

# **Leading Curriculum Selection as an Opportunity for Improving Mathematics Learning**

---

**NCSM**

**April 20, 2009**

# Today's session

---

- About the study
- Some findings
- Discussion of vignettes
- The role of the curriculum leader
- Implications

# The project: Two components

---

- The development of **tools and resources** for mathematics curriculum leaders to support selection and implementation
- A **landscape study** investigating how curricular decisions are made and what factors influence those decisions

# Elements of the landscape study

---

- Survey of ASSM members
- Interviews with 156 leaders in 8 states
- Surveys of the National Mathematics Curriculum Consultant Network (NMCCN)
- Review of literature

# Research questions

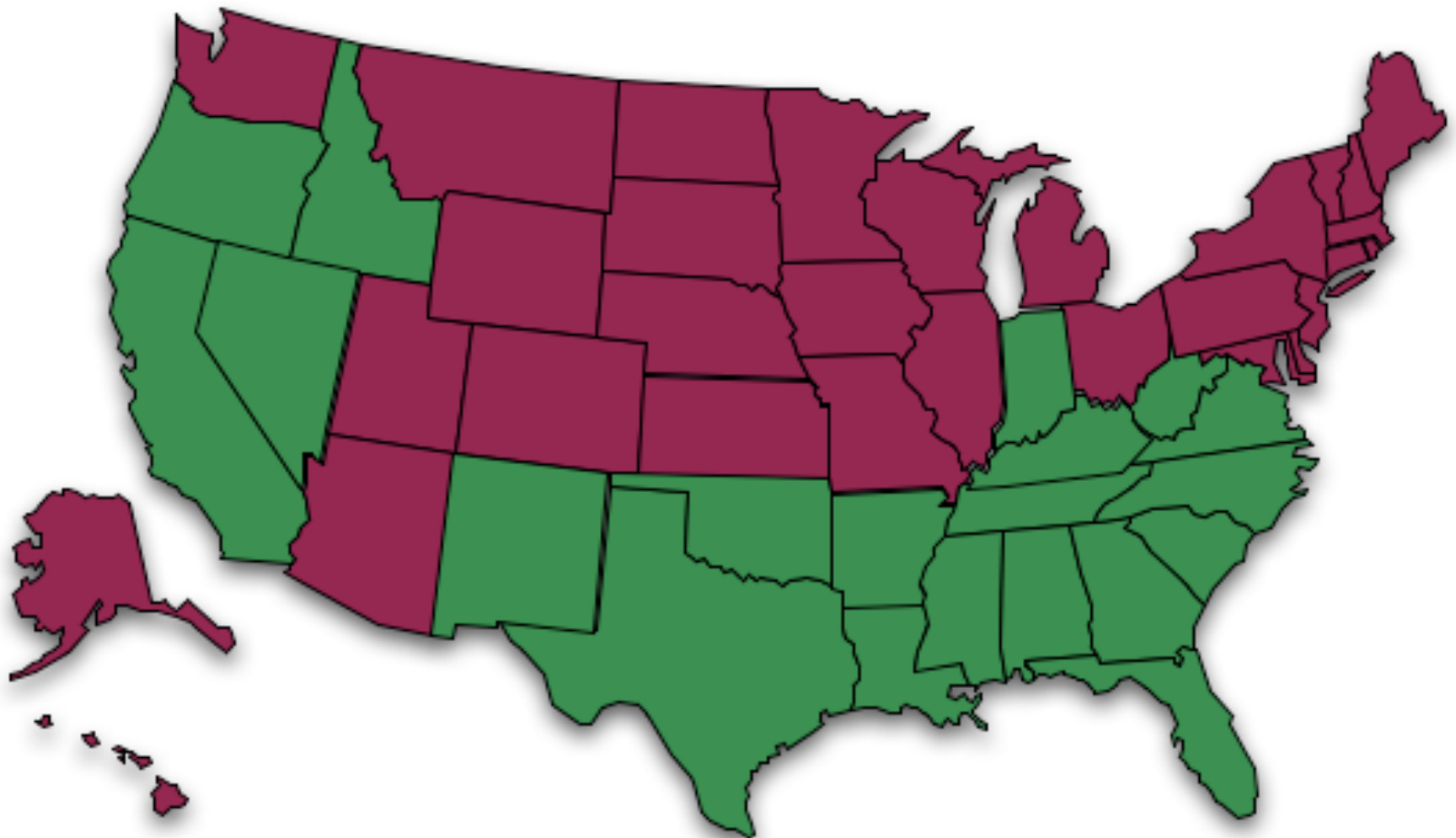
---

- What processes do districts use in choosing mathematics materials?
- How do these processes differ in state-adoption and open-territory states?
- What factors shape district curriculum decisions?
- What research do curriculum leaders find useful?

# Determining a sample of states

---

- Mix of state adoption and open territory



Green states are state adoption  
Magenta states are open territory

# State-adoption states

---

- Twenty-one are state-adoption states
- Funding for textbooks is provided by the state and receiving funding is often connected to an approved state list
- The state dictates timing of adoption cycle
- The state provides regulations districts must follow in their processes



# Open-territory states

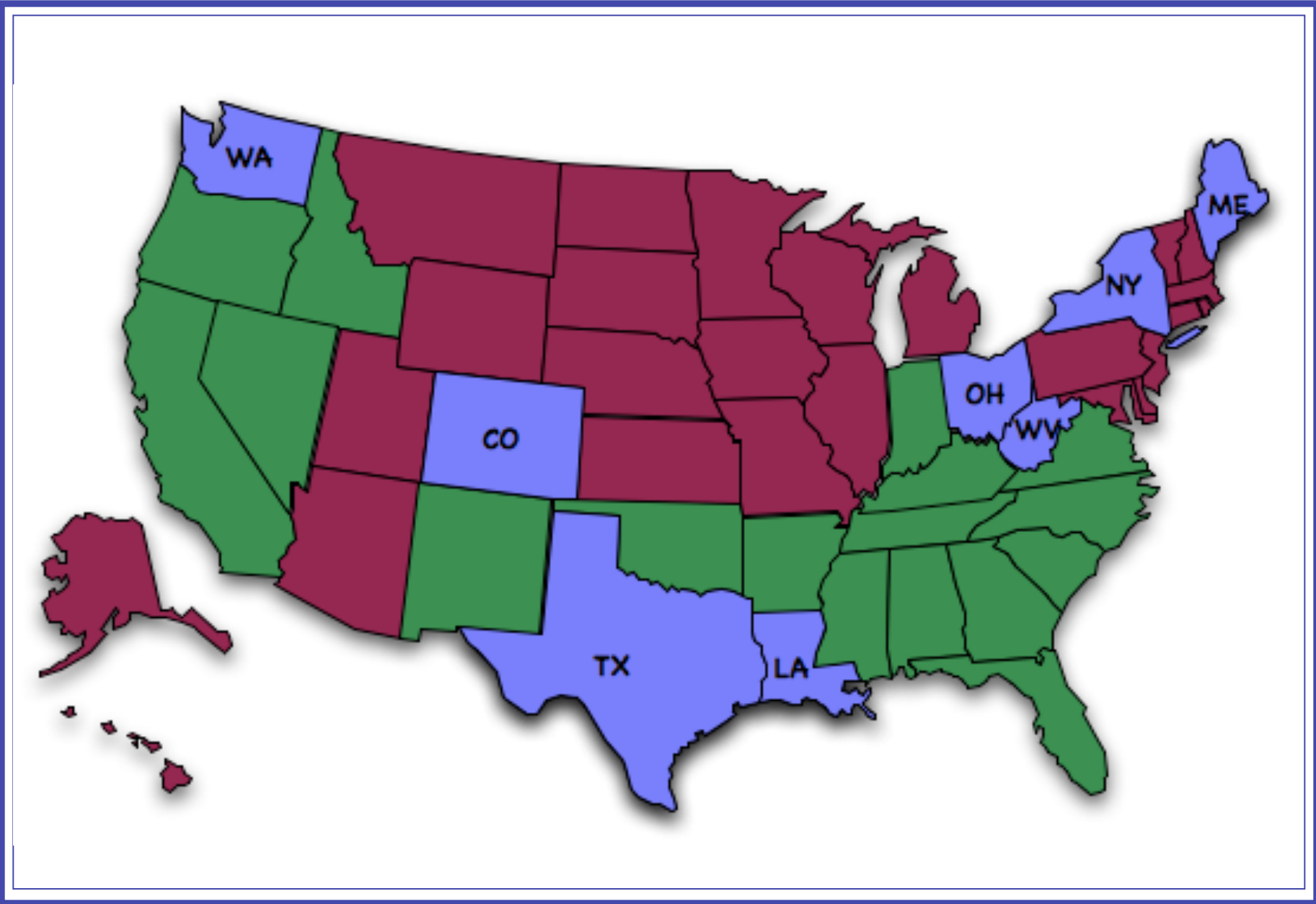
---

- Twenty-nine states are open-territory
- States do not fund the purchase of materials in connection with a state list
- Many OT states do not allow any state interference with choice of vendor, to preserve local control of decisions

# Determining a sample of states

---

- Mix of state adoption and open territory
- Timing of adoption: Targeting 2005-2007
- Distributed across regions of the country
- Mix of size of share of textbook market
- Range of types of materials used
- 8-state sample



# The interview component/data collection

---

- 156 Interviews with mathematics curriculum leaders in 8 states
  - Mathematics coordinators, K-8 or K-12
  - Department chairs
  - Assistant superintendents of curriculum and instruction
  - Lead teachers
  - State or regional math leaders for context
- In selection or early implementation
- 45-60 minute interviews, taped and transcribed
- Focus on process, influences on decision-making, and sources of information

# Analyzing the data

---

- Within-state analysis: Understanding the role of context on decision-making
- Cross-state analysis: Looking for generalizations on key questions across our sample
- Coding and confirming hypotheses
  - Exploring and investigating themes
  - Looking for evidence to support or refute claims
  - Addressing reliability and attending to potential validity threats

# Key findings

---

- **Typical selection processes**
- **Role of the curriculum leader**
- **Factors that influence decisions**
- Use of research and sources of information
- Role of instructional materials
- Implementation

# It's not superficial

---

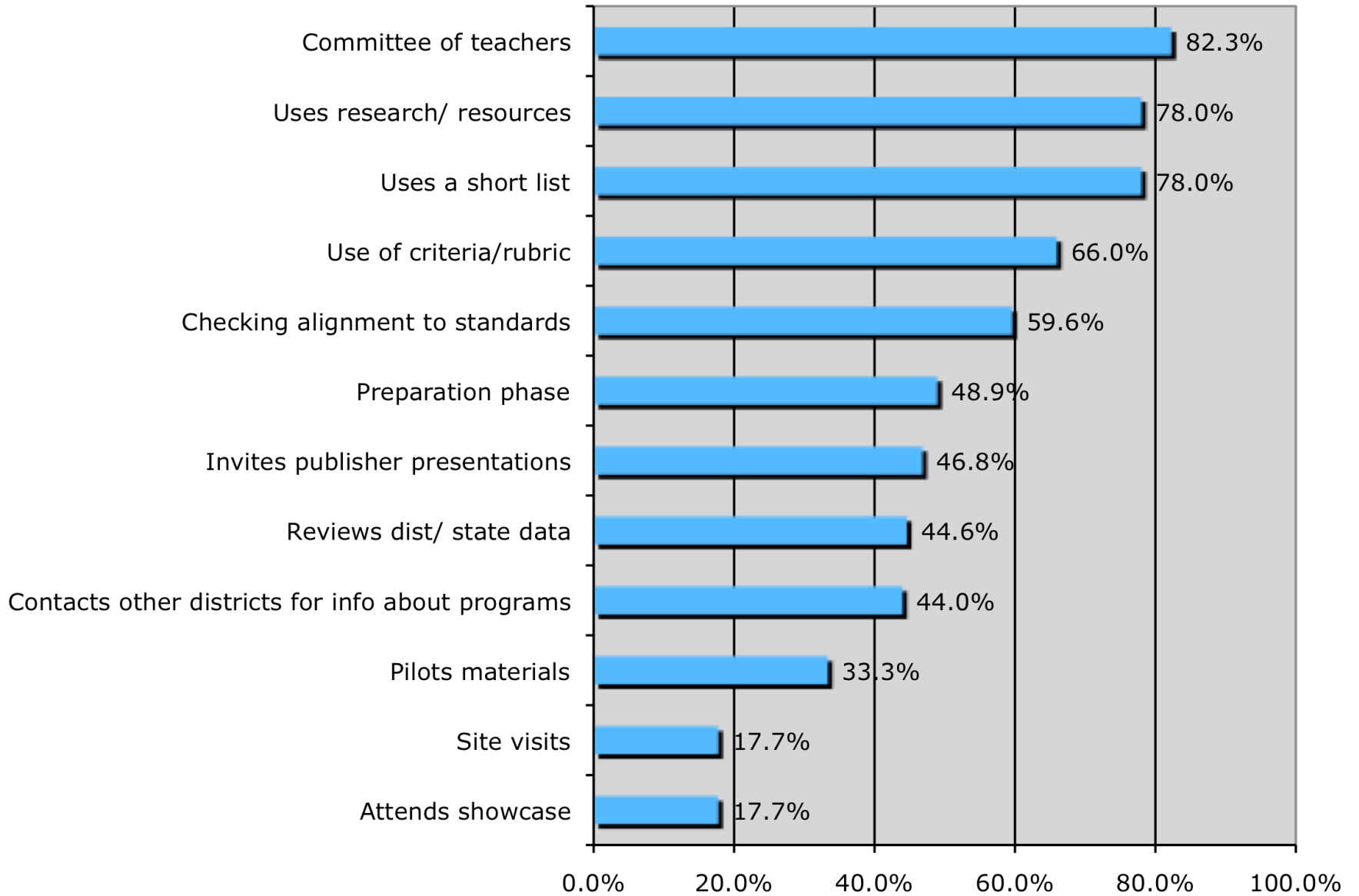
- Most districts in both open and adoption states DO follow a process with complexity; this is counter to an assumption that many curriculum selection decisions are made carelessly or without an organized process.

The way some schools select books is to  
throw a blanket over them and pick one.

- Director of Curriculum, OT state



### Elements of the selection process



# Committee-guided

---

- Committee composed largely of teachers serves as the primary decision-making body in selection process
  - *Prepare for the selection process*, by reviewing any district or state requirements, goals for the process, relevant district data, or recommendations from the field;
  - *Narrow the program options* by creating a “short list” of programs for analysis;
  - *Evaluate those options* in detail, by using established criteria, reading relevant reviews, visiting schools using the programs, or piloting materials;
  - *Decide on a recommendation*, by consensus or by official vote.

We're looking at textbook adoption this coming year for 7-8. All the math teachers sit on the committee. Everybody gets to look at everything, and then we'll narrow it down to three. To narrow it down, we'll do it like a consensus map, and we'll have major strengths and weaknesses, and what it is that we see that we need. And then we'll really do some in-depth study of those three programs. We'll look at the alignment. We'll look at the focal points. We'll have the teachers go visit classrooms. And we'll have parents involved. We've just kind of got a district policy of all the things that we look at.

I've seen the process done really well, and I've seen it not done well. I remember the days when teachers would look at books, and a sales rep would come in with goodies. And they'd get excited and it's like-- it's not the goodies and the color, it's the content. So I feel that I have to model that. Those little doo-dahs can get people off focus. We go by what's best for student achievement, rather than what the group liked better.

Director of Curriculum, OT state

# Three goals at play

---

- Determine which materials are the best fit for students
- Build teachers' commitment
- Ensure that the process is fair and transparent

---

What choices do you see leaders making in these examples?

# Designer of the process

---

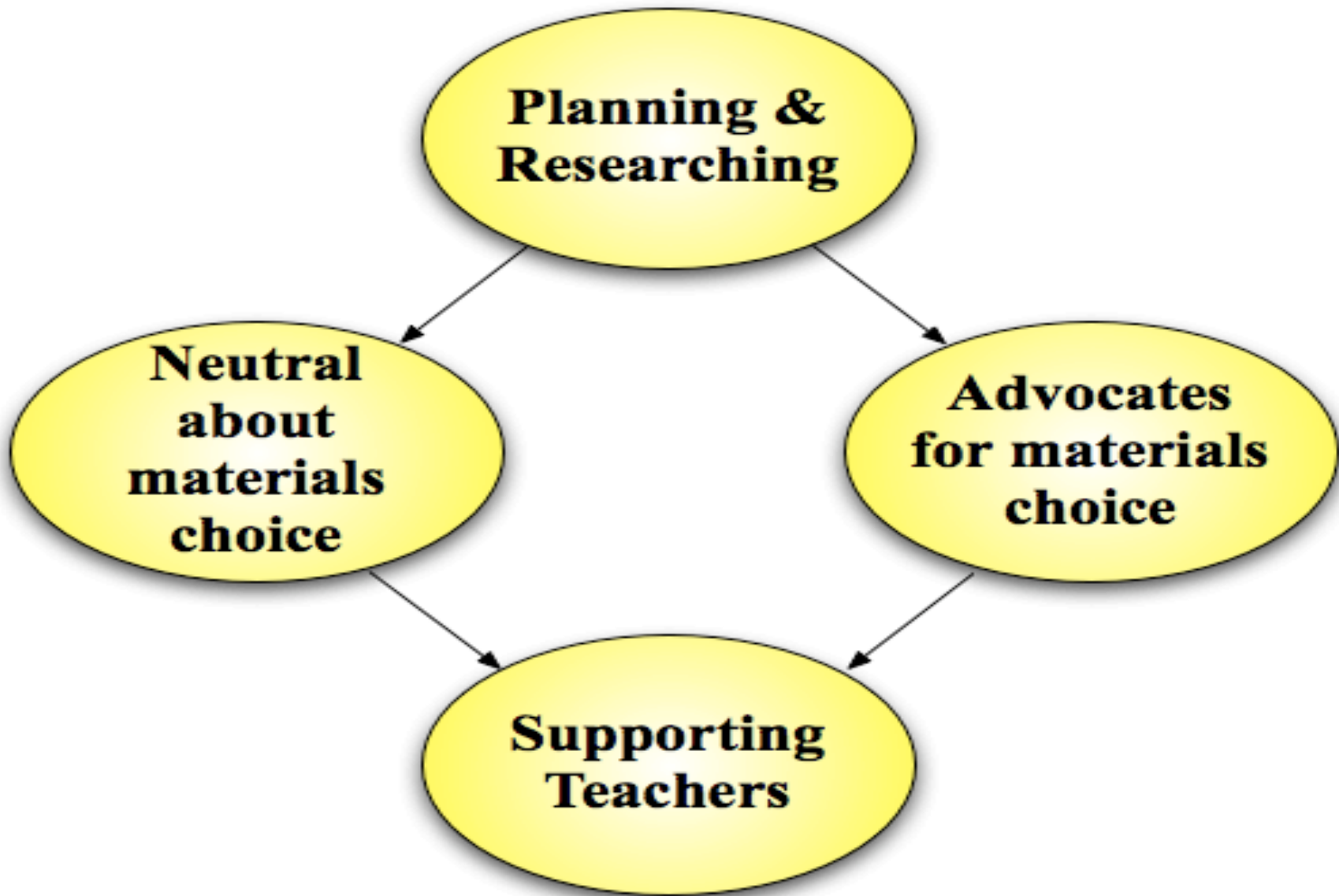
- Coordinates and facilitates the process
- Works closely with selection committee
  - orients selection committee
  - develops selection criteria
  - collects research and data
- Keeps process focused

**Planning &  
Researching**

**Neutral  
about  
materials  
choice**

**Advocates  
for materials  
choice**

**Supporting  
Teachers**



# Advocacy/Neutrality of leader

---

- Manages the process and leaves decision to committee
- Participates in the process but committee makes final decision
- Advocates for particular materials or approaches and may make decision



Now, they had some debates within their groups, but I stayed out of them. I did hear the discussions. But again, I stepped aside from that. I let them have that discussion....Tell me what you want. ....

And I told them that was not my objective, that I was not saying which way they needed to go with that...Because I wasn't the one that was going to be directly in the classroom using their book, they were.

High School Mathematics Supervisor, SA state

# Advocacy/Neutrality of leader

---

- Manages the process and leaves decision to committee
- Participates in the process but committee makes final decision
- Advocates for particular materials or approaches and may make decision

Well, my role is around curriculum, instruction, assessment, and I facilitate that group along with all the other curriculum groups. And hopefully I'm listening well and helping them make good decisions. I don't like to be that final decision. I want it to be truly what they seem to want. If we really have an issue around it, then perhaps the superintendent and I will work it out. But hopefully we try to facilitate the group in such a way that we really come to a consensus together.

Director of Curriculum, OT state

# Advocacy/Neutrality of leader

---

- Manages the process and leaves decision to committee
- Participates in the process but committee makes final decision
- Advocates for particular materials or approaches and may make decision

My style is not to do the old style where we bring in seven publishers and they all get 20 minutes with the staff, and then we vote. We don't do that anymore. I work hours and hours behind the scenes doing research, reading what best practices in math are, what do we need to be looking for. What programs are successful where students are achieving well? And I look at the NSF projects, those are always high. What is the NSF saying about that? ...I do the web searches now, and after awhile you begin to see some patterns emerging where the academic achievement of students, what mathematicians and people in that field are saying are good programs at this time. I gave the teachers, then, two choices. Trailblazers was one company; Everyday Math, they kind of get at the same thing with different companies. And then they chose Everyday Math...

Curriculum Supervisor, OT state

# Advocacy/Neutrality of leader

---

- Manages the process and leaves decision to committee
- Participates in the process but committee makes final decision
- Advocates for particular materials or approaches and may make decision

# Teacher acceptance

---

- Teacher input and acceptance play an important role in most districts' selection processes
  - teachers are experts on use of materials
  - need teacher buy-in for effective implementation
  - policies requiring teacher input in the process

# Centralized decision-making

---

- Consistency of materials use
- Coherence across grades K-12
- Equal access to content for students



We have been a district in “academic difficulty” since the designation was created. And part of the reason that we were there was because schools made those decisions locally. Every school had a different reading program. Every school had a different math program. There was no accountability.... Since the district was being accountable for our rating, we needed to be accountable for the programs we were to implement. And so we changed that at the district. Five years ago we said that we would decide on the core programs in reading, math, science and social studies, what those materials would be. And we would be able to, then, better support the professional development that went along with that. And then we could do our own in-house assessments to see how well students were doing, and then we could make schools accountable for the implementation.

- Assistant Superintendent, OT state

# Planning for implementation

---

- Professional development and teacher support
- Accountability for use of materials
- Alignment to standards and tests
- Stakeholder support

# Choices in selection process...

---

- Preparing the selection committee
- Composition of selection committee
- Sources of information introduced
- Determining short list of programs
- Creating criteria used for evaluating quality
- Determining teacher input in the process
- Curriculum leader advocacy
- Accountability for school and teacher use of materials
- Planning for implementation supports

# Reflection question

---

- What choices do you make about the selection and implementation of instructional materials within the context of your district?

# For more information, contact...

---

- Julie Zeringue, EDC  
[jzeringue@edc.org](mailto:jzeringue@edc.org)
- Katherine Schwinden, EDC  
[kschwinden@edc.org](mailto:kschwinden@edc.org)
- June Mark, EDC  
[jmark@edc.org](mailto:jmark@edc.org)
- Website: [www.edc.org/mcc](http://www.edc.org/mcc)

# Questions

---