
 A B S T R A C T S

How do the educational and life trajectories of the users of education for youngsters and adults affect mathematical knowledge?

DANIEL EUDAVE MUÑOZ

This article presents results of a study about basic conditions that education for youth and adults offer for mathematical learning development. Interviews in Mexico City and Aguascalientes were made with 28 users of open basic education services for youth and adults in the primary and secondary levels, age from 15 to 62, both men and women. We found that users' life trajectories determine in different ways the mathematical knowledge of EBPJA users. Also, that basic understanding of mathematical concept is affected by users' work experience. Users' need for a certificate in basic education is the main reason for them to study. Advisers do not have strategies to recover and take advantage of students' mathematic understandings and work experience that in many cases give them meaning.

Study of a practice of laying ceramic floors from a perspective of mathematics education

ANIBAL DARIO GIMENEZ

The article analyzes a mathematical decision making process made by people who put ceramic floors in constructions. The analysis is based on information obtained through interviews with foremen and through the author's own experience as a bricklayer. The text tells the various mathematical operations performed by workers to distribute ceramic pieces in such a way as to compensate the spaces that are not able to be covered with the whole pieces and/or square. Throughout the article mathematical knowledge that construction workers use in their work, which are based on experience and learning by imitation of the most experienced, is shown. It is concluded that the knowledge required for job performance have no reflection in school knowledge, not even in technical education institutes, geared specifically to job training.

Adult knowledge and reflections on written numeration

CLAUDIA BROTTMAN

Although there is already an extensive body of research whose results show unschooled adults numerical skills, many educational materials aimed at this population insist on emphasizing the script and the cardinal value of each number and present mathematic learning as if these youngsters and adults were unaware of the numbers. This article presents a study that relieve certain numerical skills of adults who begin primary school in the City of Buenos Aires. The interviews have sought to understand not only how these adults read and write numbers, but fundamentally their implicit ideas and how they make them explicit and expand to reflective analysis on their own productions. The data collected allow for challenging the classical teaching of numbering and offer some educational interventions.

Distribute and share: collaborative learning in a literacy circle

ALICIA AVILA

This article describes a distribution problem-solving experience in a literacy circle which was attended by four youngsters of approximately 20 years of age. The experience was based on a situation involving calculating what each person must pay to cover equally the cost of a pizza. To advance the expected knowledge the initial problem was modified by incorporating different prices and number of people. The proposed problems and the resolution strategies employed by these youngsters are analyzed. The difficulties that emerged in the process and collaborative interaction as an important element in obtaining solutions are presented. Additionally, some concerns expressed by participants regarding: a) their own math skills; b) the importance of passing the non-canonical solutions and based on handling materials as a condition for efficiency in solving arithmetic problems.

Collective work on ways of sum symbolization in a heterogeneous classroom

MARÍA FERNANDA DELPRATO
AND GABRIELA AGUILAR

In this paper two techniques of solving mathematical problems, that were part of a diagnostic interview included in a teacher training project, are shown. The study was conducted from the implementation of a teachers' workshop in Center for Adult Primary Level, Córdoba (Argentina). The authors present two games played with adults and analyze strategies that these students develop to solve additive operations. They also show the need for adult teachers to develop different versions of the same task to mitigate problems arising from the lack of continuity of the adult for attending classes, characteristic of this type of education. The article shows that meaningful learning depends on students' collaborative work in analyzing their own methods of solving operations and its results.

The classroom as a teacher training space: Contributions of mathematics education for youth and adults

MARIA DA CONCEIÇÃO FERREIRA REIS FONSECA

In this article, the author calls on educators of youth and adults teachers to take advantage in the mathematics classroom of students' life experience. It states that rather than generating technical capabilities or develop "skills" in adult teachers, their training must promote "intimacy" with the content that will be taught, *i.e.* develop teachers' sensitivity to their students. Intimacy with knowledge allows us to recognize the vitality and diversity that characterize different ways of knowing, and enables us to identify the language games that relate to power relations and the need for teachers to take ownership of them. The author analyzes a dialogue that occurs in an adults centre between two sisters studying math about negative numbers to raise the need for adults teachers of develop their ability to listen to their students and better understand their ways of knowing.

Ten in life and teaching... ten! The initial training of mathematics teachers from a research perspective

GABRIEL ROIZMAN

This article reports on a training experience in mathematics education held in a course for secondary education mathematics teacher in Buenos Aires. Criticizing that research activities in teacher training courses are sporadic and are not incorporated throughout the whole training project, the author describes an experience of inquiry ethnomathematical with his students. The purpose of the author's proposal was to develop a decolonizing view of mathematical knowledge in future teachers, and a more inclusive attitude that revalue the knowledge of the population that is marginalized by the school system. This experience was based on the replicas that the students made of a Brazilian research reported in the book *En la vida 10, en la escuela cero (Good marks in life, poor marks at school)* de 1988. Students' learnings are exposed through testimonies of their experiences.

Statistic classes in the education of youth and adults: walking towards literacy

KELI CRISTINA CONTI AND
DIONE LUCCHESI DE CARVALHO

This article analyzes part of a master research fieldwork, whose thesis is titled *The role of statistics in the inclusion of education for youth and adults students in literate activities*. The authors argue that statistical literacy is necessary to train people to fully exercise citizenship, and that teaching of statistics implies that students get involved in building them, *i.e.*, generate real statistics that imply a greater understanding of their reality. This article narrates the developing process of a questionnaire by students of the 7th grade of basic education for youth and adults (EJA) in a state public school located on the outskirts of São Paulo, Brazil. The authors conclude that students' production, besides to generate an understanding of mathematics and statistics, achieve the objective that young and adult students are the protagonists of the process.

Traducción: Lilian Alemany Rojas