

**Figure 1.7 DATA-BASED ANSWERS TO QUESTIONS: A Case of Poor Investigation Design****The Globe and Mail, October 30, 1992, page A26****EDUCATION***Andrew Nikiforuk visits a school where a recycled idea is being unveiled to some dubious parents*

**M**ULTI-aging' is the latest national educational theory to help build self-esteem and leadership skills in children. And the staff at Calgary's Olympic Heights Elementary School recently presented an "organization meeting" on what is really a recycled idea.

Most of the 150 middle-class parents who attended the meeting intuitively understood "multi-aging" as another way to group kids for instruction: most, in fact, could even recall the one-room Prairie school house or what educators might now call the original multi-aged facility.

As a consequence, the majority of the attendants had warm feelings about the notion. They had also read a school newsletter which said that multi-aging provides teacher continuity over two years and helps motivate underachievers. But even among the favourably inclined there was a concern about its implementation: the idea abruptly arrived in their gleaming new \$5.-million school in June, began in September and was now, belatedly, being explained. The natives were restless.

Sensing this tension, the host of the evening, the school's principal, Sheila Campbell, ran a tight agenda. She first introduced her staff (teachers for multi-aged grades 1-2, 3-4 and 5-6) and told the parents they were having a wonderful time getting to know their kids.

She then informed them that the staff had made the decision to adopt multi-aging after much reading and talk last summer. "We believed in the concept and will share some thoughts on how we got there."

Then Jim Dean, the school's superintendent, explained how "we can't look at the future by going back to basics!" Mr. Dean concluded that the only answer was multi-aging, which capitalized on learning patterns in the family, or what educators might call the original multi-aged unit.

Next at the microphone was Wilma Queen, principal of a neighbouring multi-aged school ("We walk by the classes and say, 'Oh boy it does work'"), followed by a parent testimonial and a teacher presentation on school beliefs about learning: "Learning is lifelong. Learning occurs best when it's relevant and meaningful. Learning

occurs through life experiences and is best facilitated by a caring and supportive environment."

Before Ms. Campbell closed the general meeting by dividing the assembly into four groups in which parents were asked to write down their questions, one parent, Robert Blakey, briskly stood up and asked the only question that mattered: "What are your criteria for success? And if you can't meet these criteria will you go back to graded classrooms?"

Ms. Campbell replied that she couldn't pull out any paper with such criteria, but added that the innovation will be monitored. "We have set out our beliefs and we will evaluate multi-aging by that."

**N**OT all the subsequent group encounters went as smoothly and one, at least, broke out into "civil disobedience," says Vicki Polsen, who has a child in Grade 4. She likes the school, admires its teachers and believes that they will make multi-aging work. But she would have appreciated a more earthy presentation that focused on multi-aging's good effects on academic performance.

One of the civil disobedients, Milt Hohol, a Calgary businessman and father of two, also wanted less "fluff" and more substance. In his group, he quoted from a report on multi-aging in the journal *Research in Education* which noted that multi-aging worked fine with a detailed curriculum, specific teacher training, low teacher-student ratios and defined standards of success for the teachers and principal.

But Mr. Hohol was concerned whether Olympic Heights had a tight curriculum, performance-based assessment (did the kids learn what the teachers taught) or low enough teacher-student ratios. "I'm not interested in a social experiment. I'm uncomfortable with what they are doing." But impressed by the conviction of the school's teachers to make multi-aging work, Mr. Hohol says he'll support the project until Christmas, when he hopes to see some criteria for objectively measuring the program's success.

Mr. Hohol just might get his present. Ms. Campbell, who detests the term "multi-aging," says that comparisons with traditional classrooms to determine the effectiveness of multi-aged classrooms are more than fair ideas. "We need to set up a scenario and look at the results"

Now the moral of this multi-aged parable is elementary: educators can best command parental respect for reasonable classroom experiments if and when they establish fair controls and observable measures of success.

Good luck, Olympic Heights!

*Andrew Nikiforuk is a former teacher and Calgary-based writer.*

- 1 Explain briefly why Andrew Nikiforuk refers in the second paragraph of the right-hand column of the article reprinted above to Mr. Blakey's question as .... *the only question that mattered*.
  - Comment briefly, in point form, from a *statistical* perspective, on Ms. Campbell's reply, as it is given in the following paragraph of the article.
- 2 Comment briefly on the *statistical* issue(s) raised by the following statements in the seventh paragraph of the article:
  - *We walk by the classes and say, 'Oh boy it does work';*
  - *Learning is lifelong. Learning occurs best when it's relevant and meaningful. Learning occurs through life experiences and is best facilitated by a caring and supportive environment.*
- 3 To what components of investigation *design* is Andrew Nikiforuk referring at the end of the second-last paragraph of the article? Explain briefly the statistical importance of the components you identify.

(continued overleaf)

- ④ What are the advantages claimed in the article reprinted overleaf on page 1.13 for multi-aging?
- How is multi-aging said to achieve these advantages?
  - What conditions are said to be needed for multi-aging to work?
    - Comment briefly on these conditions and on the *statistical* issue involved in assessing their effect(s).
- ⑤ Comment critically on the statement in the fifth paragraph of the article overleaf on page 1.13: "*We believed in the concept ... on how we got there.*"
- ⑥ What does the article indicate as (some?) *purposes* of education?
- Compare and contrast these purposes with what, if any, you consider to be *other* reasonable purposes of education.