ROUTINES: The focus of this STAR Teaching and Learning Component is on efficient and effective management of classroom routines necessary for enhancement of students' learning. The greatest percentage of acceptable decisions for assessment indicators is shown for indicator number 3 (Aids, materials and equipment are available and ready to use) for each group. The percentage of acceptable decisions for this indicator ranged from a high of 90.0%

for the math group to a low of 83.2% for the art group. Results for indicator number 1 (The attention of students is ensured before directions for routines are given **or** students are attending) indicate the highest percentages of unacceptable decisions for each group ranging from a high of 50.6% unacceptable for the science group to a low of 31.4% unacceptable for the band group.

STUDENT ENGAGEMENT: Decisions for this STAR Teaching and Learning Component reflect the percentage of classroom settings that maintained an overall classroom engagement rate in learning tasks at or above 90%. The percentage of acceptable decisions for this assessment indicator was greater for the cognitive areas (L=37.3%; M=37.6%; S=34.1%; SS=40.0%) than for the performance areas with the exception of band (42.9%), where the greatest percentage of acceptable decisions was made.

MANAGING TASK-RELATED BEHAVIOR: This Star Teaching and Learning Component comprises a set of six assessment indicators that focus on monitoring and managing students' task-related activities. As shown in tables 8 and 11, percentages for acceptable decisions for assessment indicators varied across groups ranging from a high of 67.1% (The teacher provides frequent changes in stimuli throughout the lesson to ensure learner attention and engagement in learning activities) for band classes to a low of 31.5% (Active involvement is sought from students who are passively involved **or** no students are only passively involved) for social science classes. It should be noted that science classes as well, had a low percentage (31.7%) of acceptable decisions for this particular assessment indicator. The science and social science class percentages of acceptable decisions were considerably lower than other groups for each assessment indicator with the exception of indicator number 3 (Pays attention to/monitors momentary off-task behavior throughout the lesson **or** there is no momentary off-task behavior) where physical education classes also had a considerably low percentage of acceptable decisions (S=42.9%; SS=44.9%; PE=43.3%). The percentage of acceptable decisions for each assessment indicator was greater for band classes than any other group. The greatest difference between performance and cognitive type groups was noted for indicator number 1 (The teacher provides frequent changes in

stimuli throughout the lesson to ensure learner attention and engagement in learning task(s) between band and social sciences (B=67.1%; SS=40.2%). The percentage for unacceptable decisions was greater than 50% for each assessment indicator for science and social science settings. Physical education settings also had percentages of unacceptable decisions greater than 50% with the exception of indicator number 1 previous mentioned.

MONITORING AND MAINTAINING STUDENT BEHAVIOR: This STAR Teaching and Learning component addresses effective management of acceptable and unacceptable student behavior. Percentages for acceptable decisions for all groups were at or exceeded 50% for six of the nine assessment indicators. The percentages for these six assessment indicators ranged from a high of 77.1% (Uses techniques to stop unacceptable behavior **or** none are needed **or** there is no unacceptable behavior) for band to a low of 50% (Behavior of the entire class is effectively monitored throughout the lesson) for science. Of particular interest are the rather high percentages of unacceptable decisions for three of the assessment indicators for performance and cognitive type settings. Percentages of unacceptable decisions exceed 60% for indicators number 4 (Students are provided (verbal and/or nonverbal) feedback about acceptable and unacceptable behavior) and number 5 (Feedback provided to students about their behavior is consistent with behavioral expectations) with the exception of band. The percentage of unacceptable decisions for indicator number 6 (Uses positive feedback as a means of cuing behavior expectations for students as needed) was at or above 60% for each subject area ranging from 60% for band to 73% for social sciences. The greatest range between groups was noted for indicator number 2 (Behavior of the entire class is effectively monitored throughout the lesson) where the difference was 17.1% between percentages of unacceptable decisions for band and science (B=32.9%; S=50%).

Learning Environment: A summary table of acceptable and unacceptable decisions for assessment indicators from STAR Performance Dimension III, Learning Environment was analyzed. Comparisons were made between performance and cognitive type settings.

PSYCHOSOCIAL: The quality of the classroom climate and positive interpersonal relationships between the teacher and students and among students is the focus of this STAR

Teaching and Learning Component. Assessment indicators number 1 (Establishes a classroom climate of courtesy and respect)(L=86.0%; M=86.2%; S=86.3%; SS=81.5%; EL=86.5%) and number 2 (Warmth and friendliness are demonstrated throughout the lesson) (L=86.5%; M=87.6%; S=87.1%; SS=84.2%; EL=88.2%) were noted as having the greatest percentages of acceptable decisions for the cognitive type settings and elective courses consisting of business education, health occupation, home economics, and trade and industrial classes. Assessment indicator number 10 (Is fair and impartial in dealings with students) (A=85.1%; B=82.9%; PE=79.2%) was noted as having the greatest percentage of acceptable decisions for the performance areas of art, band, and physical education. Indicators number 4 (Enthusiasm for teaching, learning and the subject being taught) (L=60.9%; M=64.7%; S=66.1%; SS=69.4%; A=64.4%; B=51.4%; EL=61.8%; PE=59.2%) and number 10 (The lesson is personalized for students) (L=59.9%; M=69.4%; S=53.4%; SS=53.8%; A=64.4%; B=68.6%; EL=48.2%; PE=74.6%) present the greatest percentage of unacceptable decisions for each subject area with the exception of social sciences and physical education where the greatest percentage of unacceptable decisions was made for indicator number 5 (Comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson) (SS=56.3%; PE=67.5%). This indicator also presents the greatest difference in unacceptable decisions between groups with an approximate 30% difference between language and physical education (L=41.6%; PE=67.5%).

PHYSICAL: The focus of the four assessment indicators comprising this STAR Teaching and Learning Component is on the elements of a physical learning environment that enhances the learning of all students. The percentage of acceptable decisions for each assessment indicator was at or exceeded 70% with the exception of indicator number 2 (Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose) for physical education classes (PE=45.4%). Indicator number 1 (The classroom is neat, safe, and arranged in an orderly manner) presents the greatest percentage of acceptable decisions for three of the cognitive areas and one in the performance area of physical education. For performance areas of art, band, and elective classes, the arrangement of functional elements in the classroom is noted for the greatest percentage

of acceptable decisions. The greatest difference in percentages of unacceptable decisions between groups is shown in indicator number 4 (Arranges the functional elements of the learning environment to accommodate students with special needs **or** there are no students with special needs) ranging from a high of 15.4% for physical education to a low of 5.6% for social sciences.

Enhancement of Learning: A summary table of acceptable and unacceptable decisions for assessment indicators for STAR Dimension IV, Enhancement of Learning was analyzed and comparisons were made between performance and cognitive type settings. Results are highlighted for each Teaching and Learning Component.

LESSON AND ACTIVITIES INITIATION: For the ten assessment indicators in this Teaching and Learning Component, the "cognitive" and "performance" subgroups exhibited relatively close consistency between patterns of percentages of acceptable decisions for five of the indicators (1-3, 5 & 9). For the remaining five indicators there was wider variation obtained in the performance subgroup due to the significantly higher percentages occurring for the Band performance group.

TEACHING METHODS AND LEARNING TASKS: Similarly, for the six indicators comprising this Teaching and Learning Component, although there was a discernible pattern of consistency between the cognitive and performance groups in overall percentages obtained, the performance subgroup received moderately to significantly higher percentages of acceptable decisions in the Band performance subgroup for indicators 3-5. Additionally, slightly wider variations in the percentages of acceptable decisions occurring within the four performance subject area subgroupings were noted, as compared with the cognitive group.

AIDS AND MATERIALS: For the most part, there was fairly close consistency apparent between the cognitive and performance groups in comparisons of percentages of acceptable decisions obtained within and across the four subject areas contained in each group. Both groups experienced lower percentages of acceptable decisions across the subject areas for indicators 4 and 8 (aids and materials "broaden and enhance learning"). Comparatively, however, the cognitive group's percentages of acceptable decisions obtained for these two indicators were appreciably

lower than those obtained by the performance group.

CONTENT ACCURACY AND EMPHASIS: In this Teaching and Learning Component, the relatively close pattern of internal consistency among the percentages of acceptable decisions obtained for the four cognitive subject areas group contrasts with the performance group, in which wider "within" variation occurred. In the cognitive group the widest variation among the subject areas was 8.2 percentage points, whereas in the performance group, percentage variations among acceptable decisions varied by as much as 34.5 percentage points. The most significant differences between the cognitive and performance groups were evident in terms of extent of "within" variation occurred for indicators 1, & 5-7).

THINKING SKILLS: For the eleven assessment indicators comprising this Teaching and Learning Component, there was moderate to close consistency exhibited between the cognitive and performance groups in degree of "within" variation in percentages of acceptable decisions among subject areas. Overall, however, the cognitive subject areas group obtained slightly higher percentages of acceptable decisions for the majority of indicators. Of particular interest were deviations in this general tendency on two particular indicators where the subject areas within the performance group obtained significantly higher percentages of acceptable decisions in proportion to the cognitive group: indicator 5 (Encourages students to use mental imagery (Art), and indicator 10 (Encourages creative thinking) (Art & Band).

CLARIFICATION: In this Teaching and Learning Component, there was relatively close consistency between the cognitive and performance groups across the five indicators. Overall, the individual percentages of acceptable decisions for subject areas contained in the performance group were slightly higher than those for the cognitive group.

PACE: In the three assessment indicators comprising this Teaching and Learning Component the distribution of percentages of acceptable decisions rather closely paralleled each other in the cognitive and performance groups. A notable exception was the appreciably higher percentages obtained by the Band subgroup for indicators 1 and 2 (roughly 15 to 20 percentages higher than the percentages for the other subject areas).

MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT: In this Teaching and Learning Component, a similar pattern is evident in comparisons of the cognitive and performance groups as noted above in previous Dimension IV components. Although there is moderate consistency between the two groups in terms of "within" distribution ranges of acceptable decision percentages, there are some notable exceptions in this pattern in the significantly higher percentages of acceptable decisions obtained in the Band performance subgroup, as well as the proportionately much higher percentages of unacceptable decisions occurring in the Art and P.E. performance subgroups (in comparison with other subject areas in both the cognitive and performance groups) for indicator 4 (Solicits a range of responses from students for informal assessment purposes) and indicator 5 (A variety of levels of learning is assessed as appropriate).

FEEDBACK: For the four assessment indicators comprising this Teaching and Learning Component, overall the pattern of percentages of acceptable decisions obtained for the subject areas in the performance group were moderately to significantly higher than those obtained for the subject areas represented in the cognitive group. Of particular note is indicator 2 (Suggestions for improving performance are provided to students **or** none are needed) for which all of the four subject areas in the performance group received significantly higher percentages of acceptable decisions than the subject areas in the cognitive group.

ORAL AND WRITTEN COMMUNICATION: Across the four indicators in this Teaching and Learning Component, there were no appreciable variations in the pattern of acceptable decisions "within" the groups by subject area. There is close consistency apparent in the distribution of percentages obtained for the various subject areas in both the cognitive and performance groups.

Summary Comparisons Between 1989 (First Pilot Year) and 1989-90 (Second Pilot Year) STAR Teaching and Learning Components

The 1990 results of the percentage of maximum possible scores for each STAR Teaching and Learning Component provide some interesting findings in comparison to 1989 assessment decisions (see Table 5).

CLASSROOM AND BEHAVIOR MANAGEMENT: In Performance Dimension II (Classroom Behavior and Management) the STAR Teaching and Learning Component Classroom Routines was found to have the highest percentage of maximum possible scores for both pilot years. The pilot results for both years also indicate that teachers in the same component (II.C - Student Engagement) received the lowest percentages of the maximum possible score (of the components in this Dimension). A difference was noted in the components of Student Engagement, Managing Task-Related Behavior, and Monitoring and Maintaining Student Behavior where the percentage of maximum possible scores decreased somewhat for the total sample (n) in the 1989-90 pilot year. The average difference for these three components was approximately 12%.

LEARNING ENVIRONMENT: The results for the Physical Learning Environment (1989=88.69%: 1989-90=88.03%) are most similar and show a higher acceptability of indicators in both pilot years than the Psychosocial Learning Environment (1989=72.73%; 1989-90=66.40%).

ENHANCEMENT OF LEARNING: The Dimension IV Component percentage figures obtained for the second pilot year show moderate to significantly lower teacher percentages of maximum possible scores for the enhancement of learning components in comparison with first pilot year results. Pilot results continue to show the STAR Teaching and Learning Component of Thinking Skills as obtaining the lowest percent of the possible number of acceptable indicators and Oral and Written Communication as obtaining the greatest percentage of possible indicators. The most significant variations (decrease in percentages in second year) in teacher percentages of maximum possible scores across pilot years were obtained in four critical components areas: Lesson and Activities Initiation (1989=50.23%; 1989-90=34.45% --- 15.78% decrease); Thinking Skills (1989=38.83%; 1989-90=21.56% --- 17.27% decrease); Monitoring Learning Tasks and

Informal Assessment (1989=54.09%; 1989-90=43.15% --- 10.94% decrease); and Feedback (1989=53.02%; 1989-90=33.22% --- 19.8% decrease).

Discussion, Implications and Conclusions

The results of the series of analyses reported in this study provide some interesting findings relative to assessments of a large-scale sampling (n=5720) of Louisiana teachers. This cross-section of Louisiana classrooms encompasses a variety of subject areas and multiple teaching/learning contexts. As these assessments were completed during STAR second pilot year efforts (1989-90), the expanded database of classroom assessments obtained provided an opportunity to make comparisons of teacher classroom performance both within this second pilot year sample on a variety of variables (e.g., elementary vs. secondary classrooms, beginning vs. experienced teachers, subject area/content, etc.), and also across first and second pilot year sets of teacher assessments. An important consideration in reviewing and comparing the results of data obtained from the first and second pilot years is the fact that, during the first pilot year (Spring, 1989), teachers taking part in field assessments had, for the most part, no orientation or prior knowledge of the STAR assessment components or indicators. As assessor certification sessions continued into the second pilot year, however, a growing number of Louisiana principals and master teachers, through STAR assessor certification training, were becoming knowledgeable in the STAR process. Thus, these educators upon returning to their schools became valuable resource persons to disseminate knowledge about the content of the STAR teaching/learning conceptual framework and the observation/assessment process. As a result of this increased availability of resource information, it is interesting to examine the effects, if any, that this might have on teacher assessments obtained during the second pilot year as opposed to the first.

As indicated in the results section of this study, teachers in second pilot year assessments with the STAR received slightly to moderately lower percentages of maximum possible scores on components in STAR Dimensions II. Dimension III comparisons demonstrated the most stability across pilot year assessments. The most significant variations in teacher performance percentages across pilot year assessments occurred in STAR Dimension IV. This is particularly noteworthy

given the fact that Dimension IV (Enhancement of Learning) emphasizes critical teacher performance areas related to the effectiveness of teachers' implementation of classroom methods and content structure, as well as the overall enhancement of students' thinking and learning. Variations in percentage scores in four "key" Dimension IV component areas, deemed especially important, serve to highlight the differences. These four key teaching and learning components include: Lesson and Activities Initiation (an important element for motivating students and for providing "structure" to learning tasks); 2) Thinking Skills (the active involvement of students in higher order thinking skill development); 3) Monitoring Learning Tasks and Informal Assessment (the purposeful and continuous monitoring by teachers of the degree of student comprehension and learning); and 4) Feedback (providing students with feedback about both adequate and inadequate performances). Percentages of maximum possible scores obtained for these components during the second pilot assessments were all significantly lower than for first pilot year. These percentage decreases were as follows: IV.A. Lesson and Activities Initiation -- 15.78% decrease; IV.E. Thinking Skills -- 17.27% decrease; IV.H. Monitoring Learning Tasks and Informal Assessment -- 10.94% decrease; and IV.I. Feedback -- 19.8% decrease. These percentage decreases may be attributable to continued refinements in the quality of STAR assessor certification training during the second pilot year, resulting in a more comprehensive grasp of the STAR process and assessment indicators. Thus, second year STAR assessors may have been somewhat more stringent and discriminating in their professional judgments with the STAR concerning "acceptable" versus "unacceptable" assessment decisions. This seems particularly the case with the Thinking Skills Component.

As already described above, second pilot year assessment data results indicate considerable teacher variability across STAR Performance Dimensions - particularly when compared with data from the first pilot year. Assessment data from both first and second pilot year classrooms indicate consistent "high performance" on the STAR components of: Physical Learning Environment (III.B) and Oral and Written Communication (IV.J). Results from both pilot years yielded "percentage of maximum possible" scores on these two components that were considerably higher than the

percentages obtained for other STAR components. These results, when compared to much smaller percentages for other components, suggest that performance standards set relative to various components may need to be set at different levels (Ellett, 1990b).

Results from this study demonstrate that the most pronounced variability on performance percentages "within" dimensions occurred in Dimension IV. Significant differences were obtained by teachers during both pilot year assessments on percentages of maximum acceptable scores received on relatively "high ceiling" components (e.g., Oral and Written Communication) as compared with more critical "key" STAR components (e.g., Lesson and Activities Initiation, Thinking Skills, Monitoring Learning Tasks and Informal Assessment, and Feedback). It seems clear from the second pilot year assessment data that Louisiana teachers are performing very well in some STAR component areas while demonstrating substantially lower performances in other, and perhaps more "critical", areas (e.g., enhancement of student learning). One important implication suggested by these findings is the desirability of continuing efforts to prepare teachers for STAR assessments and to utilize staff development activities for improving teaching and learning. Particular staff development and improvement targets include: 1) actively engaging students in learning; 2) monitoring of students' understandings; 3) providing purposeful feedback; and, 4) soliciting students' involvement in higher order thinking.

The teacher performance variability just described extends as well to the results of the series of comparative analyses of teachers "across" various dataset subgroups. Results from the elementary/secondary teacher comparisons indicate that elementary teachers obtained slightly to moderately higher percentages of acceptable decisions on various components within the STAR than secondary teachers. This was particularly the case for Dimensions II and IV. Secondary teachers, relative to elementary teachers, scored lower in: 1) managing classroom time effectively (II.A) - including efficient lesson initiation and closure; 2) monitoring student task-related behavior (II.D) and demeanor (II.E); 3) maintaining content-related displays (III.B); 4) using appropriate aids in a timely way (IV.C); and, 5) monitoring students' comprehension and enhancement of learning (IV.H). On the other hand, secondary teachers were found to obtain moderately higher percentages

of acceptable decisions over elementary teachers in actively involving students in some important thinking skills areas, such as: the development of concepts (IV.E.2) and incorporating wait time (IV.E.7) into activities. Considered collectively, these results suggest that elementary teachers place somewhat more emphasis on those aspects of classroom effectiveness associated with tangible preparation concerns (e.g., teacher aids, content-related displays, etc.) and are involved in more active student monitoring (particularly in Dimension II areas) -- more "teacher-directed" concerns; whereas secondary teachers emphasize to a lesser extent these types of teacher "structuring" techniques, placing greater emphasis on encouraging "teacher-assisted" direct student involvement in lessons.

Not surprisingly, findings when comparing beginning and experienced teacher subgroups tended to corroborate the old adage "expertise comes with experience". Acceptable decision percentages across components for the experienced teacher subgroup were slightly to moderately higher than those for beginning teachers -- particularly in some important classroom management areas (II.A.3 - managing unnecessary delays; II.B - providing supplemental activities when needed), as well as 'student monitoring' components, both in Dimension II (II.B - ensuring students' attention for classroom routines, II.D - Managing Task-Related Behavior, II.E - Monitoring and Maintaining Student Behavior) and Dimension IV (Monitoring Learning Activities and Informal Assessment). It is interesting to note that these component areas in which beginning teachers tended to fair less favorably than experienced teachers represent teaching techniques and abilities which teachers seem to "refine" through experience.

In the comparative analysis of teacher performances on the STAR in cognitive-oriented versus performance-oriented classrooms, cognitive and performance subgroups tended to perform somewhat differentially on individual component and dimensions areas, with some variability within groups by specific subject area. Overall comparison patterns suggest that, although the cognitive subgroup performed slightly higher than the performance subgroup on the majority of STAR component areas, there were some notable exceptions. The individual performance subgroups of Band, and to a lesser extent the Art and Electives subgroups, received significantly

higher percentages of acceptable decisions than the other subject area subgroups (including the cognitive subgroups) in the individual STAR component areas of: IV.E: Thinking Skills (particularly, in the areas assessing students' use of mental imagery and creative thinking); IV.H - Monitoring and Informal Assessment; and IV.G - Pace. A possible explanation for this finding may lie in the nature of these types of "performance-oriented" subject areas. Teachers may be more consciously aware of the importance and effects of monitoring strategies on student engagement in learning tasks and active involvement in "thinking" during these kinds of subject area lessons. The "high-involvement" atmosphere characteristic of performance-oriented classrooms such as Band and Art reflect a focused interest on the part of teachers in these areas on cultivating and encouraging continuous active and high quality involvement from students. The extent to which teachers in these subject areas are overtly concerned with initiating and maintaining high student motivation by means of challenging performance tasks, coupled with high concern for active teacher monitoring of student involvement levels, are important teaching strategies that clearly impact on the enhancement of student learning. One implication of these results may be that comparisons of different teaching methods and strategies employed by teachers in different disciplines/subject areas may inform teachers about and increase their "repertoire" of effective methods for motivating and involving students in learning within their own content area.

The consistently higher percentage levels obtained by teachers on typically "high ceiling" components, such as Physical Learning Environment (III.A) and Oral and Written Communication (IV.J), may suggest that performance standards for these components should be higher than those for other components. For example, in the four "key" component areas in Dimension IV discussed above, it is clear that performance standards for these components should entail realistic expectations that reflect the results of "baseline" teacher performance data obtained during the first and second pilot years.

Pilot datasets of "baseline" teacher assessments have already been utilized in the setting of preliminary performance standards for the STAR components (Ellett, 1990b). These initial standards are reflective of the variability in teacher performances across STAR component areas

based on samplings of teachers' "everyday practice" in classrooms under "normal" conditions. It becomes even more imperative that further refinement of the STAR Component performance standards be undertaken during the first year of statewide STAR implementation (1990-91), when data are obtained from assessments of teachers' performances under "high stakes" conditions. As the STAR is designed to observe and assess teachers at their best, and if teachers - as predicted - do perform somewhat better (data negatively skewed) on various STAR Teaching and Learning Components under these "higher stakes" conditions, performance standards will need to be adjusted accordingly (Ellett, 1990b). Even under "high stakes" conditions, however, it is anticipated that there will be substantial variability in performance percentages among teachers, particularly in those STAR Teaching and Learning Components (Dimension IV) that the pilot "baseline" assessments indicate most clearly differentiate teachers according to quality of performance.

Finally, the summary analysis of statewide data presented above has important implications for professional staff development. An informed knowledge of strengths and weaknesses of classroom teaching and learning as found in Louisiana's classrooms can serve as an important reference point for future teacher inservicing efforts and benefit the continued professional development and growth of all teachers. Additionally, although this discussion has focused on the variabilities within and between content areas and educational levels in the data, it is important to keep in mind that with the STAR system, since the final assessment decision rests with a teacher's "overall" assessment score, some variability in classroom performance is possible.

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APPENDIX A
Tables

TABLE 1
Percentage of Maximum Possible for Teaching and Learning Components for Each Dimension of the STAR
(Indicators = 108)
(N = 5720)

TEACHING AND LEARNING COMPONENTS	# of Indicators	Maximum Possible	% of Maximum
PERFORMANCE DIMENSION II: CLASSROOM AND BEHAVIOR MANAGEMENT			
A. Time	8	43,784	72.39
B. Classroom Routines	4	21,892	74.17
C. Student Engagement	1	5,473	36.87
D. Managing Task-Related Behavior	6	32,838	48.48
E. Monitoring and Maintaining Student Behavior	9	49,257	54.21
PERFORMANCE DIMENSION III: LEARNING ENVIRONMENT			
A. Psychosocial	12	65,676	66.40
B. Physical	4	21,892	88.03
PERFORMANCE DIMENSION IV: ENHANCEMENT OF LEARNING			
A. Lesson and Activities Initiation	10	54,730	34.45
B. Teaching Methods and Learning Tasks	6	32,838	58.64
C. Aids and Materials	8	43,784	61.78
D. Content Accuracy and Emphasis	7	38,311	49.14
E. Thinking Skills	11	60,203	21.56
F. Clarification	5	27,365	54.28
G. Pace	3	16,419	58.02
H. Monitoring Learning Tasks and Informal Assessment	6	32,838	43.15
I. Feedback	4	21,892	33.22
J. Oral and Written Communication	4	21,892	94.70

TABLE 2
Summary of Percentage of Acceptable and Unacceptable Scores for Each Indicator for Each STAR Teaching/Learning Component
(N = 5720; Elem = 2726; Sec = 2994)

Performance Dimension II
Classroom and Behavior Management

TEACHING AND LEARNING COMPONENTS	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
A. TIME						
1. Learning activities begin promptly.	88.4	91.0	86.0	11.6	9.0	14.0
2. Expectations for maintaining and completing timelines for tasks are communicated to students.	21.4	19.4	23.2	78.6	80.6	76.8
3. There are no unnecessary delays during the lesson.	76.9	76.4	77.4	23.1	23.6	22.6
4. There are no undesirable digressions.	86.4	88.6	84.3	13.6	11.4	15.7
5. Minor interruptions are managed quickly and efficiently **or** there are no interruptions.	92.9	93.7	92.1	7.1	6.3	7.8
6. Learning activities reasonably match the time allocated for learning.	78.4	79.1	77.8	21.6	20.9	22.2
7. Supplemental activities are provided as needed to fill the time allocated for learning.	55.1	54.4	55.7	44.9	45.6	44.3
8. Learning activities continue until the end of the allocated time period.	79.3	82.8	76.1	20.7	17.1	23.9
B. CLASSROOM ROUTINES						
1. The attention of students is ensured before directions for routines are given **or** students are attending.	56.9	57.2	56.7	43.1	42.8	43.3
2. The teacher gives clear administrative directions for classroom routines **or** no directions are needed.	69.6	70.5	68.8	30.4	29.5	31.2
3. Aids, materials and equipment are available and ready for use.	88.1	88.8	87.5	11.9	11.2	12.5
4. Routine tasks are dealt with in an efficient manner,	81.4	81.9	80.9	18.6	18.1	19.1
C. STUDENT ENGAGEMENT						
1. Approximately 90% or more of the students are engaged in learning throughout the lesson.	36.7	38.4	35.1	63.3	61.6	64.8

TEACHING AND LEARNING COMPONENTS	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
D. MANAGING TASK-RELATED BEHAVIOR						
1. The teacher provides frequent changes in stimuli throughout the lesson to ensure learner attention and engagement in learning task(s).	50.2	52.6	48.0	49.8	47.4	52.0
2. Active involvement is sought from students who are passively involved in learning **or** no students are only passively involved.	43,8	46.1	41.6	56.2	53.9	58.4
3. Pays attention to/monitors momentary off-task behavior throughout the lesson **or** there is no momentary off-task behavior.	52.8	55.4	50.5	47.2	44.6	49.5
4. Verbal and/or non-verbal techniques are used to redirect students who are persistently off-task **or** there is no persistent off-task behavior.	53.7	56.4	51.3	46.3	43.6	48.7
5. Uses techniques for maintaining the engagement of students who have been redirected **or** there is no persistent off-task behavior.	47.1	48.8	45.5	52.9	51.2	54.5
6. Efforts to redirect students who are persistently off-task are successful **or** there is no persistent off-task behavior.	43.3	44.6	42.2	56.7	55.4	57.8
E. MONITORING AND MAINTAINING STUDENT BEHAVIOR						
1. Expectations about acceptable student behavior are made clear and are consistently maintained throughout the lesson **or** student behavior indicates that expectations are clear and consistent.	63.4	64.7	62.2	36.6	35.3	37.8
2. Behavior of the entire class is effectively monitored throughout the lesson.	57.6	60.3	55.2	42.4	39.7	44.8
3. Uses appropriate methods to prevent/diffuse situations in which unacceptable behavior may occur **or** there is no unacceptable behavior.	64.5	65.3	63.7	35.5	34.7	36.3
4. Students are provided (verbal and/or non-verbal) feedback about acceptable and unacceptable behavior.	35.0	36.7	33.4	65.0	63.3	66.6
5. Feedback provided to students about their behavior is consistent with behavioral expectations.	36.9	38.2	35.8	63.1	61.8	64.2

TEACHING AND LEARNING COMPONENT	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
6. Uses positive feedback as a means of cuing behavior expectations for students as needed.	35.1	36.6	33.7	64.9	63.4	66.3
7. Uses techniques to stop unacceptable behavior **or** none are needed **or** there is no unacceptable behavior.	66.6	68.3	65.0	33.4	31.7	35.0
8. Unacceptable behavior is dealt with quickly **or** there is no unacceptable behavior.	64.2	65.7	62.8	35.8	34.3	37.2
9. Unacceptable behavior is dealt with in a reasonable manner; **or** there is no unacceptable behavior.	64.7	66.2	63.4	35.3	33.8	36.6

TABLE 3
Summary of Percentage of Acceptable and Unacceptable Scores for Each STAR Indicator for Each STAR Teaching/Learning Component

Performance Dimension III
Learning Environment

TEACHING AND LEARNING COMPONENTS		Percent Acceptable			Percent Unacceptable		
		N	E	S	N	E	S
A.	PSYCHOSOCIAL LEARNING ENVIRONMENT						
1.	Establishes a classroom climate of courtesy and respect.	85.0	85.7	84.4	15.0	14.3	15.6
2.	Warmth and friendliness are demonstrated throughout the lesson.	86.6	86.4	86.8	13.4	13.6	13.2
3.	Comments to or about students are free of sarcasm, ridicule, and derogatory, demeaning or humiliating references.	77.6	78.1	77.2	22.4	21.9	22.8
4.	Enthusiasm for teaching/ learning and the subject being taught is communicated to students.	37.8	38.4	37.3	62.2	61.6	62.7
5.	Comments, questions, examples, demonstrations and/or other contributions are sought from students throughout the lesson.	53.0	56.7	49.5	47.0	43.3	50.5
6.	Considers, recognizes and/or comments on students' contributions.	64.2	68.0	60.6	35.8	32.0	39.4
7.	Teachers' responses are sufficient to address students' questions and comments.	64.5	64.7	64.2	35.5	35.3	35.8
8.	Manages incorrect responses in a way that maintains students' dignity **or** there were no incorrect responses.	77.8	77.0	78.4	22.2	23.0	21.6
9.	Shows patience, empathy or understanding for students who respond poorly or who have difficulty **or** no students have difficulty.	74.1	73.4	74.8	25.9	26.6	25.2
10.	The lesson is personalized for students.	39.0	38.9	39.0	61.0	61.1	61.0
11.	Is fair and impartial in dealings with students.	79.2	78.8	79.6	20.8	21.2	20.4
12.	Students are given reasons for actions, decisions or directives made by the teacher as needed.	58.1	57.2	58.9	41.9	42.8	41.1

TEACHING AND LEARNING COMPONENTS	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
B. PHYSICAL LEARNING ENVIRONMENT						
1. The classroom is neat, safe and arranged in an orderly manner.	94.2	94.8	93.7	5.8	5.2	6.3
2. Display(s) create a pleasant atmosphere and serve a thematic/content-related purpose.	76.6	80.6	73.0	23.4	19.4	27.0
3. The functional elements of the learning environment are arranged to effectively implement learning activities.	89.6	89.1	90.2	10.4	10.9	9.8
4. Arranges the functional elements of the learning environment to accommodate students with special needs **or** there are no students with special needs.	91.6	90.7	92.5	8.4	9.3	7.5

TABLE 4
Summary of Percentage of Acceptable and Unacceptable Scores for Each STAR Indicator for Each STAR Teaching/Learning Component

Performance Dimension IV
Enhancement of Learning

TEACHING AND LEARNING COMPONENTS	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
A. LESSON AND ACTIVITIES INITIATION						
1. Student attention is ensured before directions and explanations for learning activities are provided **or** students are attending.	53.5	54.8	52.3	46.5	45.2	47.7
2. Activities are initiated with motivating introductions which are content related.	25.6	28.5	22.9	74.4	71.5	77.1
3. Clearly communicates specific learning outcomes to students.	28.1	28.9	27.3	71.9	71.1	72.7
4. The purpose and importance of learning activities are communicated to students.	18.6	16.9	20.2	81.4	83.1	79.8
5. Procedural directions necessary to implement learning tasks are clear and complete.	61.1	62.9	59.5	38.9	37.1	40.5
6. Expectations about student engagement in learning tasks are communicated at the beginning of activities.	26.1	26.2	26.0	73.9	73.8	74.0
7. Clearly communicates the challenge of learning task(s) to students as needed.	13.9	13.6	14.1	86.1	86.4	85.9
8. Encourages all students to participate.	51.9	55.1	49.0	48.1	44.9	51.0
9. Reviews past learning to ensure students' readiness for new learning as needed.	44.4	47.1	41.9	55.6	52.9	58.1
10. As new ideas/concepts/activities are introduced, they are related to past and future learning.	21.3	19.5	23.0	78.7	80.5	77.0
B. TEACHING METHODS AND LEARNING TASKS						
1. Use of methods is appropriate for the complexity of lesson content.	74.3	76.1	72.8	25.7	23.9	27.2
2. Teaching methods and learning tasks or topics within an activity are sequenced in a logical order.	87.1	88.8	85.5	12.9	11.2	14.5

TEACHING AND LEARNING COMPONENTS		Percent Acceptable			Percent Unacceptable		
		N	E	S	N	E	S
3.	Uses two or more methods that enhance student interest and actively involve students in learning tasks.	55.1	58.1	52.4	44.9	41.9	47.6
4.	The teacher and the students interact in more than one group size.	59.8	63.0	57.0	40.2	37.0	43.0
5.	Methods and learning tasks used enhance mastery of learning objectives.	50.2	52.9	47.8	49.8	47.1	52.2
6.	Provision is made for lesson/activities closure.	25.2	26.6	24.0	74.8	73.4	76.0
C.	AIDS AND MATERIALS						
1.	The use of teaching aids is appropriate for methods and objectives.	72.5	74.9	70.3	27.5	25.1	29.7
2.	Teaching aids are used properly and accommodate the range of student needs and abilities.	62.8	64.2	61.5	37.2	35.8	38.5
3.	Teaching aids are used at appropriate times in the lesson.	72.5	75.0	70.2	27.5	25.0	29.8
4.	The use of teaching aids broadens understandings and enhances learning.	50.3	51.6	49.2	49.7	48.4	50.8
5.	The use of learning materials is appropriate for learning tasks and objectives.	70.1	73.0	67.5	29.9	27.0	32.5
6.	Learning materials are used properly and accommodate the range of needs and abilities of students.	47.8	46.8	48.6	52.2	53.2	51.4
7.	Learning materials are used at appropriate times in the lesson.	70.2	73.1	67.6	29.8	26.9	32.4
8.	Use of learning materials broadens student understandings and enhances learning.	48.1	49.0	47.2	51.9	51.0	52.8

TEACHING AND LEARNING COMPONENTS	Percent Acceptable			Percent Unacceptable		
	N	E	S	N	E	S
D. CONTENT ACCURACY AND EMPHASIS						
1. Students are given opportunities to learn at more than one cognitive and/or performance level.	32.0	32.1	32.0	68.0	67.9	68.0
2. Emphasizes the value and importance of topics and activities.	19.2	16.9	21.3	80.8	83.1	78.7
3. Content knowledge is accurate and up-to-date.	93.5	94.4	92.6	6.5	5.6	7.4
4. Content knowledge is logical.	87.2	88.3	86.1	12.8	11.7	13.9
5. Directions and explanations related to lesson content and/or learning tasks are effective.	57.1	57.6	56.7	42.9	42.4	43.3
6. Essential elements of content knowledge and/or performance tasks are emphasized.	28.7	27.3	30.0	71.3	72.7	70.0
7. Potential areas or points of difficulty are emphasized throughout the lesson.	26.2	26.4	26.1	73.8	73.6	73.9
E. THINKING SKILLS						
1. Associations are taught and used in learning.	26.3	25.7	26.8	73.7	74.3	73.2
2. Involves students in developing concepts.	26.1	29.3	23.2	73.9	70.7	76.8
3. Involves students in developing principles and/or rules.	15.3	15.4	15.1	84.7	84.6	84.9
4. Encourages students to think of and recall examples from their own experiences.	22.7	23.4	22.1	77.3	76.6	77.9
5. Encourages students to use mental imagery.	13.9	14.4	13.5	86.1	85.6	86.5
6. Asks a variety of questions.	29.3	28.8	29.8	70.7	71.2	70.2
7. Wait time is used to enhance student learning.	38.2	42.2	34.6	61.8	57.8	65.4
8. Encourages critical analysis and/or problem solving.	18.4	18.7	18.2	81.6	81.3	81.8
9. Encourages students to elaborate, extend or critique their own or other students' responses.	18.5	19.4	17.6	81.5	80.6	82.4
10. Encourages creative thinking.	14.8	15.0	14.6	85.2	85.0	85.4
11. Provides opportunities for the extension of learning to new contexts.	13.6	12.8	14.3	86.4	87.2	85.7

TEACHING AND LEARNING COMPONENTS		Percent Acceptable			Percent Unacceptable		
		N	E	S	N	E	S
F.	CLARIFICATION						
1.	Areas of misunderstanding or difficulty are identified before students ask questions **or** no misunderstanding or difficulty occurs.	44.2	45.0	43.5	55.7	55.0	56.4
2.	Different words or examples are used in clarification **or** no clarification is needed.	57.4	56.6	58.1	42.6	43.4	41.9
3.	Bases for learner difficulties or misunderstandings are sought **or** no misunderstandings or difficulties occur **or** probing is not necessary.	45.3	46.2	44.5	54.7	53.8	55.5
4.	Clarifications are made for individuals or small groups rather than for the entire class **or** this type of clarification is not necessary.	63.7	63.6	63.9	36.3	36.4	36.1
5.	Attempts to eliminate misunderstanding are successful **or** no misunderstanding occurs.	60.6	60.7	60.5	39.4	39.3	39.5
G.	PACE						
1.	Learning activities are implemented at an appropriate pace.	67.3	67.6	67.0	32.7	32.4	33.0
2.	Summarizes or reviews during the lesson to monitor/assess the pace of teaching and learning.	32.5	34.5	30.6	67.5	65.5	69.4
3.	Provides sufficient time for students to complete learning task(s).	74.3	75.6	73.1	25.7	24.4	26.9
H.	MONITORING LEARNING TASKS AND INFORMAL ASSESSMENT						
1.	Monitors students' initial engagement in learning tasks.	56.7	59.4	54.3	43.3	40.6	45.7
2.	Monitors students' engagement during learning tasks.	52.8	55.1	50.8	47.2	44.9	49.2
3.	Monitors the completion of learning tasks.	45.0	47.6	42.6	55.0	52.4	57.4
4.	Solicits a range of responses from students for informal assessment purposes.	37.2	19.6	34.3	62.8	59.6	65.7
5.	A variety of learning is assessed as appropriate.	19.6	19.6	19.5	80.4	80.4	80.5

TEACHING AND LEARNING COMPONENTS		Percent Acceptable			Percent Unacceptable		
		N	E	S	N	E	S
6.	Adjustments within the lesson are made as needed **or** no adjustments are necessary.	47.6	49.0	46.2	52.4	51.0	53.8
L.	FEEDBACK						
1.	Provides specific feedback to students about responses which are adequate and inadequate.	36.3	37.0	35.7	63.7	63.0	64.3
2.	Suggestions for improving performance are provided to students **or** none are needed	33.7	32.6	34.8	66.3	67.4	65.2
3.	Revisits students who have responded inadequately.	36.6	38.6	34.8	63.4	61.4	65.2
4.	Provides specific feedback to students when they have mastered learning objective(s).	26.3	27.9	24.8	73.7	72.1	75.2
J.	ORAL AND WRITTEN COMMUNICATION						
1.	Written language used in lesson presentation is accurate.	95.6	96.1	95.1	4.4	3.9	4.9
2.	Oral language used in lesson presentation is accurate and easy to understand.	95.6	95.5	95.7	4.4	4.5	4.3
3.	Uses appropriate vocabulary in oral and written language.	96.2	96.2	96.1	3.8	3.8	3.9
4.	Communication is precise with few false starts, interrupters or inappropriate qualifiers.	91.4	91.6	91.3	8.6	8.4	8.7

TABLE 5

Comparison of Percentages of Maximum Possible for Teaching and Learning Components on Dimensions II, III & IV of the STAR for First and Second Pilot Year Assessment Data
(1st Yr. N=969; 2nd Yr. N=5473)

	1st Pilot Year			2nd Pilot Year		
TEACHING AND LEARNING COMPONENTS	# of Ind.	Max. Poss.	% of Max.	# of Ind.	Max. Poss.	% of Max.
PERFORMANCE DIMENSION II: CLASSROOM & BEHAVIOR MANAGEMENT						
A. Time	8	7,752	73.41	8	43,784	72.39
B. Classroom Routines	4	3,876	81.84	4	21,892	74.17
C. Student Engagement	1	969	47.47	1	5,473	36.87
D. Managing Task-Related Behavior	7	6,783	62.14	6	32,838	48.48
E. Monitoring and Maintaining Student Behavior	10	9,690	67.46	9	49,257	54.21
PERFORMANCE DIMENSION III: LEARNING ENVIRONMENT						
A. Psychosocial	15	14,535	72.73	12	65,676	66.40
B. Physical	5	4,845	88.69	4	21,892	88.03
PERFORMANCE DIMENSION IV: ENHANCEMENT OF LEARNING						
A. Lesson and Activities Initiation	10	9,690	50.23	10	54,730	34.45
B. Teaching Methods and Learning Tasks	5	4,845	71.04	6	32,838	58.64
C. Aids and Materials	10	9,690	72.06	8	43,784	61.78
D. Content Accuracy and Emphasis	8	7,752	65.26	7	38,311	49.14
E. Thinking Skills	11	10,659	38.83	11	60,203	21.56
F. Clarification	5	4,845	67.47	5	27,365	54.28
G. Pace	5	4,845	65.59	3	16,419	58.02
H. Monitoring Learning Tasks and Informal Assessment	6	5,814	54.09	6	32,838	43.15
I. Feedback	4	3,876	53.02	4	21,892	33.22
J. Oral and Written Communication	4	3,876	94.66	4	21,892	94.70

APPENDIX B

Organizational Structure of the 1989
System for Teaching and learning Assessment and Review (STAR)

STAR Teaching and Learning Component of TIME
with accompanying Assessment Indicators,
Annotations and Decision Making Rules

S T A R

System for Teaching and Learning Assessment and Review

PERFORMANCE DIMENSION I: PREPARATION, PLANNING AND EVALUATION (32)a

TEACHING AND LEARNING COMPONENTS

A. Goals and Objectives (6)b
B. Teaching Methods and Learning Tasks (6)
C. Allocated Time and Content Coverage (4)
D. Aids and Materials (5)
E. Homework (4)
F. Formal Assessment and Evaluation (7)

PERFORMANCE DIMENSION II: CLASSROOM AND BEHAVIOR MANAGEMENT (28)

TEACHING AND LEARNING COMPONENTS

A. Time (8)
B. Classroom Routines (4)
C. Student Engagement (1)
D. Managing Task-Related Behavior (6)
E. Monitoring and Maintaining Student Behavior (9)

PERFORMANCE DIMENSION III: LEARNING ENVIRONMENT (16)

TEACHING AND LEARNING COMPONENTS

A. Psychosocial Learning Environment (12)
B. Physical Learning Environment (4)

PERFORMANCE DIMENSION IV: ENHANCEMENT OF LEARNING (64)

TEACHING AND LEARNING COMPONENTS

A. Lesson and Activities Initiation (10)
B. Teaching Methods (6)
C. Aids and Materials (8)
D. Content Accuracy and Emphasis (7)
E. Thinking Skills (11)
F. Clarification (5)
G. Pace (3)
H. Monitoring Learning Tasks and Informal Assessment (6)
I. Feedback (4)
J. Oral and Written Communication (4)

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a Number of Assessment Indicators Comprising Performance Dimension

b Number of Assessment Indicators Comprising Teaching and Learning Component

PERFORMANCE DIMENSION II: CLASSROOM AND BEHAVIOR MANAGEMENT

Effective classroom and behavior management comprise a necessary element of effective teaching performance. Clearly communicated and well-established behavioral expectations and fair and consistent consequences facilitate effective and efficient monitoring and maintenance of acceptable student behavior. Students' active engagement in learning tasks, a strong correlate of student achievement is maximized through stimulus variation and redirecting and revisiting students who are "off task". Appropriate learning activities should be provided for "early finishers" to maximize learning time and student engagement in learning tasks. Time for learning is further maximized by initiating teaching and learning activities promptly, implementing transitions without delays, efficiently handling routine tasks and avoiding undesirable digressions from topics or learning activities.

TEACHING AND LEARNING COMPONENTS

II.A. Time

II.B Classroom Routines

II.C. Student Engagement

II.D. Managing Task-Related Behavior

II.E. Monitoring and Maintaining Student Behavior

TEACHING AND LEARNING COMPONENT II.A: TIME

COMMENTS: Teaching and learning activities reasonably reflect allocated time, begin promptly, proceed efficiently with smooth transitions and no undesirable digressions and allow for maximum opportunities for student engagement in learning. **"Activity" refers to all things teachers and students do in the classroom.**

RESEARCH BASE

Research in classroom management suggests that effective use of time involves effective management of classroom activities. Brophy and Evertson (1976) found strong and consistent positive relationships between student engagement in tasks and learning gains. Similarly, in a study by Evertson, et al. (1980), positive correlations were found between effective management skills and teacher control (teacher's use of time) and student achievement. According to Scott and Bushell (1974), teaching and learning time is most effectively utilized when teachers spend minimal amounts of time helping individual students. Arlin (1979) has found that teacher use of structured transitions (e.g., giving students procedural directions, establishing transition routines) results in a decrease in unnecessary delays in teaching and learning. Additionally, there are several recent studies which lend further support to the notion that teachers who are efficient classroom managers maximize student engagement time by minimizing organization and transition time during lessons (Coker, Medley and Soar, 1980; Fisher et al. 1980; Good and Grouws, 1979; Stallings, Cory, et al. 1977).

TEACHING AND LEARNING COMPONENT II.A: TIME

ASSESSMENT INDICATORS

II.A.1 Learning activities begin promptly

ANNOTATION

This indicator focuses on the *beginning of the lesson.* Learning activities should begin with little time spent on organizational activities such as roll taking and distributing materials and supplies. The efficiency with which organizational activities are handled is always a concern.

IF A SIGNIFICANT AMOUNT OF TIME IS WASTED AT THE BEGINNING OF THE LESSON, THE INITIAL USE OF TIME IS UNACCEPTABLE.

NOTES/CLARIFICATION

II.A.2 Expectations for maintaining and completing timelines for tasks are communicated to students.

As initial tasks begin and as tasks change throughout the lesson, the teacher should clearly communicate to students when tasks are to be completed. Cautions about wasting time and informing students about the persistence needed to complete tasks on time are elements of effective communication of expectations.

IF THE TEACHER DOES NOT ADEQUATELY COMMUNICATE THESE EXPECTATIONS TO STUDENTS, THE USE OF TIME AVAILABLE FOR LEARNING IS UNACCEPTABLE.