

Techniques that Support Struggling and Novice Mathematics Teachers

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Presentation materials are available at www.ascd.org/achandouts.

In your experience, what are the greatest needs of struggling and novice mathematics teachers?

In your experience, what techniques have you found to be most successful in helping struggling and novice mathematics teachers?

What do struggling and novice mathematics teachers need?

Knowledge for
Teaching

Skills for
Managing
Instruction

Skills for
Developing
Collaborative
Relationships

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Knowledge for Teaching

Struggling and novice mathematics teachers need help:

- collaboratively planning engaging lessons that incorporate effective pedagogical practices to develop mathematics content;
- presenting applications for mathematics concepts; and
- considering students' prior conceptions about mathematics when planning curriculum and instruction.

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Skills for Managing Instruction

Struggling and novice mathematics teachers need help:

- using cooperative learning groups;
- using hands-on activities to develop mathematics concepts;
- managing a class of students who are using manipulatives;

Skills for Managing Instruction

Struggling and novice mathematics teachers need help:

- using technology as an integral part of mathematics instruction; and
- using strategies which incorporate innovative and emerging formative and summative assessment techniques.

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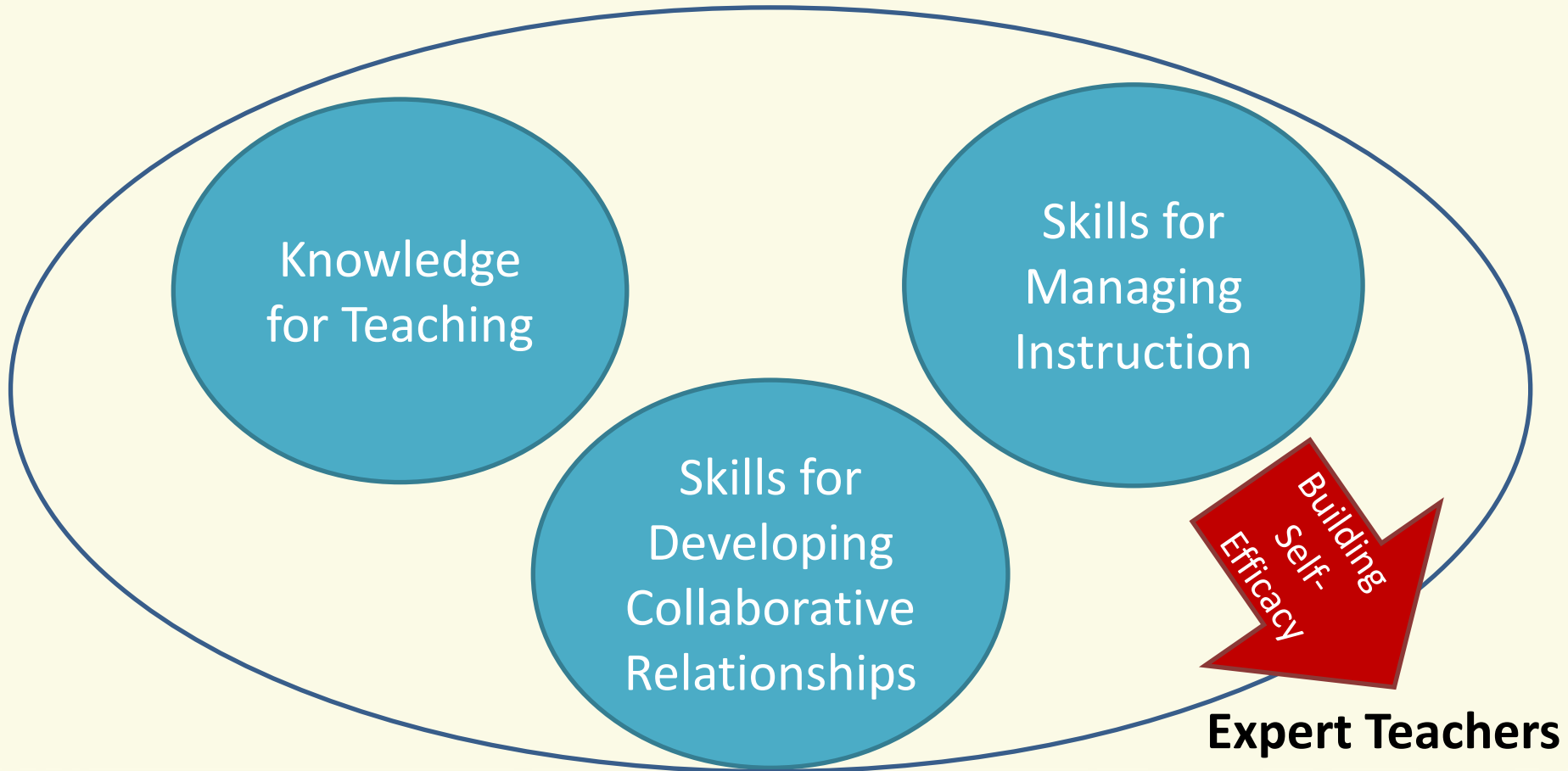
**Skills for
Developing
Collaborative
Relationships**

Skills for Developing Collaborative Relationships

Struggling and novice teachers need help developing collaborative relationships with:

- fellow teachers,
- administrators,
- parents,
- the local community, and
- the greater mathematics community.

What do struggling and novice mathematics teachers need?



Techniques that Support Struggling and Novice Mathematics Teachers

1. Provide them with a reasonable schedule and manageable class sizes.
2. Integrate them into the school culture and into communities of practice.
3. Assign them appropriate mentors.
4. Help them understand the school curriculum and assessment schedule.

Techniques that Support Struggling and Novice Mathematics Teachers

5. Assist them in collaboratively planning student-centered lessons.
6. Assist them in establishing classrooms that actively engage students.
7. Help them develop communication skills to successfully interact with others.

Techniques that Support Struggling and Novice Mathematics Teachers

8. Provide support for them in their classrooms (observe, coach, model teach, co-teach).
9. Help them join the greater mathematics and mathematics education community.
10. Develop their self-efficacy by providing them with leadership opportunities.

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