



# Lessons Learned Conference

## January 2002

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# The Role of Instructional Materials in Mathematics and Science Reform



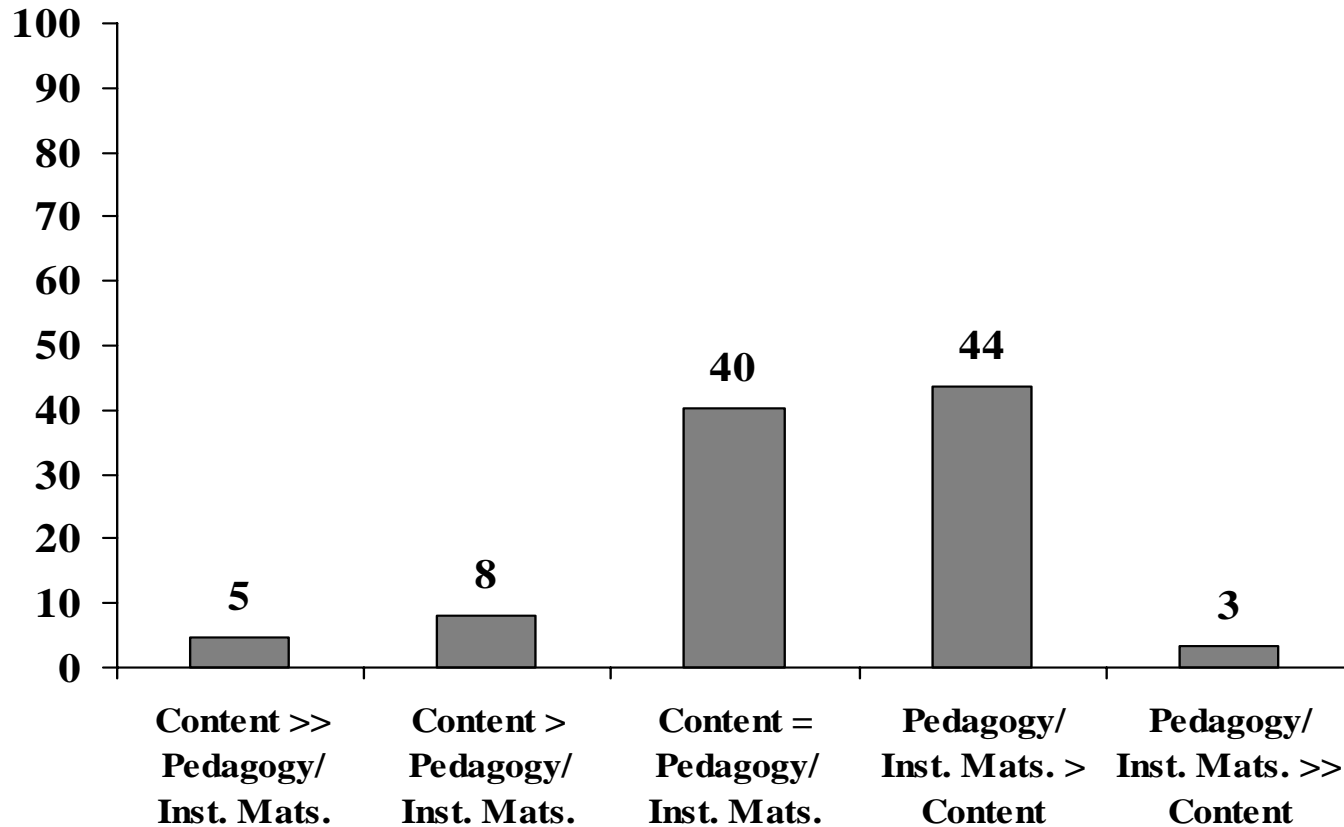
# Lessons Learned Conference

## January 2002

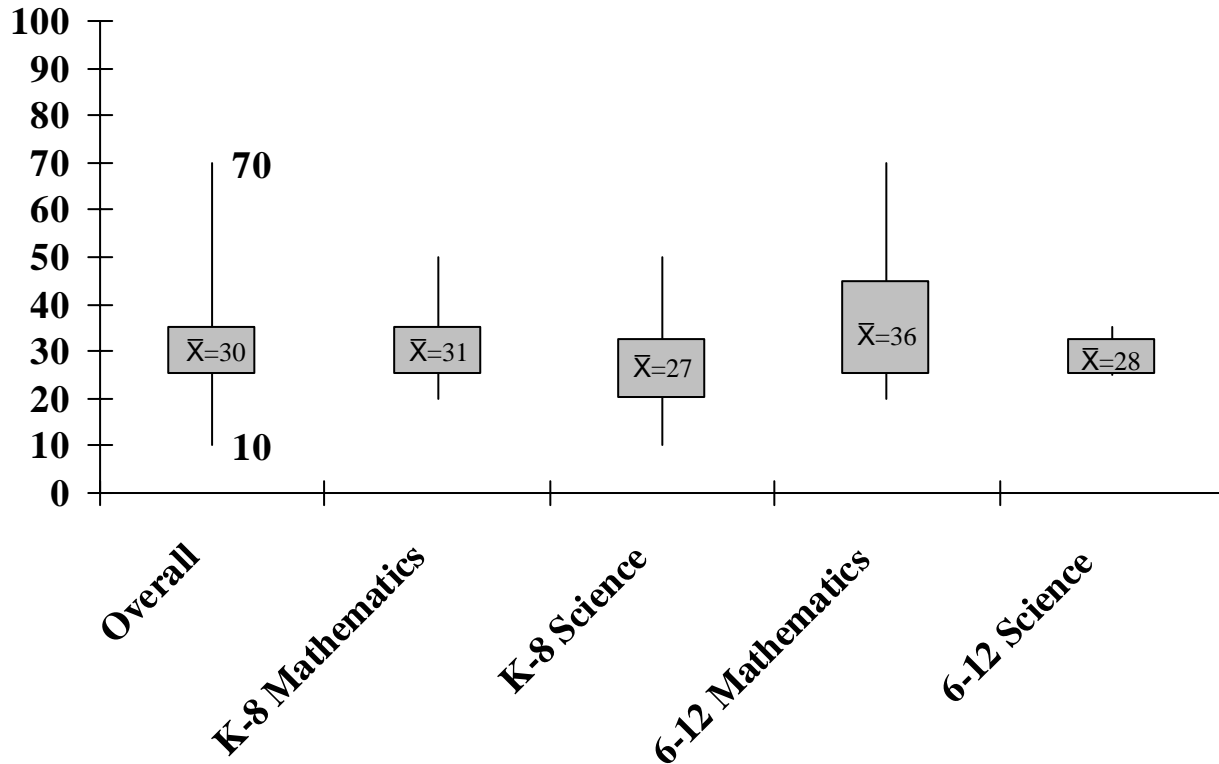
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What have LSCs learned about  
conducting effective  
professional development on  
instructional materials?

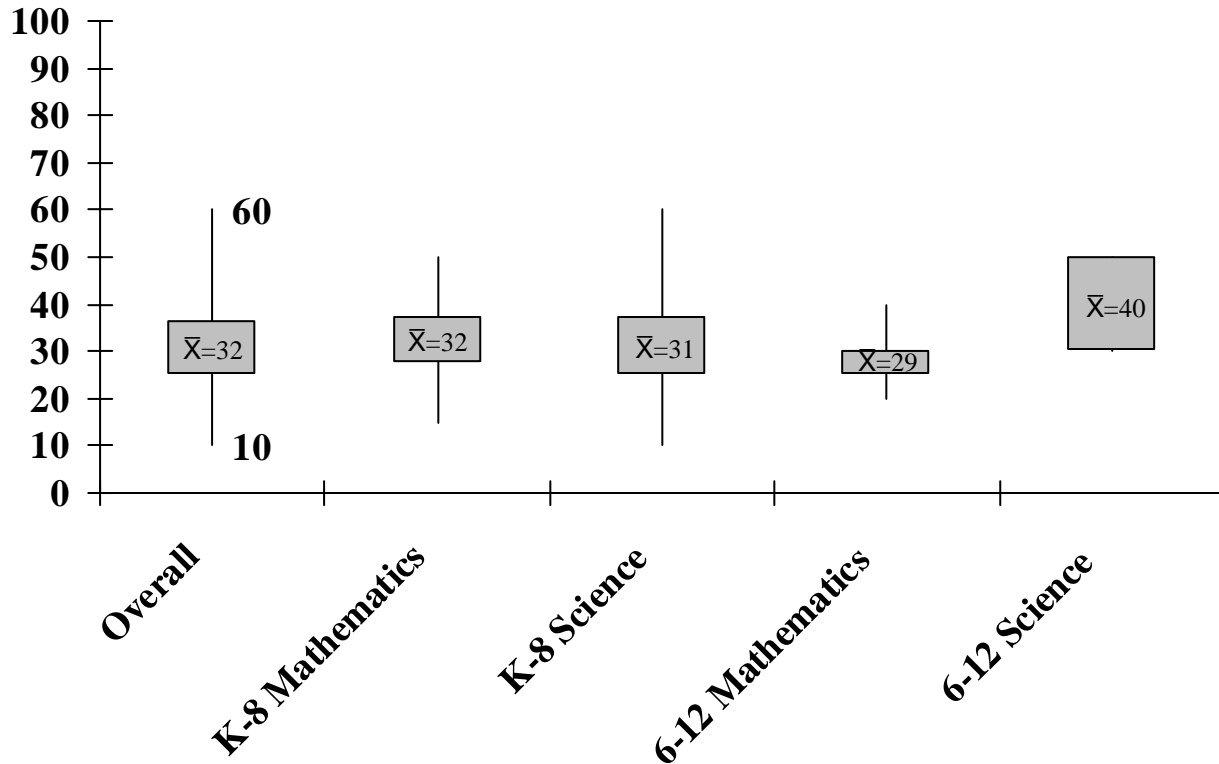
# Emphasis of LSC on Content and Pedagogy/Instructional Materials



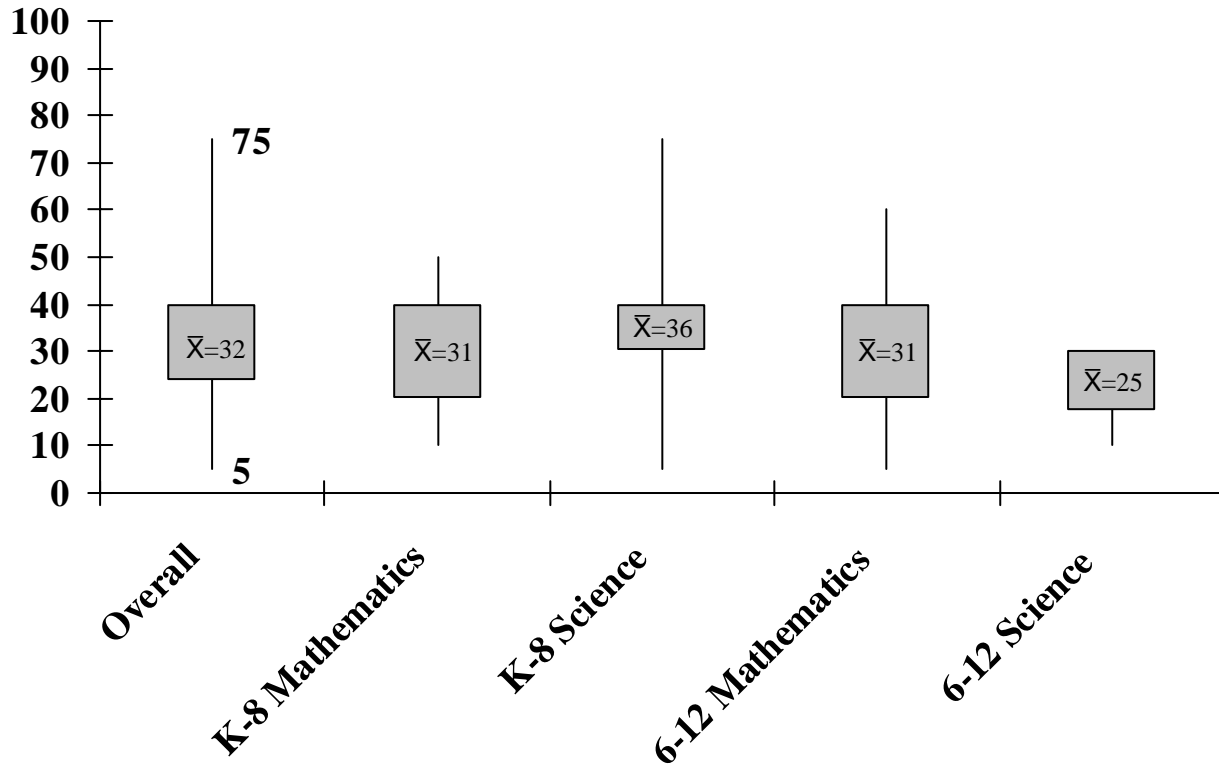
# Percent of Total PD Emphasis Devoted to Content



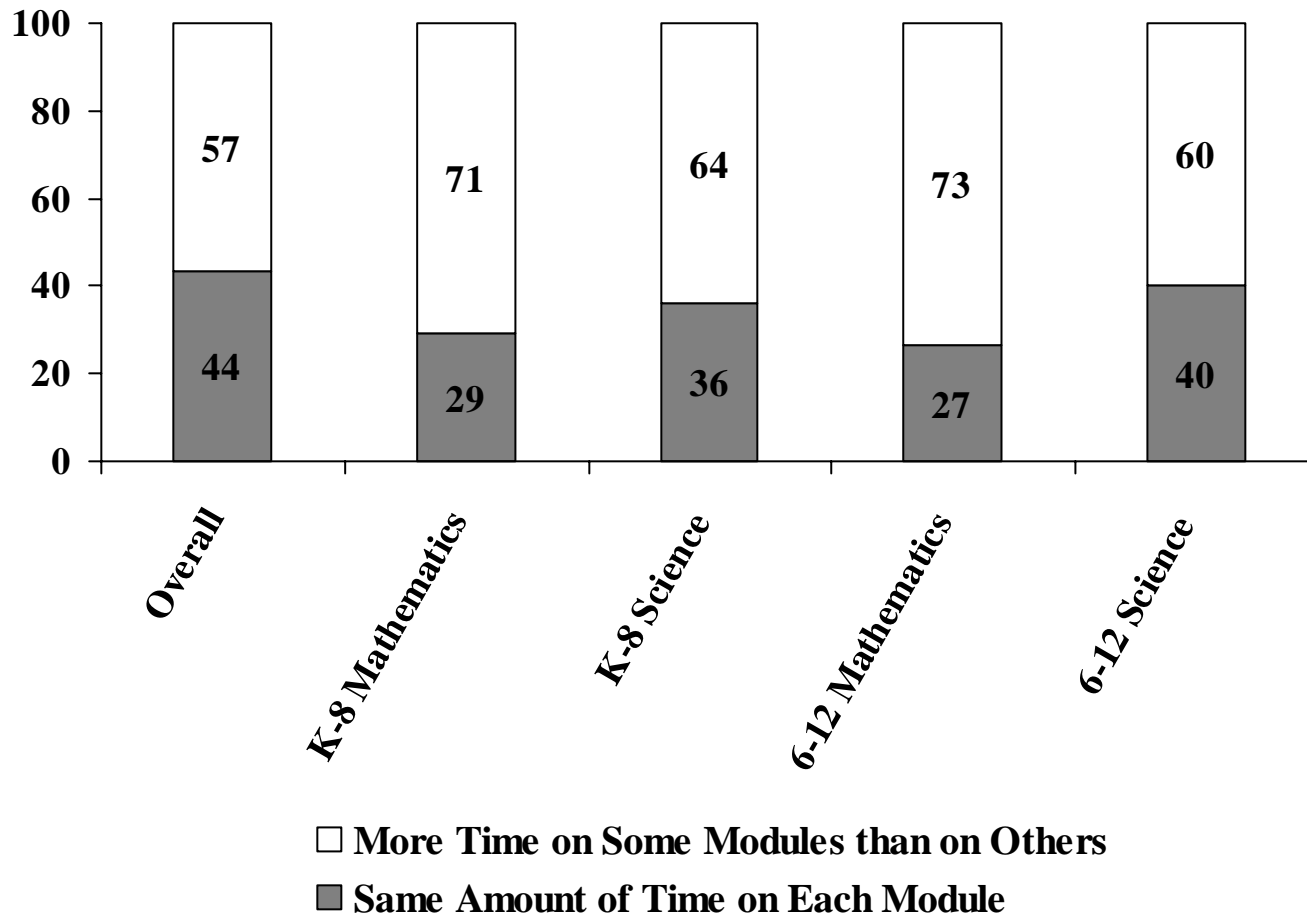
# Percent of Total PD Emphasis Devoted to Pedagogy



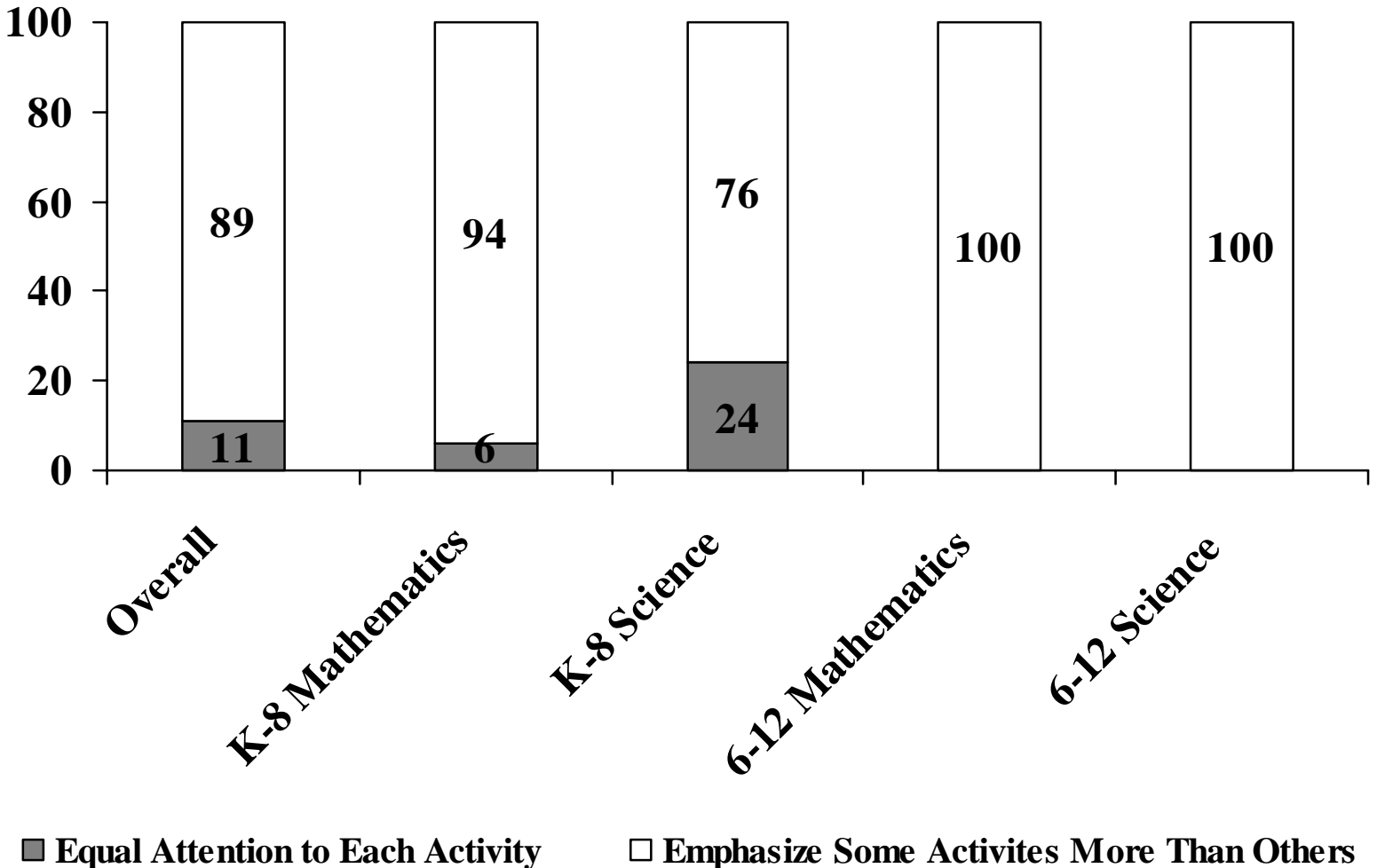
# Percent of Total PD Emphasis Devoted to Instructional Materials



# Project Design for PD Related to the Designated Instructional Materials

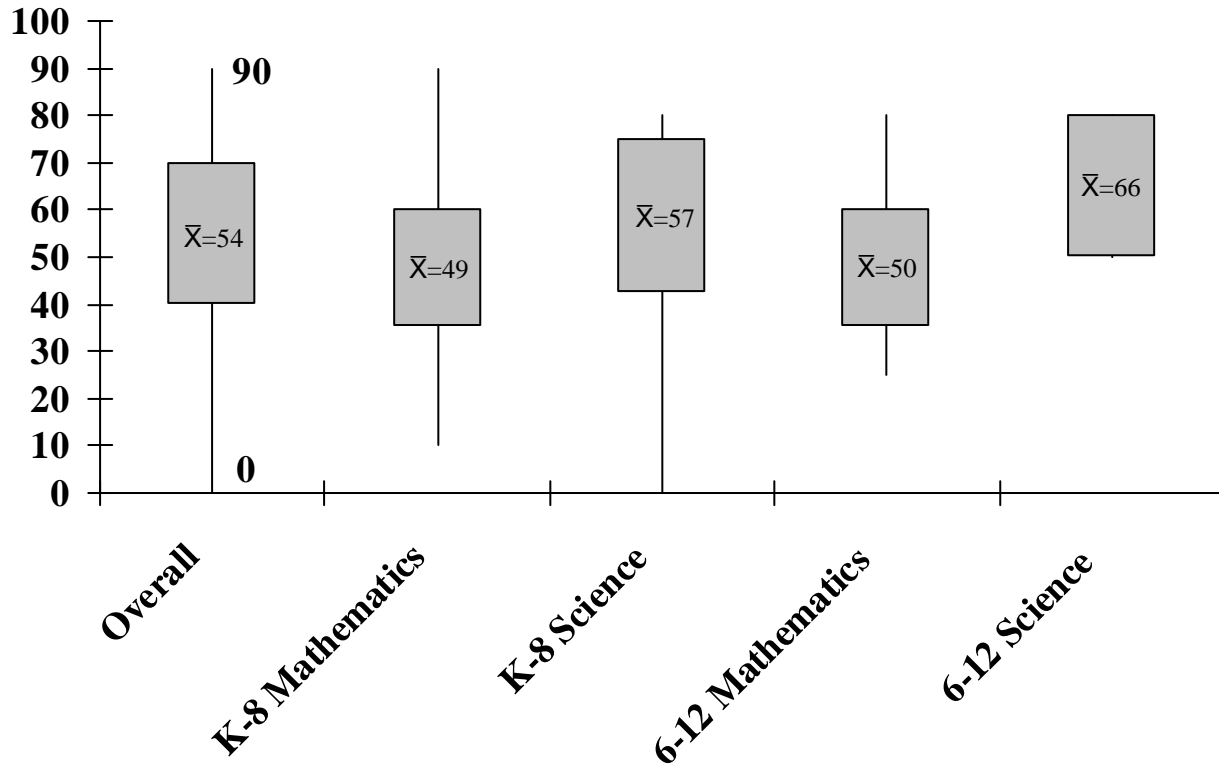


# Project Design for PD Related to the Designated Instructional Materials

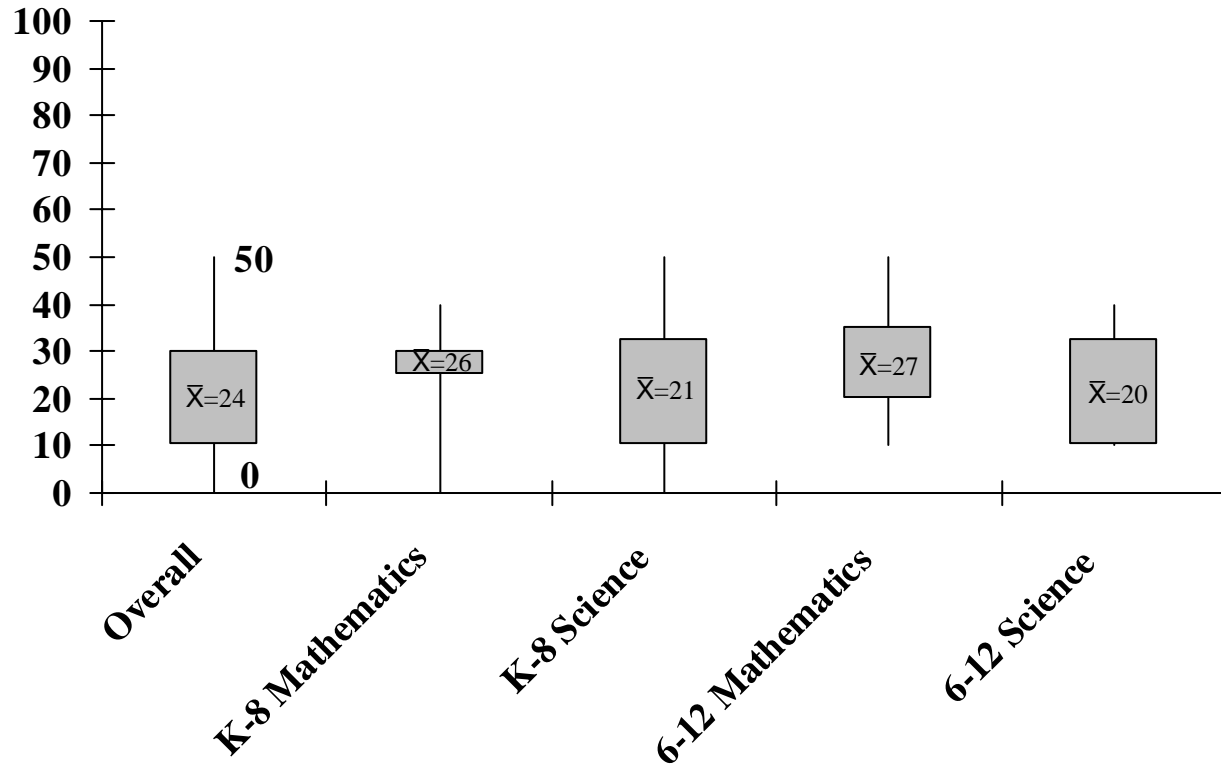




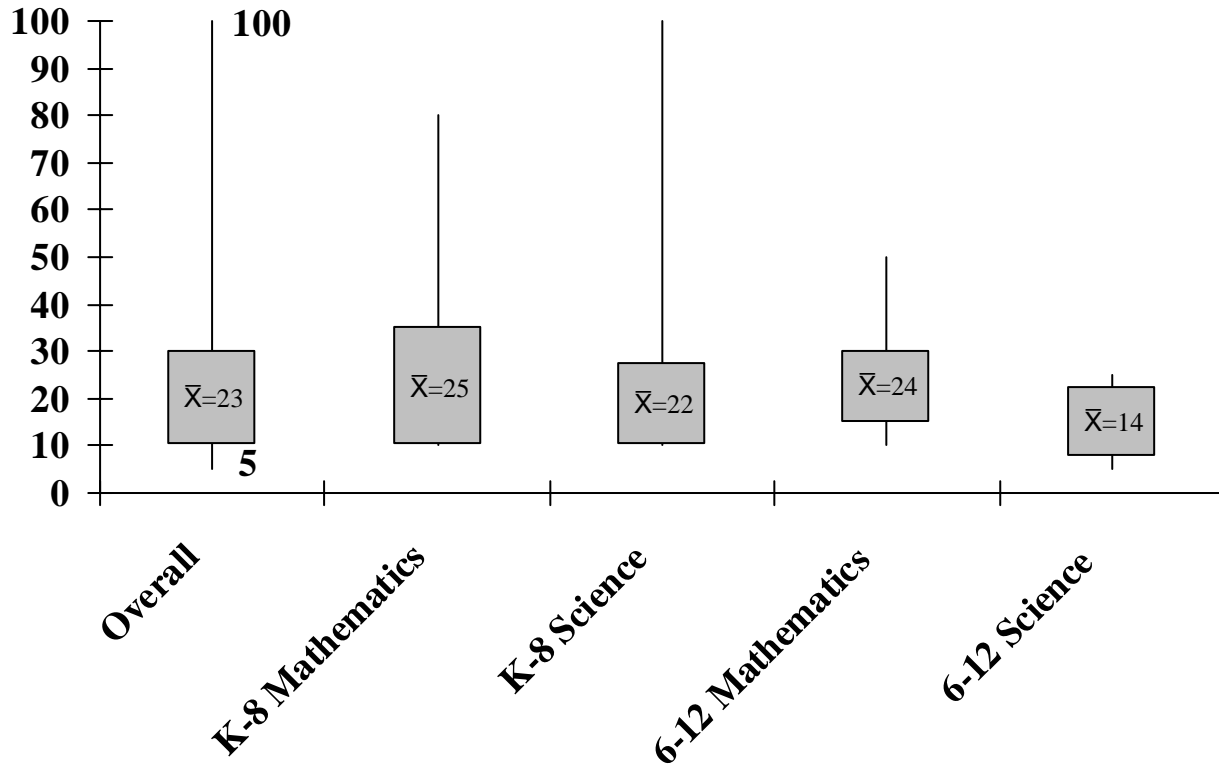
# Percent of PD Hours Introducing Teachers to Materials



# Percent of PD Hours Providing Support During Implementation



# Percent of PD Hours Refining Implementation





# Focus of Conference

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- Making the Case for Instructional Materials
- Keeping the focus on mathematics/science understanding
- Preparing professional development providers
- Professional development design decisions – how to allocate time



# Making the Case for Instructional Materials

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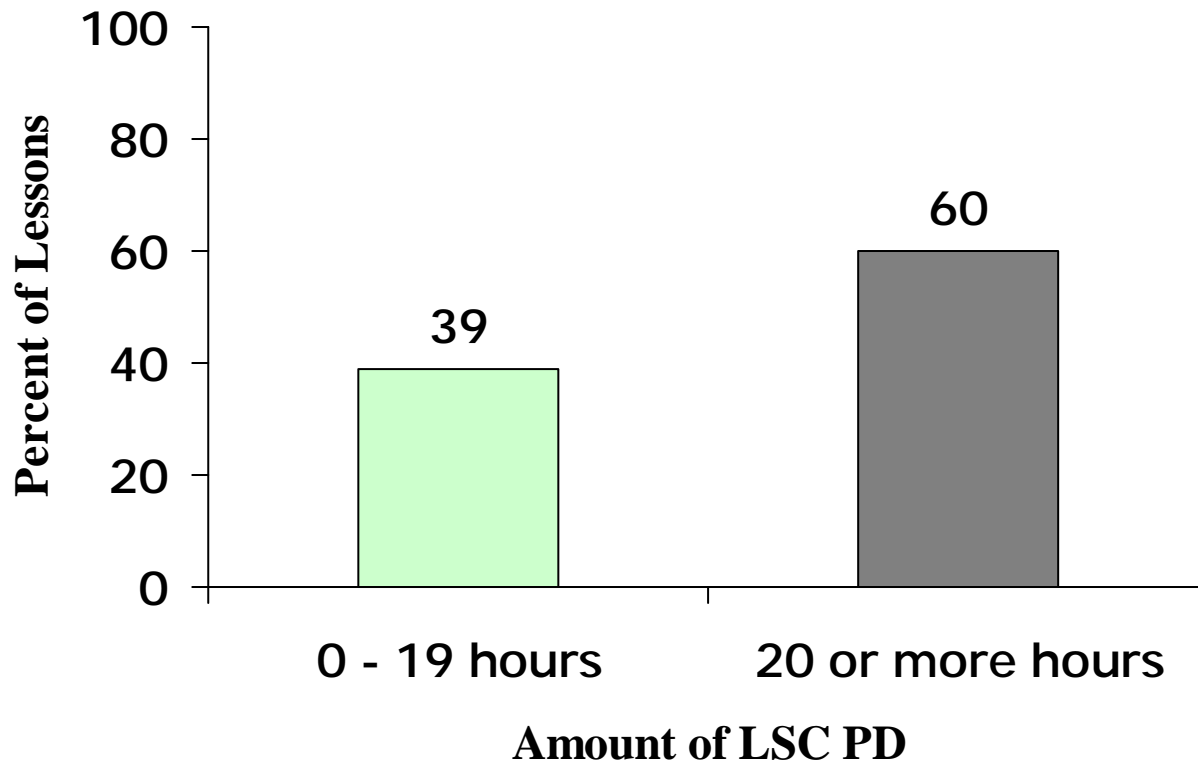
- Using Reflection sheet #2 in your folder, write about the challenges you have faced in making the case for the use of designated instructional materials in the districts involved in the project (one copy will be collected)
- At your table, discuss the challenges you have identified and strategies used to meet these challenges



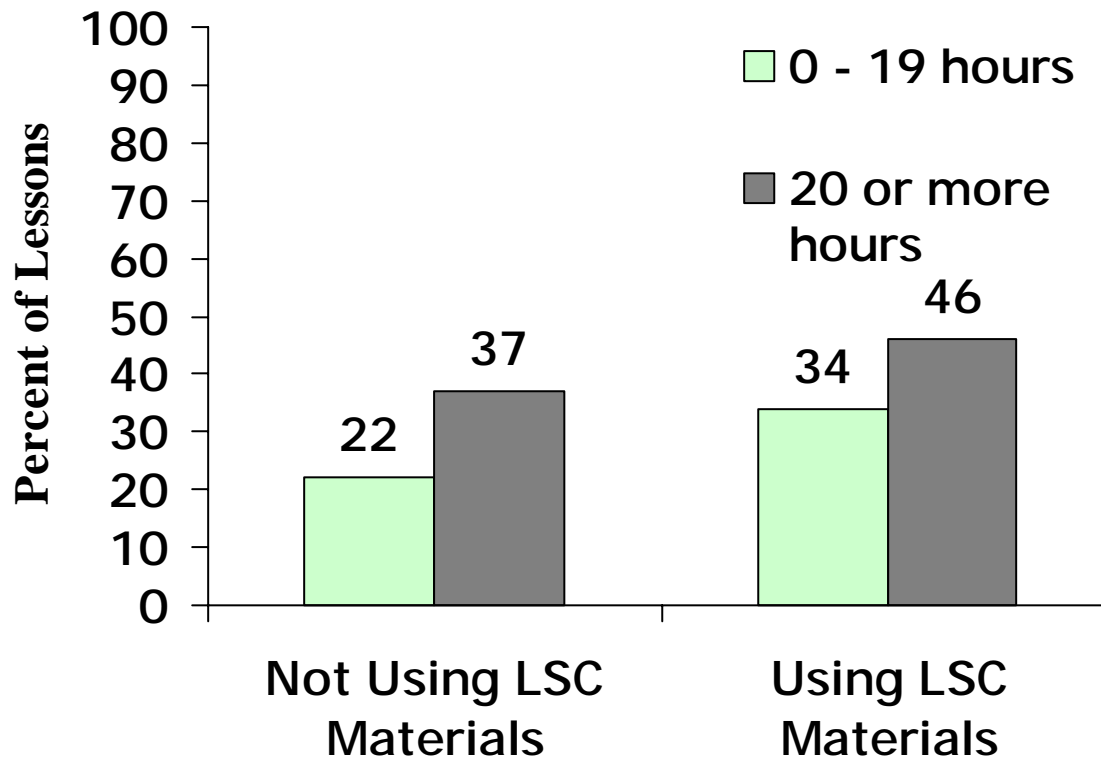
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# Keeping the Conceptual Storyline in Professional Development and in the Classroom

# Percent of Lessons Using LSC-Designated Materials

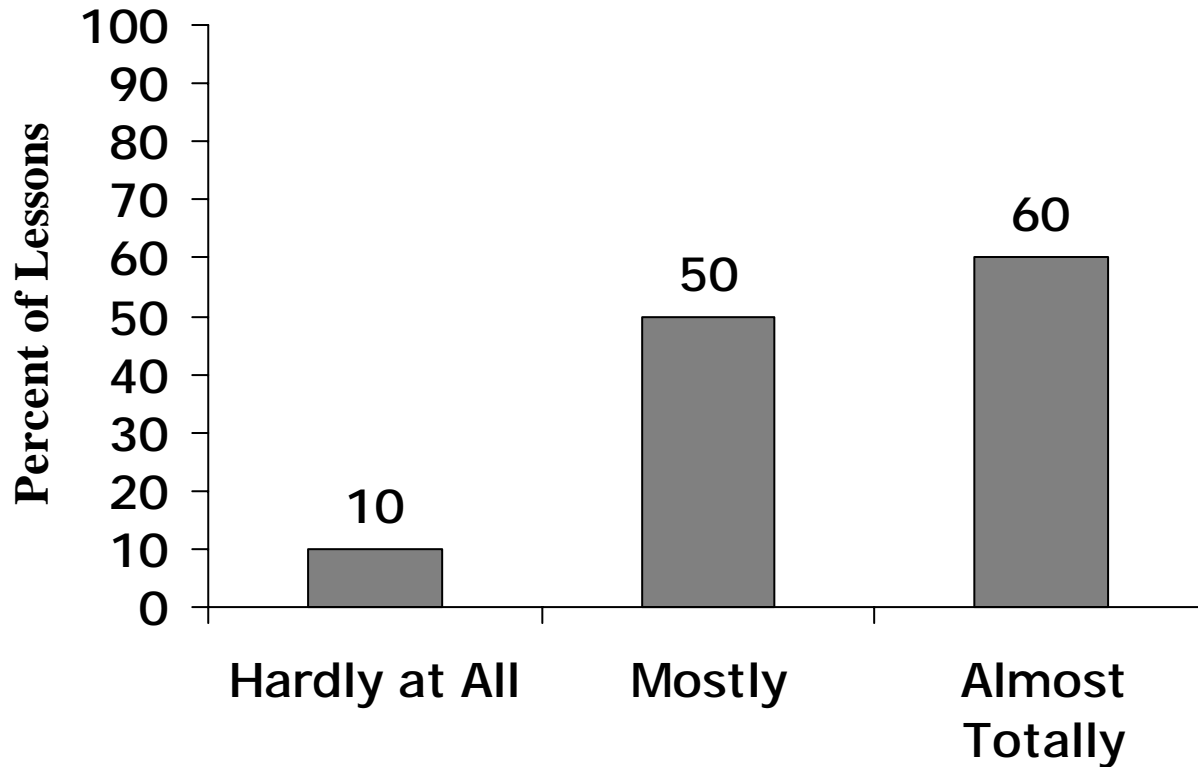


# Highly Rated Lessons by Use of LSC-Designated Materials and Treatment

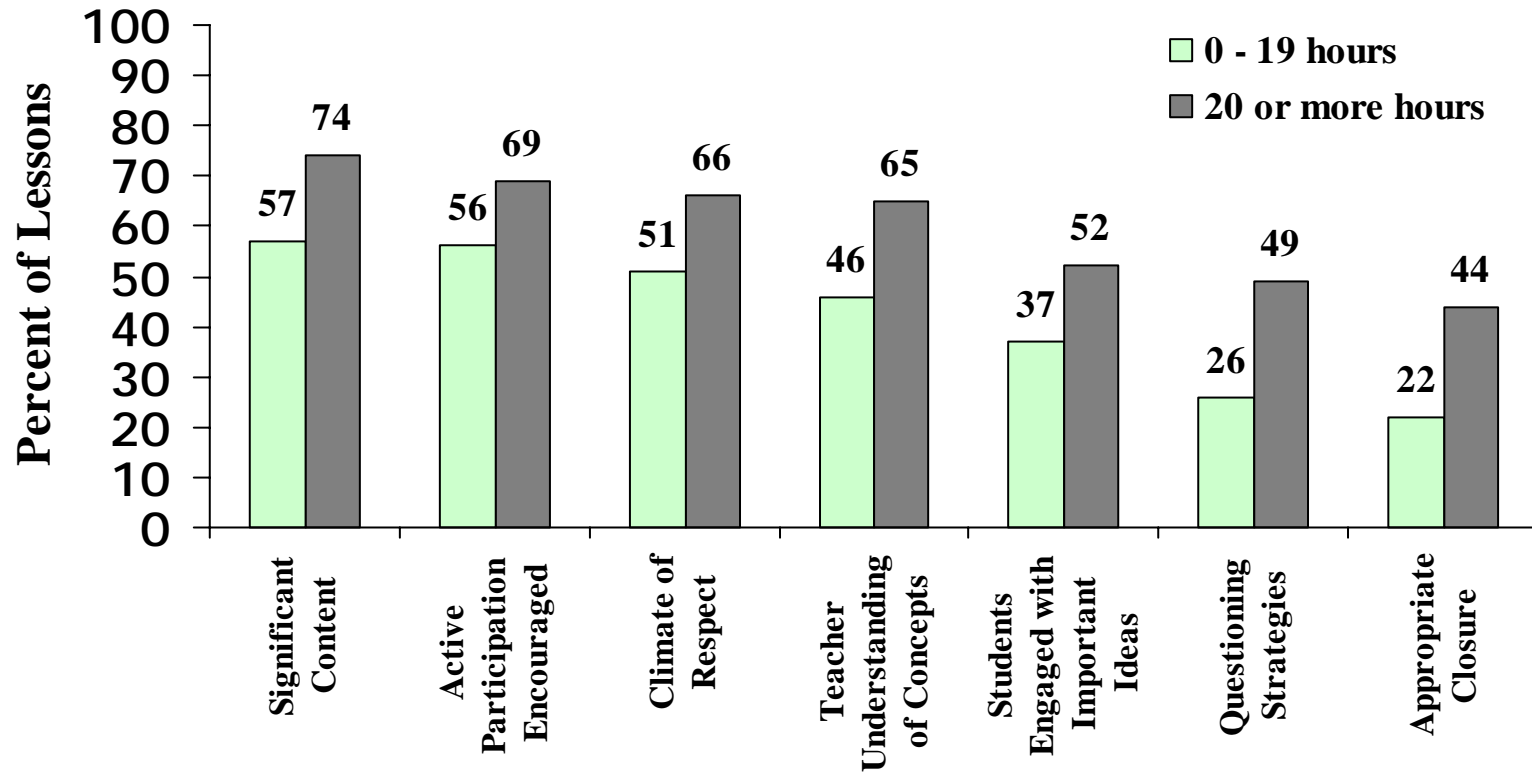




# Percent of Highly-Rated Lessons by Adherence to LSC- Designated Materials



# Key Classroom Observation Indicators by Level of Treatment





# Teachers Observed for the Cases:

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- were generally trying to implement the instructional materials as intended
- typically carried out the steps in the activity, but
- often did not demonstrate an understanding of how the lesson fit into the bigger picture of the unit content



## K-8 Science

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*“In each classroom visited for this study, pieces of the professional development workshops were incorporated in the lesson, such as graphic organizers, word lists, question folders, or use of predictions. There was also room for improvement in every classroom. It was not always clear that teachers were really seeing the underlying reasons for some of the activities.”*



# K-8 Mathematics

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*“Also we could not see any evidence that she [the teacher] understood how the content in the lesson fit into the big picture of the unit. However, we hasten to add that there was insufficient evidence to say that she did not understand. She asked questions and her behavior indicated that she was cognizant of student thinking. However we did not see any evidence of a focus on student conceptual development.”*



## 6-12 Science

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*“During the observations, the three teachers successfully engaged students in a set of activities that were coherent and were open to developing core concepts, fundamental understandings, and a model. However, they were not asking students to use their senses to make, record, and share key observations. Nor did they ask students to make inferences or draw conclusions. During the observations, little questioning and closure were evident. Teachers were using quality materials but still did not have the pedagogical skills to nurture the type of learning congruent with the Project RISE vision...”*



# 6-12 Mathematics

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*“In all three lessons observed, teachers did not demonstrate that they understood the content or how the concepts in the lessons they were teaching fit into the concepts in the unit. They tended to zero in on the minutia of a particular lesson and apparently did not recognize how the lessons fit into the bigger picture of the unit.”*