



An Examination of Students' Perspectives on What Works in Learning Mathematics



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Methods

- Survey**
 - Questionnaire
 - 10 questions about children's perspectives of how they learn mathematics
- Classroom Observation**
 - Observing students' interactions using a checklist during mathematics lessons
- Interview**
 - Asked students' perspectives about how they learn mathematics to triangulate answers from survey questionnaires

Sample

- 10 children
- | Children/Grade Level | 1 | 2 | 3 | TOTAL |
|----------------------|---|---|---|-------|
| Boys | 4 | 0 | 1 | 5 |
| Girls | 0 | 1 | 4 | 5 |
| TOTAL | 4 | 1 | 5 | 10 |
- 8 classrooms (1st through 3rd grade) in a Chicago, IL suburb
- | Classroom/Grade Level | 1 | 2 | 3 | TOTAL |
|-----------------------|---|---|---|-------|
| | 4 | 2 | 2 | 8 |

Data Analysis

- Survey: Descriptive analysis by means of frequency and percentage
- Classroom Observation: Quantitative analysis using percentage
- Interview: Qualitative approach using category and theme

Research Question

- How do students feel about the instructional strategies their teachers provide during mathematics lessons?
- Do students understand mathematic materials being presented to them by their teachers?
- Which teaching strategies work best for young children in learning mathematics?

Purpose

The purpose of the study is to examine students' perspectives on which instructional strategies teachers use are effective in learning mathematics.

Abstract

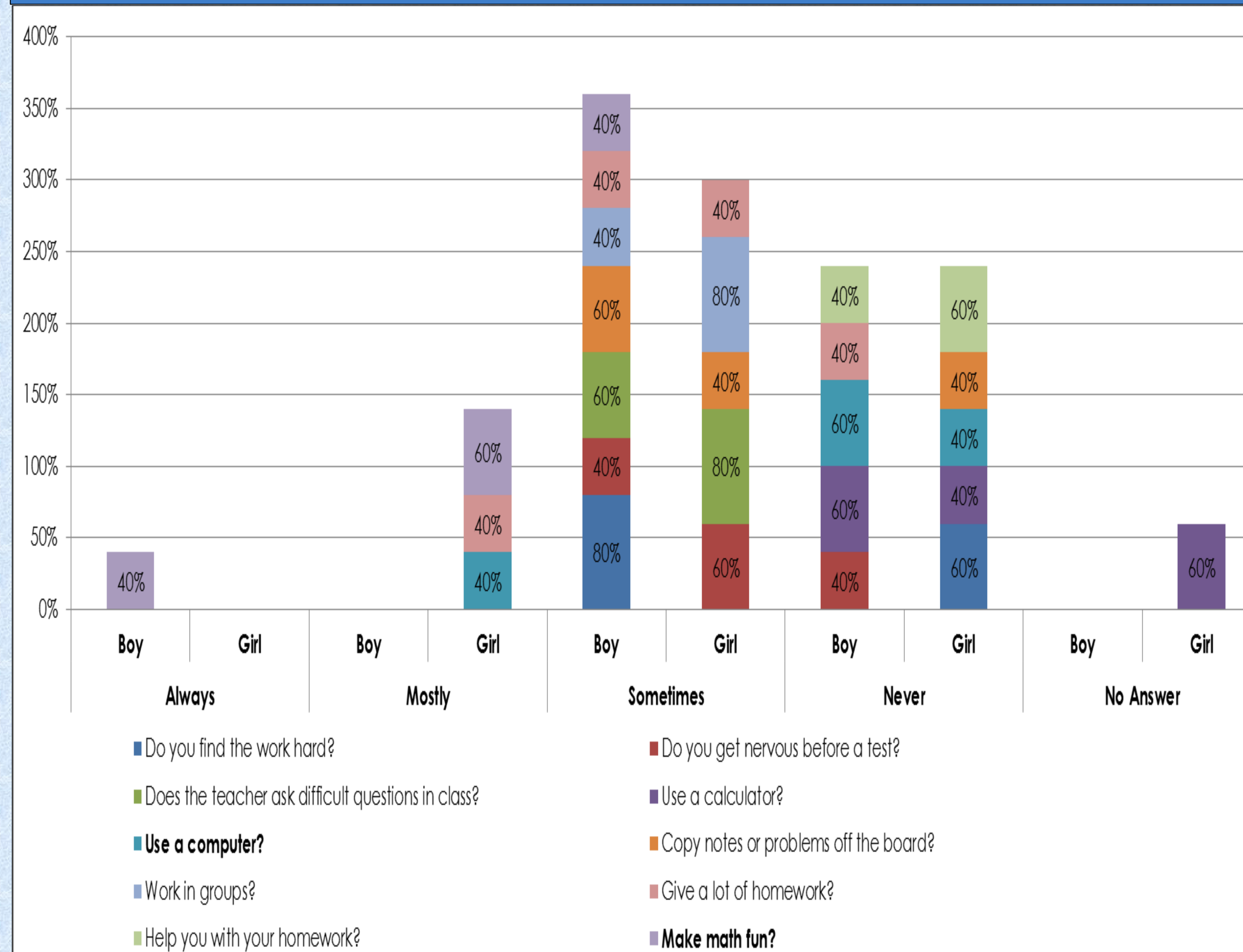
This study investigated young students' perspectives on what strategies work well in learning mathematics. Using a mixed-methods approach, the researchers administered a quantitative survey, completed classroom observations, and conducted interviews to triangulate their data.

The study revealed that individual seat work and manipulatives were the most-used instructional strategy, while calculators and computers were the least-used. Students reported sometimes finding the work difficult.

Classroom Observation Results

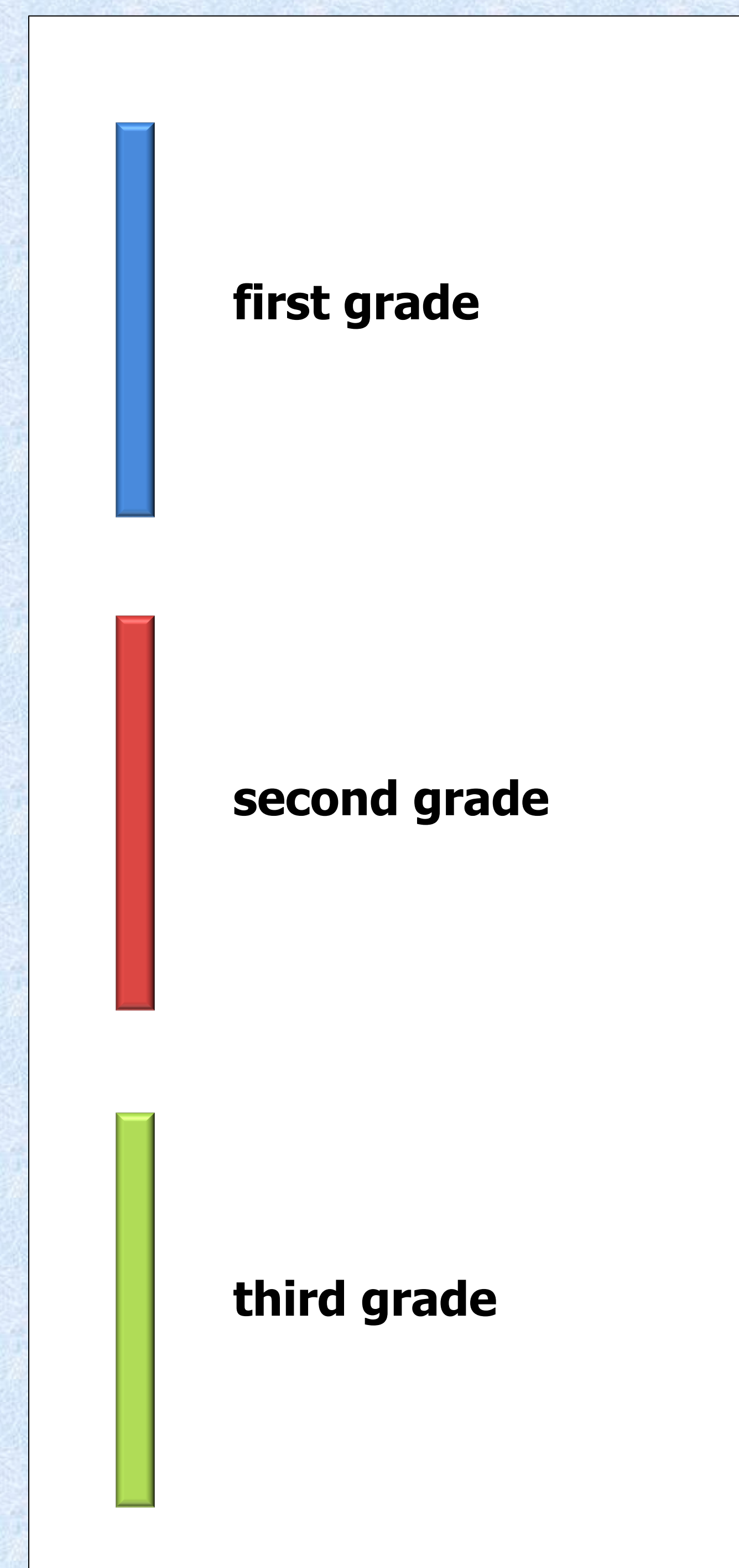
Teaching Strategies Used Most by Classroom Teachers	Percentage
Group work/project	37.50%
Worksheets	62.50%
Smart board	50%
Calculator	12.50%
Computer	12.50%
Math software	25%
Small group games	25%
Question and answer	62.50%
Student come up to the board to explain/answer	25%
Manipulatives	75%
Lecture	37.50%
Homework	12.50%
Individual seat work	75%
Other (planner, song)	25%

Gender Perspectives

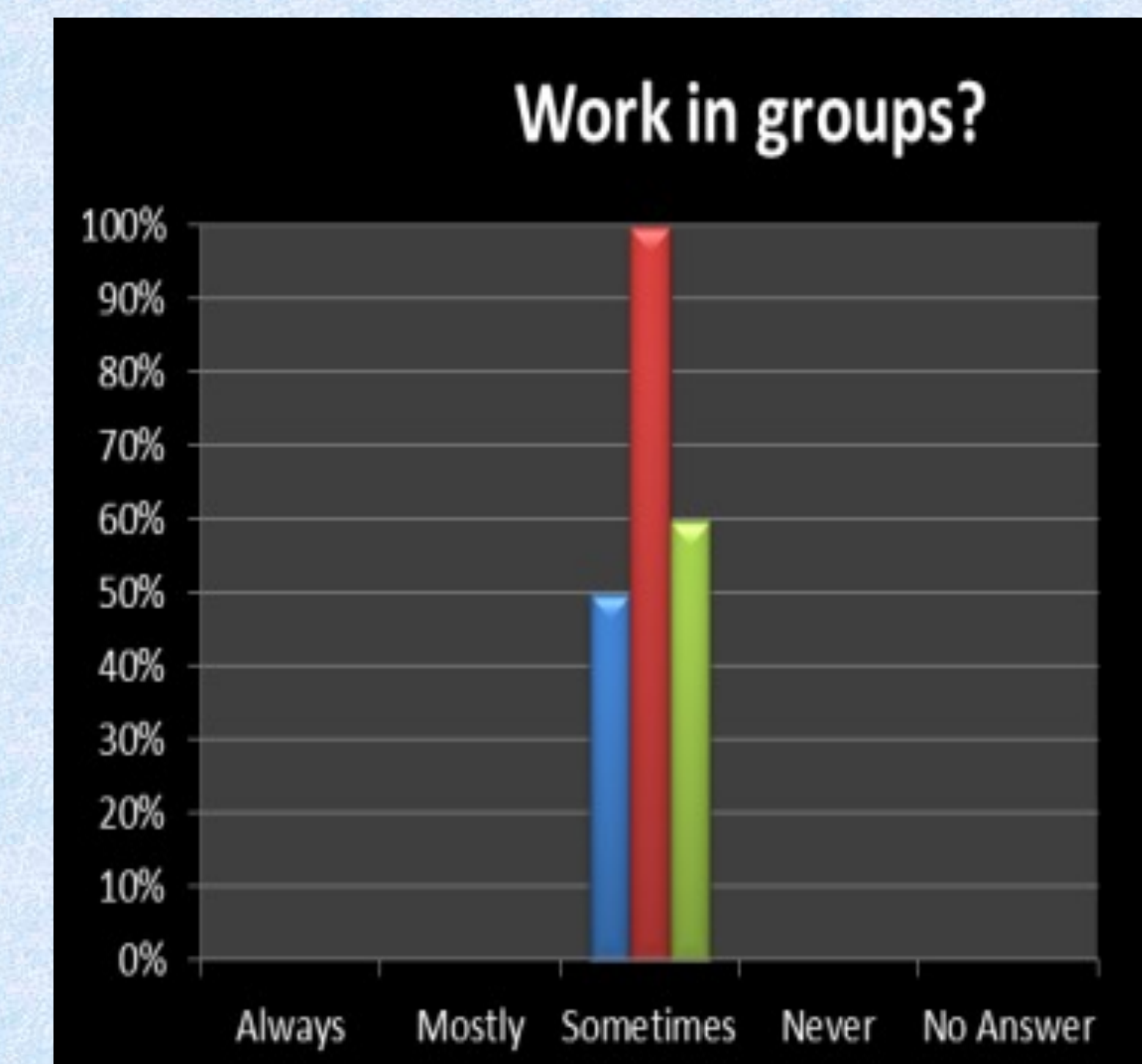
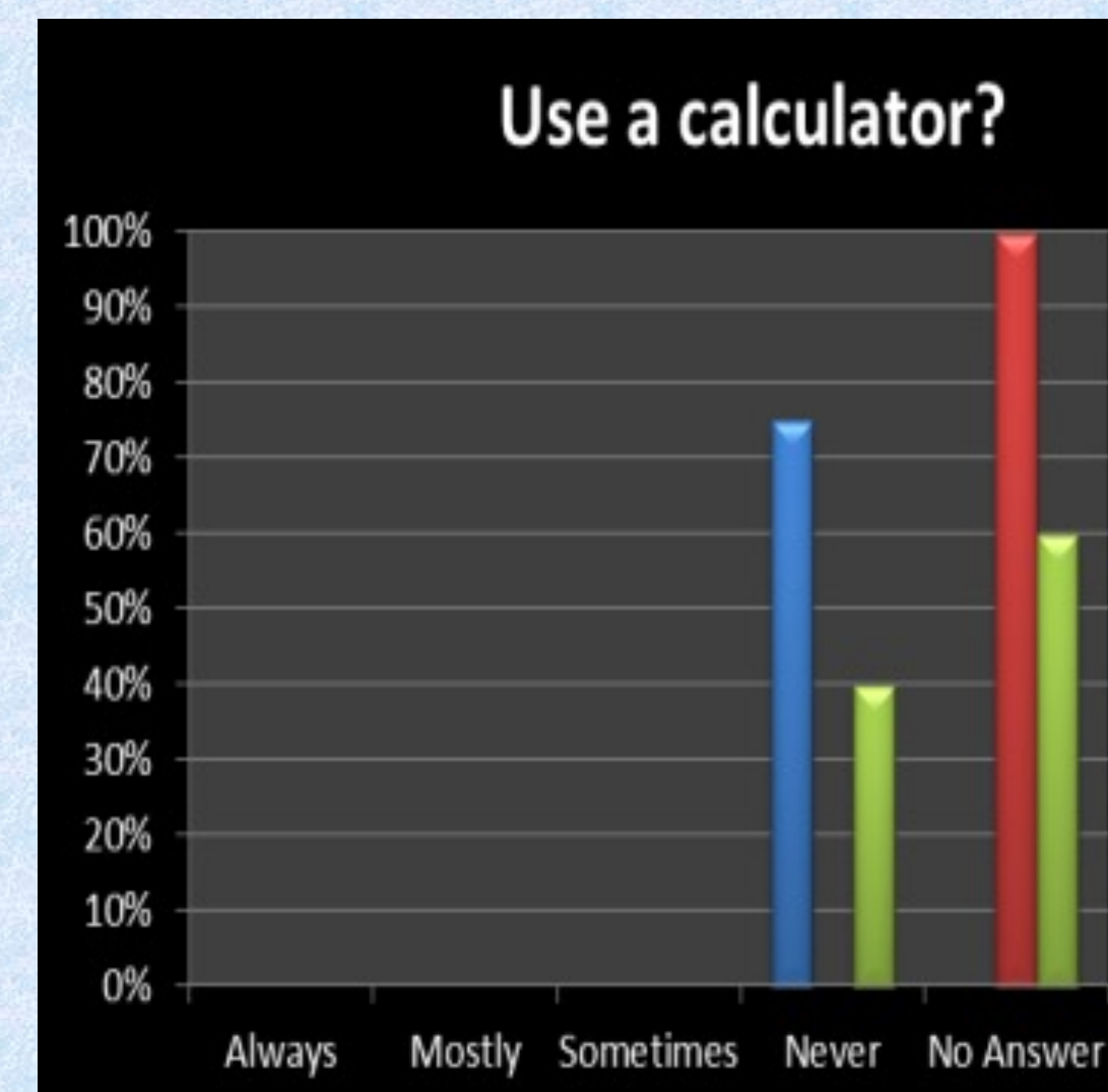
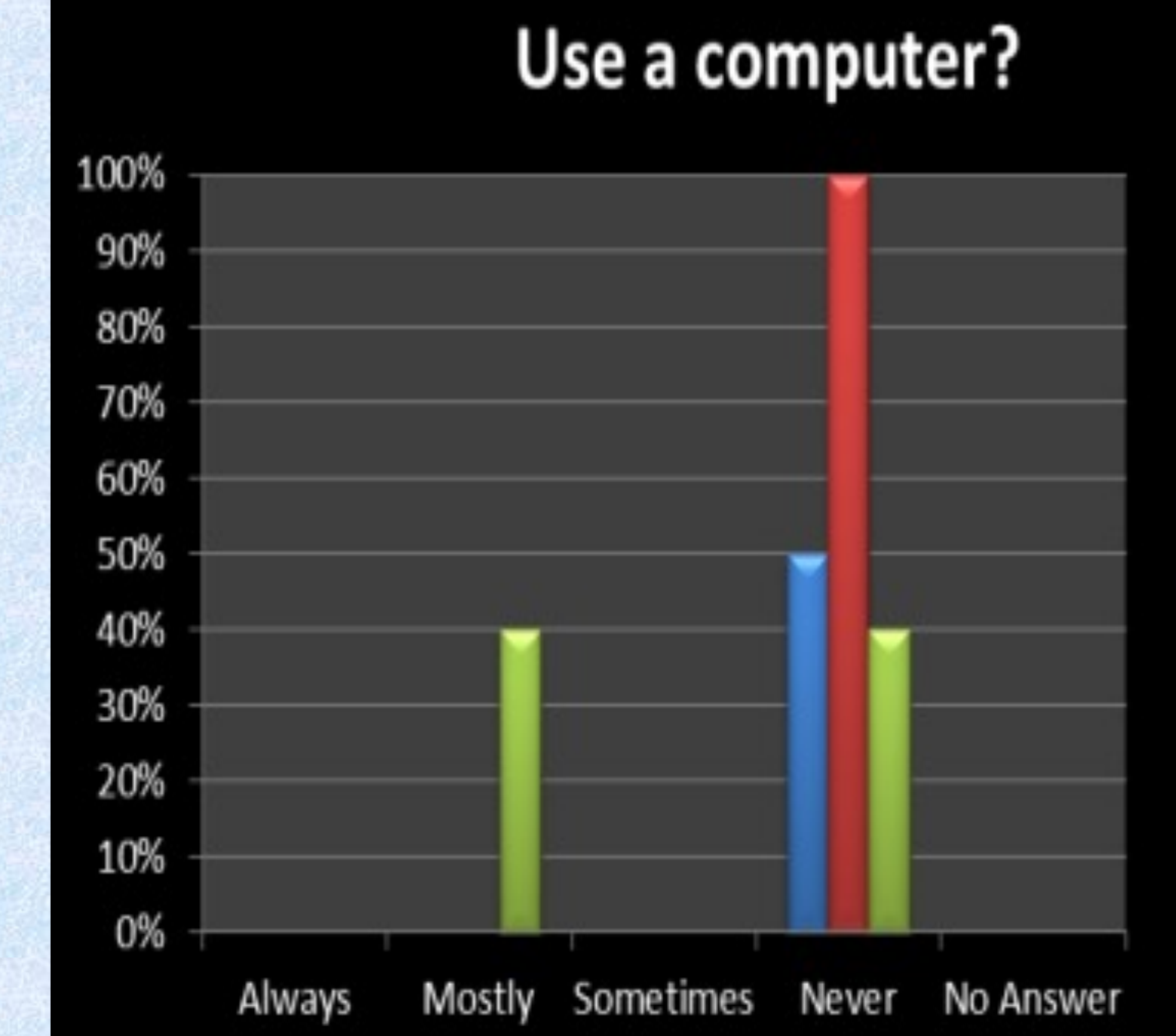
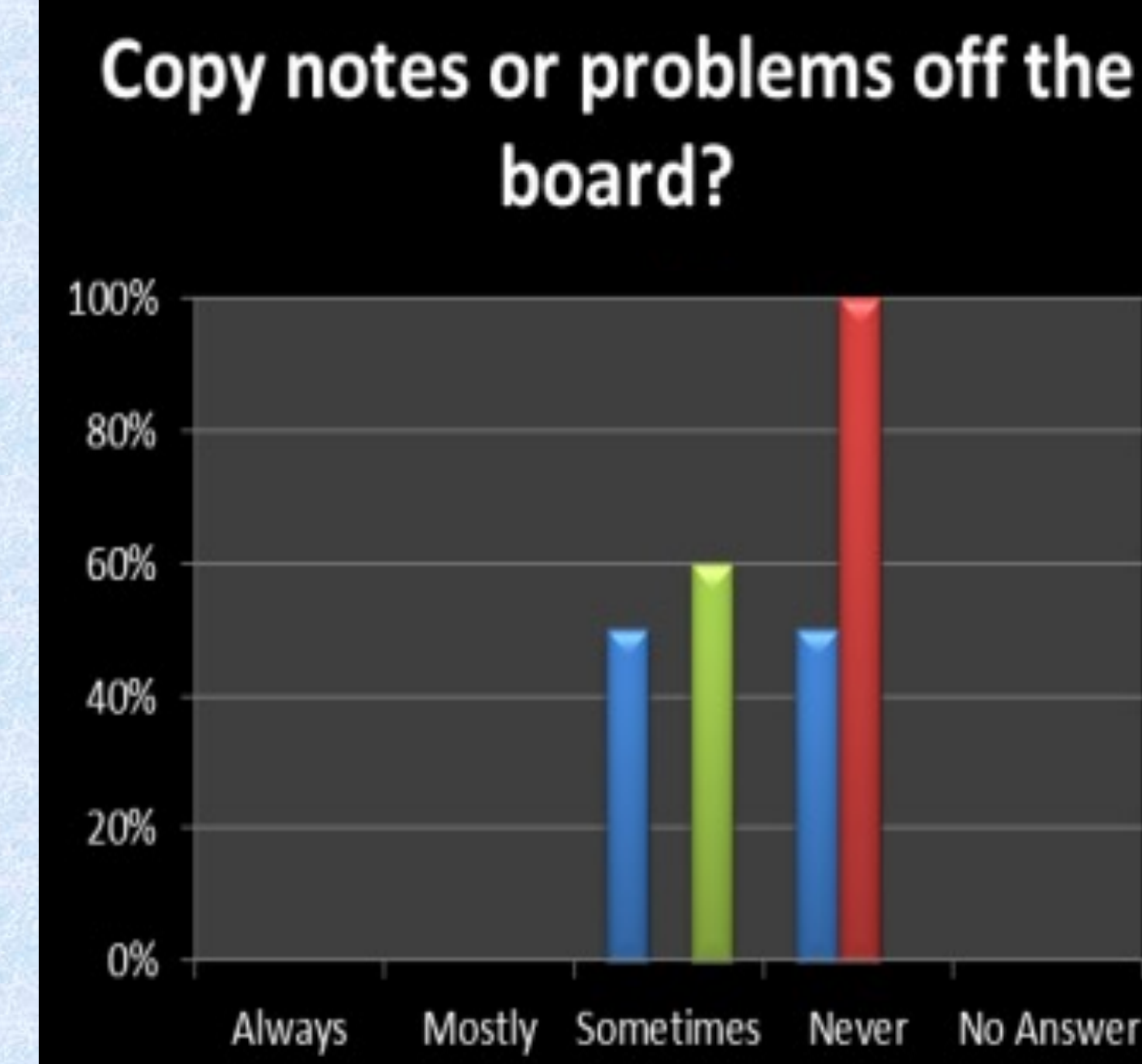


Survey Results

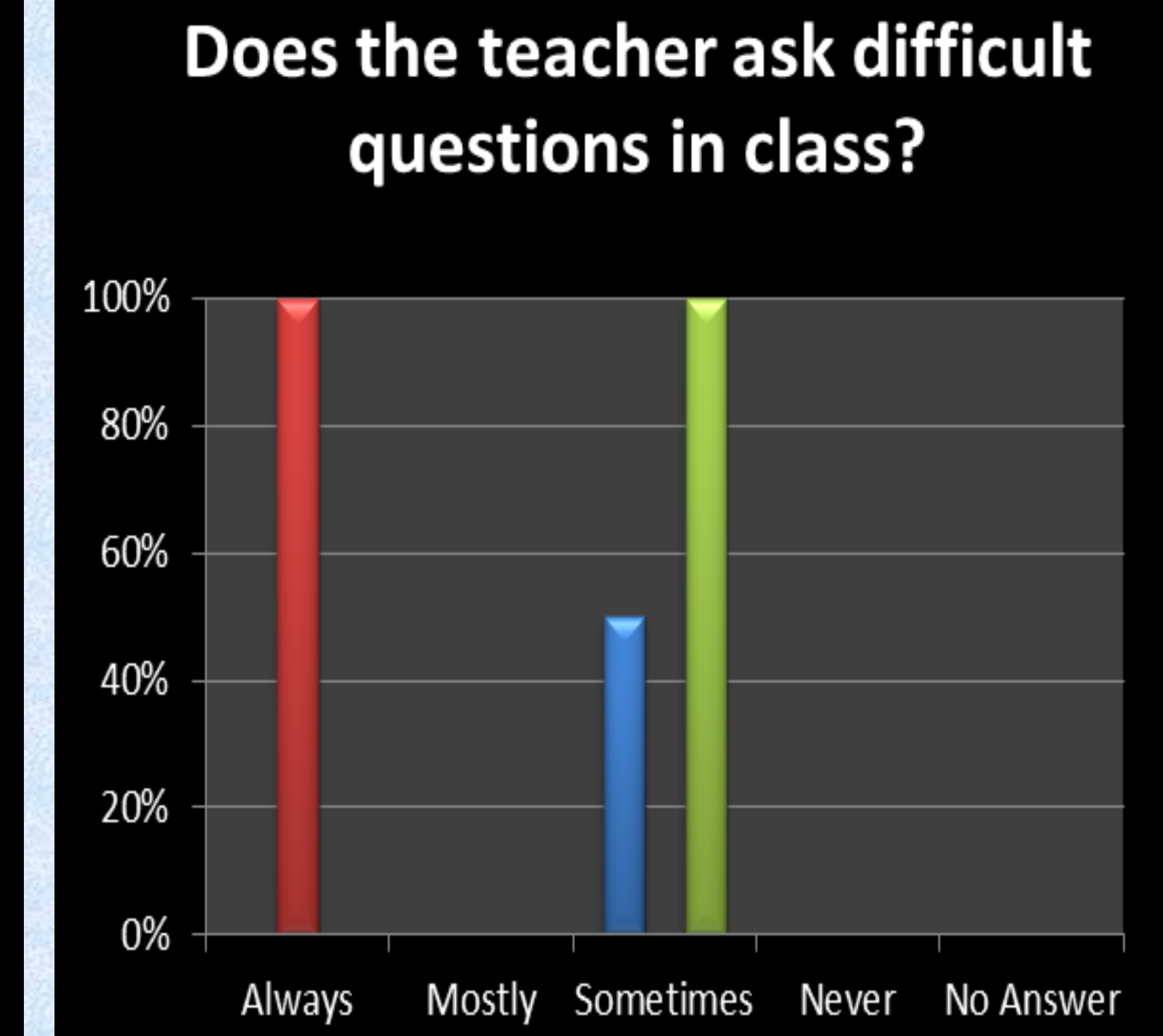
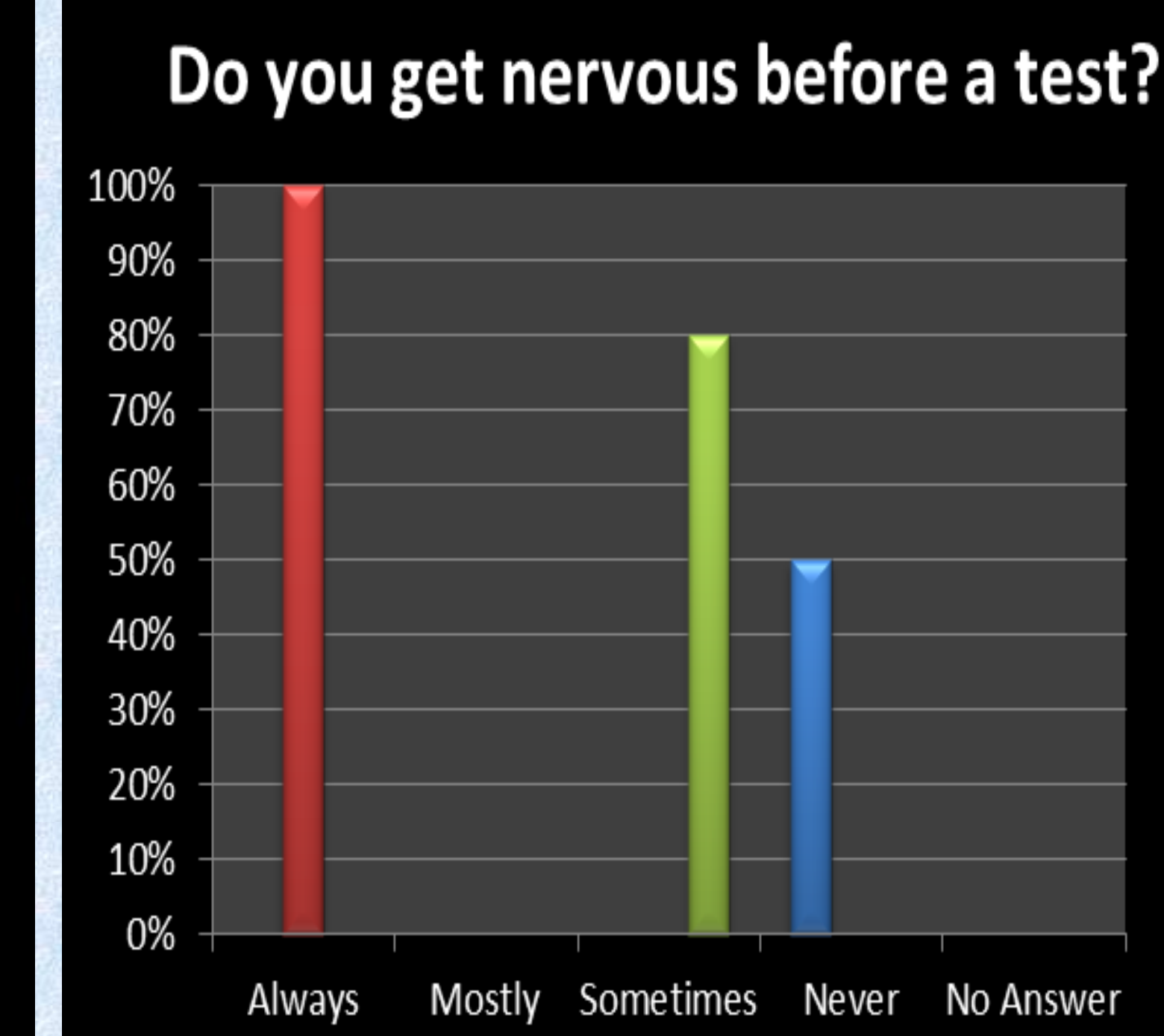
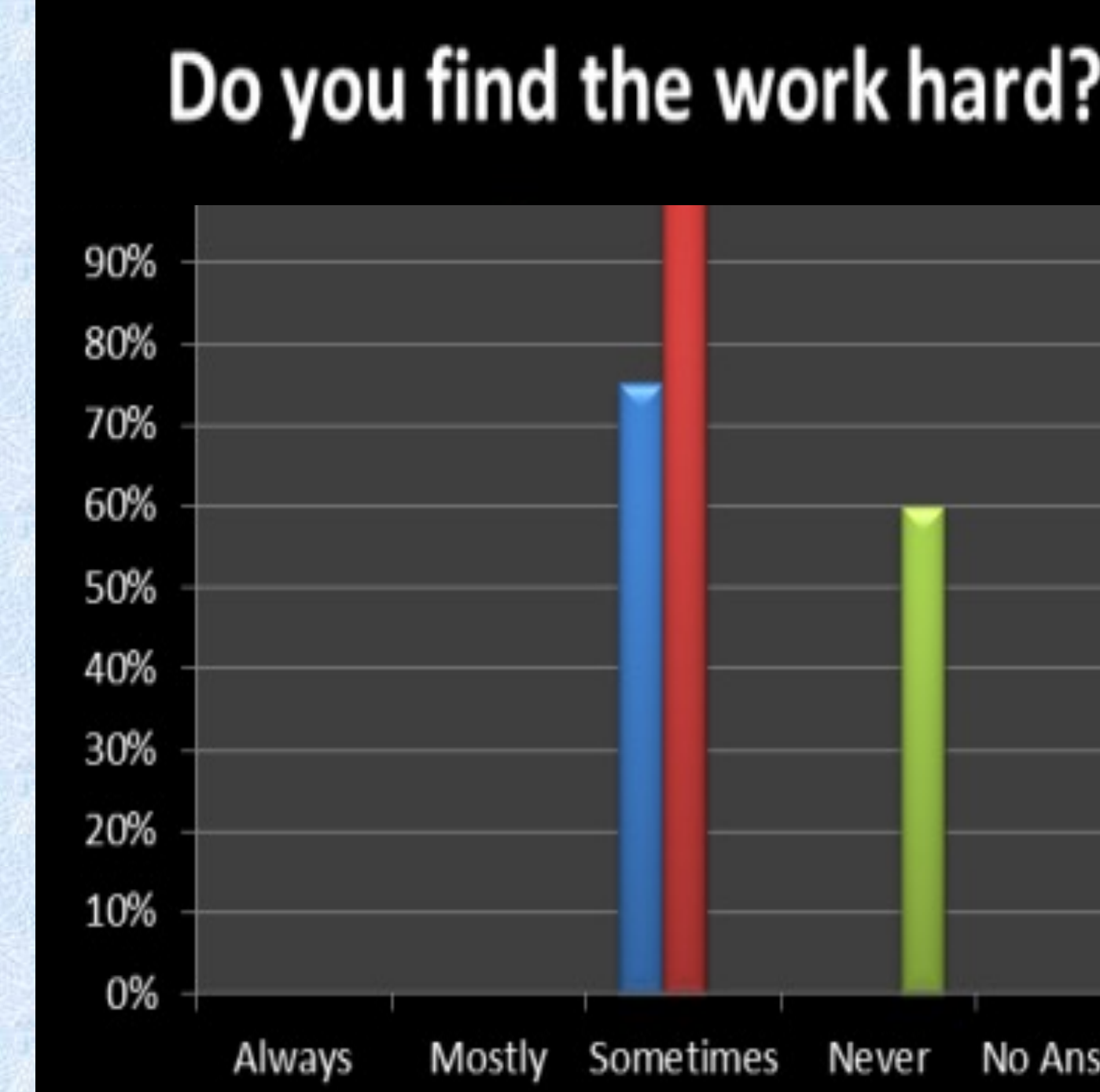
Key



In your math class, how often do you do the following...?



In your math class, how often...?



Does your teacher...?

