BRIEF

Who Counts in Adult Literacy Programs? A National Survey of Numeracy Education

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KEY FINDINGS:

- Although more than 80% of adult literacy students receive math-related instruction, less than 5% of their teachers are certified to teach math; few literacy teachers receive any preservice training in math instruction.
- The math skills of adult literacy students are usually assessed by standardized tests. These tests do not adequately cover many of the math skills required in new curricular frameworks or in new, high-performance workplaces. Therefore, programs and researchers are left with incomplete information after testing.
- Over 75% of adult literacy programs report the availability of computer software for math instruction, yet less than 25% of the students in these programs use such software.

KEY RECOMMENDATIONS:

- Adult literacy teachers need more training in adult mathematics instruction as well as guidance on how best to incorporate their programs' available math software into their own individualized curricula.
- Assessment tools that gauge the math knowledge and achievement of adult students as related to real-life, functional contexts need to be developed.
- Policymakers should recognize that math instruction is an integral component of instruction in most literacy programs. Reporting schemes need to be developed that will show how many students are receiving instruction and whether teachers are being adequately trained in numeracy, not only in literacy.

INTRODUCTION

Although quantitative and mathematical skills have traditionally been considered a basic skill area and are required in a wide range of contexts in adult lives and workplaces, recent surveys have shown that adult numeracy skills in the United States are low. Despite the acknowledged centrality of these skills to real-world life-contexts, and despite the gap noted between necessary and actual numeracy skills levels, the numeracy component of adult literacy education has received minimum attention. Few discussions of it can be found in the professional literature, and no explicit data regarding the level or type of math-related activities in adult literacy programs can be found in official state reports about adult literacy activities.

METHODOLOGY

The authors of this report designed a questionnaire that would identify (a) the extent of math-related activities in literacy programs, (b) staff training in math, (c) assessment frameworks being used, and (d) the use of computers for teaching math. The questionnaire was then sent to a diverse cross section of adult literacy and adult education programs in 15 different states. Specific programs were chosen in each state in order to represent both rural and urban areas. The questionnaire asked programs to report the number of students in GED-preparation classes, since those classes almost always involve some math instruction. Data on students in ABE and ESL, and individual tutoring were also requested. Of the 605 programs surveyed, 57.9% (350 programs)

responded with complete forms, which were then analyzed. These 350 programs served over 750,000 adult students in the program year 1992-1993. A follow-up study of nonresponding programs showed that the sample of 350 programs obtained was not biased.

IMPLICATIONS

This report is a first step toward remedying the lack of comprehensive data about the math-related component of adult literacy programs. This lack presently hampers the ability of policymakers and planners to address the urgent numeracy needs of adult learners. From the findings of this survey, it is clear that math instruction in adult literacy programs is commonplace, and that it is much more prevalent than suggested by official reports. Furthermore, few teachers receive training in adult mathematics instruction or the use of educational technology. Programs need to make sure that the assessments of students' knowledge and achievement reflect the complexity of numeracy skills actually required in adult life. This means not relying so heavily on popular, standardized tests, which stress abstracted, mechanical computation skills.

FURTHER READING

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Mathematical Sciences Education Board. (1993). *Measuring what counts: A policy brief*. Washington, DC: National Academy Press.

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