# Findings from a Two-Year Examination of Teacher Engagement in TAP Schools across Louisiana

**Prepared for**

**National Institute for Excellence in Teaching**

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**Findings from a Two-Year Examination of Teacher Engagement in TAP Schools across Louisiana**

## 1.0 Executive Summary

### Introduction

This is a third-party report of the TAP System on student achievement and teacher engagement in Louisiana between 2010-11 and 2011-12. Interactive, Inc. has analyzed: (a) student achievement data; (b) web-survey self-report questionnaire data for each TAP role; (c) on-site interview and observation data; and data from (d) random-interval work-sampling. The data are from 17 TAP elementary, middle and high schools and from a group of propensity-score matched comparison schools. At the initiation of this analysis in 2010, the treatment schools had all completed at least two years with TAP; that is, they had accomplished the planning and initiation activities.

### Study Question 1: Do students perform better in TAP schools?

Interactive, Inc. examined the student achievement performance of TAP schools in several ways and, in each of these comparisons TAP schools have statistically and practically significant and substantial advantages.

**1. Louisiana state-defined "School Performance Scores":** Louisiana reports a combination of achievement plus other relevant metrics at the different levels of schooling organization (e.g., graduation rates) and aggregates those to the school level as the "School Performance Score." In the pre- TAP, baseline year, the control group schools performed higher (but not by statistically significant margins) than did the TAP schools. At the end of the first year of TAP (essentially, a planning year), the two groups were about the same. In each of the four succeeding years of this analysis, TAP schools have outperformed the comparison group schools and by margins that increase each year.

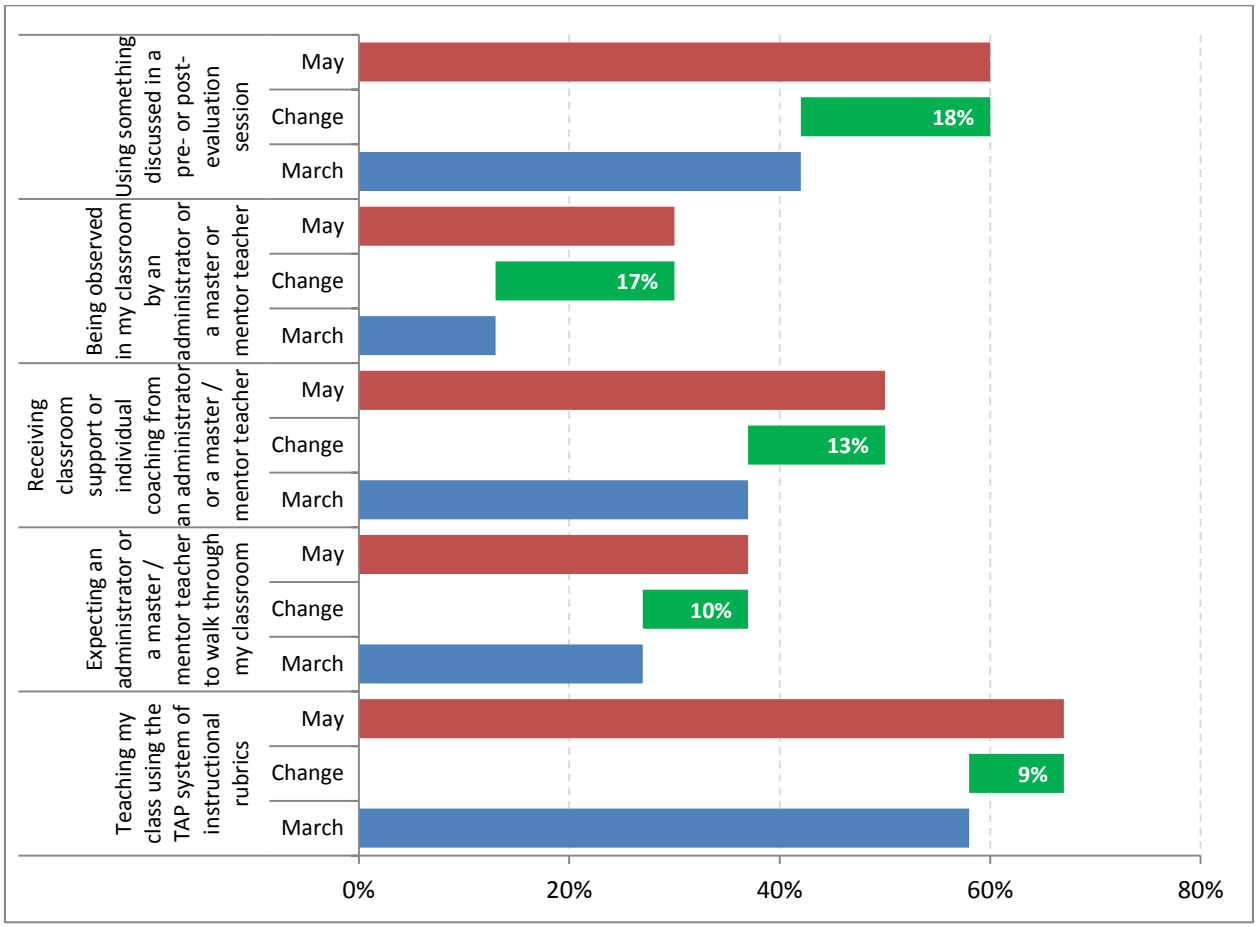
**2. Louisiana state-defined "School Performance Score" improvements over the course of TAP System implementation:** We examined TAP school SPS scores from the baseline year and then for each of the four successive years of TAP System implementation. Some increase is observed after one year of implementation. In the second year of implementation the TAP schools' SPS scores, in general, increase as they do for each successive pair of school years. That is, the schools improve sufficiently so that their SPS scores differ significantly from the previous year; the step-wise improvements validate the sustained investment of TAP school leaders in successive refinements of the system.

**3. Student populations:** We aggregated end-of-year 2012 test scores for all students in the two conditions, regardless of the type of school attended (all TAP students at all organizational levels, compared to all comparison students at all levels). Even though they were equivalent at baseline, the TAP student population significantly outperforms the matched group in (a) ELA, (b) Math, (c) Science and (d) Social Studies.

In addition to improvements in state tests, all of the school roles in the TAP System – career teachers, masters and mentors plus principals – identify better student achievement as the #1 result of TAP.

**Study Question 2: Do TAP teachers teach differently?**

TAP teachers improved their practice and knowledge of recommended instructional practices over the three months in Year 1 during which we used random-interval authentic work sampling to measure their classroom work. Nine out of 10 TAP teachers reported a continuing and consistent emphasis on accountability. Three-fourths reported a focus on teaching related to "better student achievement." The second series of random-interval 'ping' queries focused on TAP-centered practices. Teachers reported increases in TAP's instructional support practices over the study period (see the green bars in the figure below).




**Teachers Increased Use of TAP-Centered Instructional Practices: May-March 2011**

The way these data were collected makes them particularly illuminating ('real time,' random-interval authentic work-sampling.) It is remarkable how many teachers report they "feel supported by the TAP leadership team" and are using things they learned in an evaluation session. "Being observed" and "expecting a walk through" show how much teachers feel the presence of TAP's evaluations on a daily basis. The evidence points to the comprehensive penetration of TAP's instructional components in the work of teaching. The tight coupling

between TAP evaluation and TAP support suggests that teachers in TAP schools accept an unusual amount of evaluation in return for an unusual amount of support.

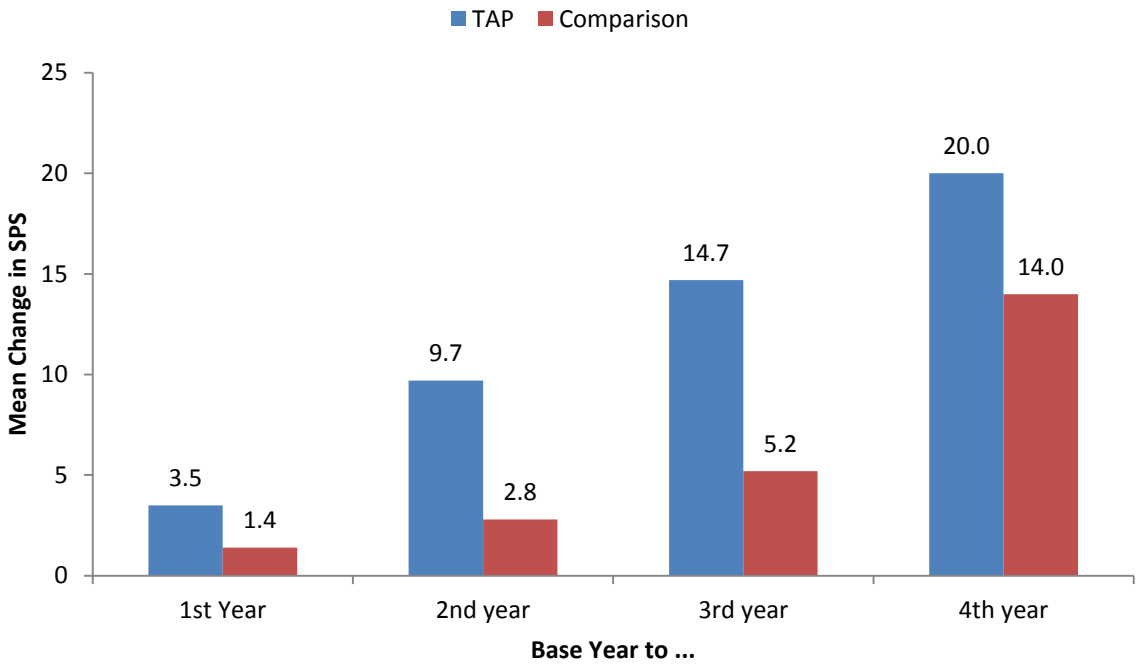
Interactive, Inc.'s web-survey instruments included 22 items that presented paired descriptions of conventional and preferred instructional practice. The percentage of the TAP teacher groups choosing the "instructionally preferred" item of the paired choices was as follows: (1) masters, 77%; (2) mentors, 81%; and (3) careers, 64% (Year 1). On this and other evidence, TAP is as much an influence in the school-wide, effective faculty arena as it is in the classroom-specific, effective teacher arena.

The national success of the TAP System is evident in the number of jurisdictions that have formally adopted the program *and* in the even larger number of states and districts that now deploy 'TAP-like' features. That is a gain for public policy but a complication for measuring comparative effects. The growth of the TAP System and the increasing penetration of TAP-like programs, make it increasingly difficult to discern the unique contribution of the TAP System. Nonetheless, as documented in this analysis, those effects are robustly present when comparing full TAP implementation and "business-as-usual" (no TAP implementation) schools.

**Study Question 3: Is the engagement of teachers with the TAP System and its components related to results for students, teachers and schools?**

We have complete responses from 182 career teachers to 116 web-survey items in Year 1 and from 340 career teachers to 106 items in Year 2. Those responses were aggregated as indicators of each of the TAP components – Multiple Career Paths, Ongoing Applied Professional Growth, Instructionally Focused Accountability, and Performance-Based Compensation – and then combined and averaged as a single overall indicator of teacher engagement with or experience of the TAP System. Because TAP is the *teacher advancement* system and because it has its impact with and through teachers, these extensive responses of the career teachers – the system's end-users – are useful indicators of the fidelity and maturity of the System's implementation.

The TAP System follows its intense initial training with a full court press of support over time and across the four components. The figure below documents that as schools go from the first year of implementation to the fourth year of implementation their Louisiana *School Performance Score* (SPS) grows along with the implementation.




**Matched Comparison Schools SPS Results**

For the matched comparison schools, the gains in SPS, from base year to each implementation year of the associated TAP schools, were not statistically significant except in the fourth year: thus the SPS gains for TAP schools are not an artifact of more general score increases or other statewide changes.

Beyond base-year to implementation-year comparisons noted in the chart above, an examination of the year-to-year (e.g., 1st Year to 2nd Year) SPS results indicates that TAP schools have statistically significant improvements for each of the year-to-year comparisons. The matched comparison schools do not have any year-to-year statistically significant improvements.

**Engagement and the three TAP teacher statuses**

*Career Teachers*: The most important finding is the widespread acceptance and even enthusiasm among career teachers for TAP components. In the study's first year, career teachers gave us words of their own choosing to describe the TAP System and selected words like "beneficial", "helpful", and "effective."

The career teachers were asked their opinions about each of the TAP elements. In order of their "Very helpful" ratings, "Ongoing Applied Professional Growth" was highest; "Instructionally Focused Accountability" was second"; Performance-Based Compensation" was third; and, for the career teachers "Multiple Career Paths" was fourth. "Instructionally Focused Accountability" comprises TAP's thorough evaluation of teachers: nonetheless these career teachers thought it was the second most helpful of the components. The positive assessment of the career teachers about TAP components is further illustrated by some of their responses:

- Three out of four career teachers agreed that "Almost everything the master teacher presents during cluster discussions is helpful to me."
- The average teacher reported using four instructional strategies they had first tried out in cluster group meetings.
- Eighty-seven percent report making more frequent use of student interim assessments as a result of TAP and they are changing how they group students for instruction.

- Ninety percent of the career teachers concluded that "TAP rubrics are helpful in making my teaching more effective."
- Seventy percent think that it is "fair" to be evaluated four to six times a year.
- Ninety-seven percent of the career teachers endorse the before-and-after, pre-post evaluation discussions.
- More than three-quarters of the responding teachers agreed that, "More effective teachers should be paid more."

Teachers were asked to identify where TAP "made a positive difference." The top 5 responses are provided below with clear evidence that teachers view the TAP program as impacting student achievement and leading to performance improvement. According to teacher responses to the prompt: "TAP has made a positive difference in…"

1. Student achievement 92%
2. The school's AYP status or improvement 91%
3. Student 21st century skills 71%
4. College readiness 66%
5. Student retention in school 63%

The idea that performance-based compensation would create competition and reduce cooperation is a commonly asserted criticism of any program offering performance bonuses. Super majorities from all three TAP teacher statuses reject that and report more sharing, more asking for help and more school-wide cooperation.

TAP also has a positive impact on the retention of teachers in classroom instruction. An ASCD "Ed Pulse" survey (2012) asked "…(W)here do you see yourself in five years?" and reported that only 19% of the respondents said "I am a classroom teacher and see myself in the same role in five years[1]." In contrast, 55% of teachers in TAP schools say, "I am staying in classroom teaching no matter what." TAP's popularity among career teachers is further

[1] "Ed Pulse" (2012) ASCD Smartbrief.com accessed June 26, 2013. https://www2.smartbrief.com/servlet/ArchiveServlet?issueid=5A15856F-D151-43CC-B5DA-E54F81B6CB5A&lmid=archives

indicated by the 69% who say that, if they moved to a new school, they hope it would have the TAP System. These data reinforce the findings that not only does TAP improve student performance, but teachers also indicate that it helps their practice and makes them better instructors.

*Master and mentor teachers*: TAP delivers its effects through master/mentor teams. The data clearly support the advanced nature of the master teachers in knowledge, commitment, and TAP component participation. The mentors are more knowledgeable and committed to TAP than the career teachers, but the career teachers are also knowledgeable and approving of TAP and its components.

***Over the two study years, the master teachers have dramatically changed how their cluster groups spent most of their time. In the first study year cluster groups were heavily focused on two areas that are not TAP System emphases – "student behavior" and "subject matter knowledge." Then, over the next year, the master teachers shifted the cluster groups to the pivotal concerns of teacher effectiveness and school improvement – a focus on student needs, the analysis of performance data and modeling effective teaching. The master teachers began with faculty concerns, addressed those, created access and trust and then shifted to teaching effectiveness.***

Asked if "TAP in my school is on the *right track*," 100% of the masters said 'Yes"; 93% of the mentors; and 91% of the career teachers. Similar proportions of all the groups recognize that TAP has improved student achievement. Master teachers believe they have the time and resources to do their job; mentor teachers – who have less time released from classroom instruction than do masters - report more stress and more tension between teaching teachers and teaching children. The master teacher group is clear that TAP has done more to advance them as professionals than graduate school course work.

All the roles and specializations in the TAP schools credit the program with improving professional learning, focusing school goals, coordinating educational efforts and improving instruction. On a five-point scale measuring the system's impact on the school, 73% of the career teachers assigned one of the two highest impacts from TAP to their schools: another 58% concluded that TAP was better than other reform models. When asked if TAP is helping with *Adequate Yearly Progress*, 92% of the master teachers and 82% of the career teachers respond affirmatively.

Master and mentor teachers believe that Instructionally-Focused Accountability contributes most to the quality of instruction followed by Ongoing Applied Professional Development, Multiple Career Paths and Performance-Based Compensation in that order. In general, the master teachers are more enthusiastic than the mentor teachers about each of these components and their contributions to quality instruction.

One hundred percent of the master and the mentor teachers believe that the *TAP Instructional Rubrics* make teaching more effective. The master teachers are very clear that implementing TAP has increased the frequency of teacher evaluation and every master teacher

believes that, "The TAP System evaluation process has made teachers' instruction more effective."

*School principals*: In our interviews, a Louisiana principal gave voice to the group: "The master teachers are a principal's dream come true." They believe the program is on the "right track"; 95% would recommend TAP to a colleague; and 90% believe that TAP will be sustained at least for five years.

While their faculties were considering whether or not to join TAP, 83% of the principals described themselves as "vocal advocates; they also credit the program with changing how they administer the school.

In terms of retaining good teachers in the classroom, two-thirds of the principals thought that "Because of TAP, teachers who might otherwise leave teaching will now stay in the classroom."

## 2.0 Introduction and Background

The National Institute for Excellence in Teaching's *TAP™: The System for Teacher and Student Advancement* has been refined over the previous fifteen years to include four components, each connected to school improvement and student achievement. The four components are (1) Multiple Career Paths, (2) Ongoing Applied Professional Growth, (3) Instructionally Focused Accountability, and (4) Performance-Based Compensation.

**(1) Multiple Career Paths**: Selected teachers have opportunities for additional roles and responsibilities in their own schools. That preserves their connection to classroom instruction while advancing them professionally. Master teachers and mentor teachers, in addition to a school's administrators, meet weekly as a leadership team to set annual learning goals for their students and oversee TAP-related activities, coaching and evaluations.

Figure 1 TAP Elements of Success


**(2) Ongoing Applied Professional Growth**: Teachers receive professional development that is embedded, student-centered, collaborative, and delivered by peers. The school schedule is restructured to allow at least one hour per week for cluster group meetings, planning, and sharing, especially among teachers. Professional development is determined by an analysis of student needs and by school site-specific validation studies that confirm that candidate improvement interventions will in fact apply to the specific needs of the school's students. Ongoing Applied Professional Growth is delivered through cluster groups, individual coaching, and classroom-based support. Classroom support includes team-teaching, classroom demonstrations of lessons, evaluations, and pre- and post-conferences for regular feedback.

**(3) Instructionally Focused Accountability:** TAP requires comprehensive evaluations of teachers and links to rewards for improvement and accountability. NIET's research-validated

*SKR* instrument (*Teaching Skills, Knowledge and Responsibilities Performance Standards*) is one of several measures of NIET-recommended evaluations of teachers. Each teacher is assessed with a rubric of 26 indicators and scoring is on a five-point scale. The evaluations are conducted four to six times a year by mentor teachers, master teachers, and administrators. NIET trains, certifies, and re-trains evaluators to score lessons based on the TAP rubric. Evaluations are preceded by a pre-conference and followed by a post-conference to discuss reinforcements and refinements. Teachers are also evaluated on how much learning growth their students have achieved during the school year.

**(4) Performance-Based Compensation**: TAP recommends additional compensation to teachers based on new roles and responsibilities, instructional accomplishments and the performance of students. NIET recommends that master and mentor teachers receive augmentations to their base salary for the additional responsibilities they take on within the school. Career teachers are eligible for bonuses based on their performance observation results, school-level student improvement, and the classroom-level learning growth of students, both of which are measured using a student growth model of student achievement. TAP recommends that teacher performance compensation be determined using the following weights: (a) 50% based on the *Teaching Skills, Knowledge and Responsibilities Performance Standards* and teacher observations; (b) 30% based on individual classroom achievement growth; and (c) 20% based on school-wide achievement growth. Each jurisdiction has the final decision on local amounts and circumstances.

## 3.0 Summary of Evaluation Design

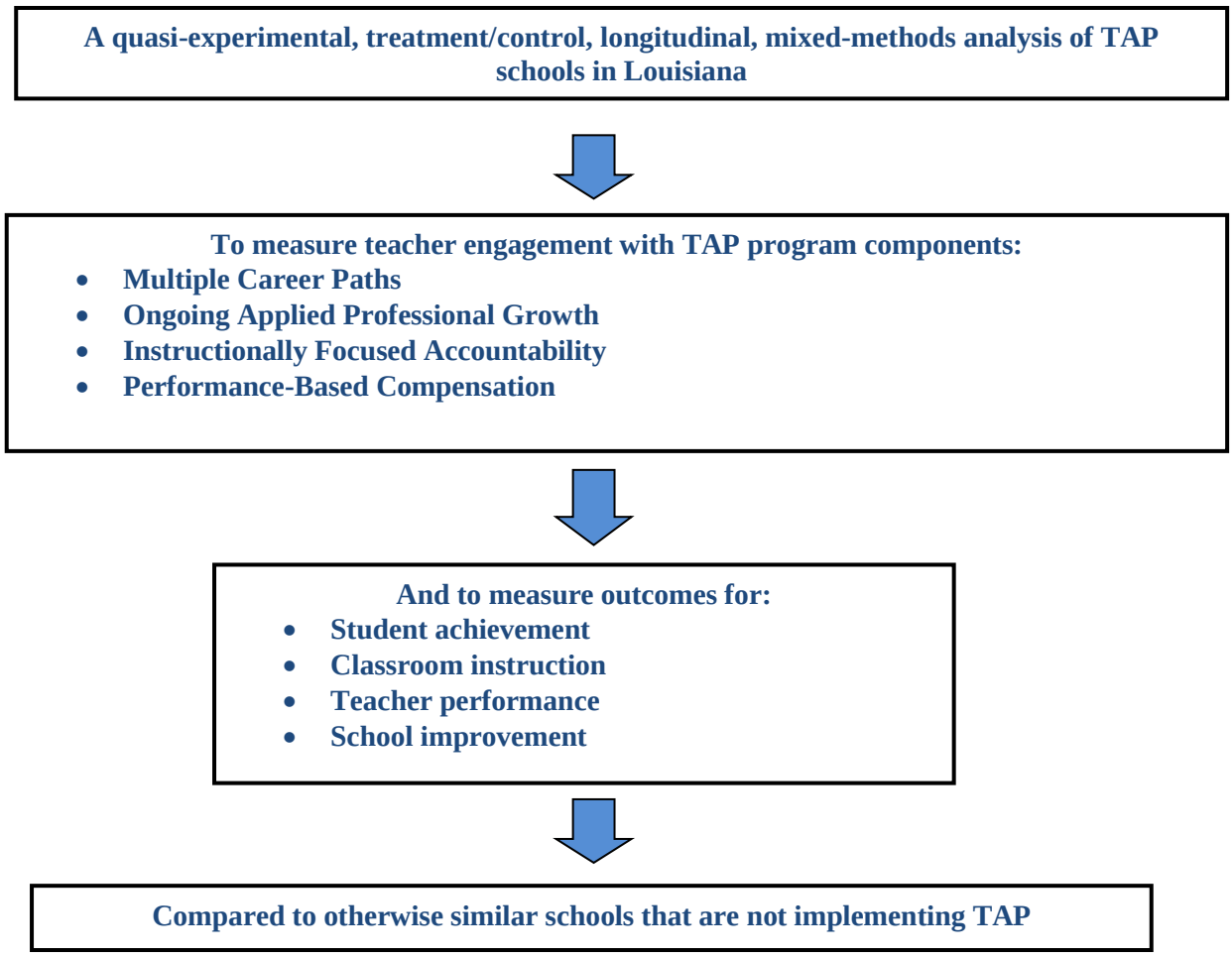
### 3.1 Study Design

This is a third-party analysis supported by a contract from NIET to Interactive, Inc. The study was designed collaboratively between Interactive, Inc. and the National Institute for Excellence in Teaching. NIET had the opportunity to comment on questions of fact in Interactive, Inc.'s draft reports. All other activities have been the responsibility of Interactive, Inc. including instrumentation, data collection, analysis, and all interpretations. Interactive, Inc. is solely responsible for this evaluation.

This study is a quasi-experimental, longitudinal, mixed methods analysis of multiple results from TAP and non-TAP schools, teachers, administrators, and students. This evaluation documents the progress of large-scale TAP implementation and evaluates outcomes associated with the TAP program in Louisiana.

For this analysis, Interactive, Inc. addressed the following research questions about the TAP System:

**Figure 2 Interactive Inc.'s Evaluation Design**




1. Do the students perform better?
2. Do teachers teach differently?
3. Is there a relationship between teacher engagement with the TAP System and student, teacher and school results?

## 3.2 Study Sites and Sampling

This is an evaluation of the outcomes associated with the TAP System in schools enrolling students from Kindergarten through 12th grade. Because our interest is in the effects of the TAP program, we concentrated on schools that have already accomplished the work of initiating TAP (awareness, planning, early organization, and adjustments between the components of the system and the beginning circumstances of the school). A total of 17 schools were in their third or fourth year of implementing TAP in 2011-12 (9 from 2008-09 and 8 from 2009-10), and of those schools, 17 were included in our analysis[2]. Schools came from all parts of the state including New Orleans, the New Orleans metropolitan area and from rural and suburban parishes.

[2] One school does not have any reported achievement data during the study years and, therefore, could not be matched to a comparison school. The school's personnel did respond to the web-survey. Two other schools, which were affected by Hurricane Katrina, do not have base year achievement data and were excluded from analysis that required base year achievement results.

The research design has two levels of inquiry – a general level for all participating TAP System schools and an "intensive" level for 12 selected "intensive study schools" to represent organizational level, size and demography from the total of 17. To preserve our ability to discuss differences in outcomes by organizational level, we randomly selected by elementary, middle and high school enrollments proportional to each level's presence in the total group of participating schools. Each of the 17 schools in the study was invited to participate in the web-surveys. School-level achievement results were analyzed for all but three schools, which had one or more years of missing results. Student-level test data were obtained from the Louisiana Department of Education for all TAP schools and the matched comparison school. Administrators and teachers in TAP intensive study schools, in addition to web-surveys and inclusion in the achievement analysis, participated in on-site, face-to-face interviews and were invited to complete six random-interval work sampling "ping" surveys during the 2010-11 academic year.

The table below lists each TAP school (by pseudonym) that was invited to participate in the study including the intensive study school group. Schools were selected from every region of the state and to represent the descriptive characteristics that were perceived to be important to improved student achievement and school improvement. The "SPS" column indicates which schools had School Performance Scores baseline year to their most recent year of implementation. All schools were invited to participate in the survey as indicated in the "Web Survey" column and student level data were received for all schools as indicated by the "Student Data" column.

### Table 1 TAP Schools in Louisiana

| TAP Study Schools in Louisiana | | | | | | |
|---|---|---|---|---|---|---|
| **School (Pseudonym)** | **Year entered TAP** | **Grade Levels** | **Intensive Study School** | **SPS** | **Web Survey** | **Student Data** |
| Rouen Technology Academy | 2008-09 | 9-12 | X | X | X | X |
| George Custer Middle | 2008-09 | 6-8 | X | | X | X |
| Lagerfeld Elementary | 2009-10 | PK-5 | | X | X | X |
| Smithton High | 2008-09 | 7-12 | | X | X | X |
| Helen Beach Elementary /Middle | 2008-09 | PK-8 | X | X | X | X |
| Millerton Elementary | 2009-10 | PK-6 | X | X | X | X |
| Main Drive Elementary | 2009-10 | K-6 | | X | X | X |
| Cosby Elementary | 2009-10 | PK-6 | X | X | X | X |
| Cosby Middle/High | 2009-10 | 7-12 | X | X | X | X |
| Higsby Intermediate | 2008-09 | 4-6 | | X | X | X |
| Cheverton High | 2008-09 | 8-12 | X | X | X | X |
| South La Rochelle High | 2009-10 | 8-12 | X | X | X | X |
| South La Rochelle Middle | 2008-09 | 6-8 | | X | X | X |
| O.B. Dredge Middle | 2008-09 | 6-8 | X | | X | X |
| W. Forrest Middle | 2008-09 | 6-8 | X | | X | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| S. Fields Elementary | 2009-10 | PK-5 | X | X | X | X |
| Polk Elementary | 2008-09 | PK-5 | X | X | X | X |

Note: Achievement data were not available for George Custer Middle School; therefore a propensity score matched comparison was not selected for this school. O.B. Dredge Middle School and W. Forrest Middle School did not have baseline year achievement data. To get their propensity score matched comparison school we used achievement data from their first year of implementation. However, we don't use these schools in achievement analyses that use baseline year data as a covariate.

# 4.0 Methods

## 4.1. Data Collection Instruments

### 4.1.1 Web-surveys

To measure the attitudes, opinions, and experiences of teachers in TAP schools, Interactive, Inc. designed web-survey instruments for (1) career teachers, (2) master teachers, (3) mentor teachers, and (4) administrators in TAP schools. Each of these survey instruments have been customized to measure the specific components of TAP implementation (Multiple Career Paths, Ongoing Applied Professional Growth, Instructionally Focused Accountability, and Performance-Based Compensation), in addition to other variables of interest, such as collegiality and retention.

### 4.1.2 Random-interval Work Sampling Surveys

During Year 1 of this analysis, Interactive, Inc. deployed a quick-response data collection technique in order to document what career and mentor teachers were doing in their classrooms in real time and over time. These micro-surveys were sent directly to teachers in TAP schools; the queries were time-stamped and we asked the teacher "At the time you received this, were you doing any of the following." There are advantages to this random-interval work sampling procedure. First it samples the work of classroom instruction more authentically than asking a teacher – once a year – to recall a year's worth of instruction and make retrospective generalizations about those recollections. Second, the multiple data points give us the opportunity to document changes over the course of the deployments. The queries were sent at randomly selected times after we had identified intervals when it was reasonable to expect teachers to be engaged in instruction, that is, we excluded state testing dates, school holidays, mid-day lunch periods, etc.

We scheduled six random-interval "pings" over a 12-week period: March – May 2011. The first group of four random-interval work sampling surveys was fielded with identical language and requested teachers to describe their instruction at the time of query. Those repeated measures allowed us to search for changes in instruction over the two-month interval. The fifth and sixth surveys collected data about other features of TAP. Because most master teachers do not have responsibility for teaching their own classes, only career and mentor teachers were invited to complete the random-interval work sampling surveys.

### 4.1.3 Interview Protocols

Qualitative interview data were collected using four role-specific interview protocols with approximately 30 questions on each: 1) an administrator interview protocol, 2) a master

teacher protocol, 3) a mentor teacher protocol, and 4) a career teacher protocol. These protocols were designed to measure the respondent's engagement with specific TAP components and to measure the detailed attitudes and opinions of teachers and administrators about the contributions of TAP components–to school, teacher, and student success in each of our intensively studied schools. For the administrator protocol, the initial questions were about the school and the faculty in general, without cues referencing the TAP System. That projective technique allowed us to estimate the spontaneously recalled penetration or incorporation of TAP features in the leadership repertoire of the administrators.

## 4.2. Student Performance Data

State-generated *School Performance Scores* (SPS) were analyzed for each of the Louisiana TAP schools and propensity score matched comparison schools included in this analysis. From the Louisiana Department of Education, we obtained student-level state assessment results for all students in Louisiana in 2011-12.

### 4.2.1 Propensity Score Matching Process to Select Comparison Group

All data were extracted from data files associated with each TAP school's base year (i.e., the year before the school entered the TAP program). Base year data were used to match schools, with the exception of three TAP schools for which no base year achievement data were available.

Filters (i.e., exact match on these variables)

- School Level (Elementary, Middle, High)
- Performance Label
  - 1 = Five Stars, SPS in [140.0, 200.0]
  - 2 = Four Stars, SPS in [120.0, 140.0]
  - 3 = Three Stars, SPS in [100.0, 120.0]
  - 4 = Two Stars, SPS in [80.0, 100.0]
  - 5 = One Star, SPS in [75.0, 80.0]
  - 6 = Academic Watch, SPS in [60.0, 75.0]
  - 7 = Academically Unacceptable, SPS [0.0, 60.0]
- Base Year (according to the year the school entered TAP.

Selection Variables (used to compute propensity score)

- Base year school accountability (baseline *School Performance Score*)
- Student enrollment count
- Percentage economically disadvantaged (percentage of students eligible for free and reduced-price meals)

**Matching Method**

A one-to-one, nearest-neighbor matching algorithm with replacement was used to find a comparison school for each TAP school. Based on the propensity scores computed using the selection model, the algorithm chooses the non- TAP school with the propensity score closest to the propensity score of the TAP school. If the same non- TAP school is closest to more than one TAP school that school can be selected multiple times (with replacement). Schools that were

scheduled to begin the TAP program during the period of the study were not eligible to be chosen as a comparison school.

Base Year Equivalence. There was no significant difference between the Louisiana School Performance Score of TAP schools and their matched comparison schools in the base year, $t(26) = 0.080$, $p > 0.05$. This finding establishes base year equivalence between the TAP schools and their matched comparison schools. The finding is no surprise, since the base year SPS was used in the propensity score matching process.

With 2011-12 student-level data we do a one-time comparison between TAP school students and matched comparison school students. By 2011-12 TAP schools were in either their third or fourth year of implementation. At the student-level we cannot establish a baseline equivalence either for the TAP schools base year (the year before TAP implementation) or in school year 2010-11. For the base year (four to five years before), the 2011-12 students were not in the same school. For 2010-11, too many of the 2011-12 TAP school students would have been attending the same school, meaning a non-equivalent condition with the comparison schools. So for the student-level data we are asking one straightforward question: After one year of a mature implementation of TAP enhanced instruction, do TAP school students perform better than their cohort in the matched comparison schools?

### 4.2.2 Web-survey Data and Random-interval Work Sampling Data

Descriptive statistics were applied to all web-survey data to investigate response patterns and trends in different substantive areas of inquiry and for each of the four components of TAP. Frequencies were used to examine the percentage of responses within each response category on Likert and other response scales.

To measure the engagement with or experience of the TAP System using teacher self-report attitudes, opinions, and experiences, four constructs associated with the four components of TAP were developed from the career teacher web-survey. The general process for determining the set of survey items that formed each construct is described below followed by the details of the analyses for each construct.

**The Process**

1. A list of items conceptually related to the construct was selected by the research team.
2. A reliability (internal consistency) analysis was conducted on each list of items using Stata (alpha command).
3. If the overall Cronbach's alpha for the set of items could be improved by removing one or more items, those items were removed and the reliability analysis repeated on the remaining items until a set of items were left that had a maximized overall Cronbach's alpha.
4. The average across the remaining set of items formed the measure for each construct.

Spearman correlations were conducted to investigate the association of TAP engagement construct scores with student performance and biosocial indicators.

#### 4.2.3 Qualitative Interview Data

Interview transcripts and notes were reviewed initially to develop a coding scheme for each interview question, and those were applied to the comprehensive qualitative analysis. Once the coding scheme was finalized, interview transcripts and notes were reviewed to quantify the occurrence of each code within each interviewee role (administrators, master, mentor, and career teachers). The frequency of each code within each respondent role was summarized and applied to an analysis of TAP engagement, attitudes, opinions, and experiences in our intensively studied schools.

#### 4.2.4 Student Academic Performance Data

Using the publically available School Performance Scores, analyses of covariance (ANCOVA) were conducted for TAP schools versus matched comparison schools controlling for baseline year SPS. Paired t-tests were conducted to assess the statistical significance of changes in SPS from baseline year to implementation year. Finally, we do paired t-tests year-to-year (e.g., baseline year to implementation year 1, implementation year 1 to year 2) to assess a single year's impact on SPS scores.

Because Louisiana administers different tests at different grade levels, we standardized the scales by z-scoring the 2011-12 student-level performance results across all students in the State by grade level, subject, and test version. A one-way between subjects analysis of variance (ANOVA) was conducted to compare the effect of TAP on student performance in TAP and non-TAP settings. Similar ANOVAs were performed by organization-level (elementary, grades 3-5 and middle, grades 6-8). We also conducted ANOVAs for each pair of TAP school and propensity score matched school by tested subject.

## 5.0 Findings: Do Students in TAP Schools Perform Differently?

This section addresses three major questions. First, do students in TAP study schools perform differently compared to a propensity score matched group of schools? Second, are there differences in school performance metrics among schools that are in successive years of TAP System implementation? Third, are there differences in student achievement between TAP and comparison schools by content area?

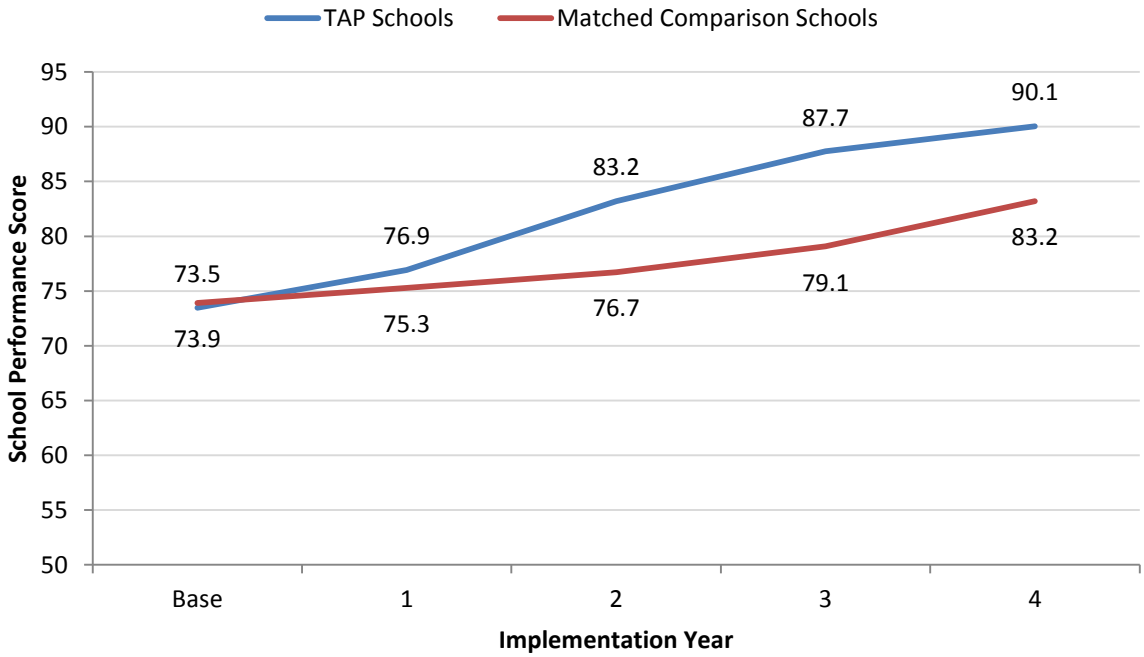
### 5.1 Comparing Louisiana School Performance Scores (SPSs) between TAP schools and Their Matched Comparison Schools

The following chart and table summarize results analyzing state-provided Louisiana *School Performance Scores* (SPS) across the TAP schools and their matched comparison schools. Two TAP schools that were affected by Hurricane Katrina did not have base year SPS scores (their TAP Year 1 scores were used in the propensity score matching). For these analyses, we omitted the two schools because some analyses used the base year as a covariate. Also,

another school did not have 2011-12 SPS scores and was removed. These omissions resulted in fourteen TAP schools remaining in the analysis that includes base year data.

Examining the chart, we observe that the two groups start at the same aggregate SPS. Some separation is observed after one year of implementation. In the second year of implementation the TAP schools' SPS score increases much more than that of their matched comparison group. The increase is maintained in the third year of implementation. Below the chart and table are analyses of the statistical significance of the TAP schools and matched comparison schools.

**Figure 3 School Performance Score Trends for TAP Schools and Match Comparison Schools**




| TAP | Statistic | Implementation Year | | | | |
|---|---|---|---|---|---|---|
| | | Base | 1 | 2 | 3 | 4 |
| TAP Schools | Mean | 73.5 | 76.9 | 83.2 | 87.7 | 90.1 |
| | Std. Err. | 4.1 | 3.7 | 3.5 | 5.1 | 7.3 |
| | Std. Dev. | 15.2 | 13.9 | 13.1 | 18.4 | 18.0 |
| | 95% CI | (64.7, 82.2) | (68.9, 84.9) | (75.6, 90.8) | (76.6, 98.9) | (71.2, 108.9) |
| | Obs. | 14 | 14 | 14 | 13 | 6 |
| Matched Comparison Schools | Mean | 73.9 | 75.3 | 76.7 | 79.1 | 83.2 |
| | Std. Err. | 3.6 | 3.6 | 4.1 | 5.3 | 6.0 |
| | St. Dev. | 13.6 | 13.6 | 15.3 | 19.1 | 14.7 |
| | 95% CI | (66.1, 81.7) | (67.4, 83.1) | (67.9, 85,6) | (67.6, 90.6) | (67.8, 98.6) |
| | Obs. | 14 | 14 | 14 | 13 | 6 |

Base Year Equivalence. There was no significant difference between the SPS of TAP schools and their matched comparison schools in the base year, $t(26) = 0.080$, $p > 0.05$. This finding establishes base year equivalence between the TAP schools and their matched comparison schools. The finding is expected, since the base year SPS was used in the propensity score matching process.

After One Year of Implementation. Even though an observable gap emerges in the scores, there was no significant effect of TAP on the School Performance Score (SPS) after controlling for the effect of base year SPS, $F(1, 26) = 2.93$, $p = 0.099$. One year was not sufficient to differentiate TAP schools from their matched comparison school by their SPSs. The base year SPS was a good predictor of the Year 1 SPS.

The results below are for an analysis of covariance (ANCOVA), where base year SPS is the covariate. The TAP variable is dummy coded (TAP school = 1, matched comparison school = 0). Below the ANCOVA table is the same analysis but expressed as linear regression results. Similar results are given for implementation years two and three.

**Table 2 Dependent variable: Implementation Year 1**

| Source | Partial SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Model | 4689.360[a] | 2 | 2344.680 | 232.45 | 0.000* |
| TAP | 29.562 | 1 | 29.562 | 2.93 | 0.099 |
| Base Year | 4670.303 | 1 | 4670.303 | 463.01 | 0.000* |
| Residual | 252.169 | 25 | 10.087 | | |
| Total | 4941.530 | 27 | 183.020 | | |

| | Coef. | Std. Err. | t | Sig. | 95% CI | |
|---|---|---|---|---|---|---|
| TAP | 2.056 | 1.201 | 1.71 | 0.099 | -0.417 | 4.528 |
| Base Year | 0.930 | 0.043 | 21.52 | 0.000* | 0.841 | 1.019 |
| Constant | 6.525 | 3.306 | 1.97 | 0.060 | -0.283 | 12.333 |

[a]R Squared = 0.9490 (Adj. R Squared = 0.9449)
*Indicates statistical significance at the .05 level
Cohen's $f^2 = 18.61$

After Two Years of Implementation. There was a significant effect of TAP on SPS after controlling for the effect of base year SPS, $F(1, 26) = 6.37$, $p = 0.018$. TAP begins to show a statistically significant difference after the second year of implementation.

**Table 3 Dependent variable: Implementation Year 2**

| Source | Partial SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Model | 4287.992[a] | 2 | 2143.996 | 41.28 | 0.000* |
| TAP | 330.750 | 1 | 330.750 | 6.37 | 0.018* |
| Base Year | 3992.242 | 1 | 3992.242 | 76.86 | 0.000* |
| Residual | 1298.492 | 25 | 51.940 | | |
| Total | 5586.484 | 27 | 206.907 | | |

| | Coef. | Std. Err. | t | Sig. | 95% CI | |
|---|---|---|---|---|---|---|
| TAP | 6.875 | 2.724 | 2.52 | 0.018* | 1.264 | 12.486 |
| Base Year | 0.860 | 0.098 | 8.77 | 0.000* | 0.658 | 1.062 |
| Constant | 13.154 | 7.501 | 1.75 | 0.092 | -2.295 | 28.603 |

[a]R Squared = 0.7676 (Adj. R Squared = 0.7490)
*Indicates statistical significance at the .05 level
Cohen's $f^2$ = 3.30

After Three Years of Implementation. There was a significant effect of TAP on SPS after controlling for the effect of base year SPS, F(1, 24) = 5.30, p = 0.031.

**Table 4 Dependent variable: Implementation Year 3**

| Source | Partial SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Model | 6335.300[a] | 2 | 3167.650 | 28.20 | 0.000* |
| TAP | 595.558 | 1 | 595.558 | 5.30 | 0.031* |
| Base Year | 5845.921 | 1 | 5845.921 | 52.05 | 0.000* |
| Residual | 2583.399 | 23 | 112.322 | | |
| Total | 8918.699 | 25 | 356.748 | | |

| | Coef. | Std. Err. | t | Sig. | 95% CI | |
|---|---|---|---|---|---|---|
| TAP | 9.576 | 4.159 | 2.30 | 0.031* | 0.973 | 18.180 |
| Base Year | 1.044 | 0.145 | 7.21 | 0.000* | 0.745 | 1.343 |
| Constant | 1.919 | 11.091 | 0.17 | 0.864 | -21.024 | 24.861 |

[a]R Squared = 0.7103 (Adj. R Squared = 0.6852)
*Indicates statistical significance at the .05 level
Cohen's $f^2$ = 2.45

Only six schools were in their fourth year of implementation. The ANCOVA is not significant. However, we judged the number of cases too small to justify a parametric test of significance. The effect size (Cohen's $f^2$ = 0.85) remains consistent, an indication of substantive differences even with a limited sample size.

## 5.2 TAP School Performance Growth Over the Course of TAP System Engagement

Some improvement programs are one-shot interventions where initial training is offered and schools are left to implement the program on their own. In contrast, the TAP System follows its intense initial training with a full court press of support over time and across the four components. The analysis is a one-group, pre-to-post design, where the post results are SPS after each year of implementation. The table below documents that as TAP schools go from the first year of implementation to the fourth year of implementation their Louisiana *School Performance Score* (SPS) grows along with the implementation.

### Table 5 TAP School Implementation Related to SPS

| TAP School Implementation Related to SPS from First to Fourth Years of Implementation | | | | | | |
|---|---|---|---|---|---|---|
| **Year of implementation** | **Observations** | **Mean change in SPS (Base Year to …)** | **Std. Err.** | **Std. Dev.** | **95% Conf. Interval** | |
| 1st Year | 14 | 3.5* | 0.90 | 3.38 | 1.50 | 5.40 |
| 2nd Year | 14 | 9.7* | 1.94 | 7.27 | 5.54 | 13.94 |
| 3rd Year | 13 | 14.7* | 2.99 | 10.77 | 8.19 | 21.22 |
| 4th Year | 6 | 20.0* | 5.92 | 14.51 | 4.77 | 35.23 |

*Indicates statistical significance at the 0.05 level using $H_a$ (#st Year – Base Year) > 0 (one-tailed paired t-test).

For the matched comparison schools, the gains in SPS, from base year to each implementation year of the associated TAP school, were not statistically significant except in the fourth year.

### Table 6 Matched Comparison Schools SPS Results

| Matched Comparison Schools SPS Results over the First to Fourth Years of Implementation in their Associated TAP school | | | | | | |
|---|---|---|---|---|---|---|
| **Year of implementation** | **Observations** | **Mean change in SPS (Base Year to …)** | **Std. Err.** | **Std. Dev.** | **95% Conf. Interval** | |
| 1st Year | 14 | 1.4 | 0.85 | 3.16 | -0.46 | 3.19 |
| 2nd Year | 14 | 2.8 | 1.98 | 7.42 | -1.48 | 7.09 |
| 3rd Year | 13 | 5.2 | 2.77 | 10.00 | -0.88 | 11.21 |
| 4th Year | 6 | 14.0* | 4.69 | 11.50 | 1.90 | 26.03 |

*Indicates statistical significance at the 0.05 level using $H_a$ (#st Year – Base Year) > 0 (one-tailed paired t-test).

Examining the year-to-year (e.g., 1st Year to 2nd Year) SPS results (See Table 7), TAP schools have statistically significant improvements for each of the year-to-year comparisons. The matched comparison schools do not have any year-to-year statistically significant improvements.

### Table 7 Year-to-Year SPS Comparisons

| TAP | | Year-to-Year Comparisons | | | |
|---|---|---|---|---|---|
| | | **Base to 1** | **1 to 2** | **2 to 3** | **3 to 4** |
| TAP Schools | Difference | 3.4* | 6.3* | 4.5* | 10.4* |
| | Observations | 14 | 14 | 13 | 6 |
| Matched Comparison Schools | Difference | 1.4 | 1.4 | 1.6 | 5.6 |
| | Observation | 14 | 14 | 13 | 6 |

*Indicates statistical significance at the 0.05 level using Ha:Diff > 0 (one-tailed paired t-test).
Note: Table 7 shows year-to-year paired results, i.e., schools must have data for both years. The values reported for the year-to-year difference computed from Figure 3 will not match (e.g., for years 3 to 4 we have six paired schools but Figure 3 gives a mean for 13 schools in year 3).

## 5.3 Two-group Quasi-experimental Design: TAP School Student Versus Matched Comparison School Student in School Year 2011-12.

This analysis is a two-group quasi-experimental design (treatment = TAP school students and control = matched comparison school students). We tested whether students attending TAP schools in 2011-12 performed better on Louisiana achievement tests than their counterparts in matched comparison schools. We tested the four primary subjects (English / Language Arts, Mathematics, Science, and Social Studies) assessed by Louisiana. Descriptive statistics are given in the table below. One-way between subjects' analyses of variance (ANOVAs) were conducted to compare the effect of TAP on student performance in TAP school and non- TAP school conditions. The ANOVA results follow the descriptive statistics table.

### Table 8 z-Scored Achievement Descriptive Statistics

| 2011-12 TAP Schools and Matched Comparison Schools *z*-Scored Achievement Test Statistics | | | |
|---|---|---|---|
| | **Statistics** | **TAP** | **Comparison** |
| English / Language Arts | **Mean** | **-0.165** | **-0.232** |
| | Std. Dev. | 1.045 | 1.072 |
| | Obs. | 2,962 | 3,461 |
| Mathematics | **Mean** | **-0.074** | **-0.304** |
| | Std. Dev. | 0.995 | 0.985 |
| | Obs. | 2,969 | 3,466 |
| Science | **Mean** | **-0.168** | **-0.309** |
| | Std. Dev. | 1.056 | 1.042 |
| | Obs. | 3,338 | 3,749 |
| Social Studies | **Mean** | **-0.080** | **-0.313** |
| | Std. Dev. | 1.043 | 1.049 |
| | Obs. | 3,338 | 3,749 |

Note: The z-scored data are based on the state-wide mean and standard deviation values, z-scored by grade and test and then aggregated to the school level. Since most of the TAP schools and hence their comparison schools were below average at baseline and the z-scoring shifts the mean to zero and reports in standard deviation units, the schools in the study have negative mean values.

### Table 9 One-way Analysis of Variance (ANOVA)

| One-way Analysis of Variance (ANOVA) TAP School Students and Matched Comparison School Students | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** | **Cohen's $\eta^2$** |
| ELA | Between Groups | 7.110 | 1 | 7.110 | 6.334 | .012* | 0.001 |
| | Within Groups | 7207.419 | 6421 | 1.122 | | | |
| | Total | 7214.529 | 6422 | | | | |
| Mathematics | Between Groups | 84.579 | 1 | 84.579 | 86.386 | .000* | 0.013 |
| | Within Groups | 6298.367 | 6433 | .979 | | | |
| | Total | 6382.946 | 6434 | | | | |
| Science | Between Groups | 34.966 | 1 | 34.966 | 31.792 | .000* | 0.004 |
| | Within Groups | 7791.206 | 7084 | 1.100 | | | |
| | Total | 7826.172 | 7085 | | | | |
| Social Studies | Between Groups | 95.642 | 1 | 95.642 | 87.411 | .000* | 0.012 |
| | Within Groups | 7752.114 | 7085 | 1.094 | | | |
| | Total | 7847.756 | 7086 | | | | |

*Indicates statistical significance at the .05 level

In the four primary subjects assessed, there was a significant effect of TAP on student performance at the $p<0.05$ level for the TAP /non- TAP conditions [ELA: $F(1, 6421) = 6.334$, $p = 0.012$; Mathematics: $F(1, 6421) = 86.386$, $p = 0.000$; Science: $F(1, 7084) = 31.792$, $p = 0.000$; Social Studies: $F(1, 7085) = 87.411$, $p = 0.000$].

## 5.4 A Comment on the TAP System and Achievement.

The components and processes of the TAP System have been widely adopted at different levels of schooling – states, districts, and individual schools[3]. Even so, the TAP schools outperform the comparison schools despite the fact that some of the comparison schools had 'teacher coaches,' 'teacher leaders,' Professional Learning Communities that resemble TAP's cluster groups, etc. The advantage of TAP System-participating schools makes the point that intensive, comprehensive, and sustained interventions are necessary to transform schooling.

The schools we studied were historically low-achieving schools and operated within the boundaries of public school bureaucracies. To those challenges, the ordinary personnel churn of any large organization provides its own difficulties – maternity leave, bereavement leave, sick leave, military transfers, career changes, re-organization that populates TAP schools in mid-course with non-TAP teachers, poaching by other programs especially charter schools. Regardless, the TAP System made a difference in circumstances that have defeated other external programs.

[3] The state enacted a teacher evaluation system "ACT 54."

It is also relevant to note the special conditions surrounding schools in Louisiana, especially the still-continuing recovery from Hurricane Katrina. The TAP schools and the propensity-score matched comparison schools were all previously low-achieving, hard-to-staff, under-resourced schools in need of improvement. Some had been closed, renovated, and re-opened. As frequently, the students and staff had been moved once or twice in recent years to accommodate recovery and re-building. At the same time, student populations have changed as the schools experienced large increases in Hispanic families from Latin and South America. The distractions and the extra stress were and in many instances still are palpable. Nonetheless, the TAP System was able to support and promote school-wide improvement.

## 6.0 Findings: Do Teachers in TAP Schools Teach Differently?

The TAP System aspires to improve student outcomes by helping teachers improve their instruction. Our extensive web-survey self-report data from TAP teachers documents their practice.

### 6.1 TAP Career Teacher Responses to Random-interval Work-sampling Data Collection – Year 1

**Teachers and basic TAP-related tasks**

Of the Year 1 series of six 'ping' repeated measures inquiries, four asked about the same phenomena with the same language at four different intervals. A second series of two pings asked about more specialized topics.

In the first series, classroom teachers in the TAP study schools[4] were asked, "At the time you received this, were you…"

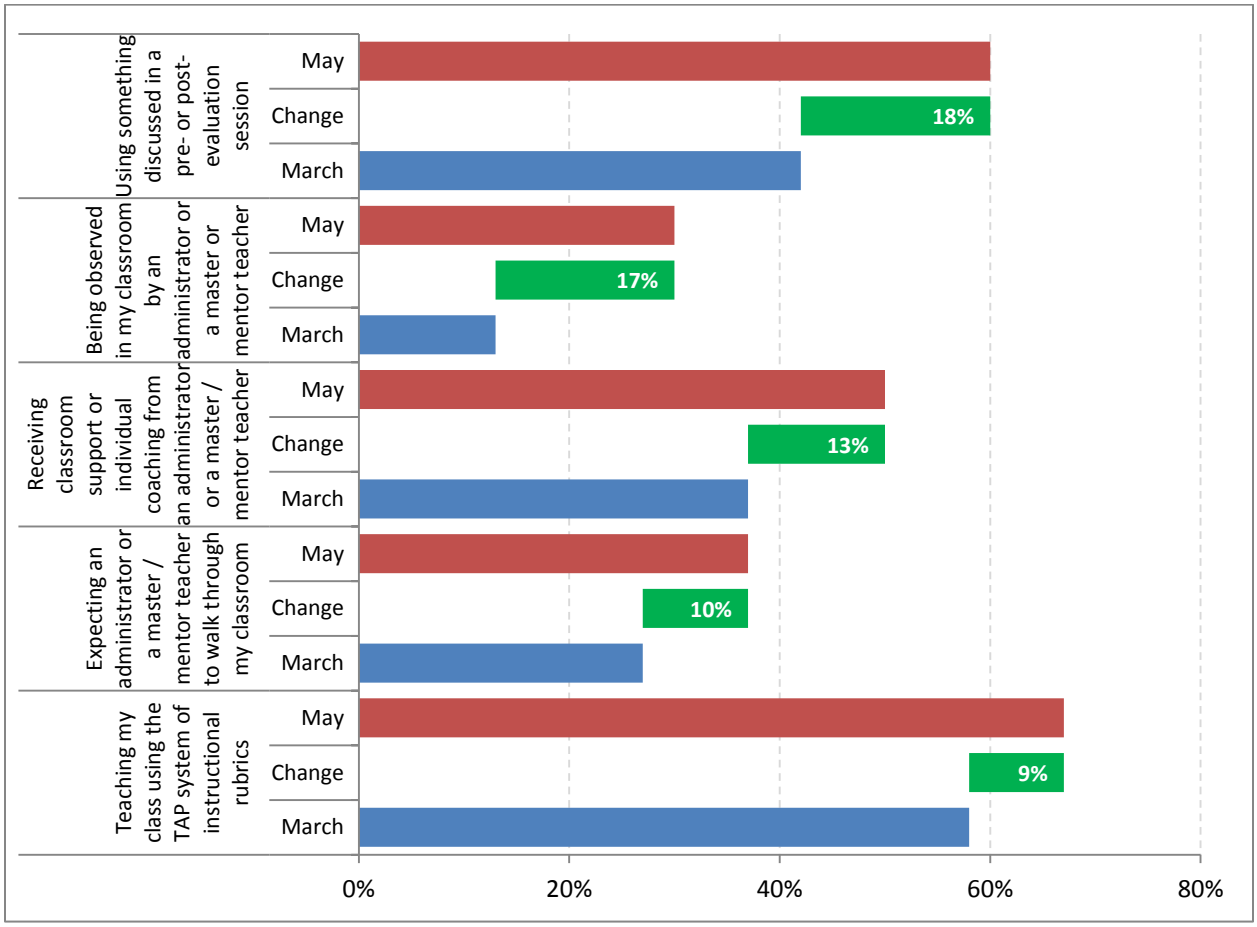
1. Using something that I think is directly related to better student achievement?
2. Working with small groups or individuals?
3. Working with the whole class?
4. Being reflective about my teaching?
5. Feeling accountable for what my students learn?
6. Following up with the students on a lesson to be sure they get it?
7. Reviewing student performance data posted in the classroom?
8. Reviewing the day's agenda with students?
9. Using something I learned in a cluster group meeting?
10. Using something that a master or mentor teacher modeled?
11. Using something that came up in an evaluation or observation of my teaching?
12. Using something that I think may boost my compensation?

Items 1, 2, and 3 are common expectations for teachers. Items 4 and 5 – "being reflective" and "feeling accountable" – are similarly widespread aspirations, but TAP emphasizes and supports them more concretely than conventional school practice. The other items are specific to TAP and its four core elements.

[4] Note: To maximize timely and widespread cooperation, the micro-surveys asked a small number of quickly-answered questions and did not include requests for data identifying or describing the respondents.

TAP teachers improved their practice and knowledge of recommended instructional practices over the three months in Year 1 during which we used authentic random-interval work sampling to measure their classroom work. Nine out of 10 TAP teachers reported a continuing and consistent emphasis on accountability. Three-fourths reported a focus on teaching related to "better student achievement." The second series of random-interval 'ping' queries focused on TAP-centered practices. For nine of the 11 TAP-centered practices, more teachers reported increases in the recommended activities over time (listed as percent choosing from most-to-least increase). The next figure displays the growth in the five most adopted activities.

**Figure 4 Increases in Teacher Use of TAP-centered practices from March to May 2011**




The way these data were collected makes them particularly illuminating ('real time,' random-interval work-sampling.) It is remarkable how many teachers report they "feel supported by the TAP leadership team" and are using things they learned in an evaluation session. "Being observed" and "expecting a walk through" show how much teachers feel the presence of TAP's evaluations on a daily basis. The evidence points to the comprehensive penetration of TAP's instructional components in the work of teaching.

***The tight coupling between TAP evaluation and TAP support suggests that teachers in TAP schools accept an unusual amount of evaluation in return for an unusual amount of support.***

The random-interval work-sampling technique surfaces what people are doing – "right now!" Nine out of ten TAP teachers report a continuing and consistent emphasis on accountability. Three-fourths report a focus on teaching related to "better student achievement."

On the evidence of the random-interval work-samples, about two-thirds of teachers in TAP schools reported using the TAP instructional rubrics for the lesson being taught during the May work sampling. About 50% of teachers reported support or coaching from a master or mentor teachers at the time of the May work sampling. About four teachers out of ten report using "something that came up in an evaluation or observation of my teaching." Conventional practice in teacher evaluation is sometimes adversarial and often perfunctory and intermittent. The TAP model prescribes pre- and post-conferences among the trained and certified evaluators – including with a master or mentor teacher – and the career teacher being evaluated.

The evaluations are centered on a known, explicit, and classroom-centered rubric. This evidence suggests that TAP teachers are putting into classroom practice what they learn from the observations and evaluations of their work. Forty percent report being aware of a relation between what they are doing and the prospect of a monetary bonus.

The teaching profession is understood to be over-demanding and under-rewarding – too many responsibilities for too little compensation. That, plus the chronic demand for reform ("Do better!") has historically triggered defensiveness. The TAP System adds an uncommonly intense set of teacher evaluation procedures. For example, at the times of the queries, 37% and 50% of the teachers said they were expecting someone from the school leadership team to walk through their classroom. Thirteen percent of the teachers at the time of the first query and 30% at the time of the second query reported being observed in their classrooms.

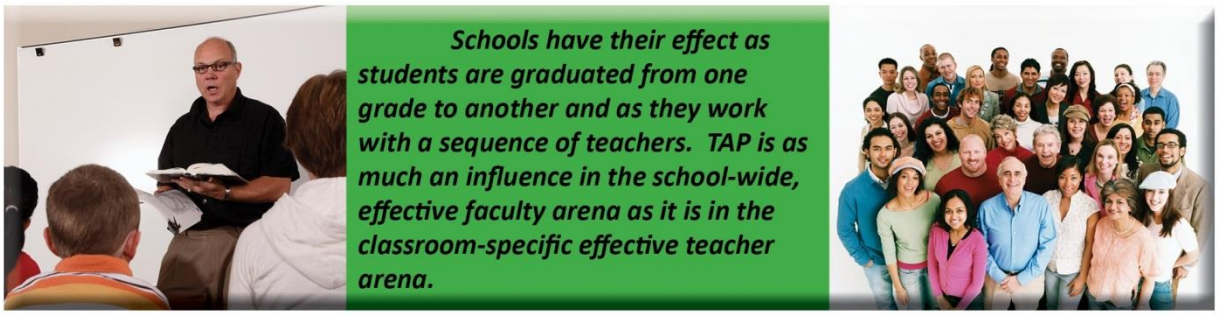
Instead of leading to resistance, 90% of TAP teachers "feel supported by the TAP leadership team to improve my teaching." About half the teachers said that, at the time of work-sampling, they were "receiving follow-up on the implementation of something learned in a cluster group meeting" and, a third to half of the teachers reported, "receiving classroom support or individual coaching from an administrator or a master or mentor teacher." The tight coupling between TAP evaluation and TAP support is evidenced by the 42% and the 50% of teachers who reported "using something discussed in a pre- or post- evaluation session" at the moments of our queries[5].

That trust may be part of the explanation for the ≈60% of teachers who said they were "teaching my class using the TAP System of instructional rubrics." About a third of the teachers reported "reviewing student performance data" at the moment of our queries: earlier, one

[5] These responses are in the same range as those in the series of four queries about "Using something that came up in an evaluation or observation of my teaching" – 44%-39% – reported above.

teacher in five reported "reviewing student performance data *posted in the classroom* (emphasis supplied)" over the series of four queries.

Finally, two questions asked teachers about a more-than-classroom, school-wide focus. A third of the teachers reported "reflecting on school-wide goals for school improvement" and two-thirds said they were "using a school-wide research-based 'strategy' during classroom instruction." It is not enough for a child to have a single, gifted teacher.




## 6.2 Master, Mentor, and Career Teachers in TAP Schools on "Preferred" Instruction

The general curricular strengths of TAP teachers – especially the master teachers – are documented in the three group's responses to the same declarative knowledge "preferred" instruction choices. In Year 1, the three categories of teachers got the same request to choose between paired items that presented teaching/learning situations that Interactive, Inc. created to represent "traditional /conventional" [or] "preferred" instructional practices. The table below shows the paired statements, the percentages of master, mentor, and career teachers that selected the preferred choice and the general teaching practice area or domain for each item.

**Table 10 Responses to Paired Items Describing "Preferred" Instruction**

| Master, Mentor and Career Teacher Responses to Paired Items Describing "Preferred" Instruction (from highest-to-lowest by master teachers: Year 1) | | |
|---|---|---|
| **Item pairs: the first, shaded item in every row indicates the preferred choice identified by Interactive, Inc.[6]** | **% Choosing "preferred": master/mentor/career** | **Area** |
| A. The results of trials and tests with students in the school should guide what a school does<br>B. The professional judgment of teachers should guide what a school does | 100%/84%/74% | TAP |
| A. Teaching is more effective if it is guided by a tool or rubric for lesson planning and delivery<br>B. Lesson plans are just paperwork for administration and less important than the teachable moment | 100%/89%/85% | TAP |

[6] Although in this table, the 'preferred' answer is always shown first, in the web-survey, the 'preferred' answer was randomly assigned as the first or second choice.

| | | |
|---|---|---|
| A. Teachers can use technology to tailor learning experiences to small groups and individuals<br>B. Whole group instruction is the only practical way to deal with big class sizes | 100%/100%/90% | Technology |
| A. The more their visual, tactile and auditory senses are engaged, the better students learn<br>B. Students are easily distracted by presentations that look too much like entertainment (TV and video games) | 97%/100%/95% | Technology |
| A. Consistently working with teachers to come close to a grade-level consensus about how they should all be teaching is a sign of healthy school<br>B. Having lots of teachers trying out new ideas independently of each other is a sign of healthy school | 95%/96%/89% | TAP |
| A. Teachers look at student achievement data during the year as part of a group of teachers<br>B. Teachers look at student achievement data during the year | 95%/70%/66% | TAP |
| A. Knowing how to communicate with the Internet, cell phones and PDAs is just as important as print-based learning<br>B. Getting students to read things like newspapers and to speak correctly is about all I can do with the current resources | 92%/93%/85% | Technology |
| A. Students should come to school to practice skills that they will need later in life<br>B. Students should come to school to be taught by experts | 90%/96%/88% | 21st century |
| A. Since what we think of as a "fact" changes so often, it is more important that students learn how find and use "facts"<br>B. Knowing facts and figures is central to success | 90%/93%/79% | 21st century |
| A. Teachers have stopped using some print materials in order to use more digital sources and materials<br>B. If schools can teach students to read and write with print materials, we will have done our job | 90%/93%/87% | Technology |
| A. Students need to determine for themselves how much of any given source is right or wrong and why<br>B. Students need to learn to respect what experts have determined | 89%/89%/80% | 21st century |
| A. I expect students to work on the kinds of tasks that they will find when they enter paid employment<br>B. It is not practical to assign, supervise or evaluate student work done outside the classroom and outside the state-prescribed curriculum | 87%/82%/72% | 21st century |
| A. Learning is more successful when it capitalizes on student enthusiasm and the teachable moment | 84%/84%/77% | Inquiry-based |

| | | |
|---|---|---|
| B. Learning requires mastering materials in a cumulative, orderly way | | |
| A. Schools should have groups that invent new ways to make schools successful<br>B. Schools can be improved a lot just by using what we already know | 76%/96%/58% | TAP |
| A. Teachers regularly use the Internet to get ideas and help from people outside the school<br>B. People who work in this school know more about how to improve instruction than anyone else | 76%/58%/65% | Technology |
| A. I want students to learn good questioning techniques<br>B. Students are more successful when teachers direct what the learn and how they learn it | 74%/77%/73% | Inquiry-based |
| A. Teachers assign students tasks that are similar to what they will have to do when they get into paid employment or college<br>B. Teachers have a supply of quizzes and tests that do a good job of measuring what students are supposed to know | 68%/75%/49% | 21st century |
| A. Teachers can't really tell much about the quality of student learning without frequent interim assessments<br>B. Most of what teachers need to plan teaching comes from state standards and students' end-of-year tests | 64%/71%/45% | Evidence-based |
| A. At least three or four times a semester, teachers create custom tests from items they get from web sources<br>B. Chapter quizzes and 6 or 9 week grades are a sufficient base to judge student performance | 62%/--%/*55% | Evidence-based |
| A. Teachers try hard to connect their students to, for example, Europe and Asia<br>B. It is hard enough to get my students to care about what happens in school and this community | 55%/49%/56% | 21st century |
| A. Students resist single "Answers" and would rather test things out for themselves<br>B. Students expect their teachers to teach them "The Answer." They are satisfied with things that are simple and "packaged." | 51%/68%/48% | Inquiry-based |
| A. For students, finding problems is as important a skill as solving problems<br>B. My students do best when I give them clear tasks and clear direction | 40%/46%/33% | Inquiry-based |

*This item was omitted from the Mentor teacher survey.

On the 21 paired items for which we have (Year 1) comparable responses, the mentor responses were either in the middle between masters and careers or equal to the masters' responses nine times. Because the standards for selection for the master position are more

exacting as are their responsibilities, the master teacher responses can be expected to be more accurate. But on 12 of the 21 items, a larger fraction of mentor than master teachers chose the preferred response. While some of the margins were small, on some the proportion of mentor teachers choosing the preferred option was quite large, for example, that schools should have groups of teachers working "to invent new ways to make schools successful" (masters, 76%: mentors, 96%) and 'students should test things out for themselves' (masters 51%: mentors, 68%). Both of the TAP System special roles are expert at instruction.

## 7.0 Findings: Is There a Relation Between Teacher Engagement With The TAP System and Student, Teacher and School Results?

### 7.1 Teacher Engagement with the TAP System and its Measurement

The TAP System is a nationally-developed intervention that has to be fielded locally. That raises the issue of the (local) fidelity of a (national) program's use, a topic ordinarily referred to as 'implementation'. Attention to the struggles of program implementation has been commonplace since the critiques of federal program (non)implementation in local schools in the 1970s[7]. The first generation of implementation studies grew out of the Rand Corporation's "Change Agent" analysis and viewed schools as resistant and deficient. The process of implementation was and remains a clash between school cultures, school beliefs, and school traditions and the requirements of externally derived, often nationally-sponsored "improvements." The socio-political power of the school and the faculty forces an accommodation ["mutual adaptation" (McLaughlin,1998)[8] or "partisan mutual adaptation," (Mann, 1976)] and in that process the compromises often deprive the intervention of the critical mass of elements necessary to support significant improvement. The diminution usually accelerates over time or regimes and especially as programs move down across organization or hierarchical levels. The implementation problem was summarized as the collision between superordinate policy and subordinate practice where both perspectives compete for legitimacy. Most studies conclude that "leadership" is a *sine qua non*, see for example, Fullan (1992)[9]. More recent interpretations (Manwaring, 2011)[10] add "stakeholder support" to leadership and that translates into peer leadership and, in the case of the TAP System, shared leadership among the principal, the master teacher, and the mentor teachers.

Programs that are not fielded do not have effects. The truism also captures the challenge of working to improve schools where teachers who are already hard-pressed and who believe in what they are (already) doing are nonetheless asked to take on new work in connection with an unfamiliar "innovation," "improvement," or "reform." especially one decided by someone other

[7] Mann, D., (1976) *Making Change Happen* New York, Teachers College Press.
[8] McLaughlin, M. (1998) "Listening and learning from the field: Tales of policy implementation and situated practice, in Hargreaves et al." (eds.) *International Handbook of Educational Change*, 70-84, Kluwer Academic, London.
[9] Fullan, M.G., (1992) *Successful school improvement: The Implementation perspective and beyond*, Open University Press.
[10] Manwaring, R., (2011) "School turnaround success: Focus on implementation, Principal", v 90, n 4, March-April, *NAESP*, Alexandria

than the groups that have to do the implementation. Decades of research about the problem of implementing new initiatives in schools has documented the height of the hurdles. Despite the implausibility of high-fidelity implementation,[11] the TAP System has been designed and successively refined to ameliorate these obstacles. The next table outlines the TAP System as it is designed for schools.

### Table 11 Overview of a Typical TAP System School Implementation

<table>
<tr><th colspan="2">Overview of a Typical TAP System School Implementation</th></tr>
<tr><td colspan="2"><u>School-based leadership team</u><ul><li>Led by the principal and includes all masters and mentors</li><li>Weekly meetings to review student achievement data</li><li>Conduct 4-6 observations of each teacher's classroom work with pre- and post- conferences</li><li>Reported in a weekly log tracking teacher individual growth plans, cluster group progress, etc.</li><li>Annual "Startup School Workshops" including the Instructional Rubrics and the TAP Skills, Knowledge and Responsibility Standards</li></ul></td></tr>
<tr><td><u>Master teachers</u>[12]<ul><li>80%-100% release time from classroom instruction</li><li>Classroom-embedded model lessons, observations and evaluations, team teaching, student data analysis, validation research and planning for cluster group meetings</li><li>Master:career teacher ratio 1:15</li><li>Number of cluster groups the master teacher supervises</li><li>Salary addendum determined by the district</li><li>10–20 additional (paid) contract days</li></ul></td><td><u>Mentor teachers</u><ul><li>2.5% – 5% release time from classroom instruction</li><li>Leading cluster groups, coaching, observations and evaluations</li><li>Mentor: career teacher ratio 1:8</li><li>Number of cluster groups the mentor leads</li><li>Salary addendum determined by the district</li><li>5 – 10 additional (paid) contract days</li></ul></td></tr>
<tr><td><u>Career teachers</u><ul><li>Release time for cluster group meetings</li><li>Individual growth plans developed with master/mentors and periodically updated</li><li>Eligible for performance bonuses</li></ul></td><td><u>Replacement/specialist teachers</u><ul><li>Numbers of full- and part-time certified teachers to replace master teachers and to cover classes during cluster group (release time) meetings</li><li>Instruction that is high-quality and academically rigorous by the replacement teachers</li></ul></td></tr>
<tr><td colspan="2"><u>Cluster groups</u><ul><li>Weekly meetings (the "Professional Growth Block" is 'pupil-free time')</li><li>Organized by grade level, by subject matter or other</li><li>Aligned to the STEPS for Effective Teaching, a template that overlaps with specific student needs</li><li>Sequenced by a written long-range plan and including cluster meeting records</li></ul></td></tr>
<tr><td colspan="2"><u>Performance-Based Compensation</u></td></tr>
</table>

[11] Schools have a long tradition of pasting labels from a new reform on old, unchanged practice.

[12] In addition, teachers are eligible to be selected as district-level "TAP coordinators" and as state-level TAP "Executive Master teachers"

| | |
|---|---|
| • A system that archives teacher evaluation data (CODE)<br>• A Performance Award Pool for annual performance bonuses<br>• Performance Award Weights reflecting teacher (a) skills, knowledge, and responsibilities (50%); (b) classroom achievement gains (30%); and (c) school-wide achievement gains (20%) | |
| **TAP Schools accountability for implementation**<br>• A memorandum of understanding among the TAP schools, districts and NIET<br>• Implementation progress reporting in a highly specific "TAP Planning Worksheet" that includes, for example, "Number of minutes of release time for mentor teachers – weekly/monthly _____ (recommended release time is 1 – 2 hours per week)" and "Attach a sample of the contract addendum master and mentor teachers will sign outlining their job responsibilities, additional contract days and salary addendums." | **National Institute for Excellence in Teaching**<br>• NIET School Program Reviews to evaluate "how fully and effectively each school is implementing the TAP elements."<br>• Training for certification and re-certification as a teacher evaluator<br>• TAP's Portal (video library)<br>• Annual Summer Institutes and the National Conference learning opportunities<br>• Training with the CORE teacher evaluation data system |

Most reform programs are "add-on" models. While third-party money often funds a position, adopting the intervention is tacked on to existing responsibilities. In contrast, TAP shelters teacher time by re-scheduling the school day for planning and collaboration, and by applying the full-time master teacher and part-time mentor teacher resources. Other reforms deal with specific topics or grade levels that have been identified by analysis of data specific to the school, e.g. "English Language Learning for 7th grade boys two or more years behind grade level."

*Learning Forward* (nee´, the National Staff Development Council) has developed contemporary editions of its professional standards (Hirsh, August 2011). The standards are recommendations about how professional development is best provided and are based on research and best practice knowledge. *Learning Forward*'s national standards are organized under the following topics[13].

**Table 12 National Standards for Professional Learning and Supporting Components from the TAP System**

| National *Standards for Professional Learning* and Supporting Components from the TAP System | |
|---|---|
| **2011 National Standards** | **NIET *TAP System*** |
| 1. Learning communities. Continuous improvement, collective responsibility, team alignment and collaborative learning in authentic settings dealing with classroom | Cluster groups regularly convened and consistently supported |

[13] *Learning Forward's* standards also track the Desimone, Porter, Garet, Yoon, & Birman (2002). Recommendations, e.g., "incorporate principles of adult learners", "ongoing and continuous," "embedded" and "aligned with school-wide improvement goals."

| | |
|---|---|
| environments and the selection of "appropriate strategies" | |
| 2. Leadership from teachers, technical assistance agencies, LEAs, SEAs and including constructive feedback and "support systems and structures" | The school leadership team and the addition of masters and mentors. |
| 3. Resources are human, fiscal, material, technology and time. "Access to just-in-time learning resources and participation in local or global communities or networks available to individuals or teams of educators during their workday expand opportunities for job-embedded professional learning." | Multiple levels of support from NIET's national staff, the state and regional staffs and the structure and process of TAP inside each school including re-scheduled school days and released time. |
| 4. Data. "Student, educator and system data" should be both presented and analyzed. | Cluster group emphases on student data analysis and practical implications supported and directed by the master teacher and the principal. |
| 5. Learning designs. Many theories and proven practices "…have common features such as active engagement, modeling, metacognition, application, feedback, ongoing support, and summative assessment that support change in knowledge skills, disposition and practice… [and they] ….provide low-risk practice and support transfer to the workplace." They "promote active engagement… with the content and one another," "…construct personal meaning… and identify authentic applications for their learning." [See also "Opportunities for active learning" (Doerr, et al, 2010)] | NIET's *STEPS for Effective Learning*, master teacher local and site-specific validation of candidate interventions for teaching improvement. |
| 6. Implementation. Applies resources including constructive feedback and reflection sustained over time. | The NIET *Implementation Manual* and its specific onsite and scheduled processes and structures. |
| 7. Outcomes should be linked to performance standards for multiple school roles that include knowledge, skills, practices, and dispositions and that are linked to student performance. | TAP *Knowledge, Skills and Responsibilities* plus the instructional and teacher evaluation rubrics. School-based student growth measures for teachers and students. |

The *TAP™ System for Teacher and Student Advancement* from the National Institute for Excellence is centered on teachers. Classroom teachers are the end-users of the TAP components and the final arbiters of how much or how little of those components are deployed in their classrooms. They are, therefore, well positioned to comment on how TAP impacts their work and those perceptions are at the very least useful proxies of "street-level"[14] implementation. In this analysis, we use the responses of teachers and especially of career teachers as indicators

[14] Lipsky, M. (1969), Toward a theory of street-level bureaucracy. University of Wisconsin Discussion papers. Lipsky, M. (1980), Street-level bureaucracy, dilemmas of the individual in public services. New York: Russell Sage.

of how TAP engages them and/or how they experience the components of the system[15]. Focusing on the end-users has the virtue of documenting impact from the people who are responsible for the work. It also has the limitation that some aspects of the TAP System – for example, the frequency of Team Leader meetings – will not be visible to the teachers. For those phenomena we rely on direct report data from participants.

During Years 1 and 2, we collected web-survey data from hundreds of teachers in TAP schools. The data have been analyzed across the three statuses of TAP teachers – career, mentor, and master. In general, those analyses support the face validity of teacher responses as indicators of various TAP phenomena; for example, enthusiasm for Performance-Based Compensation is highest among master teachers and not as high among careers. (See the discussion below).

In year 1, master teachers responded to 113 substantive (non-demographic) questions; mentors to 115; and career teachers to 116 questions. In year 2, the counts were 74 for master teachers, 109 for mentor teachers, and 106 for career teachers. The numbers of items declined because some 'early stage' phenomena did not need to be documented a second time, because of a concern to maximize responses by minimizing the burdens of inquiry and by the absence of an empirical reason to revisit a Year 1 item. Some items were free response, e.g., "What three words best described this school prior to TAP?" Most were fixed choice.

The items reflect the major components of the TAP System and Interactive, Inc.'s *a priori* estimates of the dynamics of TAP and their likely relation to teaching and student and school improvement. The web-survey items were presented with section headers that referenced, among other things, the four components of the TAP System. To encourage respondent cooperation, the web-survey grouped items by labeled areas. The language describing the TAP components for the web-survey questionnaires was critiqued by NIET and by the state directors before the web-survey questionnaires were deployed. The next table summarizes the numbers of items, per TAP-related topic for the base survey for career teachers.

### Table 13 General Organization of Teacher Web-Survey Items

| General Organization of Teacher Web-Survey Items by Area and Number: Career Teacher Version (TAP System components are bolded) | |
|---|---|
| **Number** | **Area** |
| 18 | Respondent descriptive characteristics |
| 11 | School context |
| 15 | The TAP System model as a whole |
| 8 | **Multiple Career Paths** |
| 18 | **Ongoing applied professional development** |
| 8 | **Instructionally-focused accountability** (TAP evaluation) |
| 4 | Evidence-based outcomes of TAP implementation |

[15] We recognize other methods for measuring implementation, for example, reviewing logs of team leader meetings, observing cluster groups and/or counting various records of the deployment of TAP System components. For this third-party analysis, we use an additional and complementary method to study implementation – teacher perceptions.

| | |
|---|---|
| 20 | **Performance-Based Compensation** |
| 4 | Collegiality |
| 6 | Retention |
| 22 | Classroom teaching practices |
| **134** | **Total** |

As a first step in the analysis, using the Year 1 survey, Interactive, Inc. selected all the items that were conceptually related to each of the components and explored the extent to which respondents oriented themselves similarly to all the other items in each group. We used a Cronbach's alpha of 0.7 as the cut-off point for acceptance into the group of items that were highly inter-correlated with each other. Teacher component scores were created by averaging the items within the components. The next table lists the items by questionnaire language that we use as measures of the career teachers' attitudes, opinions, and experiences about TAP System engagement or implementation.

**Table 14 Career Teacher Responses to Web-Survey Items Used to Measure Teacher Engagement**

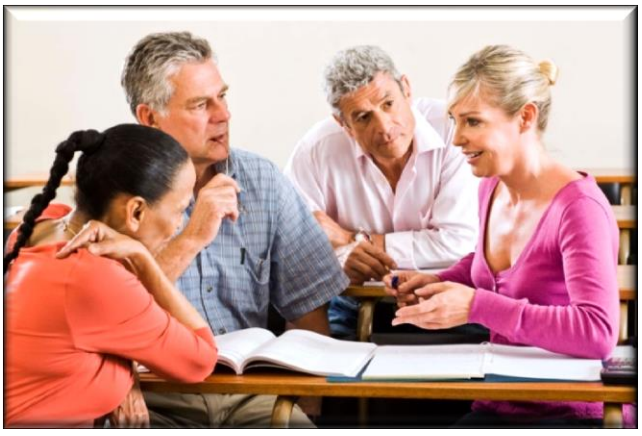
| **Career Teacher Responses to Web-Survey Items Used to Measure Teacher Engagement with TAP System Components** |
|---|
| **Multiple Career Paths scale, 3 items: α = 0.821** |
| TAP's career advancement opportunities are important to me. |
| I want to be a master teacher. |
| I want to be a mentor teacher. |
| **Ongoing Applied Professional Growth scale, 5 items: α = 0.8993** |
| Almost everything the master teacher presents during cluster discussions is helpful to me. |
| Almost everything the mentor teacher presents during cluster discussions is helpful to me. |
| TAP has increased the instructional support I get for my classroom. |
| TAP's Ongoing Applied Professional Growth is an improvement over what we used to have. |
| I'm a better teacher because of the cluster group discussions and collaboration. |
| **Instructionally Focused Accountability scale, 9 items: α = 0.7887** |
| TAP rubrics are helpful in making my teaching more effective. |
| The TAP System evaluation process has made my instruction more effective. |
| The chance to talk about my teaching before and after I am observed is helpful to me. |
| Teachers think about "accountability" in different ways. Tell us how much you agree or disagree with each of the following statements. - Student test results make me more accountable. |
| Teachers think about "accountability" in different ways. Tell us how much you agree or disagree with each of the following statements. - It's important that teachers be accountable to each other. |
| Teachers think about "accountability" in different ways. Tell us how much you agree or disagree with each of the following statements. - There should be extra pay for me if my students' test results are higher. |
| Teachers think about "accountability" in different ways. Tell us how much you agree or disagree with each of the following statements. - I think there should be monetary consequences related to my teaching. |
| I think it is fair for TAP teachers to be evaluated four to six times a year. |
| The TAP standards and rubrics make Performance-Based Compensation more objective and there is less favoritism. |

| Performance-Based Compensation scale, 10 items: α = 0.8940 |
|---|
| The TAP System for linking pay to performance is fair. |
| The TAP standards and rubrics make Performance-Based Compensation more objective and there is less favoritism. |
| The part of the TAP System that links pay to my *Skills, Knowledge, and Responsibilities* (SKR) measure is fair. |
| The part of the TAP System that links pay to my students' achievement is fair. |
| It is fair for teachers to get extra pay for doing their job. |
| I do not want the opportunity for performance pay to be taken away. |
| More effective teachers should be paid more. |
| TAP's bonus award payout allocation of 50% teaching, 30% classroom achievement and 20% student achievement growth is appropriate. |
| I support the Performance-Based Compensation system at my school. |
| Most teachers in my school support the Performance-Based Compensation system. |

Finally, we calculated the mean values of the career teacher responses to the four components to get a single measure of TAP System engagement (or implementation) as indicated by the career teachers. The overall values range from 1.0 to 4.0 with higher numbers indicating more support, more engagement.

## 7.2 Teacher TAP System Engagement and Student Results

The relationship between the implementation of TAP System components as measured by career teacher web-survey responses and the amount of student achievement change from the base year to the current year was examined. We find there is a positive relation – although not statistically significant – between the teacher reported amounts of their TAP engagement and achievement, which across the four years ranged from +4.1 to +46.6.



On the evidence of the site visits and interviews with principals and teachers, it is remarkable how vulnerable the TAP System is to local decisions and, to a lesser extent to state initiatives such as Louisiana's recent "ACT 54" teacher evaluation law. Half the schools described interference between the requirements of the TAP System and local priorities, local initiatives – "High Yield Marzano Strategies", "Technology integration", "bullying," "concrete representational math strategies," etc. A middle school principal noted, "The parish has competed with, displaced and confused TAP priorities in this school. Far from being an asset, they're [the parish priorities] a distraction. We agreed to concentrate on one strategy: instead the central office is mandating a whole menu of strategies." One principal told us, "The parish thinks TAP is 'evaluate teachers four times a year': that's it."

To those challenges, the ordinary personnel churn of any large organization provides its own difficulties – maternity leave, bereavement leave, sick leave, military transfers, career changes, re-organization that populates TAP schools in mid-course with non-TAP teachers, poaching by other programs especially charter schools.

## 7.3 Teacher TAP System Engagement and Teacher Results

### 7.3.1 Career teachers and TAP System engagement: Year 1

This section describes the relations between career teachers by various descriptive characteristics and their attitudes and opinions about the components of the TAP System. For year 1, teachers supplied information about, for example, their age, the number of years they had taught at the current school, etc.[16] TAP components were measured by the selected items previously discussed and that have been used as a summary of indicators at different parts of this report. One hundred eighty-seven career teachers completed our Year 1 web-survey instrument. Of those respondents, 70% hold a bachelor's degree and 24% hold a Master's degree. Three hundred forty career teachers completed the Year 2 web-survey.

The table below shows that while there is no difference in male and female teachers' attitudes toward TAP implementation overall, female teachers in Year 1 were a little more interested in Multiple Career Paths, Instructionally Focused Accountability and Performance-Based Compensation.

[16] For Year 2, to maximize teacher web-survey cooperation and to minimize disruption to the teachers' other responsibilities, the web-survey instruments were shortened and focused on phenomena that, *a priori*, had a reasonable expectation of variation in a year's interval.

### Table 15 Career Teacher TAP System Constructs by Gender: Year 1

| Career Teacher TAP System Constructs by Gender: Year 1 | | | | | |
|---|---|---|---|---|---|
| **Gender/(N)** | **TAP Engagement** | **Multiple Career Paths** | **Ongoing Applied Professional Growth** | **Instructionally Focused Accountability** | **Performance-Based Compensation** |
| Male/(44) | 2.7 | 2.2 | 3.0 | 2.8 | 2.7 |
| Female/(129) | 2.7 | 2.1 | 3.0 | 2.9 | 2.8 |

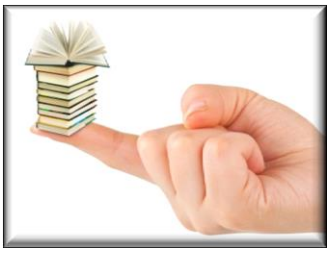
Teachers told us whether or not they had been in paid employment prior to becoming a teacher. We had speculated that the experience might be related to their acceptance of Performance-Based Compensation, but it was not. Similarly, there was no relation between attitudes toward Performance-Based Compensation and (a) whether or not the respondent was the sole source of income for their household or (b) whether or not the teacher was in paid employment (a second job) outside of teaching.

Looking at the last degree earned by the respondents, there is only one difference. Teachers with the most graduate study are slightly more interested in Multiple Career Paths (Year 2, 2.4).

### Table 16 Career Teacher TAP System Constructs by Amount of Education

| Career Teacher TAP System Constructs by Amount of Education | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Degree** | **(N)** | **Year** | **TAP Engagement** | **Multiple Career Paths** | **Applied Professional Growth** | **Instructionally Focused Accountability** | **Performance-Based Compensation** |
| BA | (75) | 1 | 2.7 | 2.1 | 3.1 | 2.9 | 2.8 |
| | (126) | 2 | 2.8 | 2.1 | 3.0 | 3.0 | 2.9 |
| BA + | (56) | 1 | 2.7 | 2.1 | 3.1 | 2.9 | 2.8 |
| | (107) | 2 | 2.8 | 2.2 | 3.1 | 2.9 | 2.8 |
| MA/M.Ed. | (44) | 1 | 2.6 | 2.0 | 2.9 | 2.8 | 2.8 |
| | (88) | 2 | 2.8 | 2.4 | 3.1 | 2.9 | 2.9 |

Career teachers are the *sine qua non* of school improvement. The ability of TAP evenly to bracket teacher concerns across various descriptive groups recommends TAP as a scalable and comprehensive resource.



**The Context of the TAP schools**

In Year 2, the TAP schools remain busy places: we asked career teachers,[17] "In my classroom, this year, I am expected to

[17] Except where noted, respondent choices were recorded as four-part Likert scale responses – "strongly agree," "agree," "disagree" and "strongly disagree." Unless otherwise noted, the narrative combines "strongly agree" with

implement…" and from most to least mentioned, they told us they were expected to work on:

- Student assessments 68%
- Technology 62%
- Reading instruction 61%
- Math instruction 49%
- State standards or tests 43%
- Curriculum (general) 34%

The only change from the career teachers' prior year report of their expected work is in an increased emphasis on Math instruction, from 23% last year to 49% this year.

Classroom teaching is demanding and uncertain and *ipso facto* it puts a premium on the self-confidence of teachers. As necessary as self-confidence is, it has also contributed to resistance to externally-imposed programs of 'improvement.' But in the TAP System schools we studied, the career teacher faculties said that, "Yes" they are available to help from the outside (71%). Two-thirds of the career teachers believe that TAP's practices will be sustained, a proportion that is up from 60% last year (i.e., they reject the statement, "Three years from now, this school will be back to business as usual").

To supplement the web-survey data, in both study years, we visited schools and interviewed teachers. Asked about the pre-TAP school, the interviewed teachers described skepticism, a lack of direction, and a lack of connection between school priorities and classroom issues.

- Asked about the difference before and after TAP, a principal said, "Wow. Before it was excuses and fire-fighting but no consistency. Before it was 'improve the student': now it is 'improve the teacher and the students' achievement will follow.' TAP had the mechanics, the schedules, the curriculum, the strategies, the focus, the concentration and the data. Once we set aside the time, TAP provided a channel for our energy. I'm beyond management now, I'm leading."
- And from a career teacher, "Before TAP, the school was lazy. PD was forced on us and it was all housekeeping and lecture. It had nothing to do with what we needed. Everyone blamed the neighborhood and everyone expected to be evaluated as 'proficient' or 'excellent'."

Because in schools enrolling children from low income families there is a perennial question about how to explain low achievement – we asked, "Who makes the most difference in a student's achievement?" In the first study year, the career teachers said, 'the student is the most important' but at the end of the second year, teachers had elevated themselves to most

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"agree" responses. For some items, some teachers declined to respond or skipped the item and those missing data cases generally account for fewer than 10% of the responses. Where an item asked for a comparison of the school before and after TAP, teachers could opt out because they were newly come to the school. As expected, the newly-arrived teachers declined to answer those items.

important – a signal of their growing sense of efficacy. The third and fourth places in determining a student's achievement remained unchanged – the family third and the school's leadership fourth.

**The TAP System model as a whole**

> ***"TAP is like a GPS. With it, you can go anywhere and teach anything."***
> **- A career teacher**

To gauge the career teachers' summary assessment of TAP, we asked a "right track/wrong track" question. Ninety-one percent of the career teachers said "right track," up from the 2010-11 89%. On a five-point scale measuring the system's impact on the school, 70% of the career teachers assigned one of the two highest impacts to TAP, unchanged from the first study year. Career teachers were asked to compare TAP to other reform models: slightly more than half the group thought TAP was "better" both years (53% and 54%) while the proportion that said it was "about the same" grew from 28% to 38%.

Asked what was different after TAP, most interviewed teachers volunteered "cluster groups and a sense of community," "masters and mentors," "modeling strategies," "research based strategies" and "structured rubrics" – all were outcomes that the career teachers attribute to TAP. The early part of our face-to-face interviews used a projective technique, that is, respondents were not directed to speak, for example, about a named TAP component. For unprompted responses, the TAP components are accurately and well represented by the interviewed teachers and that suggests that TAP practices have become part of the personal/professional repertoire.

The career teachers' we interviewed during the Year 1 field visits were asked how completely they were experiencing the TAP System. Their responses were similar to the assessments of the interviewed principals – three-quarters assigned a "4" or a "5" on scale of "5" being highest. The interviewed career teachers responded to the question, "How would you prove to someone that TAP is in fact being implemented?" Here is what they mentioned from high-to-low:

- Cluster group meetings 76%
- Analysis of student achievement data 67%
- TAP-based classroom instruction 57%
- Master/mentor field testing 48%.

On the evidence of whether or not career teachers would recommend TAP to other teachers and/or to other schools, the system is much more popular in the second year of the study than the first. The proportion of career teachers willing to recommend TAP to other teachers more than doubled from 2010-11, 25% to 57% in 2011-12. And the willingness to recommend TAP to another school grew from 44% of the career teachers to 64%.

Career teachers had the opportunity to provide three words to describe TAP in their school: "helpful," "beneficial," and "effective" stood out among the responses.

The TAP System is comprehensive and demanding. In already busy schools, time is a common obstacle to improvement, although not among this group of teachers, 70% of whom said, "I have enough time during the day to use the elements of TAP in my classroom," a proportion that is up from the previous year's two-thirds. Teaching with TAP is one thing; TAP-related roles and responsibilities are another (cluster group meetings, student achievement analysis). For that element, only 37% agreed that "I have enough time during the day to carry out the roles and responsibilities associated with TAP. They are also confident that their schools have the resources to implement the program. Eighty percent of the career teachers conclude that their school has the resources to implement TAP effectively.

Teachers were asked about the helpfulness of each of the different components of TAP. For the two years of the study, career teachers responded with the following:

**Table 17 How Helpful is Each of the Following TAP Elements to You? Career Teachers**

| How Helpful is Each of the Following TAP Elements to You? Career Teachers (% choosing from 2010-11/2011-12) | | | |
|---|---|---|---|
| | **Very helpful** | **Somewhat helpful** | **Not very helpful** |
| Ongoing Applied Professional Growth | 80%/74% | 20%/20% | 1%/6% |
| Multiple Career Paths | 56%/52% | 43%/30% | 1%/18% |
| Instructionally Focused Accountability | 83%/83% | 17%/14% | 1%/3% |
| Performance-Based Compensation | 70%/72% | 30%/21% | 1%/8% |

Three out of four teachers in 2011-12 believe that TAP's (1) ongoing applied professional growth, (2) instructionally focused accountability procedures and (3) performance-based compensation procedures to be helpful; half find the career path opportunities to be helpful. Those are substantial votes of confidence in the program's armature, and the enthusiasm for the program holds across years.

**Multiple Career Paths**

Career opportunity is one part of TAP's dynamic. The system is consciously designed so that teachers can be rewarded, recognized, and incentivized but without leaving teaching. We wanted to know how salient those opportunities were to career teachers. During the first study year, 19% of the career teachers said they wanted to be school administrators; during the second year, the proportion grew to 23%. Seventy percent of the career teachers said they "would much rather work with children than adults" The fraction of the career teachers who say they want to "be able to advance in my teaching career without leaving the classroom" is steady over the two years (61% in Year 1 and 63% in Year 2) as is the proportion who say that "TAP's career advancement opportunities are important to me" (58% and 59% in the first and second study years). The proportion of career teachers who aspire to be mentor teachers has grown from Year 1, 21% to Year 2, 34% and who aspire to be master teachers from Year 1, 13% to Year 2, 20%. The conventional organization of classroom teaching rewards longevity and preparation rewards but does not involve a change in the daily work. Here, between a third and a fifth of the faculty are looking for more and finding it in the TAP System.

The addition of master and mentor roles in a school faculty is very different from school business as usual. Adding roles, differentiating staffing confuses one in eight of the career teachers.

***"Before TAP there was no support and no systemic approach to improving quality and no team approach to improving instruction."***
**– A principal**

**Ongoing Applied Professional Growth**

The first recourse in improving schools has always been professional development for teachers. The TAP System incorporates the most recent standards and best practices and in many ways, exceeds them[18]. The career teachers are very clear about how much of a departure TAP's professional development represents: in 2011-12, 85% agreed that "TAP's Ongoing Applied Professional Growth is an improvement over what we used to have"; this year the proportion has grown to 90% with a similar super-majority recognizing that "TAP has increased the instructional support I get for my classroom."

TAP's Ongoing Applied Professional Growth is delivered through a mandated, structured and regularly scheduled set of purpose-driven meetings of functionally-related members of the school's faculty – the meetings are called "cluster groups" and the phrase distinguishes them from conventional faculty meetings. Eighty-four percent of the career teachers credit improvement in their own teaching to the "discussions and collaboration." Eighty-six percent of the career teachers report that "Since TAP was implemented, there has been more sharing among teachers at this school." Asked if they "…feel more comfortable asking my colleagues for help" since TAP was implemented, 74% report that increased willingness to ask for help although that is a 9% drop from the first year of the study.

***"We have moved from talking about results to achieving them."***
**– A career teacher**

It is not enough for a school to have individuals who are gifted teachers: students are educated by groups of teachers with complementary specializations and by a succession of teachers as they move up the grades. Therefore, schools have to have effective faculties in addition to effective individuals. In contrast to improvement strategies that leverage only classroom-by-classroom improvement, TAP is more ambitious and nine out of ten of the career teachers say that the program has helped "…teachers work more effectively toward school-wide improvement.

In conventional schooling, teachers work in relative isolation from each other. Teachers meet in grade level groups and there are efforts to link what is taught among teachers and across grade levels but, for the most part, "egg-crate" isolation dominates. The TAP System's insistence on cluster group meetings that are systematic, regular, uninterrupted and purposeful gives teachers a more penetrating look at each other's

***Seventy-nine percent of the career teachers believe that that TAP is improving the instruction of "all teachers at this school" – up from last year's 74% - and 89% conclude that TAP is having that effect on "the less proficient teachers."***

[18] See, Standards for Professional Learning (2011, August). *Learning Forward* discussed above. Retrieved from www.learningforward.org/standards/StandardsReferenceGuide.pdf.

instructional practices. The 89% of career teacher respondents who credit TAP with improving their "less proficient" colleagues is remarkable.

Much of the TAP strategy pivots around "cluster group meetings," teachers who come together in functionally-related groups with very specific preparation, expectations, tasks and support. The career teachers could tell the difference: in 2011-12, 70% said that "TAP cluster group meetings are more practically connected to classroom teaching than grade-level or subject-matter meetings"; the 2010-11 figure was 73%. One principal said of her faculty, "They think 'cluster' is just part of the school now."

***"Before, there was no support and no follow-up with professional development. Now there is much more support and follow-up."***
**– A master teacher**

Cluster group meetings are led by the master and mentor teachers who may be more credible and accessible as sources of help than would be an administrator[19]. In fact, more than three out of four career teachers endorse the utility of the masters and mentors. "Almost everything the master teacher presents during cluster discussions is helpful to me" drew 77% agreement for both years. A similar question about the mentor's utility grew from 75% to 80% agreement. Teachers estimated how many instructional strategies they had tried that they had first learned about in cluster group meetings. The average number was four [Year 1].

Because the cluster group meetings are central to steering better teaching, we asked career teachers to tell us what occupied the most time in the cluster meetings: from the most-to-least time spent, career teachers report the following for 2011-12.

1. Addressing student needs and skills
2. Analyzing student performance data
3. Modeling effective teaching
4. Increasing knowledge of subject matter
5. Student behavior management

One principal provided a picture of what a year of cluster group topics looked like. "The Teacher Leadership Team spends the summer reviewing test data including benchmarks and the CODE data. We take the top six areas as indicated by CODE and that's where we start. Then we fine tune the rubrics, add strategies by the second week in October, then testing, then refinements. Actually, we look at the student data and the CODE data in every cluster meeting." Given the number and range of disparate pressures on schools, they were remarkably faithful in supporting cluster groups. As a principal put it, "Clusters are protected, not invaded."

While during the study's first year, the availability of individualized help in the classroom was new to most teachers (52%), that TAP resource is now more established, more institutionalized (40%). And, career teachers remain virtually unanimous about the availability

[19] Nonetheless, interviewed teachers told us that when the principal and other administrators attend (and participate in) the cluster meetings, that sends a positive message to the faculty – "This is important."

of both the master teacher and the mentor teacher to come to their classroom if asked – both are above 95%. The table below shows how the career teachers assessed the frequency of masters and mentors in the classrooms for "embedded" help. Although mentor teachers remain responsible for teaching a large fraction of their previous classroom duties, career teachers credit them with as much presence as they do the masters.

**Table 18 Frequency of Classroom Visits by Master and Mentor Teachers as Reported by Career Teachers**

| Frequency of Classroom Visits by Master and Mentor Teachers As Reported by Career Teachers (%s choosing, 2010-11-12/2011-12) | | |
|---|---|---|
| | **Master Teachers** | **Mentor Teachers** |
| Very often | 23%/22% | 23%/22% |
| Often | 37%/34% | 34%/33% |
| Sometimes | 23%/27% | 23%/24% |
| Not very often | 15%/12% | 15%/12% |
| Not at all | 2%/5% | 5%/9% |

And, 93% of the career teachers thought they were getting "timely" help from master teachers: 90% think the mentors are "timely." The two proportions are unchanged over the two study years.

We asked teachers about the basis for their instructional decisions. Eighty-eight percent said "My own experience and knowledge"; the support chosen second most often was "masters and mentors," 75%; followed by "grade-level teams or content area co-workers," 74%; and then "administrators," 60% (multiple response data). That masters and mentors are ranked over administrators as a credible source of guidance confirms the TAP System strategy of locating responsibility for the cluster group meetings in teacher colleagues.

Counsel to teachers has been more in the recommendation mode than the requirement mode. We asked the career teachers, "Does anyone *require* (emphasis supplied) you to do the things the master teacher talks about?" and 88% said "Yes" in both years. Requirements are like evaluation in schooling – both have been controversial but are becoming more common. In the next section, we look at how career teachers receive the TAP System's evaluation practices.

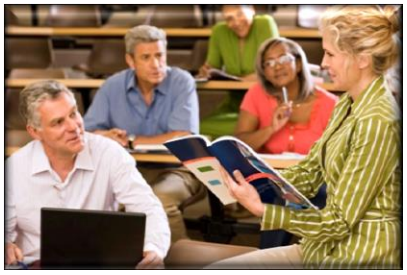
**Instructionally Focused Accountability (The TAP evaluation system)**

The TAP System elevates the importance of evaluating teachers and couples that to incentives. The process begins with a rubric that alerts teachers to what will be evaluated and then lists gradations of performance for each rubric standard so that teachers can recognize their own current level and the scale on which they are being judged. Interviewed teachers said:

- "The rubrics center what teachers talk about", and
- "The TAP Rubric is really what good teachers do: it takes all the phony away and since it is based on data, it can be discussed" and
- "The objective criteria in the rubric are a big relief."

Ninety percent of the career teachers concluded in Year 1 that "TAP rubrics are helpful in making my teaching more effective." Few people, in any enterprise welcome evaluation. Remarkably, 91% of career teachers in TAP schools credit "The TAP System evaluation" with making their instruction more effective; up from 84%. In our interviews with the career teachers, they were very aware of how often TAP had changed their personnel evaluations and focused their remarks on the rubrics.

Virtually all career teachers are clear that TAP has increased the frequency with which they are evaluated (98% and 97% agreement). And, career teachers have become more accepting of the frequency of TAP-related evaluations: 70%, up from 65% think that it is "fair" to be evaluated four to six times a year. During our site visits, teachers described widespread initial resistance to TAP's evaluation procedures, followed by understanding, acceptance and even endorsement. "Three years ago, I thought TAP was too much work and I resisted the idea that my scores weren't simply the best ever. It took a while for TAP to convince me, to change my performance" (from a sixth grade science teacher).



Seventy-nine percent of the career teachers agree that "Student test results make me more accountable," a proportion that has been stable. A larger group, 87% (up from last year's 81%) agree that "It's important that teachers be accountable to each other."

Part of the required evaluation procedure is pre- and post- conferences or discussions between the teacher being observed and the team that will do and has done the observation. Ninety-seven percent of the teachers liked that before-and-after opportunity. We asked, "I prefer to be evaluated by…" and career teachers chose: "master teachers"- 43% (up substantially from the previous year's 31%); "mentor teachers"- 31%; and "administrators"- 20% (unchanged). In conventional practice, teachers do not evaluate each other: teachers in the TAP System schools clearly accept the inclusion of colleagues in the evaluation process.

## Performance-Based Compensation

### General

In the TAP System, educator compensation beyond contractually-defined salaries is determined by several, explicit and measured components. More teachers in the second year of this study than the first "support the Performance-Based Compensation system at my school" - 84% to 81%. More than three-quarters of the responding teachers agreed that, "More effective teachers should be paid more."

Two items about Performance-Based Compensation drew assent from majorities of the career teacher group. Sixty-four percent said, "There should be extra pay for me if my students' test results are higher," an increase from last year's 56% agreement. And, agreement with, "I think there should be monetary consequences related to my teaching" increased from 41% to 50%.

If it is a reasonable generalization to observe that in the American culture, money is an incentive, it is also a reasonable generalization to remark on the site visit/interview evidence and on the web-survey self-report evidence how comparatively little traction the prospect of extra pay offers. Asked about motives to teach, virtually all educators refer to 'The Children'. And asked explicitly about the role of extra pay as an incentive, the modal response is, "I'm in education for the children, not the money." There are two elements to this – recognition and reward. Teachers make distinctions between the two. They like both but being recognized is more compatible with the prevailing culture of the faculty and teachers organizations. One teacher told us, "I like PBC because it's fair and it's more money: it's both a recognition and an incentive." The recognition effect is unambiguous and uncontroversial. The reward aspect is a bigger departure from the altruistic and child-centered motives that are more conventionally ascribed to teachers. One principal pointed out the contradiction of teachers who say "I don't teach for the money" but who then pestered him to tell them when the pay-out checks were coming. In that school, eventually, even the resisters began to ponder that there might be a link between the quality of what they do and the performance of the students and then, in the last step, a link to their compensation. As one put it, "OK, I get it now. The kids' progress is related to my work and somebody is watching."

One TAP principal had a nuanced discussion of the moderate but real influence of monetary incentives. She said performance based compensation "…is important to teachers. It's one part of incenting people to higher levels of teaching. If the money wasn't there, some teachers wouldn't put all the efforts into it. It's a little more and it changes the mindset a little. It gives one reference point for accomplishment. It's not just a salary schedule, it's that little carrot. Plus the satisfaction of knowing 'I've achieved this much better'. With TAP the money doesn't divide, it defines the whole picture, the whole school's success and each teacher's part in that." The following are quotes from teachers who were positively oriented to performance based compensation.

- It's great to have extra money…it motivates other teachers, helps us to do better and it's good to know that we're rewarded.
- It's awesome. Not only is TAP giving you the skills to be a better teacher, you see it in the grades and the student behavior and you get paid extra.
- Is TAP an incentive? Yes. Now that I understand, I can get paid more, I'm asking 'What can I do different for next year?' and I'm working harder.

**Components in determining Performance-Based Compensation**

Career teachers conclude that "the part of the TAP System that links pay to my *students' achievement* is fair" (57%, unchanged, emphasis supplied). TAP procedures include additional components in the pay calculation (see below) and more than two-thirds of the career teachers (68%) thought "The TAP System for linking pay to performance is fair." That vote of confidence may be related to feasibility of hitting agreed-upon goals. Eighty-eight percent of the career teachers believe that "the school-wide achievement gain targets are attainable," up from last year's 83%.

***Eighty-seven percent of the career teachers said that they would be able to explain "what classroom value-added means," up from last year's 82%.***

We asked specifically about teacher opinions with regard to the composition of TAP's bonus award payouts – 50% determined by teaching, 30% by classroom achievement and 20% by student achievement growth[20]. Four out of five career teachers think that is an appropriate formula. Nonetheless, about half of the career teachers did report that "Most teachers in my school prefer the traditional step and column salary schedule to Performance-Based Compensation."

**TAP *Skills, Knowledge and Responsibilities***

The career teachers particularly endorsed the fairness of TAP's assessment of their *Skills, Knowledge, and Responsibilities* (the "SKR" procedure) – 80% endorsed them, up from 76%. Teacher confidence that the TAP standards and rubrics make performance-based compensation more objective has grown from 70% agreeing to 78%.

Teacher organizations have objected to Performance-Based Compensation by arguing that teachers are "already" paid for teaching. In contrast, in the TAP System schools, three out of four career teachers believe "It is fair for teachers to get extra pay for doing their job." And as many (77%, unchanged) said they did not want the opportunity for performance pay to be taken away."

**Student achievement metrics**

Two-thirds of the career teachers agree that there is "a scientific way to measure the effect I have on my students" although the same two-thirds reject the idea that "How students perform on state tests is a good measure of my teaching:" neither proportion has changed over the two years.

**Compensation and innovation**

We were curious to see if there was a relation between teachers' willingness to try new things and the prospect of more pay[21]. During the Year 1 data collection, we asked the same question once *without* more money and then again *with* more money. "If you were asked to consider a new method of teaching that has been proven to increase student achievement, and you believed in it, would you do it …" (a) *without additional monetary compensation* and (b) *if you were paid extra.* Ninety-five percent said they did not need more money to try something that worked and that they believed in; 100 percent said they would do it if they were "paid extra."

[20] It is worth remarking that only 20% of a teacher's monetary pay-out is determined by student achievement, but arguably, 100% of policy judgments about the efficacy of TAP are determined by student achievement. The weight of achievement in the teacher formula more accurately reflects the range of purposes that are being served by TAP including improved classroom teaching, support for teachers and school reform generally (and generously) conceived.

[21] These two paragraphs report Year 1 data.

**Student outcomes**

School improvement is a goal-oriented business and there are many goals to choose among. When we asked teachers to identify where TAP "made a positive difference," from most-to-least frequently chosen, here is what the teachers said.

"TAP has made a positive difference in…" (2011-12/2010-11)

1. Student achievement 92%/91%
2. The school's AYP status or improvement 91%/86%
3. Student 21st century skills 71%/74%
4. Student retention in school 63%/58%
5. College readiness 66%/60%
6. Career readiness 63%/52%
7. Student behavior and discipline 38%/37%.

***"Students perform better as class time is now filled with activities so there is less time for behavior issues."***
**– A career teacher**

The career teacher estimate of TAP's positive impact on achievement remains uniformly high and unchanged. There are big gains from the first to second year in career and college readiness and in the school's AYP or improvement status.

In the last two years, there have been very large gains in the numbers of career teachers who believe "Student performance has improved since TAP was implemented at this school"; from 73% last year to 89% this year.

On the evidence of our interviews with career teachers, more than two-thirds credited TAP with improving student achievement and performance. About half said that parents commented positively on TAP's clarity, organization, priorities and general impact. Student achievement and school improvement have always been the twin peaks on the summit of better schooling. Career teachers are confident that TAP is taking them there.

**Teacher outcomes: Classroom teaching practices**

Teachers could choose the impact that they thought TAP was having on their teaching. They had four choices for the TAP influence on their teaching. 'TAP made my teaching *more effective* went up from 65% to 71% between the first and second year; *more engaging* went up from 48% to 53%; *interesting* went from 35% to 37%; and *more challenging* declined from 69% to 63% (we suspect that the 'challenging' phrase was interpreted as 'difficult').

In recent years, teaching has added some science to art and craft. The trend is described as "evidence-based teaching" and it requires teachers to add new skills and new procedures to their repertoires. Evidence-based teaching begins with looking at student achievement data, an activity once reserved to the central office and to school psychologists and then only as a forensic enterprise after the school year had ended. The TAP System makes attention to student performance records a central, pro-active feature of teachers convened as cluster groups. TAP continues to help larger fractions of school faculties add evidence-based instruction practices:

***"Teachers now look at what and how they are doing in the classroom."***
**– A principal**

88% of teachers (up from last year's 83%) say, "TAP has helped me make better use of student performance data." And 87% of teachers report making more frequent use of student interim assessments as a result of TAP. Not only are teachers gathering more student data and analyzing it more carefully, three-fourths of the career teachers are also acting on those data, specifically, changing how they group their students for instruction.

To inquire further into teaching practice, we used a set of 21 paired-items constructed so that one item within the pair described "preferred" or "modern" practice and the other item described "conventional" or "traditional" practice. We asked teachers to choose the sentence within the pair with which they "most agree" understanding that some of the contrasts were clearer, less controversial than others. The pairs in the table below are ordered according to the highest-to-lowest proportion of the TAP career teachers, in 2011-12 selecting the "preferred" practice. Half or more of the TAP career teachers chose the "preferred" option for half of the item pairs with considerable representation from TAP and technology-related best practices. Majorities of career teachers prefer the TAP and technology-related items for ten of the paired choices.

### Table 19 Career Teacher Responses to Paired Items Describing "Preferred" Instruction

| Career Teacher Responses to Paired Items Describing "Preferred" Instruction (from most-to-least) | | |
|---|---|---|
| **Item pairs: the first, shaded item in every row indicates the preferred choice identified by Interactive, Inc.** | **% Choosing "preferred": 2010-11/2011-12** | **Content Area** |
| 1A. The more their visual, tactile and auditory senses are engaged, the better students learn<br>1B. Students are easily distracted by presentations that look too much like entertainment (TV and video games) | **82%/88%** | Technology |
| 2A. I can use technology to tailor learning experiences to small groups and individuals<br>2B. Whole group instruction is the only practical way to deal with big class sizes | **79%/87%** | Technology |
| 3A. Consistently working with teachers to come close to a grade-level consensus about how they should all be teaching is a sign of healthy school<br>3B. Having lots of teachers trying out new ideas independently of each other is a sign of healthy school | **79%/82%** | TAP |
| 4A. Students should come to school to practice skills that they will need later in life<br>4B. Students should come to school to be taught by experts | **77%/79%** | 21st century |
| 5A. Teaching is more effective if it is guided by a tool or rubric for lesson planning and delivery<br>5B. Lesson plans are just paperwork for administration and less important than the teachable moment | **74%/81%** | TAP |
| 5A. I have stopped using some print materials in order to use more digital sources and materials | **73%/80%** | Technology |

| | | |
|---|---|---|
| 5B. If schools can teach students to read and write with print materials, we will have done our job | | |
| 6A. Knowing how to communicate with the Internet, cell phones and PDAs is just as important as print-based learning<br>6B. Getting students to read things like newspapers and to speak correctly is about all I can do with the current resources | **73%/77%** | Technology |
| 7A. Since what we think of as a "fact" changes so often, it is more important that students learn how find and use "facts"<br>7B. Knowing facts and figures is central to success | **64%/74%** | 21st century |
| 8A. The results of trials and tests with students in the school should guide what a school does<br>8B. The professional judgment of teachers should guide what a school does | **64%/69%** | TAP |
| 9A. Students need to determine for themselves how much of any given source is right or wrong and why<br>9B. Students need to learn to respect what experts have determined | **62%/73%** | 21st century |
| 10A. Learning is more successful when it capitalizes on student enthusiasm and the teachable moment<br>10B. Learning requires mastering materials in a cumulative, orderly way | **68%/67%** | Inquiry-based |
| 11A. I expect students to work on the kinds of tasks that they will find when they enter paid employment<br>11B. It is not practical to assign, supervise or evaluate student work done outside the classroom and outside the state-prescribed curriculum | **65%/68%** | 21st century |
| 12A. I want my students to learn good questioning techniques<br>12B. Students are more successful when teachers direct what the students learn and how they learn it | **60%/68%** | Inquiry-based |
| 13A. I look at student achievement data during the year as part of a group of teachers<br>13B. I look at student achievement data during the year | **57%/58%** | TAP |
| 14A. I regularly use the Internet to get ideas and help from people outside the school<br>14B. People who work in this school know more about how to improve instruction than anyone else | **56%/65%** | Technology |
| 15A. Schools should have groups that invent new ways to make schools successful<br>15B. Schools can be improved a lot just by using what we already know | **52%/55%** | TAP |
| 16A. At least three or four times a semester, I create custom tests from items I get from web sources<br>16B. Chapter quizzes and 6 or 9 week grades are a sufficient base to judge student performance | **51%/49%** | Evidence-based |

| | | |
|---|---|---|
| 17A. I try hard to connect my students to, for example, Europe and Asia<br>17B. It is hard enough to get my students to care about what happens in school and this community | **49%/51%** | 21st century |
| 18A. I assign students tasks that are similar to what they will have to do when they get into paid employment or college<br>18B. I have a supply of quizzes and tests that do a good job of measuring what students are supposed to know | **39%/56%** | 21st century |
| 19A. My students resist single "Answers" and would rather test things out for themselves<br>19B. My students expect me to teach them "The Answer." They are satisfied with things that are simple and "packaged." | **36%/45%** | Inquiry-based |
| 20A. I can't really tell much about the quality of student learning without frequent interim assessments<br>20B. Most of what I need to plan my teaching comes from state standards and students' end-of-year tests | **33%/36%** | Evidence-Based |
| 21A. For students, finding problems is as important a skill as solving problems<br>21B. My students do best when I give them clear tasks and clear direction | **21%/30%** | Inquiry-based |

The TAP System does not mandate the adoption of any particular school of pedagogy or any particular curriculum. As a master teacher put it, "The district and the state say what to teach: TAP says how." TAP does require schools and teachers to re-think and revise their practices in directions that generally overlap, for example, the addition of technology to classroom instruction, 21st century skills for college, and career readiness and evidence-based instruction. The paired items were intended to explore the acquisition of those trends among these career teachers.

**Teacher outcomes: Retention**

TAP honors the work of teachers by making possible more recognition and more rewards while they remain connected to students. Nationally, about one teacher in eight leaves the profession every year. Among new teachers, "46%... leave their jobs within the first five years[22]." But, among TAP school career teachers, two-thirds say that in five years "I will be a classroom teacher" [the reported percent is probably an underestimate because some fraction of the responding group will retire within the five years]. An ASCD "Ed Pulse" survey asked "…(W)here do you see yourself in five years?" and reported that only 19% of the respondents said "I am a classroom teacher and see myself in the same role in five years[23]." In contrast, 55%

[22] National Commission on Teaching and America's Future, "Policy Brief: The High Cost of Teacher Turnover", n.d.,http://www.nctaf.org/resources/demonstration_projects/turnover/documents/NCTAFCostofTeacherTurnoverpolicybrief.pdf.

[23] "Ed Pulse" (2012) ASCD Smartbrief.com accessed June 26, 2013. https://www2.smartbrief.com/servlet/ArchiveServlet?issueid=5A15856F-D151-43CC-B5DA-E54F81B6CB5A&lmid=archives

of teachers in TAP schools say, "I am staying in classroom teaching no matter what." TAP's popularity among career teachers is further indicated by the 69% who say that, if they moved to a new school, they hope it would have the TAP System.

We also inquired into motives surrounding classroom teaching as a career. Only 11% believe that "I get enough respect and pay as a teacher"; 53% would like both more pay and more respect; 19% wish for more respect (only) and only 11% wish for more pay (only).

### 7.3.2 Master Teachers and TAP System Engagement

**The master teacher role**

The TAP System applies the resources of exceptionally accomplished teachers who are appointed as "master teachers" who then work with the school's faculty and administrators in implementing the components of TAP. Most master teachers are released from the responsibility of meeting classes[24] and they are responsible for a range of teaching improvement activities: (a) researching school-specific candidates for improvement interventions; (b) planning and conducting cluster groups; (c) providing embedded coaching; (d) participating in teacher evaluations and observations; along with (e) the general conduct of the TAP initiative.

Master teachers are chosen in a competitive process intended to find the best prepared and most motivated incumbents. TAP recommends a master:career teacher ratio of 1:15; large schools may have two master teachers. In return, master teachers receive a supplement to their salaries and participate in the school's bonus pool. TAP also recommends that districts add supplements to the salaries of teachers who become TAP master teachers and TAP master teachers typically acquire 10 to 20 days of responsibilities beyond the conventional appointment year[25]. The master teacher position is prestigious because of its responsibilities, challenges, and remuneration.

Ninety percent of the master teachers are women and three out of four have degrees beyond the BA. During the field data collection, we interviewed 19 master teachers, 70% of whom were new to the school over the study period which signals the attractiveness of the TAP schools and the master teacher role.

The requirements of and the selection process for the master teacher job, suggest that members of the group will be better informed and more motivated than the other two teacher statuses. This section tests that proposition. (Thirty-seven (Year 1) and sixty-eight (Year 2) master teachers completed our web-surveys.)

**The Context of the TAP schools**

[24] The TAP *Implementation Manual* recommends that they spend two hours a day teaching their own classes.

[25] The TAP System is a national model, locally implemented. While the National Institute for Excellence in Teaching monitors site implementation of NIET recommendations, it cannot enforce them and there is wide variation in, for example, the ratio of TAP masters and mentors to career teachers. For example, one school with 240 students had three masters and six mentors when other similarly-sized schools might have one and one.

Fifty-eight percent of the master teachers believe that the faculty needs help from "the outside" and 78% think TAP-related changes will be permanent [down from the Year 1 estimate of 93%], a proportion that is much more optimistic than the career teachers' estimate of sustained effects.

None of the master teachers reported feeling "pressured" to adopt TAP. One master teacher in five reported that the school's administration had pushed for the adoption of TAP and virtually no master teacher reported that teachers had pressed for the adoption of TAP.

We asked master teachers about expectations – "In (the school's) classrooms, this year, teachers are expected to implement…" From most to least, the priorities for new classroom work, last year and this year (2010-11/2011-12) were:

- Technology 75%/41%
- Student assessments 75%/53%
- Reading instruction 75%/69%
- Math instruction 50%/50%
- Curriculum (general) 19%/25%
- State standards or tests 19%/53%

In general, there seems to be less press to introduce new priorities except for technology and student assessments. The master teachers and the career teachers are aligned in their views of current instructional priorities. The master teachers and the career teachers agree about the first through fourth priorities for the year.

**The TAP System model as a whole**

The master teachers were given the opportunity to provide three words that best describe TAP in their school. Although the master teachers participate in evaluating career teachers, they stress "collaboration," "supportive," and "effective."

Every master teacher in the state believes that "TAP in my school is on the *right track*" compared to 91% of the career teachers. And every master teacher assigned the first or second highest impact of TAP on their school compared to 70% of the careers; and, 91% of the master teachers thought TAP was superior to other reform models (compared to 57% of the career teachers).

Ninety-four percent of the master teachers would recommend TAP to another school and 84% would recommend it to another teacher.

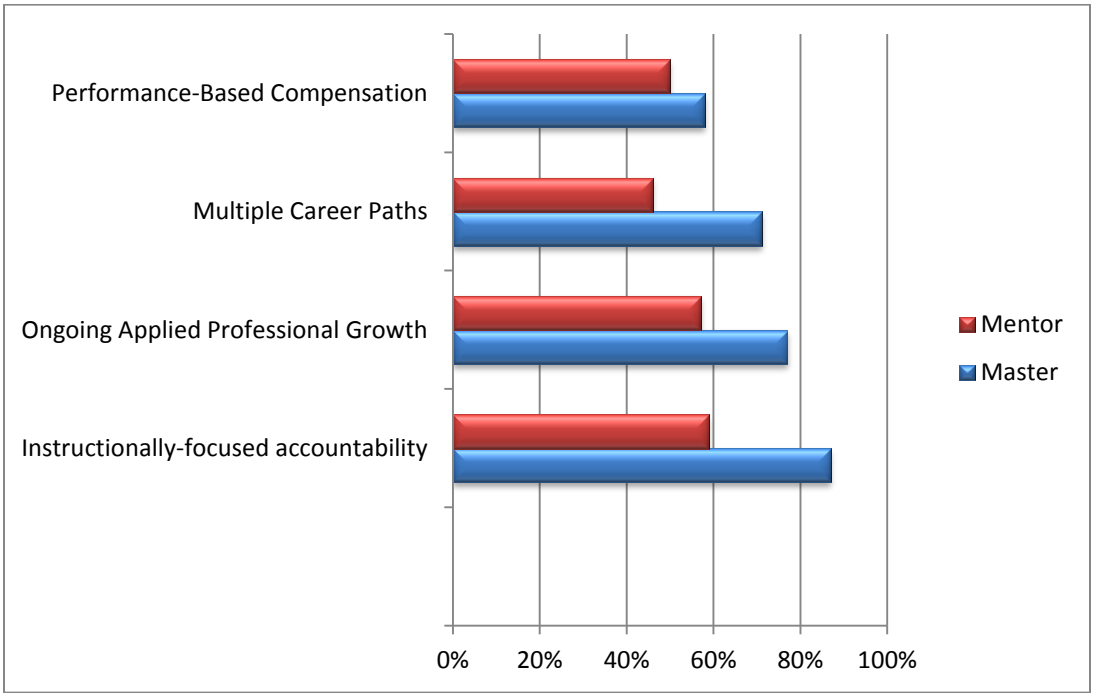
No master teacher believed that time was a barrier to the classroom use of TAP [Year 1]. The master teachers did report being stressed for time to get their TAP roles and responsibilities done: 61% said, 'No, not enough time.' A few of our interviewed master teachers described

being "overwhelmed" and wished that their school had additional master teachers[26]. Of the master teachers that we interviewed, three-fourths were completely released from classroom instruction. Four out of five of the master teachers believe that their school has the resources necessary to implement TAP.

More master teachers than career teachers credit TAP with improving their school's AYP status although very high proportions of both groups reach that conclusion – 97% of master teachers (100% in 2010-11) and 91% of career teachers.

The figure below compares master and mentor teacher opinions about which TAP components are most helpful. Both have high opinions about 'school'-related components but diverge and have lower opinions about personnel and career-related components.

### Figure 5 TAP Component Contributions to Teachers




**TAP Component Contributions to Teachers: Master and Mentor Estimates Compared (%s choosing "very helpful", 2011-12)**

## Multiple Career Paths

[26] A few of the master teachers that we interviewed thought that their principals expected them to "run the school." In those cases, when extra work is needed, the principal's response was, "Get the master teacher to do it." The high quality of TAP teachers makes them attractive targets for additional burdens although the majority of schools respected the TAP–related obligations of their teacher-leaders and omitted to add to them. One school however was effectively being run by the master teacher in the prolonged absence of the principal. In another school, the assistant principal was nominally responsible for curriculum and instruction but, overwhelmed with student discipline, delegated that to the master teacher.

When asked to respond to the statement, "Being a TAP master teacher has done more to advance me as a professional than course work in a graduate school" 90% of the responding master teachers *strongly agreed*. TAP's career advancement opportunities are likely part of why master teachers have volunteered themselves into the role – 90% say that those opportunities are important to them. Nine out of ten master teachers thought that "Other teachers in the school want the ability to advance in their teaching career without leaving the classroom (up from eight out of ten).

We asked master teachers two questions about their career futures – would they like to make a career of being a master teacher and would they like to become school administrators. This group of educators has transitioned from student-centered work to adult-centered work and they like it (71% rejected the statement "I would much rather work with children than adults"). The master teacher position is similar to school administration in that it requires management, scheduling, evaluating teachers and other school-wide concerns. The proportion who would like to make a career of being a TAP master teacher has declined from the first year's 94% to 77%.

All the master teachers rejected the idea that having different roles and different statuses among teachers in the faculty (master, mentor and career) was confusing; 12% of the career teachers were confused by that differentiation.

**Ongoing Applied Professional Growth**

TAP's success depends on its ability to change the professional repertoire of individual teachers and the organizational capability of whole faculties. The master and mentor teachers are at the center of that enterprise. Not surprisingly, 100% of the master teachers agree that "The quality of professional development has improved at my school since implementing TAP." It is also the case that master teachers themselves need training. In our interviews, they endorsed the professional learning provided to them by NIET and by the state or regional executive master teacher (three-fourths were appreciative of the latter).

Conventional practice in teacher professional development has focused on (the now discredited) whole-group faculty meetings or meetings of teachers who share responsibility for a grade or for a subject matter. TAP re-formulates those into "cluster group meetings." TAP's cluster groups retain the grade-level or subject matter specialist focus but concentrate on data about student needs and on possible interventions that have been validated in each adopting school, a reformulation that 94% of the master teachers regard as an improvement over previous practice ("TAP cluster groups meetings are more practically connected to classroom teaching than grade level of subject matter meetings").

The TAP System attacks the dysfunctions of the "egg-crate" school organization, a practice that isolates each teacher behind closed classroom doors at the expense of sharing, collegiality and grade-level articulation where schools have their effects on students as they move among teachers and up the grade levels. The master teachers agree with the following beneficial impacts of TAP on the collegiality of teachers (the data are from Year 1):

- "Teachers are better because of cluster group discussion and collaboration"
- "…[T]here has been more sharing among teachers"
- "…[T]eachers work more effectively toward school-wide improvement"
- "…[T]eachers feel more comfortable asking colleagues for help."

TAP replaces the whole-group lecture model of "in-service training" with "embedded coaching." Master and mentor teacher peers visit other teachers, in their classrooms and demonstrate and/or critique each teacher's work. According to the master teachers, that practice of coaching was new to half the schools that have adopted TAP [Year 1].

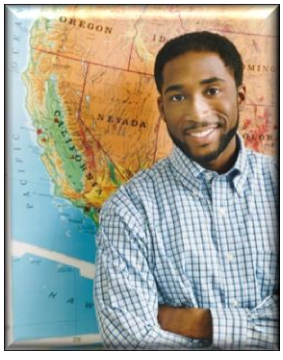
Over the two study years, the master teachers have dramatically changed how their cluster groups spent most of their time (the data below report "most time" responses from a five point "most-to-least" scale). The data indicate that in the first study year cluster groups were heavily focused on two areas that are not TAP System emphases – student behavior and subject matter knowledge – but that are often "top of mind" concerns for teachers. Then, over the next year, the master teachers shifted the cluster groups to the pivotal concerns of teacher effectiveness and school improvement – a focus on student needs, the analysis of performance data and modeling effective teaching. The master teachers began with faculty concerns, addressed those, created access and trust and then shifted to teaching effectiveness.

### Table 20 Master Teacher Reports of Cluster Group Functional Emphases

| Master Teacher Reports of Cluster Group Functional Emphases: 2010-11 to 2011-12: %s reporting | | | |
|---|---|---|---|
| | **Function** | **2010-11** | **2011-12** |
| 1. | Student behavior management | 80% | 0% |
| 2. | Increasing knowledge of subject matter | 13% | 0% |
| 3. | Modeling effective teaching | 7% | 27% |
| 4. | Addressing student needs and skills | 0% | 42% |
| 5. | Analyzing student performance data | 0% | 31% |

Among the new initiatives that TAP brings to school practice is the idea that one teacher is assigned the responsibility to confirm the utility of new ideas – before they are presented to teachers. The master teachers' school-specific validation research minimizes the common reaction to new ideas, "It won't work here." Master teachers embrace that role and they also lend themselves to work that in conventional schools is delegated to a "specialist," that is the detailed monitoring, analysis and interpretation of student performance records.

The master teachers also responded to questions about their roles. Eighty percent said they have gotten more done as a master teacher than they had anticipated, a proportion that has improved slightly over the two years. In this study's first year, 13% of the masters reported that there was "an important group of teachers who have *not* accepted me as the master teacher:" in the second year that fell to 6%. And a very high fraction - 88% - of the master teachers feel supported by their administration – "Administration requires teachers to do things I



discuss with them in their classrooms." In the first study year, no master teacher 'strongly agreed' but in the second study year the 'strong agreement' grew to 30%, evidence perhaps that administrators became more convinced of the TAP teacher peer leadership strategy over time. Virtually the whole group of master teachers consistently report receiving "practical help from the TAP System" (only one person dissented).

The master teacher role is a departure from usual practice. Fifty-four percent of the TAP master teachers were surprised at the complexity of the role. Only one master teacher in five thinks the pre-requisites for the role should be changed, for example, increasing the minimum of five years of experience. The idea that excellent teachers should help others is common, but often reckons without the personal/professional transition from working with children to working with adults. For teachers to assume a leadership role over colleagues ("over" is intended) entails negotiating complicated personal relations, reciprocal respect (or at least non-interference) and the solidarity and egalitarian culture of most school faculties. The newly-elevated teacher trainer has to assert, *primer inter paris*, that their ideas are preferable to what colleagues have been doing. Forty percent of the TAP master teachers said "It took months to get comfortable guiding other teachers." An interviewed master teacher said, "I'm learning fast how to deal with adults and with constructive criticism. Not a 'gotcha' but improvement and recognition and how to get people to extend themselves."

**Instructionally Focused Accountability**

This component and the next, "Performance-Based Compensation," are part of what makes TAP so distinct, so different from conventional practice. Instructionally Focused Accountability evaluates teachers according to (a) how well they teach their students, (b) their performance on the TAP *Teaching Skills, Knowledge and Responsibility Standards* and (c) the academic growth of their students. Evaluations and observations of teachers are done more frequently and by more (trained) educators. The evaluations are structured by the TAP *Instructional Rubrics* which are systematically introduced to all teachers prior to the System's launch. Finally, the TAP System recommends that each teacher develop and update a personal *Individual Growth Plan* which becomes part of the expectations for evaluation by master teachers, mentor teachers and administrators.

Evaluating any employee is a demanding enterprise. There are particular complications in evaluating teachers including the teachers' collective organizational and political strength and the uncertain technology of teaching and learning. If it were the case that "*Instruction Activity 17.3(a)*" led reliably to "*Student Learning 101.2(g)*" then evaluating teachers would be more certain and less contentious. The stock of reliable knowledge about pedagogy is increasing and is deployed in the TAP System (see, *STEPS for Effective Learning* and below, "Evidence-based teaching"). But the relative uncertainty of pedagogy gets compounded by the number of "educators" and the long causal chain of learning. Former US Secretary of Education Richard Riley was fond of observing that, "Parents are the child's first teachers and the home is America's smallest school." Parents

educate, the media educates, the peer group educates and school and the teachers educate. Because they are only one component in a long causal chain, teachers have been historically apprehensive about being accountable for what they do not fully control – student achievement.

The TAP System increases the predictability, frequency, scope and especially the consequences of teacher evaluations. This section describes the master teacher responses to those initiatives.

TAP is highly specific about its expectations for teachers. They are spelled out in the TAP *Instructional Rubrics* which include detailed specifications for (a) *Instruction*, (b) *Designing and Planning* and (c) *Learning Environmen*t. A hundred percent of the master teachers believe that the rubrics make teaching more effective, and 80% were adamant about that [Year 1]. And, for the group of master teachers that we had an opportunity to listen to in their schools, they were, as expected, very clear about procedures for evaluating teachers. They cited the rubric, the frequencies of evaluations and the multi-role team participation. The master teachers remain clear that implementing TAP has increased the frequency of teacher evaluation (100% agreement). And 100% of the master teachers believe that, "The TAP System evaluation process has made teachers' instruction more effective:" while the 'strong agree' proportion has dropped from 63% to 52%, the unanimity of the group's conclusion is intact. Eighty-seven percent of the master teachers agree that "…it is fair for TAP teachers to be evaluated four to six times a year."

TAP's evaluation effort is part of TAP's accountability effort. The evaluation results are one component of how teachers are rewarded or not for their work and its outcomes. We asked master teachers how they viewed accountability. More master teachers than career teachers thought it was "…important for teachers to be accountable to each other" (96% versus 85%) [Year 1]. The inclusion of school-wide achievement gains as part of each teacher's bonus pay-out calculation probably has the effect of reinforcing teacher-to-teacher 'accountability.' And the same overwhelming 97% proportion of master teachers agree that "Student test results make me more accountable" compared to 82% for career teachers.

The master teachers unanimously and consistently endorse the TAP feature that gives teachers a chance to talk about their evaluations before *and* after they occur: Sixty-three percent of the master teachers said that teachers preferred to be evaluated by master teachers: 25% thought that teachers preferred mentor teachers as evaluators: and 9% thought that administrators would be the preferred evaluators.

A majority of the career teacher group (59%) thought that "If parents are not held accountable then it is not fair for teachers to be" but only 10% of the masters agreed.

## Performance-Based Compensation

### General

The most visible aspect of TAP's compensation system is the relation between teacher pay and student achievement; all of our responding master teachers supported the Performance-Based Compensation

system at their school, although the proportion expressing strong support has declined. Eight of ten master teachers did not want the opportunity to earn performance-pay to be taken away. All the master teachers are emphatic and consistent that "more effective teachers should be paid more."

While teachers agree that the inter-locking features of the TAP System make Performance-Based Compensation fairer, they remain ambivalent about the concept. On the issue of whether or not student performance should impact teacher compensation, master teachers were split as were the career group. Fifty-eight percent of the master teachers thought that "…there should be monetary consequences related to the teachers teaching" compared to about half of the careers [Year 1]. For themselves as master teachers, the group was more supportive of the statement, "There should be extra pay for me if my students' test results are higher"; only 52% of the career teachers agreed [Year 1][27].

**Components in determining Performance-Based Compensation**

When we asked about the way TAP determined those increments, 94% of the master teachers thought it was a fair method for connecting "performance" to teacher compensation: 57% of the career teachers thought it was fair.

The master teachers responded to a question summarizing the make-up of the TAP salary supplement – "TAP's bonus award payout allocation of 50% teaching, 30% classroom achievement and 20% student achievement growth is appropriate" – all of the master teachers endorse that compared to 80% of the career teachers.

The master teachers are also confident that both they and the career teachers can explain "classroom value-added" [97% and 95% agree]. A number of the master teachers (39%) report that their school prefers the traditional step and column salary schedule (up from last year's response).

**TAP *Skills, Knowledge and Responsibilities***

Ninety-seven percent of the master teachers credit the TAP standards and rubrics with making Performance-Based Compensation more objective (a third "strongly agree"): that 78% of the career teachers agree is a wholesome concurrence. In interviews, some teachers in TAP schools have scorned the bonus procedures asking why they should get paid more for "doing their job"? Only ten percent of the master teachers believe that that is the position of the faculties with whom they work.

**Student achievement metrics**

It is likely that some dissent from Performance-Based Compensation reflects resistance to testing in general. Thirty-eight percent of the master teachers reject the idea that "How students

[27] We note that for all Louisiana teachers, statewide beginning with the 2012-13 school year, half of each teachers' "review" will be determined by growth in student achievement on state tests. Previously, teachers were formally evaluated at least once every three years; the new evaluations will be annual (Melinda Deslatte, "BESE approves teacher evaluation standards," NOLA.com, December 6, 2011).

perform on state tests is a good measure of teacher effectiveness"; and one in five of the master teachers believe that there is no scientific way to measure the effect that teachers have on their students' learning. Nonetheless, large majorities of master teachers support testing including its use as one part of a teacher's professional evaluation.

Teachers were asked to rate the three parts that determine the TAP salary supplements. The value-added to student achievement feature and the *Skills, Knowledge and Responsibility* feature drew the same endorsement – three-quarters of the master teachers assigned them the highest or second highest of the five possible ranks [Year 1]. Teachers also get salary bonus credit for taking on additional responsibilities and that was viewed much less favorably, only a third of the master teachers gave it a high rating [Year 1]. Extra pay for extra work, (e.g., advising student clubs, coaching,) is a long-standing practice in teacher compensation; here, the master teachers are less approving of previous 'make-work' practice, unconnected to instruction than they are of the instructionally-centered, teacher-focused features of the TAP System.

**Compensation and innovation**

Does more money buy more improvement? We asked that question (in Year 1) in two ways: Would teachers try a new technique *without* additional money, and would they try a new technique *with* additional money. The master teachers thought that adding money would *decrease* teacher willingness to try a new system. The items read as follows:

(A) "If teachers were asked to consider new methods of teaching that have been proven to increase student achievement, and they believed in them, would they employ them *without* additional monetary compensation" and

(B) "Imagine the same brand new system. Would they employ it if they believed in the new system and were *paid extra*."

Ninety-percent of the master teachers and 95% of the career teachers said "more money is not necessary"; 82% of the master teachers and 100% of the career teachers thought more money would be helpful.

**Student outcomes**

We asked master teachers and career teachers to identify where TAP "made a positive difference," from most-to-least frequently chosen, the table below shows the conclusions of the two groups with regard to students.

**Table 21 Estimated Impact of TAP on Students**

| Estimated Impact of TAP on Students: Master and Career Teachers Compared (2010-11/2011-12) | | |
|---|---|---|
| **Goal** | **Master teachers** | **Career teachers** |
| 1. Student achievement | 100%100% | 91%/92% |
| 2. Student 21st century skills | 93%/90% | 86%/71% |
| 3. Student retention in school | 71%/74% | 58%/63% |
| 4. Student college readiness | 83%/81% | 60%/66% |
| 5. Student career readiness | 67%/74% | 52%/63% |

| | | |
|---|---|---|
| 6. Student behavior and discipline | 53%/61% | 37%/38% |

While the order of most-to-least positive differences is the same for both groups, the master teachers are noticeably more enthusiastic about TAP's impact. Both groups identify increased student achievement as the number one impact. Note the substantial improvement attributed to TAP (in an area it does not target directly) by master teachers for "student behavior and discipline."

For both years, the master teachers are 100% certain that "Student performance has improved since TAP was implemented at this school" [note the more general term, "performance"].

**Teacher outcomes: Retention**

In 2010-11, 56% of the master teachers said they would consider leaving their current school if it did not have the TAP System: in 2011-12, that proportion fell to 42%. With one exception, every master teacher said that if they moved to a new school, they hoped it would have the TAP System. Asked to choose what they would like more of, 53% of the master teachers said, "More pay" and 47% said "More respect" [Year 1].

**Teacher outcomes: Classroom teaching practice**

As with the first study year, every master teacher continues to believe that TAP has "improved the instructional practice of *less proficient* teachers and 87% believe that the TAP System has improved all teachers. That unanimity was reinforced in the school visits where 96% of the interviewed master teachers concluded that the TAP System was changing classroom instruction including the use of the TAP *Instructional Rubrics* and new grouping practices. They credited collaboration, data and rubrics as levering those improvements.

Given a choice about TAP's effect on teaching ("more challenging," "more interesting," etc.) 88% of the masters chose "more effective."

The elements of the effective teaching include the more comprehensive and frequent use of data about students to guide instruction, or "evidence-based teaching." The master teachers were adamant and nearly unanimous that TAP had helped them "make better use of student performance data" [Year 1]. Similarly, the group remains unanimous (a) that teachers in the school are "doing more frequent assessments of student performance since TAP": and (b) that teachers have changed how they group students.

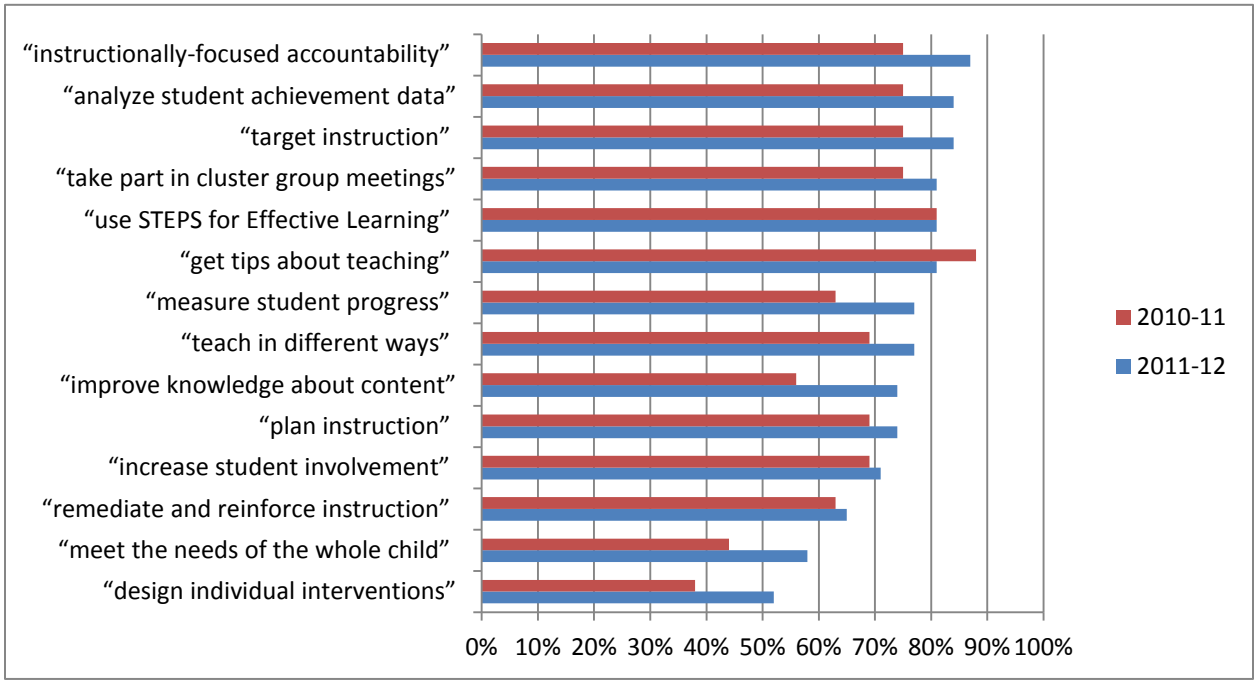
Master teachers were asked to rate how helpful each of the four core components were to teachers (respondents could assign the same high score to multiple items). Louisiana's master teachers are enthusiastic about the TAP components and how much they are contributing to the teachers with whom they work. The only partial exception is Performance-Based Compensation: 58% of the masters rate it as helpful to teachers, up slightly from previous year's 56%. The Multiple Career Paths component almost doubles from 38% "very helpful" to 71% "very helpful." Instructionally-focused accountability grew

from 75% to 87% "very helpful" and Ongoing Applied Professional Growth went from 69% to 77% "very helpful."

When our interviewed master teachers were asked about evidence of implementation, they pointed to classroom observations, cluster groups, "field testing" (validating candidate interventions for classroom use), and data analysis. And, the interviews mentioned "rubrics for teacher evaluation," "systematic professional development (e.g., Ongoing Applied Professional Growth)," "a culture of teacher effectiveness" and "the leadership team."

The master teachers credit TAP with helping teachers with the following functions (percent indicates the proportion of master teachers selecting the top category, "very helpful"; 2011-12/2010-11). It is noticeable that 12 of the 14 functional areas increase over the two years.

**Figure 6 Master Teacher Estimates of TAP Assistance by Function**




### 7.3.3 Mentor Teachers and TAP System Engagement

**The Mentor teacher role**

Mentor teachers function as the deputies to TAP's master teachers who are the top-ranked teaching positions in a TAP school. Mentor teachers typically retain half (and often more) of their classroom teaching responsibilities and provide coaching and mentoring assistance to about eight colleagues each under the guidance of the master teacher. Candidates must have at least two years of exemplary teaching experience. NIET recommends that districts provide mentors with a salary supplement and payments for 5-10 days beyond the conventional school contract year.

***"Before TAP, we never had any real school goals. We were unorganized and going in different directions. We followed the curriculum because of state standards but that was 'make believe'."***

**– A mentor teacher**

Nine out of ten of the mentors are women: 58% hold a Bachelor's degree, and 40% hold a Master's degree [Year 1]. Sixty-three mentor teachers completed our Year 2 web-surveys.

**The Context of the TAP schools**

Among the mentor teachers, in study Year 1, 53% of the mentors rejected the idea that "this faculty needs help from the outside" but by year 2, that had dropped to 40%.

Mentors were asked to generalize on behalf of colleagues in the school about what teachers were expected to implement "this year." From most often to least most often identified, here is what they said compared to the same reports from the master teachers:

- Student assessments 66% (masters, 53%)
- Reading instruction 62% (masters, 69%)
- Technology 62% (masters, 41%)
- Math instruction 45% (masters, 50%)
- State standards or tests 50% (masters, 53%)
- Curriculum (general) 28% (masters, 25%)

Mentor and master descriptions of faculty requirements generally track each other and suggest a wholesome amount of teamwork between the two.

Across all three statuses of teachers, 'student discipline and behavior' has emerged as a priority. Sixty-one percent the master teachers, 47% of the mentor teachers and 38% of the career teachers chose "student behavior and discipline" as one of the schooling functions that TAP was positively impacting.

**The TAP System as a whole**

Mentor teachers were also given the opportunity to type three words that describe TAP in their school and provided the words: "beneficial," "data driven," and "collaboration".

Ninety-three percent of the mentor teachers concluded that "TAP in my school is on the *right track*" compared to 100% of the masters and 91% of the careers. Eighty-one percent of the mentor teachers thought TA was superior to other reform models: 91% of the masters reached that conclusion.

Seventy-seven percent of the mentor teachers would recommend TAP "to another school"; 23% to another teacher [Year 1]. The demands that the system makes on teachers may explain the reluctance to recommend TAP to other teachers.

When interviewed, virtually all the mentor teachers spontaneously identified "cluster group meetings" and "supporting career teachers" as their predominant tasks followed by "teacher observations." Only one interviewed mentor identified membership on the School Leadership Team as a responsibility. Eighty-five percent of the interviewed mentor teachers gave TAP implementation one of the two highest marks in terms of fidelity or completeness. They pointed particularly to classroom observations and cluster group management. On the

surveys, 87% of the mentor teachers were confident that they had the time to get TAP done in their own classrooms.

Both mentor and master teachers credit TAP with improving the school's AYP status – 90% from the mentors and 97% from the masters.

**Multiple Career Paths**

In conventional practice, people who are dedicated to children become teachers and stay in that classroom-centered role over their careers. While there are obvious variations in the ages of children or curriculum specialties, there is far more similarity than dissimilarity in what teachers do over their careers and across different classrooms. For some teachers, that unvarying routine leads to boredom and disengagement; for others it prompts departures from classroom teaching. The multiple career path component of TAP is consciously intended to minimize those deleterious effects by maximizing respect, challenge, and rewards for teachers. Teachers who compete to become masters and mentors continue to work for and with children, but add an adult, peer focus. They have different and additional responsibilities and they are paid more. The prospect of becoming a master or mentor teacher is also intended to motivate career teachers. Responses from the educators documented in this analysis support the strategy although all the teacher groups give this feature the lowest rating of the four TAP components.

Three-quarters of the mentors say "TAP's career advancement opportunities are important to me" and two-thirds want "to be able to advance my teaching career without leaving the classroom."

One-fourth of the mentor teachers are ardent about becoming a master teacher [27% up from last year's 7%]; and one-fifth would like to become a school administrator although 59% continue to profess, "I would much rather work with children than adults." The 59% is a sharp decline from the previous year's 73% expressing a preference for child-related work over adult-related work.

***"The learning curve of the teachers has changed. Many of them have moved out of their previous comfort zone and they say things like 'I understand more about why we're doing, what we're doing.'"***

**– A mentor teacher**

**Ongoing Applied Professional Growth**

Every mentor teacher agreed that TAP has improved the quality of professional development. Seventy-three percent of the mentors agreed that cluster group meetings were a practical advance over the prior practice of grade level or subject-specific meetings. More than half the mentors report that individualized, classroom-delivered help was new to their school, even in the second study year. On the interview evidence, mentor teachers were most likely to mention cluster training as a positive resource followed by "state" provided TAP training.

Almost all the mentor teachers agreed that TAP was positively affecting the collegiality of teachers[28]:

[28] The responses from master teachers are from Year 1.

- "Teachers are better because of cluster group discussion and collaboration" (84% mentors/100% masters)
- "…[T]here has been more sharing among teachers" (91% mentors/96% masters)
- "…[T]eachers work more effectively toward school-wide improvement" (93% mentors/100% masters)
- "… [T]eachers feel more comfortable asking colleagues for help" (87% mentors/96% masters).

The practice of senior teachers empirically validating candidate ideas for instructional improvement is unique to the TAP System. Both the mentors and the masters are enthusiastic about the role and would like to do more of it.

The mentor teachers are encouraged about their accomplishments: the first study year, 64% thought they had gotten done more than they expected: that grew to 82% in the second year. We asked about resistance from faculty members to their counsel as mentors: only 13% reported any resistance, down from last year's 21%. Eighty-five percent of the mentors feel supported by the administration, a third of that group feel "strongly supported." As many mentor teachers as master teachers report getting "practical help from the TAP System," [90+%]. Mentors maintain a generally undiminished classroom schedule and, with respect to their own classrooms, 85% report "practical help from the TAP System."

About the same proportion of mentor teachers as master teachers were surprised at the complexity of their roles – each about half. One in five of the masters think the pre-requisites of the role should be changed: one in four of the mentors reach that conclusion. Forty percent of the state's master teachers said that it "took months to get comfortable guiding other teachers," 42% of the mentors reported the same transition – mentor teachers also do not work as intensively in that role as do the masters.

**Instructionally Focused Accountability**

As with the masters, 100% of the mentor teachers praised the TAP *Instructional Rubrics*, half "strongly agreed" [Year 1]. Virtually all the mentor teachers report more frequent evaluation as a result of TAP. And, all but one mentor agreed that "The TAP System evaluation process has made my instruction more effective." Eighty percent of the mentor teachers thought "…it is fair for TAP teachers to be evaluated four to six times a year," up from the previous year's 64%.

Sitting in judgment on peers is a vexed business and the tensions were evident in our face-to-face discussions with mentor teachers. Mentor teachers felt conflicted among responsibility for their own classroom instruction, observing other teachers and evaluating other teachers.

TAP forges a relationship between student achievement and teacher consequences. All but one of the mentors said "Student test results make me more accountable," the same proportion as the master teachers.

The mentor teachers are as unanimous in their endorsement of the before-and-after evaluation discussions as were the masters. Asked who the career teachers would prefer to be evaluated by, the mentor teachers put themselves in the top spot (57%, Year 1), followed by administrators (23%); with the master teachers being rated as the least preferred source of evaluation (20%). The master teachers agree that career teachers prefer mentor teachers as evaluators.

## Performance-Based Compensation

### General

The mentor teacher endorsement of "Performance-Based Compensation at my school" is nearly the same as the masters (95% and 100%). Ninety-four percent of the mentors agree that "More effective teachers should be paid more."

Two-thirds of the mentors agree with the general proposition, "I think there should be monetary consequences related to teachers' teaching" but if the basis for "extra pay" is "student test results" then there is more disagreement about the basis for the practice among the statuses of teachers (see table below).

**Table 22 "There should be extra pay for me if my students' test results are higher"**

| "There should be extra pay for me if my students' test results are higher" master, mentor, career teachers responses | | | |
|---|---|---|---|
| | **Master*** | **Mentor** | **Career** |
| Strong agree | 38% | 39% | 18% |
| Agree | 50% | 46% | 46% |
| Disagree | 13% | 10% | 31% |
| Strong disagree | 0% | 4% | 6% |

*Masters were not asked this question in Year 2: the values are from their Year 1 responses.

"Monetary consequences" might include the common practice of extra work with extra pay: "test results" are viewed differently. Nine out of ten mentors agreed that "I do not want the opportunity for performance-pay to be taken away."

### Components in determining Performance-Based Compensation

Eighty-six percent of the mentor teachers thought that "The part of the TAP System that links pay to my students' achievement is fair."

As recently as 20 years ago, most professors in graduate schools of education had never heard of the idea of "value-added to student achievement"; now, 91% of the mentors are confident that they can explain the concept.

### TAP *Skills, Knowledge, and Responsibilities*

One component in the TAP System for determining salary supplements is the teacher's score on the *Skills, Knowledge and Responsibilities* rubric: the

same 90% proportion of mentor teachers as of master teachers endorsed its use. The TAP *Standards and Rubrics* are widely endorsed by teachers as an advance over procedures that they regard as too subjective and too susceptible to favoritism. Almost the same high proportion of mentor teachers as of master teachers, endorse them on those grounds (91% vs. 96%).

**Student achievement metrics**

The majority of the mentor teachers reject "state tests as a good measure of my teaching"; 38% of the masters similarly reject state tests. The three statuses of teachers respond very differently to the statement, "There is no scientific way to measure the effect I have on my students' learning:" 20% of the masters agree; one-third of the mentors agree; and two-thirds of the career teachers agree.

**Student outcomes**

The next table shows how all three statuses of teachers rated TAP's effects on students. As predicted, the mentor teachers are less enthusiastic than the masters but more enthusiastic than the careers. It should be noted that all three statuses agree on the most-to-least order of TAP's impact.

**Table 23 Estimated Impact of TAP on Students (Compared)**

| Estimated Impact of TAP on Students: Master, Mentor and Career Teachers Compared | | | |
|---|---|---|---|
| **Goal** | **Master teacher** | **Mentor teacher** | **Career teacher** |
| 1. Student achievement | 100% | 91% | 92% |
| 2. Student 21st century skills | 90% | 84% | 71% |
| 3. Student retention in school | 74% | 69% | 63% |
| 4. Student college readiness | 81% | 74% | 66% |
| 5. Student career readiness | 74% | 71% | 63% |
| 6. Student behavior and discipline | 61% | 47% | 38% |

The same very high proportion of mentor teachers as of master teachers agree that "Student performance has improved…" with TAP (95%). The interviews with the mentors corroborate the web-survey data and added comments about "the teachers are more comfortable with students" and "there are fewer behavior problems."

**Teacher outcomes: Retention**

Compared to the master teachers, the mentors are less adamant about the program's impact on their careers. While 42% of the masters would leave their current school if it did not have the TAP System, only 28% of the mentors agreed. Nonetheless, if they were to move to a new school, 87% hoped it would be a TAP school. Only half the mentors said that "In 5 years, I will be a classroom teacher," down from the prior year's 72%. The balance of the teachers said, "I am staying in classroom teaching no matter what": the proportion of mentor teachers 'staying put' has dropped from 77% to 46%.

**Teacher outcomes: Classroom teaching practices**

Three-fourths of the mentor teachers, when interviewed, were clear that the TAP System had made them better at teaching and they attributed that to additional analysis of student data, cluster groups and TAP rubrics. The mentor teachers are a little less enthusiastic about the ability of TAP to improve both "all teachers" and "less proficient teachers." Ninety percent of mentors (and all masters) thought that TAP was helping the less effective group and 86% reached the same positive conclusion about "all teachers," about the same proportion as of the master teachers.

The mentor teachers estimated TAP outcomes on classroom teaching. The parallelism between the masters and mentors is remarkable as is the positive estimate of both the TAP teacher leadership groups compared to the career teachers.

**Table 24 TAP's Effect on Teaching: Master and Career Teacher Estimates Compared**

| TAP's Effect on Teaching: Master and Career Teacher Estimates Compared | | | |
|---|---|---|---|
| **"TAP makes teaching more…"** | **Master teachers** | **Mentor teachers** | **Career teachers** |
| Effective | 100% | 90% | 62% |
| Engaging | 72% | 73% | 46% |
| Challenging | 67% | 66% | 64% |
| Interesting | 64% | 63% | 33% |

Mentor teachers helped us understand the amounts of evidence-based teaching going on in their schools. As one put it, "It's data, data, data. I wasn't taught that way but it makes a difference." With one exception, every mentor teacher credited TAP with helping them make better use of student performance data. Eighty-five percent report more frequent student assessments with the arrival of TAP. Eighty-four percent report that they "… have changed how they group students since TAP was implemented. That sequence of activities – testing students, then grouping students, then gearing instruction to students' needs – is progress.

### 7.3.4 School Administrators and TAP System Implementation

TAP relies on school and district administrators for support and professional input. On anecdotal if extensive evidence, the presence or absence of the principal's leadership is as much of an impulse or an impediment to TAP implementation as it is to other school-centered initiatives. This section reports the responses of school administrators to questions similar to those posed for the three teacher statuses.

**The Context of the TAP schools**

The principals in the study schools described themselves as being out in front advocating the early adoption of the TAP System [83%, Year 1[29]] even though a quarter of the schools had experienced controversy around that decision [Year 1] .

trators as for the teacher groups, the Year 2 surveys did not repeat items that were likely related of initiation and early implementation. In this section, we report some of the administrators' Year relate to the school's environment and the TAP System.

All the TAP school principals say their school has a history of trying "comprehensive school improvement projects." Asked about the pace of change in their school, 42% said it had "gotten faster"; 15%, "stayed the same." And, they were very clear that their faculty needs "help from outside" [86%, Year 1]. Ninety percent of the principals believe TAP will 'last' – "Five years from now, the TAP practices will still be in place."

In the first study year, 90% of the principals felt *strongly* supported by the central office. The TAP System is a significant and visible departure from major components of most districts existing policies, witness the struggles that many districts have experienced in attempting to qualify for federal *Teacher Incentive Fund* grant competitions. In 2011-12, 57% of the principals report conflicts between district policy and TAP procedures in their schools – up from the 2010-11, 35%. When asked about barriers to school improvement, the TAP principals are not inclined to blame the students (we asked for responses to "Until student behavior and discipline improve, nothing will make a difference"); 75% of the group rejected that excuse [Year 1].

Principals reported the following, year-over-year stable priorities for 'emphasis this year in classrooms' from most-to-least (2010-11/2011-12).

- 73%/44% reading instruction
- 43%/29% technology
- 40%/42% assessments
- 33%/26% math instruction
- 23%/22% state standards or tests

Reading is perennially at the top of such priority lists. The relatively low ranking of "state standards or tests" may signal that a decade of pressure has now become business as usual.

**The TAP System as a whole**

When administrators were given the opportunity to provide three words that describe TAP in their school, we received the following responses: "professional," "collaboration," and "effective".

Principals were overwhelmingly positive about TAP. In response to the "right track/wrong track" summary question, 95% said that "TAP in my school is on the right track" and every principal said they would recommend TAP to another administrator. Eighty-nine percent evaluated TAP as "better than other reform models." The web-survey pointed out the difference between "distress (bad stress)" and "eustress (good stress);" three-fourths said TAP was the right kind of stress.

Almost all the principals say that "Implementing TAP has made me change the way I lead the school" and 45% "strongly agreed" with that in the first study year. The 93% in Year 1 and the 82% in Year 2 who report changes in their leadership repertoire is supported by the school-site interviews where teachers in a fraction of the schools report their principal to be uninvolved. Another 93% of the principals credit TAP with providing "more resources to improve this school than we ever had before." Time and money are the perennial barriers to

school improvement. But the overwhelming majority of the principals reject that excuse [93%]. Half the principals (down from three-fourths) said they had the "resources to do TAP effectively." NIET strongly recommends re-scheduling the school in order to guarantee time for cluster group meetings and other TAP activities. Eighty percent report that re-scheduling the school has been (and continues to be) a problem. And 88% thought that TAP was making teaching more interesting for the faculty. Finally, we asked about the "master/mentor" component of TAP but in a negative wording – 'We don't need it'. Ninety-six percent of the principals rejected that: they affirmed that the addition of masters and mentors was helping.

We asked principals to rate how much or how little each TAP component "helped you as an administrator." The most-to-least helpful components are as follows (percents choosing as "very helpful" 2010-11/2011-12).

- 20%/71% Instructionally-focused accountability (TAP evaluation system)
- 70%/61% Ongoing Applied Professional Growth (cluster meetings)
- 11%/39% Performance-Based Compensation
- 0%/37% Multiple Career Paths

The principals have turned around in their estimates of the utility of Multiple Career Paths, Instructionally Focused Accountability and even Performance-Based Compensation. Much larger fractions of the group now see their utility.

The principals recognized the necessary structural changes that made cluster meetings possible and through those meetings more attention to planning, alignment, communications, etc. Only about one principal in three gave the top rank to 'extra help from masters and mentors' ("Multiple Career Paths"). Half the principals believe that TAP has made it easier to recruit good faculty members.

***"Master teachers are a principal's dreams come true. They make shared leadership a reality. Combining the masters and mentors makes school leadership a team effort."***

**– A principal**

**Multiple Career Paths**

The TAP design offers teachers opportunities for career advancement. For principals, TAP offers additional tools for school improvement and additional compensation and recognition for those achievements, but not direct or intentional new avenues for their careers[30]. Therefore, administrators were not queried about this area.

**Ongoing Applied Professional Growth**

One of TAP's pivotal components – Ongoing Applied Professional Growth – was the focus of several questions for the principals. The master and mentor teachers work with career teachers especially through cluster groups. Half the principals reported that their schools already had "coaches" working in individual classrooms prior to TAP, but 89% credit TAP with changing their school's professional development a lot and for the better. One reason for the endorsement may be in the "practical connection" between classroom teaching and the cluster

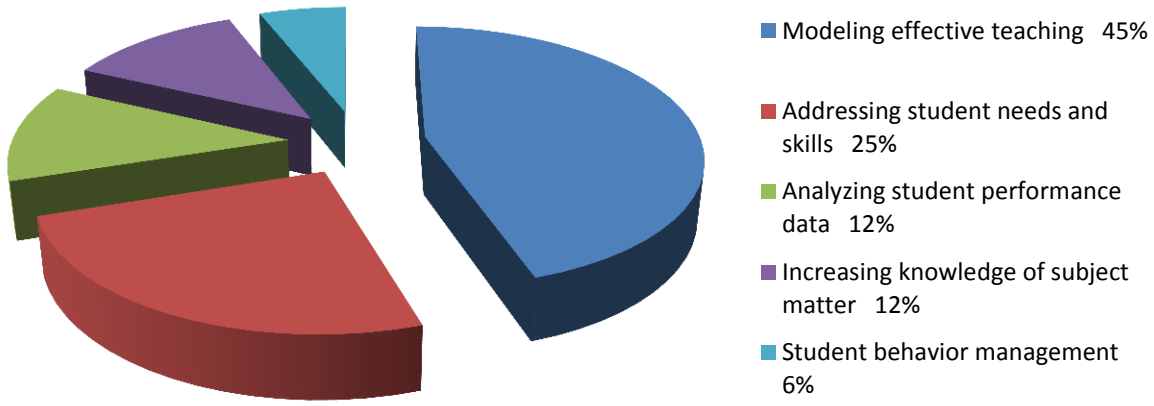
[30] Nonetheless, building administrators who are committed to improvement or to career advancement – or both – can conclude that successfully deploying the TAP System as a school improvement lever could also advance their own careers.

group meetings, particularly when compared to the previous grade-level or subject-matter meetings: three-fourths of the principals endorse TAP's practical relevance.

The principals' belief that carries over to the career teachers: nine out of ten principals think that "Most teachers heed the advice of the *master* teacher" and the percent drops 77% heeding the advice of the *mentor teachers*. The principals' positive assessment of TAP impact extends even to "the schools' less professional teachers;" 80% of the principals believe that TAP is reaching them, too.

On Year 2 web-surveys we asked administrators to rank five items from most to least time spent in cluster groups. The principals' top picks for the priority emphasis of their cluster groups was as follows.

**Figure 7 Principals Estimates of Functions that Occupied Their School's Cluster Groups**




**Instructionally Focused Accountability**

Making judgments about schools has been perennially contentious – what, for example, constitutes *Adequate Yearly Progress*? Discerning instructional quality within the TAP program has not only avoided controversy, it has been embraced enthusiastically. The TAP standards for instruction are judged "helpful" by all but one of the principals. TAP's instructional observation rubrics that are used to evaluate teachers are enthusiastically received by teachers and administrators; nine out of ten of the building administrators deemed them an advance.

TAP's teacher evaluation procedures are more detailed and more frequent than conventional practice and they involve teacher-to-teacher peer review. Ninety-seven percent of the principals concluded that "multiple evaluations by multiple trained, certified evaluators" is helpful. A related question asked principals about the "ideal" balance in evaluation participation between administrators and teachers. In Year 1, the principals said 59%/administrators and 41%/teachers: in Year 2, their estimate of administrator participation remained similar with 65%/administrators and 35% for teachers.

**Performance-Based Compensation**

In most enterprises, the concept of accountability means connecting an employee's performance with personal/professional consequences. Rewards are coupled to good performance and sanctions follow poor performance. That is a core part of the TAP infrastructure. Nine out of 10 principals thought that "…the TAP System that links pay to student achievement is fair" (92%) [Year 1]. When asked to estimate teacher attitudes toward Performance-Based Compensation, 90% of the TAP principals characterized their teachers as agreeing – "There should be both professional consequences *and* monetary consequences for the relation between teaching and student test scores" [Year 1]. Four out of five principals concluded that, for teachers, the emphasis on student test scores was making them more accountable [Year 1].

We asked principals to make some generalizations about their school faculties and what their teachers thought about TAP's incentive and recognition procedures. One central dynamic in the TAP System is that pay is linked to performance and 89% of the principals agree with "More effective teachers should be paid more." A related question asked whether the principals agreed that "It is *wrong* for teachers to get extra pay for doing their job" and 91% of the principals reject that logic. When asked about the impact on themselves as administrators two-thirds said they would care if performance-pay were taken away, up from last year's half.

> ***"The better I do at implementing TAP, the higher the school's chances of becoming an 'Exemplary' or 'Recognized school.'"***
>
> **– A principal**

Because Performance-Based Compensation is so visible in the TAP System, we asked two related questions and 90% of the principals thought their teachers would endorse each – "The TAP System for linking pay to performance is fair" and "The part of the TAP System that links pay to skills, knowledge and responsibilities is fair" [all the data in this paragraph are from Year 1]. One part of TAP's remuneration is a nuanced version of 'merit pay' where increases in student achievement trigger increases in teacher pay- eight of ten principals endorsed that. TAP's performance system also honors hard work, i.e., the "knowledge, skills and responsibilities" facet. Virtually all principals agreed that "The TAP standards and rubrics make Performance-Based Compensation more objective with less favoritism" (94%). One principal in 10 believed that the "TAP 'bonus pool' has too many participants." For most principals the teacher pay-outs have gone smoothly: only 14% report problems arising from amending payroll and reimbursement records.

Administrators estimated the letter grades that their teachers might assign to different facets of the Performance-Based Compensation system (Year 1). The student achievement "value-added" component of TAP is new to schools and so is the broader and more intense focus on classroom observations. Principals believe that "value-added" and "more evaluations" are both being welcomed by teachers: "extra responsibilities," not so much although extra responsibility has been a mainstay of previous attempts to justify extra money to some teachers.

### Table 25 Principal's Estimates of Letter Grades Teachers Might Assign to TAP's Performance-Based Compensation Features

| Principal's Estimates of Letter Grades Teachers Might Assign to TAP's Performance-Based Compensation Features (2010-11) | | | | | |
|---|---|---|---|---|---|
| **Feature** | **A** | **B** | **C** | **D** | **F** |
| Value-added student achievement | 40% | 40% | 20% | | |
| Skills, Knowledge and Responsibilities | 28% | 58% | 14% | | |
| Classroom observations and evaluations | 37% | 44% | 16% | 3% | |
| Extra responsibilities | 18% | 45% | 26% | 6% | 5% |

In the TAP System, teacher pay is linked to student performance for three reasons: first, teachers have earned that recognition and it honors their accomplishment; second, more pay in return for better performance might act as an incentive to improve teaching; three, providing additional pay may attract a new group of talented individuals into the profession who might otherwise not consider it. To explore the improvement incentive dynamic, (in the first study year) principals were asked to estimate how their teachers would respond to two slightly differing propositions. First, would their teachers adopt something – without extra pay – if that new thing (a) increased student achievement, (b) improved teaching quality and (c) was compelling, that is, the teachers believed in it? The second form of the question was exactly the same but added "with additional compensation." Eighty-nine percent of the principals said their teachers would take the "better idea" *without* extra money and 87% said their teachers would take the "better idea" *with* extra money. On this evidence, more money will not in isolation lead to better teaching. Asked how much of a bonus might be sufficient to motivate changed teaching, the principals' average was $2,333.

**Student outcomes**

The TAP System works through better teaching to influence several school goals. We asked the principals where TAP had made a "positive difference." By far the goal that principals believed TAP advanced the most was "student achievement" (2010-11/2011-12)

1. Student achievement 90%/94%
2. Adequate yearly progress or school improvement status 86%/91%
3. Student retention in school 83%/80%
4. Student readiness for college 68%/80%
5. Student 21st century skills 79%/77%
6. Student readiness for careers 57%/69%
7. Student behavior or discipline 59%/54%

**Teacher outcomes: Retention**

A third of the principals conclude that "Because of TAP, teachers who might otherwise leave teaching will now stay in the classroom." To illuminate principals' conjecture about what was discouraging teachers, in Year 1 we asked the administrators what was bothering teachers – did they not get enough (a) respect, (b) pay or (c) respect or pay. Six out of 10 administrators in Year 1 thought their teachers were burdened by the latter – not enough money *and* not enough respect; in Year 2 that opinion dropped to five out of 10 administrators. In both years, not

enough respect was the second most often chosen discourager for teachers.

**Table 26 Motive to Continue in Schooling - Principal's Response**

| Survey Item | 2010-11 | 2011-12 |
|---|---|---|
| Teachers believe they get enough respect and pay. | 0% | 9% |
| Teachers do not believe that they get enough pay. | 7% | 14% |
| Teachers do not believe that they get enough respect or pay. | 63% | 54% |
| Teachers do not believe that they get enough respect. | 30% | 23% |

**Teacher outcomes: Classroom teaching practices**

Principals also rated the ability of TAP to help teachers with a range of tasks. The principal's assignments of "very helpful" ordered from most-to-least by their Year 2 assigned values are as follows [2010-11/2011-12].

1. Take part in cluster group meetings 28%/56%
2. Get tips about teaching 25%/56%
3. Teach in different ways 22%/55%
4. Analyze student achievement data 41%/50%
5. Increase student involvement 5%/50%
6. Target instruction 77%/47%
7. Use "STEPS for Effective Learning" 26%/47%
8. Measure student progress 15%/44%
9. Plan instruction 54%/42%
10. Remediate and reinforce student learning 11%/32%
11. Improve knowledge about content 12%/28%
12. Design individual interventions 8%/28%

Principals assign the biggest year-over-year gains in 'helpfulness' to their teachers to "increasing student involvement," "designing individual interventions" (a perennial challenge to both expertise and logistics), "teaching in different ways," and "getting tips about teaching."

Eighty-eight percent of the principals credit TAP with increasing "sharing and cooperation" in the school and the same overwhelming proportion report that "TAP has helped the staff at this school to work together more effectively." Both results contradict the prediction that linking teacher pay to student achievement would increase competitiveness and decrease cooperation.

"Evidence-based instruction" captures the practice of aligning teaching more closely and more frequently to the specific needs of individual students. It contrasts with the long history of dealing with the problem of too many students with too many diverse learning needs by "teaching to the middle." Eight out of ten TAP principals report more frequent student assessments by their teachers as a result of TAP and about the same proportion want to make more aggressive use of EOY state-provided test scores. A similarly sized group reports that their teachers are revising the composition of instructional groups more frequently as a result of TAP. A third of the TAP principals do report a kind of information over-load – "We have more data in this school than any of the teachers can use."

## 8.0 Acknowledgements

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## 9.0 About Interactive, Inc.

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Dr. Mann has been involved with school improvement since the 1960's when his Washington service included responsibility as Special Analyst for Education in the Executive Office of President Lyndon Johnson and work implementing the Elementary and Secondary Education Act. Dr. Mann is the author of books and articles on school reform including *Policy Decision Making in Education* and, *Making Change Happen?* He is the founding chair of the International Congress for School Effectiveness, an organization with members from 66 countries focused on improving schools for the most-needy children.

**Trevor Leutscher, Ph.D.,** received his Ph.D. in education and Master's degree in mathematics from the University of Michigan. He is currently the Research and Evaluation Director at Interactive, Inc. His expertise focuses on helping public and private organizations to effectively measure processes and use data to improve decision-making and organizational performance. Dr. Leutscher has over fifteen years of experience as a participant and leader for projects managing and analyzing research and administrative data. He has over ten years of experience working on business projects ranging from analyzing organizational survey data for academic research to managing measurement data for increasing performance in organizations.

**Martin Reardon, Ph.D.,** is a professor on the faculty of the Department of Education Leadership at Virginia Commonwealth University where he directs the Doctorate in Leadership program (aligned with the Carnegie Project on the Education Doctorate). With advanced degrees in mathematics, Dr. Reardon has held a range of administrative positions in secondary and post-secondary education.