Using Rewards within School-wide PBIS

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Slides available at www.pbis.org

Purposes

- Define the challenge faced in many schools
- Share research foundation
- Provide examples of reward use at all grade levels

- Handout: "Rewards"

Rewards

- A reward is a "presumed positive event/activity/object"

- Contrast with "reinforcer" which is change in behavior as a result of contingent delivery of a consequence.
  - For "positive reinforcement" the event "is" positive
  - For "reward" the event is presumed to be positive.

Main Messages

- Rewards are a core feature of building a positive school culture.
- Rewards make a difference
  - Initial behavior change
  - Sustained behavior change (Doolittle, 2006)
- Rewards can be used badly
  - But they do NOT inhibit intrinsic motivation
- Rewards can be used effectively in all school contexts.
- Rewards should not be considered only for students.

The Challenge

- **"In our school the use of rewards is seen by several faculty members as:"**
  - Expensive
  - Time consuming/ effortful
  - Unnecessary
  - Inappropriate

- **"Rewards are fine for elementary school but are ineffective and inappropriate in high school."**

The Challenge

- The use of rewards will damage "intrinsic motivation" and actually result in reduction of desired behaviors.

- "…although rewards can control people's behavior …the primary negative effect of rewards is that they tend to forestall self-regulation."

  - Deci et al., 1999 p. 659

National Education Association, 1991

- "The expectation of reward can actually undermine intrinsic motivation and creativity of performance...A wide variety of rewards have now been tested, and everything from good-player awards to marshmallows produces the expected decrements in intrinsic motivation and creative performance...
  - Tegano et al., 1991   p. 119

What is the empirical foundation?

- Harlow, Harlow & Meyer (1950)
  - Rhesus monkeys
    - Would solve problems (puzzles) without obtaining rewards (no food, water, etc).
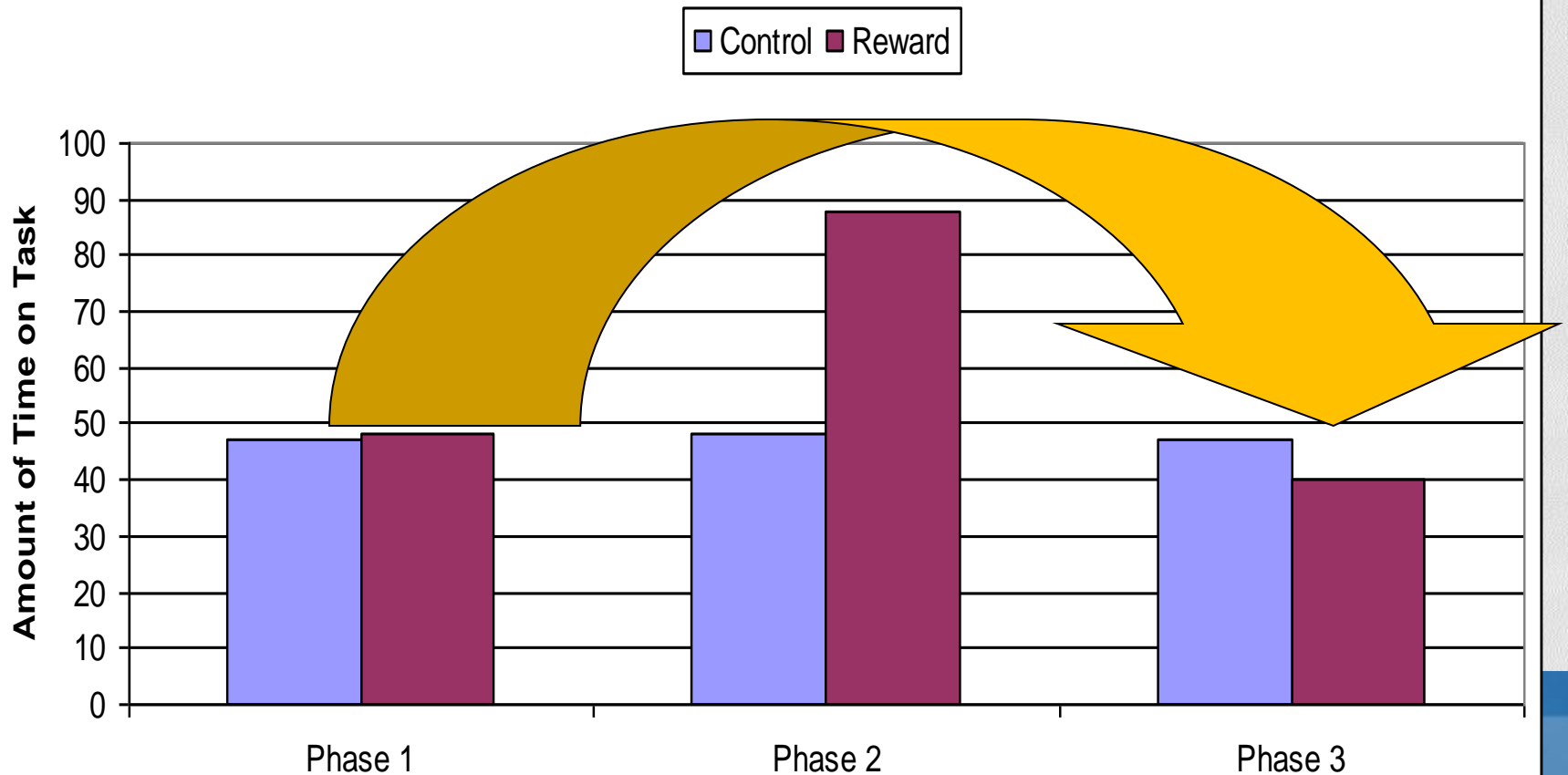   - Presumption was that problem solving was "intrinsically motivated"

Deci et al., 1971 (three studies)

- College Students (doing puzzles, writing newspaper "headlines")

- Phase 1:   Observe time spent on task
- Phase 2:   **Reward** half the group for working
- Phase 3:   Observe time on task (no rewards)

Research Simulation

Simulation of Intrinsic Reward Studies

Since 1970

<u>Conceptual Debate</u>

- Definitions of "intrinsic motivation"
  - "Behavior controlled by unprogrammed consequences" (Mawhinney et al., 1989)
- Four different conceptual models
  - Overjustification
  - Cognitive Evaluation
  - Mind-body dualism
  - Hedonistic definition

<u>Over 100 Empirical Studies</u>

- Reiss & Sushinsky (1975; 1976)
- Cameron & Pierce, 1994
- Deci, Koestner & Ryan, 1999
- Cameron, Banko & Pierce, 2001
- -------------------------------
- Lepper, Keavney, & Drake, 1996
- Akin-Little, Eckert, Lovett & Little, 2004
- Reiss, 2005

What do we know?

- Be clear about what you define as a "reward"

- **We can use rewards badly**
    - If rewards are delivered ambiguously
    - If what we deliver is not a "reward" from the learner's perspective.
        - **(Reward as Punisher)**
    - If partial rewards are delivered when full reward is expected
        - (**Reward as Punisher**)
    - Reward contingencies create physiological pressure
        - (**Reward as Punisher**)
    - If large rewards are delivered **briefly** and then withdrawn completely

What do we know?

- Rewards are effective when used:
  - To build new skills or sustain desired skills, with
  - contingent delivery of rewards for specific behavior, and
  - gradually faded over time.
    - Akin-Little, Eckert, Lovett, Little, 2004

- **"In terms of the overall effects of reward, our meta-analysis indicates no evidence for detrimental effects of reward on measures of intrinsic motivation."**
    - Cameron, Banko & Pierce, 2001 p.21

What do we know?

- "For high-interest tasks, **verbal rewards** are found to increase free choice and task interest. This finding replicates"

  - Cameron and Pierce, 1994; Deci et al., 1999).

- "When tasks … are of low initial interest, rewards increase free-choice, and intrinsic motivation…"

  - Cameron, Banko & Pierce, 2001   p.21

What do we know?

- …programs that show increased intrinsic motivation are those programs that incorporate the elements of good, comprehensive behavioral intervention:
  - Relatively immediate reinforcement
  - Generalization strategies
  - Individualized Intervention

- **"The implication is that any blanket rejection of programmed reinforcement … is entirely unwarranted."**
  - Akin-Little, Eckert, Lovett, Little, 2004   p. 358

What do we know?

- Our findings indicate that negative effects of reward do not persist over time when task performance is rewarded on repeated occasions.
  - Davidson & Bucher, 1978
  - Feingold & Mahoney, 1975
  - Mawhinney, Dickenson & Taylor, 1989
  - Vasta, Andrewss, McLaughlin & Stripe, 1978

Current Research conducted within Educational Contexts

- Vasta, & Stirpe…1979 Behavior Modification

- Feingold & Mahoney, 1975

- Roanne, Fisher & McDonough 2003 JABA

- Flora & Flora 1999.
    - College students ..rewarded in elementary school

- Akin-Little & Little 2004 JBE

Feingold and Mahoney, 1975 Behavior Therapy : Five Second Graders

Baseline 1   Reward   Baseline 2   Baseline 3
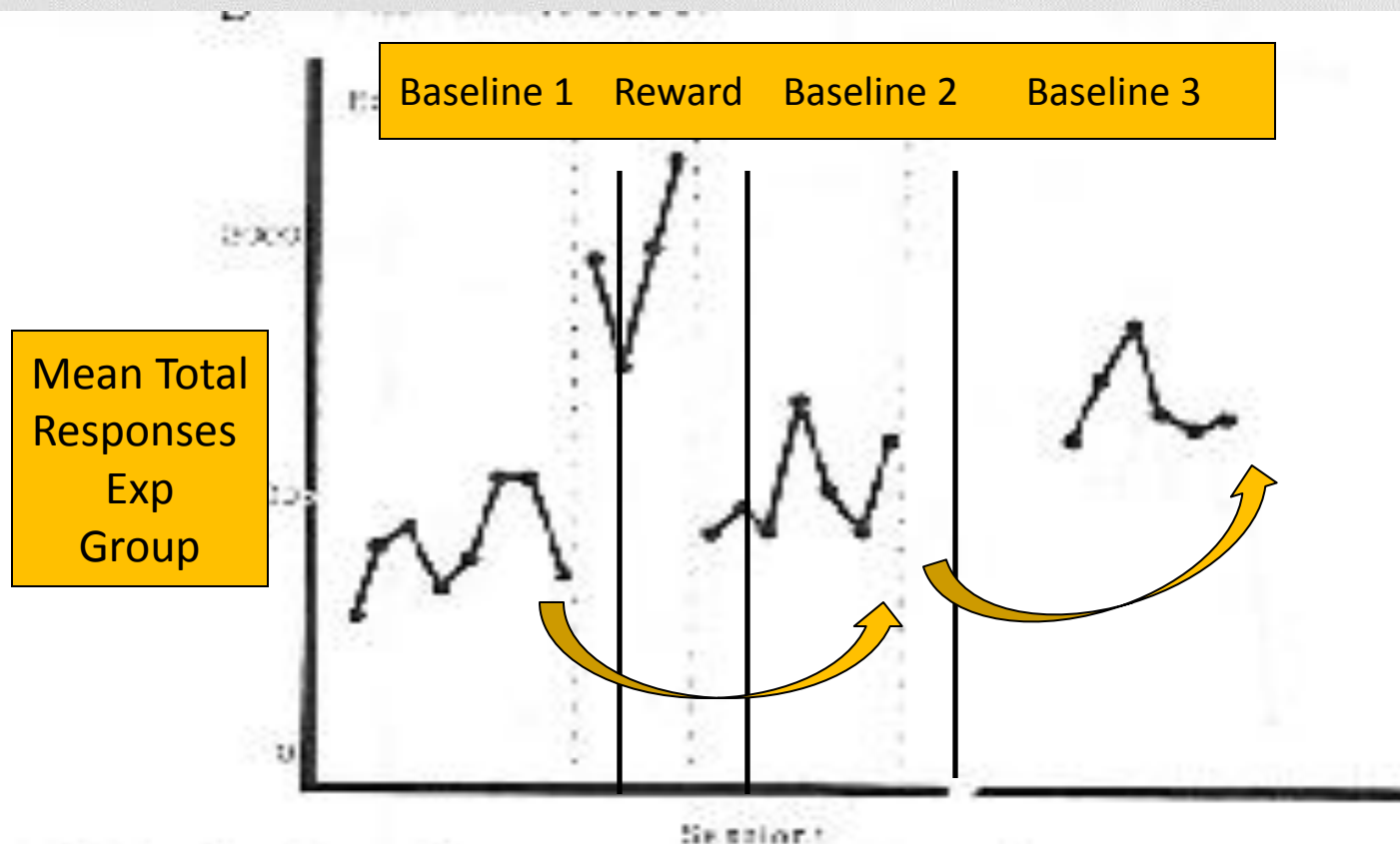
Mean Total Responses Exp Group

FIG. 1. Total number of responses for all subjects in each of the four experimental phases. Data are grouped on the basis of attended sessions. The break on the abscissa indicates the two week experimental hiatus.

Flora and Flora
Psychological Record, 1999

- 171 undergraduates at Youngstown State University

- Did they participate in "Book it" in elementary school (pizza for reading)
  - In 1995-96, 22 million elementary school students participated in "Book it"

- Also asked if parents rewarded reading with money.

- How much do they read, do they enjoy reading, did "book it" or "parent rewards" affect reading? Measure of "intrinsic motivation"

Flora and Flora Results

- Women read more, and women had higher "intrinsic motivation"

- "Neither being reinforced with money or pizza increased or decreased the amount that college students read, nor influenced their intrinsic motivation for reading.

- Answers to direct questions about "Book it" … indicate that when a child is extrinsically reinforced for reading, the child will increase the amount read, enjoyment of reading may increase, and if they do not yet know how to read fluently, the program may help the child learn to read."
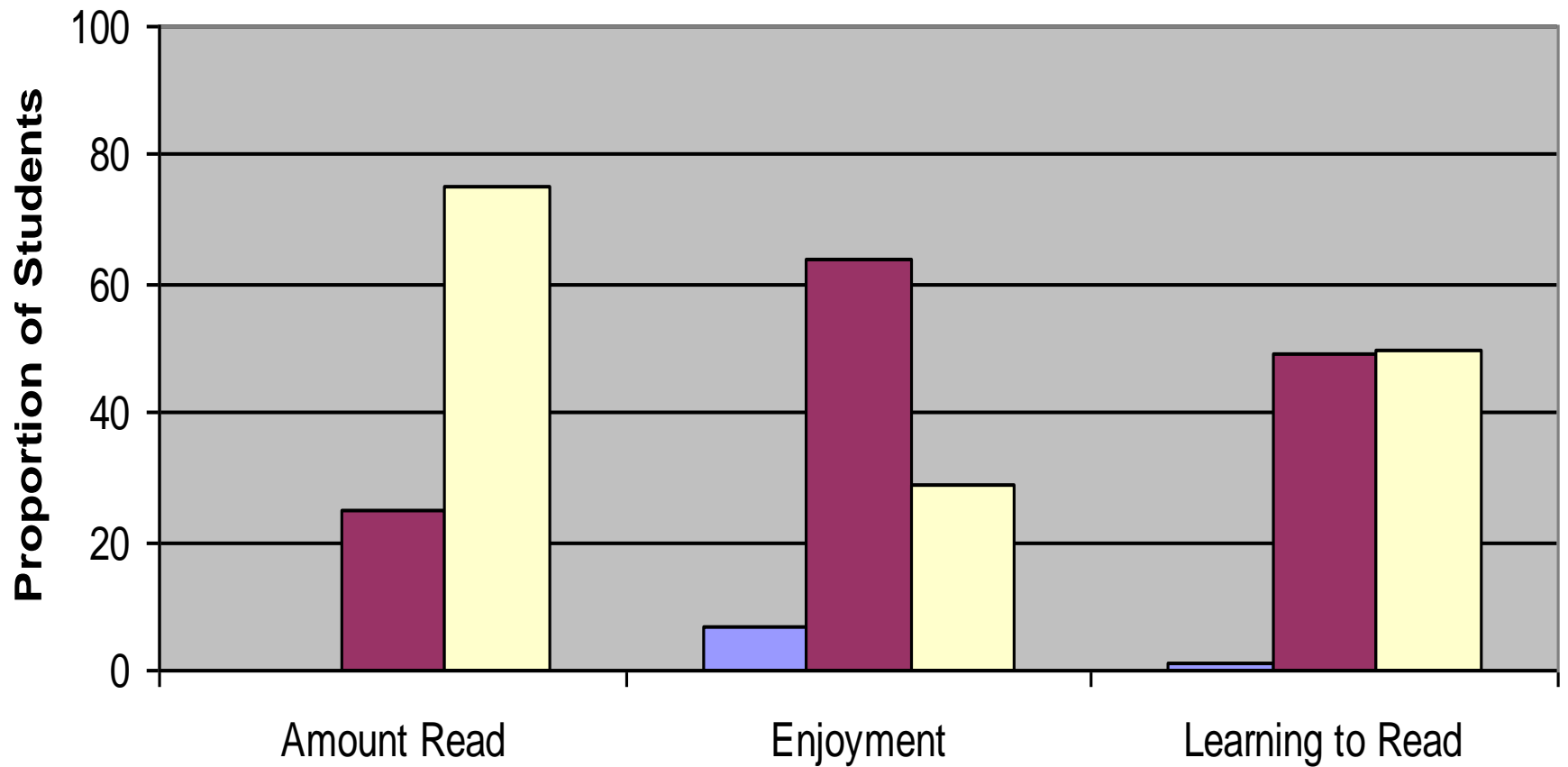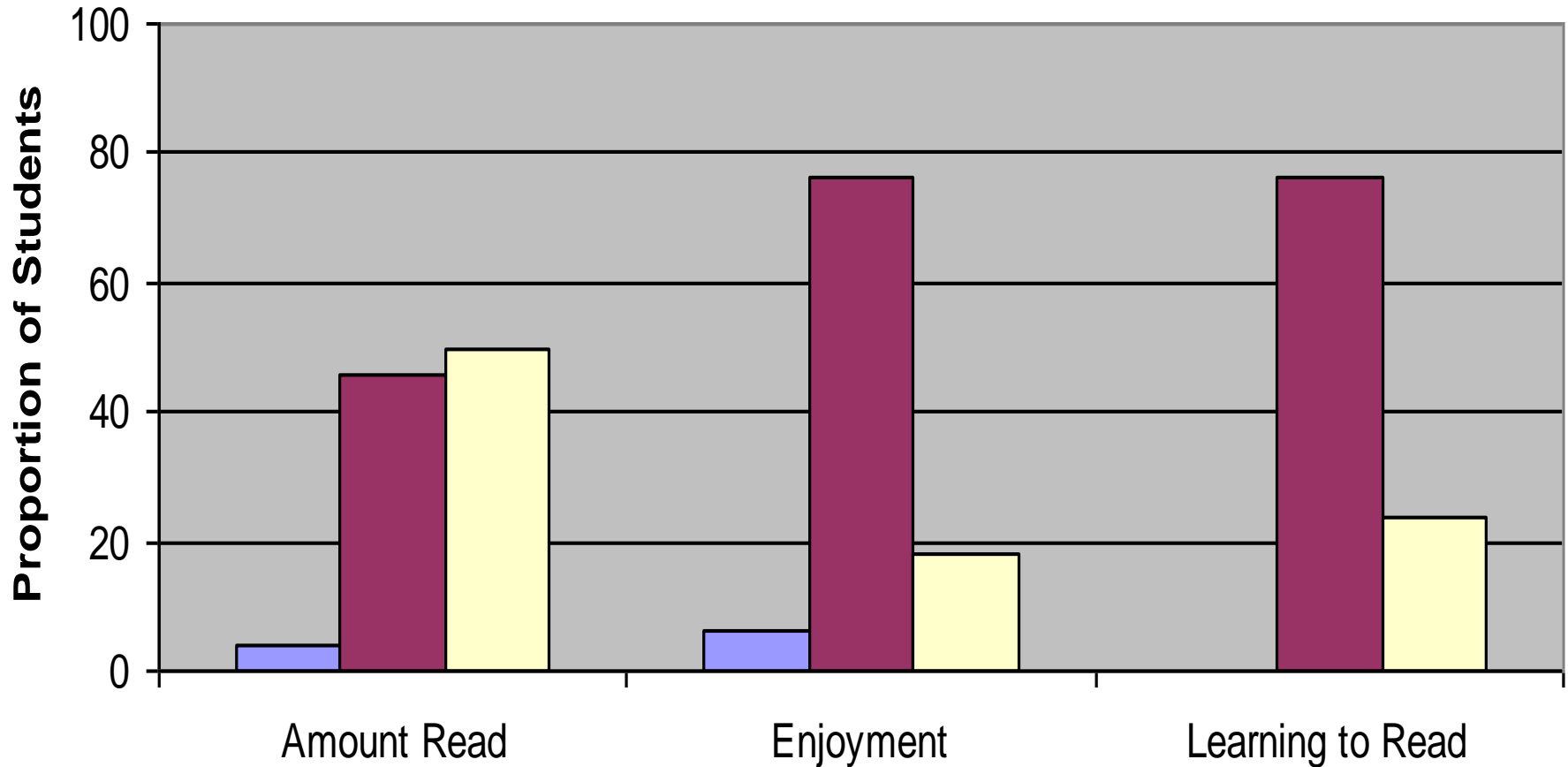 - Flora & Flora 1999 p. 3

Flora & Flora: Effect of "Book it" on Student Reading

N = 107

Legend: ☐ Decrease ☐ No Effect ☐ Increase

Y-axis: Proportion of Students (0 to 100)

X-axis categories: Amount Read, Enjoyment, Learning to Read

Flora & Flora: Effect of "Parent Pay" on Student Reading

N = 51

Legend: □ Decrease ■ No Effect □ Increase

Y-axis: Proportion of Students (0 to 100)

X-axis categories: Amount Read, Enjoyment, Learning to Read

Book It!

Amount Read — Decrease, No Effect (27), Increase (80)

Enjoyment — Decrease (6), No Effect (68), Increase (30)

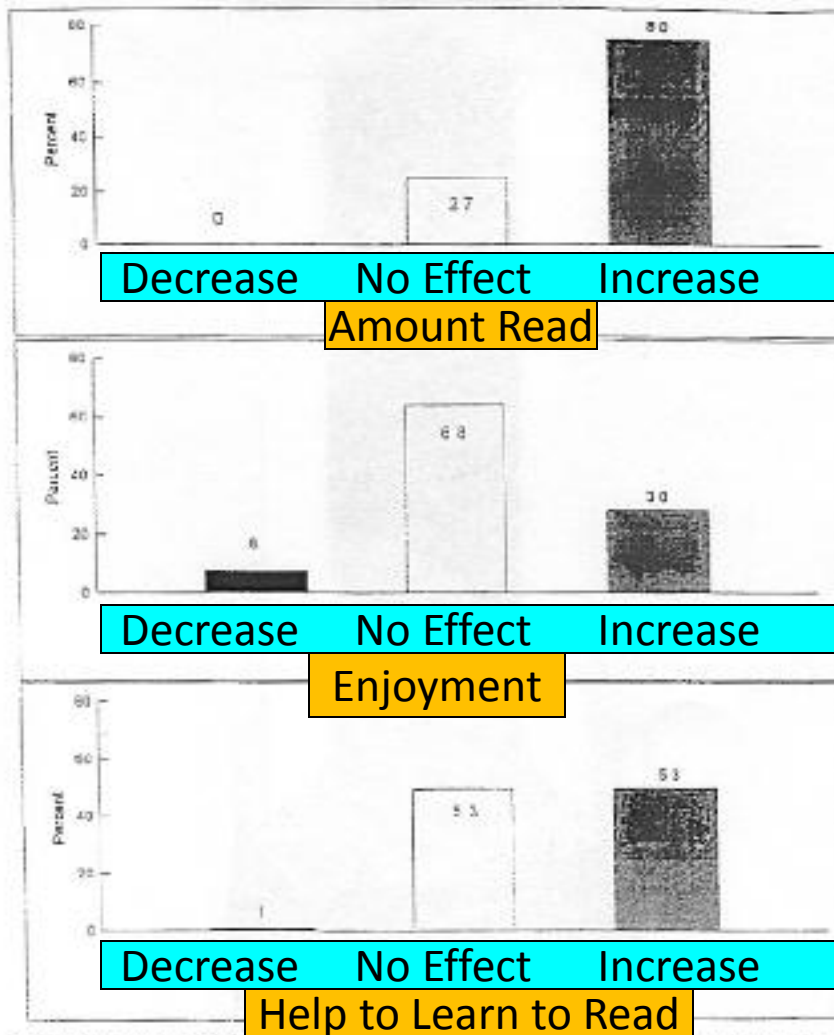Help to Learn to Read — Decrease, No Effect, Increase (53)

Figure 1. Answers to direct questions about effects of participation in Book It! on amount read, enjoyment of reading, and learning to read. Percentage of people choosing each option is presented. The raw number of people selecting each option is printed in or above bars.

Parents Paid

Amount Read — Decrease (2), No Effect (24), Increase (25)

Enjoyment — Decrease, No Effect (39), Increase

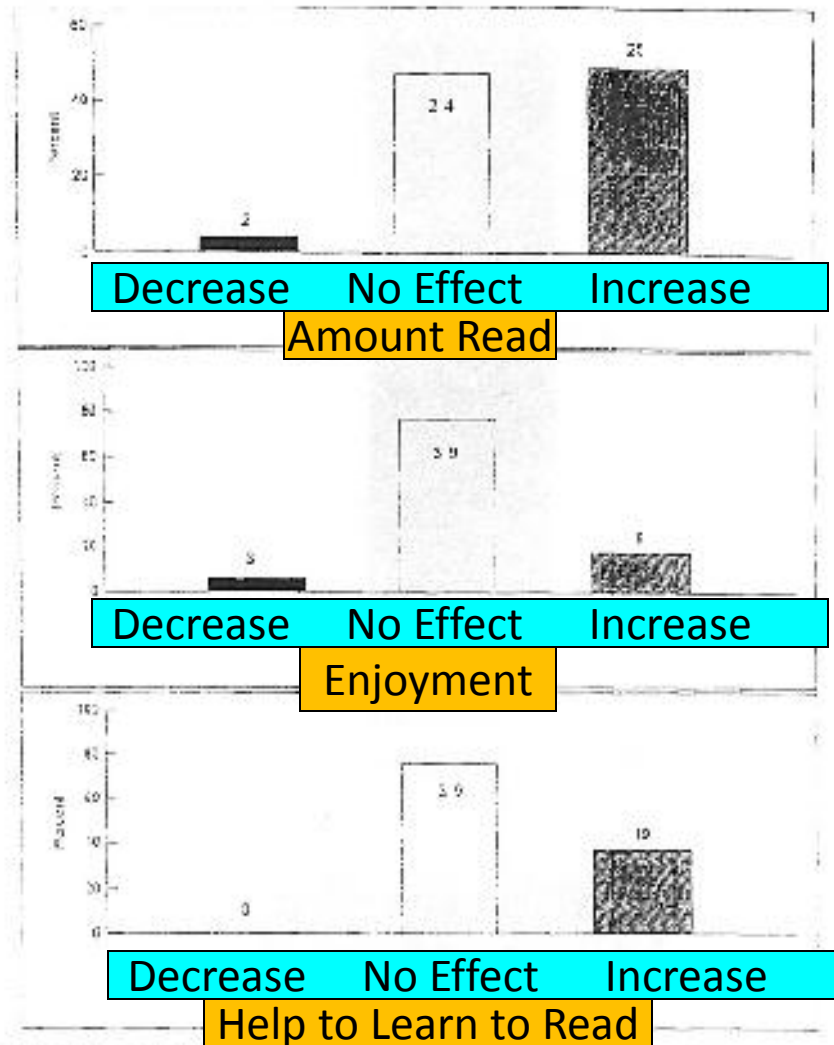Help to Learn to Read — Decrease, No Effect (39), Increase (10)

Figure 2. Answers to direct questions about effects of parental pay for reading on amount read, enjoyment of reading, and learning to read. Percentage of people choosing each option is presented. The raw number of people selecting each option is printed in or above bars.

107 College Students who had been in "Book it"   51 Parents of Students in "Book it"

Flora & Flora 1999

"What the Worlds Greatest Managers Do Differently"
— Buckingham & Coffman 2002, Gallup

Interviews with 1 million workers, 80,000 managers, in 400 companies.

- <u>Create working environments where employees</u>:

  - 1. Know what is expected

  - 2. Have the materials and equipment to do the job correctly

  - 3. Receive recognition each week for good work.

  - 4. Have a supervisor who cares, and pays attention

  - 5. Receive encouragement to contribute and improve

  - 6. Can identify a person at work who is a "best friend."

  - 7. Feel the mission of the organization makes them feel like their jobs are important

  - 8. See the people around them committed to doing a good job

  - 9. Feel like they are learning new things (getting better)

  - 10. Have the opportunity to do their job well.

"What the Worlds Greatest **Administrators** Do Differently"

Interviews with 1 million workers, 80,000 managers, in 400 companies.

- Create working environments where **Faculty**:
  - 1. Know what is expected
  - 2. Have the materials and equipment to do the job correctly
  - 3. Receive recognition each week for good work.
  - 4. Have a supervisor who cares, and pays attention
  - 5. Receive encouragement to contribute and improve
  - 6. Can identify a person at work who is a "best friend."
  - 7. Feel the mission of the organization makes them feel like their jobs are important
  - 8. See the people around them committed to doing a good job
  - 9. Feel like they are learning new things (getting better)
  - 10. Have the opportunity to do their job well.

"What the Worlds Greatest **Teachers** Do Differently"

— Buckingham & Coffman 2002, Gallup

Interviews with 1 million workers, 80,000 managers, in 400 companies.

- Create working environments where **students**:
  - 1. Know what is expected
  - 2. Have the materials and equipment to do the job correctly
  - 3. Receive recognition each week for good work.
  - 4. Have a supervisor who cares, and pays attention
  - 5. Receive encouragement to contribute and improve
  - 6. Can identify a person at work who is a "best friend."
  - 7. Feel the mission of the organization makes them feel like their jobs are important
  - 8. See the people around them committed to doing a good job
  - 9. Feel like they are learning new things (getting better)
  - 10. Have the opportunity to do their job well.

Summary

- Rewards are effective when
    - Tied to specific behaviors
    - Delivered soon after the behavior
    - Age appropriate (actually valued by student)
    - Delivered frequently
    - Gradually faded away
    - Relevant for everyone in the school.
    - Delivered in multiple ways (not just one system)
    - Recognition of ONE student benefits ALL

Activity:

- You are interested in student's being respectful of each other and respectful of adults.

- You are interested in building a learning environment where everyone (faculty, staff and students) receives recognition for courteous and respectful behavior.

- How would you build a system that promotes and encourages being respectful of others?
  - In elementary grades
  - In middle school
  - In high school

Summary

- We place students at great risk by not using rewards.

- The claim that rewards are dangerous is vastly over-stated

- Rewards **can** create reduction in desired behavior, especially when (a) delivered globally, (b) delivered in a manner that creates physiological pressure, or (c) when a lesser level of reward is provided (e.g. punishment).

Action: Rate your school culture
1. Use a student perspective
2. Use a staff perspective

	Low				High
Predictable	1	2	3	4	5
Consistent	1	2	3	4	5
Positive	1	2	3	4	5
Safe	1	2	3	4	5