

## Comprehensive Induction or Add-on Induction?

### Impact on Teacher Practice and Student Engagement

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*Does basic mentoring really serve as a solution to teacher development? Are more detailed definitions of induction and mentoring needed to address the needs of the new teacher? What is comprehensive induction and how does it differ from other induction programs? Does a more comprehensive model result in better outcomes for teachers or students?*

These questions perplex many within the world of education.

In recent years, we have seen a rapid expansion of policies and resources devoted to new teacher induction. Most of these policies are based on an assumption that induction programs have a positive influence on teacher quality and student learning. Yet there is little evidence to support claims for such policies regarding the distinct components of induction programs or their effectiveness (Wang, Odell & Schwille, 2008). Scholars have argued for targeted mentoring that addresses the learning needs of beginning teachers with regard to instructional practice (Feiman-Nemser, 2001). Some suggest that induction efforts may increase teacher knowledge, student achievement, teacher satisfaction, and retention (Darling-Hammond, 1999; Fletcher, Strong & Villar, 2008; Smith & Ingersoll, 2004).

There is, however, insufficient data to assist educators and policy makers in determining the most effective or critical components of induction programs. There is scant consensus around a number of induction issues, for example: the most effective mentoring condition (full-time or add-

on mentoring); the amount of time required to enhance the development of beginning teachers; the amount of professional development mentors need to be effective; and the level of match (subject or grade level) required between mentor and beginning teacher. Furthermore, few studies explore the different components of induction and their effects on teacher and student outcomes.

Given such a dearth of evidence and the current state of induction policy, this study was developed to examine differences in student engagement and teacher instructional practice in two types of induction conditions: comprehensive full-time induction and add-on induction. These two conditions differed in

- the amount of mentor participation in professional development on induction;
- the amount of time mentors could spend on structured observations, reflection, and feedback focused on pedagogy;
- mentors' abilities to prioritize induction efforts;
- mentors' abilities to serve as liaisons between beginning teachers and administrators; and
- the amount of professional development mentors could offer beginning teachers.

The goal of this study was to examine the instructional practice of beginning teachers who were mentored in these two conditions and to explore differences in instructional practice and student engagement.

### Background

In 2001, a collaboration began between a large urban school district and the New Teacher Center, UCSC. This collaboration aimed to improve beginning teachers' instructional effectiveness and increase the academic engagement of students through a series of mentor trainings, including one focused on differentiated instruction. The differentiated instruction training was particularly relevant as educators in the district serve culturally and linguistically diverse students living in a socio-economically depressed community.

**TABLE 1. DIFFERENCES IN INDUCTION CONDITIONS**

	Comprehensive Induction	Add-on Induction
<b>Professional Development</b>	Mentors receive frequent professional development from the district and NTC.	Mentors receive less-frequent professional development due to schedule conflicts
<b>Time Spent with New Teachers</b>	Mentors meet weekly with new teachers; meetings include structured observations, reflection, and feedback focused on pedagogy.	Mentors meet inconsistently with new teachers; occasional observations, reflection or feedback focused on pedagogy are provided.
<b>Priority and Availability</b>	New teachers and induction program are the priority of mentors; mentors work full-time mentoring new teachers; school, administration, and new teachers assume mentor is available to help.	Mentors work full-time as curriculum coordinators, school resource specialists, etc.; school, administration, and new teachers may not assume “add-on” mentor is available to help.
<b>Offerings to New Teachers</b>	Weekly meetings, observations, and monthly new teacher seminars are offered by mentors; mentors support communication between administrator and new teacher.	Meetings, observations, seminars, and communication with leadership are not required; these offerings are occasionally provided by add-on mentors.

Differentiation focuses on assessing students’ specific learning needs and tailoring instruction to best support their learning. The training and the resulting initiative aimed to teach mentors and beginning teachers strategies to improve their instructional effectiveness and student engagement. Both comprehensive and add-on mentors were offered training in differentiated instruction that took place over three seven-hour training days. In this training, mentors

- identified best practices in professional development and defined differentiation within the classroom context;
- applied the five basic components of differentiated instruction;
- examined and practiced differentiated pre-assessment of students;
- developed structured inquiry models to promote ongoing implementation;
- applied essential components of differentiated instruction through flexible grouping, and tiered assignments;
- examined mentor tools that support beginning teachers in differentiating instruction; and
- met in teams to assess strengths and challenges and plan next steps for supporting new teachers in implementing differentiated instruction in their teaching practice.

## Study Design

Four pairs of new teachers matched with respect to school, subject matter and grade level were selected. In each pair, one was mentored by a full-time comprehensive mentor and one was mentored by an add-on mentor. The district selected mentors and matched new teachers with mentors prior to the implementation of this study, thus matched pairs were not randomly assigned, but selected post-assignment. Eight hundred sixteen students attending one of three secondary schools were included in the study. All schools had student populations that were multiethnic, multilingual, and primarily low SES (60–67% free and reduced-priced lunch).

The study examined the development of teacher practice in differentiated instruction through pre- and post-assessments of beginning teachers and their students using self-report surveys. These surveys measured the use of differentiated instruction strategies by asking teachers about their use of pre-assessment, flexible grouping, setting goals, multiple assessments, resources, and teaching styles.

Teachers completed the in-class differentiated instruction surveys at the end of three class periods during the course of one week in both fall and spring semesters. Student surveys, completed at the same time, examined student engagement through a composite score determined by assessing factors such as student interest, concentration, enjoyment. This measure of student engagement is a significant predictor of academic achievement, continuing motivation, and commitment to educational opportunities (Shernoff & Hoogstra, 2001).

The operating hypothesis of the study was that teachers mentored in differentiated instruction strategies through the comprehensive induction model were more likely to incorporate differentiated instruction in their classrooms than those teachers mentored in differentiated instruction strategies through the add-on induction model. And, as a result, the increased use [or “implementation”] of differentiated instruction would lead to a more engaging classroom experience for students over time.

## Research Findings

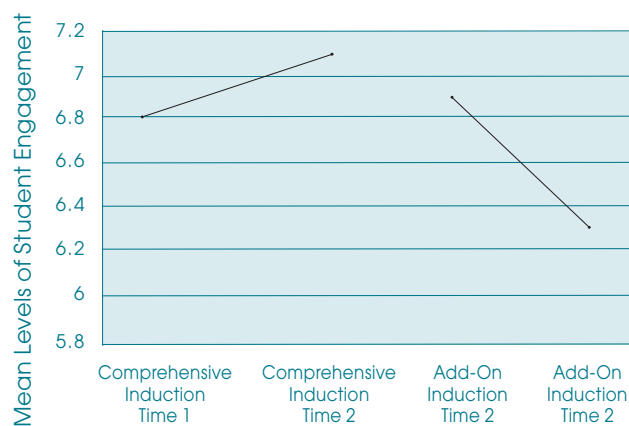
Differences in the use of differentiated instruction strategies were found between the two induction conditions. An analysis of in-class teacher survey data indicated that the four teachers who experienced comprehensive mentoring were more likely to use differentiated instruction strategies than were the four teachers who experienced non-comprehensive mentoring. This difference was significant when looking at the surveys from both pre and post data.

Academic engagement was assessed through analysis of the student surveys. These surveys took into account a variety of student experiences, including their interest, enjoyment, concentration and participation in the lesson, and also included the teachers’ assessment of student knowledge. General trends indicate that student engagement decreased slightly over time for the entire sample (from

7.0 in Time 1 to 6.68 in Time 2), echoing national student samples (Anderman & Maehr, 1994).

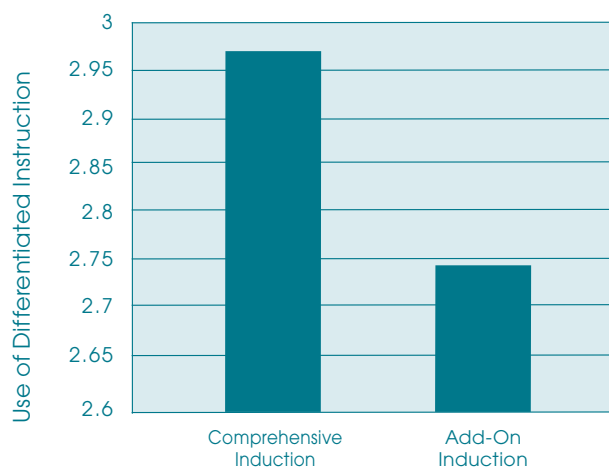
It is noteworthy that new teachers in the comprehensive induction category showed statistically significant increases in their levels of in-class student engagement, moving from

**FIGURE 2.**  
**MEAN LEVELS OF STUDENT ENGAGEMENT BY INDUCTION CONDITION\***



\*Based on self-report surveys of students (n=816) using a 10-point scale with 0=not at all and 9=very much

**FIGURE 1.**  
**USE OF DIFFERENTIATED INSTRUCTION STRATEGIES IN THE CLASSROOM BY INDUCTION CONDITION\***



\* Based on self-report surveys of teachers (n=8) using a 4-point scale defined as: 1=rarely, 2=sometimes, 3=often, 4=frequently.

6.8 to 7.1 on a ten point scale (0=not at all and 9=very much), while their counterparts in the add-on mentoring condition experienced a decrease in in-class student engagement (from 6.9 to 6.3) that was more in keeping with the overall sample. These statistically significant differences suggest that teachers in the comprehensive induction model defied the general trend of decreased academic engagement over time while their add-on induction counterparts did not.

Findings about differentiated instruction in the earlier analysis together with these data suggest that teachers who used strategies for differentiated instruction had greater gains in student engagement than did teachers who did not use differentiation. These data were further supported by an additional regression analysis which suggested that a one-unit increase in the use of differentiated instruction strategies (a 4-point scale defined as follows: 1=rarely, 2=sometimes, 3=often, 4=frequently) resulted in a 1.8 increase in student engagement scores (a 10-point scale with 0=not at all and 9=very much).

Teachers that were inducted by the comprehensive model were more likely to use differentiated instruction strategies, which may have served to increase the level of engagement of their students from fall to spring semesters. Those teachers

that were inducted by the add-on model were less likely to use differentiated instruction strategies, and experienced decreasing levels of student engagement in their classrooms over time.

## Summary and Conclusions

This study contributes to the knowledge and practice of teacher educators, policy makers, and administrators as they design induction policy and practice, particularly given the need to structure induction programs for efficiency and effectiveness. Comprehensive induction programs that include training in differentiated instruction may increase the use of differentiated instruction in the classrooms of beginning teachers, which in turn may lead to increased student engagement.

Educational leaders may find these results useful in making decisions about the time mentors are allowed to work with beginning teachers, the professional development of mentors and teachers, and the opportunities provided by induction programs for teachers to learn and network. It is important to note that add-on induction may have little effect on student engagement if mentors do not participate in professional development in differentiated instruction.

We know from both national data and the data collected at NTC that student engagement generally decreases over time. Therefore, it is notable that the comprehensive induction model examined in this study was able to defy this downward trend, actually increasing levels of student engagement as the school year progressed.

While continued examination of these models is warranted, these findings contribute to the body of

literature that informs educators and policy makers about the implications of induction support for teacher quality. Further studies that explore these differences while accounting for multiple teacher and student learning outcomes would be of use to educators as they consider developing quality induction programs and policies.

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## About The New Teacher Center

The New Teacher Center (NTC) was established in 1998 as a national resource focused on teacher and administrator induction. NTC implements and promotes induction best practices through a variety of innovative professional development opportunities and materials that assist educators and policy makers in supporting the next generation of education professionals. Using an integrated, collaborative approach, NTC strives to support essential research, well-informed policy, and thoughtful practice that encourage teacher development from pre-service throughout the career of a teacher.

New Teacher Center

*Improving Teaching and Learning in America's Schools*



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