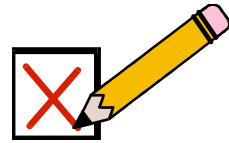


Self-Assessment



- On the wall chart, indicate with a tally mark where you believe your knowledge and ability lie on the scale of 1-5 for each of the key components of our learning today.
- We'll self-assess again at the end of the day.
- Tomorrow we'll share a synthesis of the data.

Effective Leadership for Science and Mathematics Excellence



Sheila Jones and Dorothy Zinsmeister
July 26, 2004

Wanted

A miracle worker who can do more with less, pacify rival groups, endure chronic second guessing, tolerate low levels of support, process large volumes of paper, and work double shifts. He or she will have carte blanche to innovate, but cannot spend much money, replace any personnel or upset any constituency.

Michael Fullan, 1998

Penny Warm-up



- Look at the date on your penny.
- Organize into decade groups.
- Discuss what was happening in science and mathematics education during your decade.
- How is it different from today?
- Report to group

Purposes of this Academy

- To help leaders of science and mathematics education reform succeed in their role of planning and carrying out wide-scale changes at all levels of the education system.
- To assist leaders to gain knowledge, skills, and strategies for initiating, implementing, and sustaining reform that helps ALL students learn science and mathematics.
- To build a strong, supportive, and ongoing learning community for leaders of science and mathematics education reform.

Goals for Today

- Deepen understanding of effective leadership practices
- Identify knowledge and skills in leadership for personal growth and learning
- Develop a community/network of leaders in science and mathematics



Agenda Packets

- Agenda book
 - Agenda
 - Participant list and profiles
 - Lead Teacher Information
 - Presentations
 - Articles
 - Resource List
- Leading Every Day
- Educational Leadership – Leading in Tough Times
- Paper pad and pencil



Ground Rules for Collaborative Learning

- She/he who works learns
- Challenge ideas
- Everyone has expertise
- Share talk time
- Take time for reflection
- Take care of yourself
- If you have a question – ask
- Honor times
- Explain acronyms
- Turn off cell phones or make sure they are on vibrate



PRISM Lead Teachers

- Who are they?
 - Experienced leaders in science and mathematics from diverse schools and school systems in Georgia
 - Leaders who are dedicated to enhancing the skills and knowledge of others in the fields of science and mathematics



Partnership for Reform In
Science and Mathematics
(PRISM)

PRISM's Vision

Increase science and mathematics achievement for all P-12 students in order to improve their readiness for post-secondary education and careers by enhancing teacher quality, raising expectation for all stakeholders, and closing the achievement gaps through the collaboration of P-16 partners.

PRISM

Goal 1: Raise expectations and achievement in science and mathematics in P-12 schools, while closing achievement gaps among demographic groups by:

- Providing challenging science and mathematics curricula and materials for all students.
- Raising the awareness of students, parents, and the community of the need for all P-12 students to complete challenging courses and curricula in science and mathematics

PRISM

Goal 2: Raise student achievement in science and mathematics in P-12 schools through increasing and sustaining the number, quality, and diversity of P-12 teachers teaching science and mathematics by:

- Providing high quality professional development to current P-12 teachers who teach science and mathematics.
- Strengthening the content and pedagogy for pre-service teachers.
- Ensuring a sufficient pipeline of highly qualified and diverse teachers to meet demand.
- Providing incentives for teacher assignment and retention to ensure access to highly qualified and experienced teachers by students who need them most.

PRISM

Goal 3: Raise student achievement in science and mathematics in P-12 schools through increasing the responsiveness of higher education to the needs of P-12 schools by:

- Increasing the participation of science and mathematics faculty in teacher preparation and professional development.
- Providing incentives for science and mathematics faculty members to engage in research with P-12 schools on effective practices in science and mathematics.



PRISM Support

- October 2003 – Georgia received \$34.6 million from the National Science Foundation (NSF) to implement a 5-year comprehensive Mathematics Science Partnership (MSP) Grant.
- \$22.9 million in cost share funds will also be used to support PRISM strategies

PRISM Partners

- University System of Georgia
- Georgia Department of Education
- Atlanta- Metro P-16 Council
 - Georgia State University
 - Center for Education Integrating Science, Mathematics and Computing (CEISMC)
 - Atlanta Public School District
- East Central P-16 Council
 - Georgia Southern University
 - Bulloch, Candler, Effingham, Evans, Screven, Toombs, and Vidalia City School Districts
- Northeast Georgia P-16 Council
 - University of Georgia
 - Georgia Perimeter College
 - Clarke, Jackson, and Oconee School Districts
- Southeast P-16 Council
 - Armstrong Atlantic State University
 - Coastal Georgia Community College
 - Bryan, Camden, Chatham, and Glynn School Districts

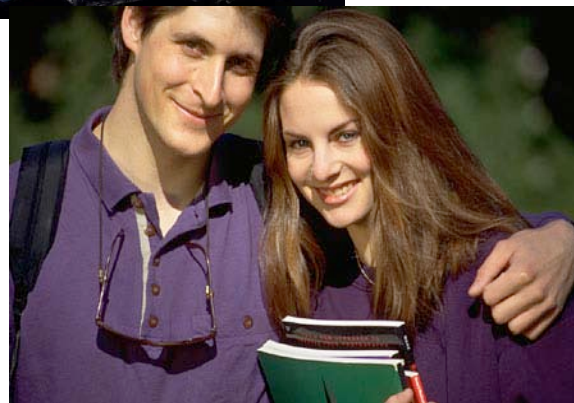
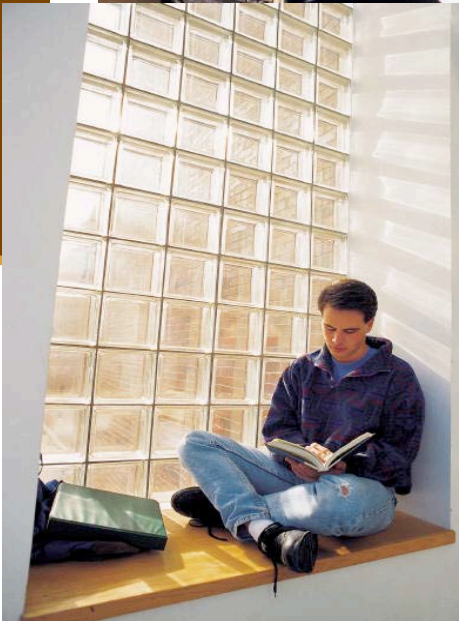
PRISM Leadership

- Principal Investigator – Jan Kettlewell
 - Jan.Kettlewell@usg.edu
- Project Director – Sheila Jones
 - Sheila.Jones@usg.edu
- Associate Project Director – Dorothy Zinsmeister
 - Dorothy.Zinsmeister@usg.edu
- Regional Co-PIs
 - Mike Padilla – mpadilla@coe.uga.edu
 - Dan Hagan – dhagan@georgiasouthern.edu
 - Sabrina Hessinger – hessina@mail.armstrong.edu
 - Cookie Hanna – nhanna@gsu.edu
- Regional P-12 Coordinators
 - Dava Coleman – colemamd@clarke.k12.ga.us
 - Penny Sikes – pennysikes@georgiasouthern.edu
 - Southeast -
 - Adrian Epps – aepps@atlanta.k12.ga.us

The Target



**170,172 P-12 Students
in Urban, Suburban, and Rural
Public Schools in Georgia**



PRISM Strategies

Higher expectations for science and mathematics curricula in schools

- Work with the Georgia Department of Education to create new standards and curricula in science and mathematics (PRISM Strategy 8 – state level)
- Conduct a public awareness campaign to ensure everyone understands the importance of taking challenging science and mathematics courses (PRISM Strategy 9 – state level)

PRISM Strategies cont.

Strengthening Teacher Quality

- Offer P-5 Endorsement science and mathematics courses for current teachers and continue to offer middle grades certification courses (PRISM Strategy 2 – state and regional)
- Provide high quality professional development to P-12 teachers in science and mathematics (PRISM Strategy 1 – regional)
- Implement P-16 Learning Communities focusing on science and mathematics (PRISM Strategy 3 – regional and state)

PRISM Strategies cont.

Strengthening Teacher Quality

- Implement the Institute on the Teaching and Learning of Science and Mathematics for higher education faculty (PRISM Strategy 4 – state)
- Add a science concentration requirement for P-5 pre-service teachers (PRISM Strategy 5 – state)
- Implement strategies to recruit science and mathematics teachers (PRISM Strategy 7 – Northeast and Atlanta-Metro)
- Initiate new policies that provide incentives and improved working conditions for teaching science and mathematics (PRISM Strategy 6 – State)

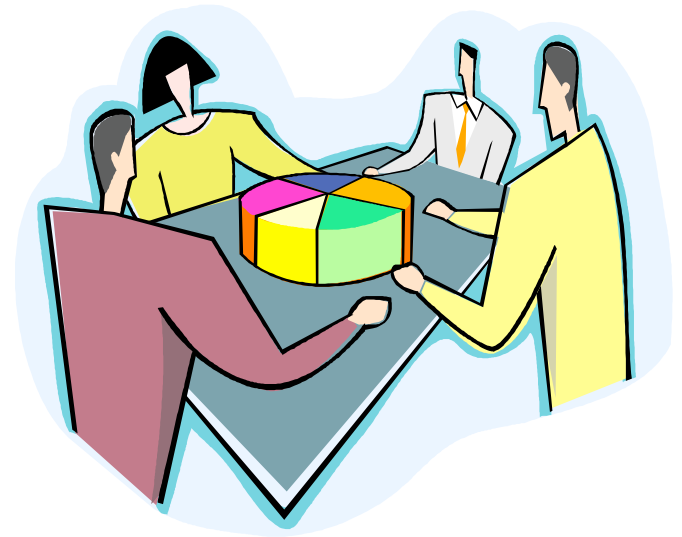
PRISM Strategies cont.

Increasing Responsiveness of Higher Education

- Develop and implement a rewards structure in universities and colleges to encourage faculty members to sustain involvement in improving science and mathematics teaching and learning in P-12 schools. (PRISM Strategy 10 – state)

Management Plan

- State Level Leadership Team
- Regional Coordinating Committee
- Lead Teacher Advisory Council



Role of the Lead Teacher

- Leadership
 - Assist in the development of the school improvement plan when appropriate
 - Organize and facilitate school-based science and mathematics study groups/learning communities
 - Collaborate and network with other PRISM lead teachers through the Teacher Advisory Council

Role of the Lead Teacher

- Professional Learning
 - Coordinate and facilitate teacher-managed professional learning
- Communication
 - Share professional learning plans and reports with school, district, and PRISM staff
 - Be an advocate for PRISM activities and strategies
- Evaluation
 - Serve as a contact between PRISM evaluators and PRISM teachers

Questions ??



The Leader

I wanna be the leader.

I wanna be the leader.

Can I be the leader?

Can I? Can I?

Promise? Promise?

Yippee, I'm the leader.

I'm the leader.

Okay, What shall we do?

- "Sky in the Pie", Penguin Publications

Seasonal partners

- On your table you will find a seasonal partners page.
- Take 5 minutes to make “appointments” with 4 partners.
- Write your name on your partner’s page.



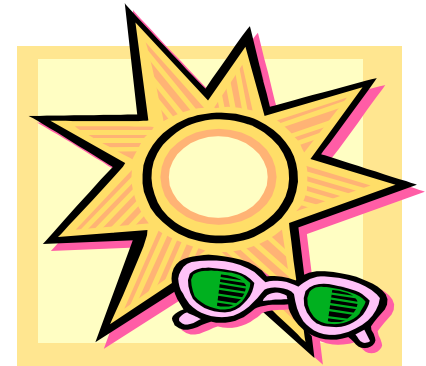
Reflection on Personal Best as a Leader

- What was the situation?
- What did you do that contributed to this being a personal best?
- What were the beliefs about leadership that guided you?



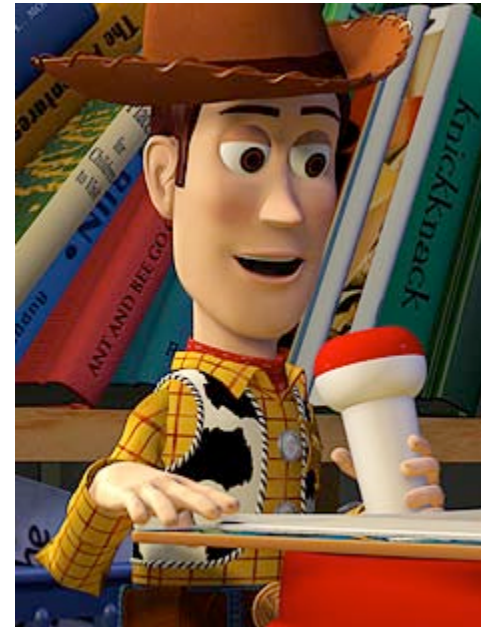
Sharing your Personal Best

- Find your summer partner
- Take 2-3 minutes each to share your stories
- Return to your tables and identify any leadership practices suggested by your experiences



Let's Watch Woody

Identify examples of Woody's leadership characteristics and/or strategies in this first clip from "A Toy Story".



Meet with your spring partner

You have 3 minutes to do the following:

1. Find your spring partner.
2. Compare notes on examples of Woody's style.



What do you see this time?

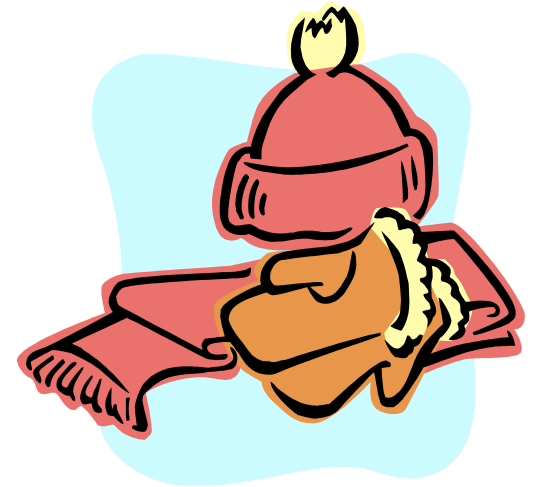
Identify examples of Woody's leadership characteristics and/or strategies in this second clip from "A Toy Story".



Meet with your winter partner

You have 3 minutes to do the following:

1. Find your winter partner.
2. Compare notes on examples of Woody's style from the second clip.



Two types of leadership

- Transactional: administers and controls systems by letting followers know what is expected.
- Transformational: develops systems by focusing on the needs of followers

Transactional

Transformational

Identifying Leadership Style

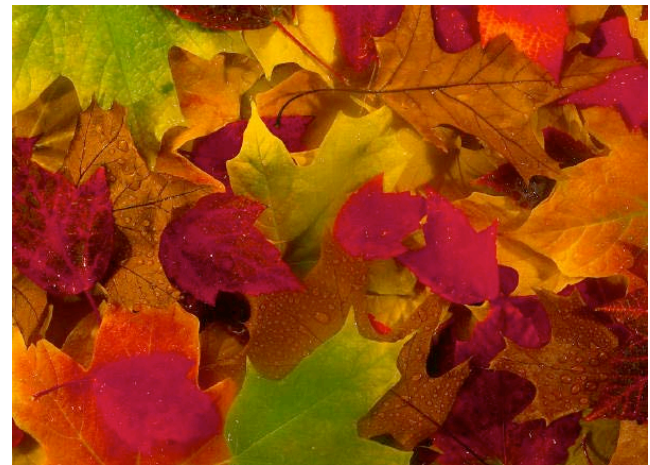
1. What leadership style is Sister Mary Clarence using?
2. Write down the examples of leadership tasks she implemented during this clip.



Meet with your fall partner

You have 3 minutes to do the following:

1. Find your fall partner.
2. Compare notes on Sister Mary Clarence's leadership tasks.



Behavior Differences

Transactional

- Clarify goals and objectives to obtain immediate results
- Solve problems
- Create structures and processes for control
- Maintain and improve the current situation
- Plan, organize and control
- Guard and defend the culture
- Power comes from position and authority in the organization

Transformational

- Establish long-term vision
- Create a climate of trust
- Empower people to control themselves; manage problem-solving
- Change the current situation
- Coach and develop people
- Challenge and change the culture
- Power comes from influencing a network of relationships

Paradoxes of Leadership

- Thinking abstractly
- Having direction
- Initiating change
- Encouraging innovation
- Fulfilling a national agenda
- Achieving goals
- Acting concretely
- Retaining flexibility
- Maintaining continuity
- Sustaining tradition
- Incorporating local mandates
- Enduring criticism

Pursuing 3 Goals

Transformational Leaders strive to:

1. Help staff develop and maintain a collaborative, professional school culture.
2. Foster teacher development.
3. Help teachers solve problems more effectively.

Leadership Practices



- Challenging the Process
- Inspiring a Shared Vision
- Enabling Others to Act
- Modeling the Way
- Encouraging the Heart

Challenging the Process

- Effective leaders search for opportunities to change the status quo because they believe that the status quo breeds mediocrity.
- Effective leaders take risks and see mistakes as opportunities for learning and growth.



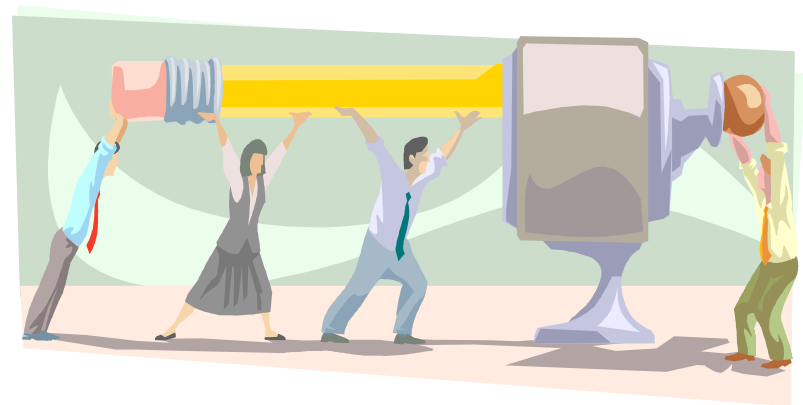
Inspiring a Shared Vision

- This practice is about envisioning the future and enlisting others in a common vision.
- Leaders create enthusiasm and commitment among followers to embrace the common vision by appealing to their personal visions, values, interests, hopes, and dreams.
- Leaders have a passion for their work.



Enabling Others to Act

- This practice is about fostering collaboration and strengthening people.
- Leaders know that they cannot do it alone. They build teams and a culture of collaboration.



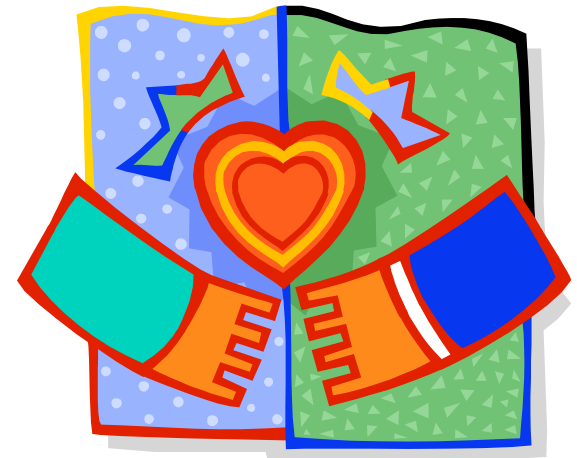
Modeling the Way

- Leaders set goals that enable followers to experience small wins as they work toward larger goals.
- They are conscious of possible roadblocks and take steps to remove them.



Encouraging the Heart

- This practice is about recognizing contributions and celebrating accomplishments.



Personal Inventory

Consider the five leadership practices:

- What are your strengths?
- What areas would you like to strengthen?

Looking Across Frameworks

| Kouzes & Posner | Leading Every Day |
|--------------------------------|---|
| Encouraging the Heart | Reflections on pages: 89, 103 |
| Challenging the Process | Reflections on pages: 73, 213, 221 |
| Inspiring Shared Vision | Reflections on pages: 8, 34, 99 |
| Enabling Others to Act | Reflections on pages: 52, 111, 180, 248, 262 |
| Modeling the Way | Reflections on pages: 48, 87, 95, 113, 145, 196, 255 |

Leadership Growth is Key to Improving Schools

- Develop staff to become **skillful leaders**
- Develop a culture of inquiry, including a continuous cycle of **reflecting, questioning, gathering evidence, and planning for improvement**
- Assess the capacity for leadership: **Do you have a shared purpose? Work collaboratively? Is the focus on student achievement and adult learning?**

Reflection and Goal Setting

- Using your Learning Goals Plan, reflect on what you learned today, what your personal goals for growth are, how you will apply your learning to your role as a leader, and how you will share your learning with others back home.
- Complete your self-assessment
- Meet with the others from your region to share ideas

What can we learn about leadership from geese?

As each bird flaps its wings, it creates uplift for the following bird.

By flying in a “V” formation, the whole flock adds 71% greater flying range than if the birds flew alone.

LESSON:

People who share a common direction and sense of community can get where they are going quicker and easier because they are traveling on the thrust of one another.

What can we learn about leadership from geese?

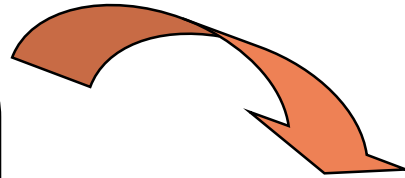
Whenever a goose falls out of formation, it suddenly feels the drag and added resistance of trying to fly alone, and quickly gets back into formation to take advantage of the lifting power of the bird immediately in front.

LESSON:

If we have as much sense as a goose, we will stay in formation with those who are headed where we want to go, and we will be willing to accept their help as well as give ours to others.

What can we learn about leadership from geese?

When the lead goose gets tired, it rotates back into formation and another goose flies at the point position.



LESSON:

It pays to take turns doing the hard tasks and sharing leadership. With people as well as geese, we are interdependent on each other.

What can we learn about leadership from geese?

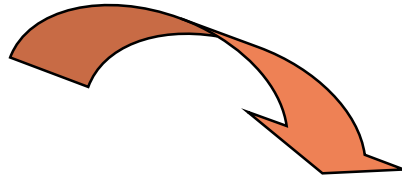
When a goose gets sick or wounded, or it is shot down, two geese drop out of formation and follow it down to help protect it. They stay with it until it is able to fly again or dies. Then they launch out on their own with another formation or catch up with their flock.

LESSON:

If we have as much sense as geese, we, too, will stand by each other in difficult times, as well as when we are strong.

What can we learn about leadership from geese?

The geese in formation honk from behind to encourage those in front to keep up their speed.



LESSON:

Make sure your honking from behind is encouraging.



Leaders



- **Take appropriate action**
- **Create community and a common direction**
- **Enable others to collaborate and lead**
- **Encourage the heart**