HISTORY OF THE ACTIVITY AS A DIDACTICAL TOOL

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INTRODUCTION

The integration of new knowledge about mathematics teaching and the new technologies is not accessible for most teachers, who, in general, face alone the interpretation and implementation of curriculum. The exchange of experiences between teachers and researchers is not only necessary, but indispensible; we need also the appropriation of a methodological frame that strengthens that exchange. Monitoring and assessment plans should become the reference to establish communication among teachers.

HISTORY OF AN ACTIVITY

Since 2001, at the High School in Mexico, a team of teachers, in coordination with several institutional authorities, has been developing the project 'Mathematical Didactic Packages' (Ruiz, Ortega, and Torres, 2003). In this project, we set out the design of networks of learning activities that, in turn, generate planning documents that support the teaching activity and help teachers to appropriate a class planning. The planning of each activity is reinforced with the work and recordings of a teachers group that exchange their experiences. The results of this task, made more functional by taking advantage of Internet resources, we have named '*History of an Activity*' (HA). This HA is part of a methodological frame that allows teachers to professionalize their teaching activity taking into account the current knowledge on Statistics Education, rationally using technological tools and a methodology that allows them a versatile and useful communication to their classes. In our methodological proposal, the discussion of the teaching practice is focused and oriented around learning activities that constitute the nucleus of reflection of communication among teachers.

NETWORK OF ACTIVITIES: 'MONTE CARLO METHOD AS DIDACTICAL STRATEGY'

In this poster we will share the history of a sequence of activities obtained as a result of a continuous interaction of a group of nine Statistics teachers of a first College course or of a High School course (with students aged between 15 and 19). This group had the intention of taking the history of an activity as a mean to professionalize their teaching activity.

In order to illustrate our work proposal, we take, as an example, the network of activities 'the Monte Carlo method as didactical strategy', which consist of a reading and four problems. Its learning objectives are related to the gradual appropriation of simulation as a strategy to face different P&S situations. In particular, we consider only a reading and one problem 'The basketball player'.

SOME CONCLUSIONS

The didactical comments are part of the histories of the activities that show a vision of the work frame used by Learning Activities, and describe the work of teacher and students when they do these activities in a P&S class. The emphasis is on the way in which the problem's planning becomes more robust with successive "mise en scene" and with the systematic registration of the experiences. The history of the activity could be a common reference point in which teachers characterize the interactions between activity-learner, teacher-learner, and among learners, at the same time that takes advantage of research results in order to enrich their own teaching practice.

REFERENCES

Ruiz, B., Ortega, P. and Torres, J. L. (2003). La elaboración de paquetes didácticos para los cursos de matemáticas. In J. M. Cardeñoso, et al. *Investigación en el aula de matemáticas. Resolución de problemas*. Granada: Universidad de Granada.

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