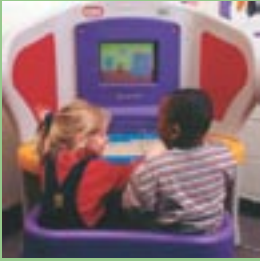


IBM KidSmart Early Learning Programme European evaluation undertaken in France, Germany, Italy, Portugal, Spain and UK



Report summary

This report presents the results of an independent evaluation of IBM's KidSmart Early Learning Programme in France, Germany, Italy, Portugal, Spain and the UK which was carried out by a team of university researchers over a two year period to the end of 2003. The evaluation has produced very positive findings which clearly demonstrate the strong impact of this programme on curriculum development and effective teaching and learning with information and communications technology (ICT) in the pre-school sector. In addition, it establishes the value of high quality professional training in the use of ICT and presents evidence of improved teacher confidence as well as of strong gains in children's enjoyment of learning. There are a number of policy recommendations in the field of early education and ICT which have been presented in a report to Ministries of Education across Europe.


"The significance of the KidSmart programme for the effective application of ICT to pre-school education in Europe is supported by this research. KidSmart has acted as a catalyst to stimulate teachers to work together to develop ingenious and effective ways of using ICT to promote children's development. At a policy level, the research also clearly demonstrates both the need and demand for systematic, high quality training."

Carol Berry, IBM KidSmart Programme Co-ordinator, Europe, Middle East and Africa.

The KidSmart Programme

Computers have become essential tools in modern life and their use in education is increasing rapidly at all levels. It is only recently, however, that they have been introduced more widely to children of pre-school age to help develop positive attitudes to learning and to prepare them for their lives in a knowledge society.

IBM is a pioneer in this field with the KidSmart Early Learning Programme, which extends IBM's major Reinventing Education grant programme for primary and secondary schools to the three to six year old age group. These programmes focus on strategic initiatives to help improve educational achievement, particularly in disadvantaged communities, building on the talent of IBM's workforce and the strength of its technology.



The programme began in the US in 1999 and is now running in over 50 countries worldwide, including 22 in Europe, the Middle East and Africa (EMEA).

20,000 KidSmart Early Learning Centres have so far been donated to pre-school settings by IBM, who has invested \$40 million to date. 5,500 have been donated so far in Europe and further 10,000 will be donated worldwide over the next two years. The Centres consist of IBM computer hardware, educational software from Riverdeep Inc. and colourful furniture from the Little Tikes Company. The KidSmart pre-school settings are sited in disadvantaged areas, in line with IBM's policy of helping to address social needs and reduce the 'digital divide' between children from low income families and those with greater opportunities.

IBM implements KidSmart in partnership with early learning organisations in EMEA, usually Ministries of Education, who provide high quality training for the teachers, participate in the selection of schools and contribute to the evaluation process. A key aim of the programme is to develop enriched teaching and learning through the use of ICT and there is a Web site which provides advice for early education teachers and the parents of young children on the appropriate use of ICT to support child development: www.kidsmartearlylearning.org. This Web site is available in Chinese, Japanese, Brazilian Portuguese, English, French, German, Italian, and Spanish.

In 2003 IBM organised the first European Conference on ICT in early education. This conference brought together policy makers, researchers and leading teachers from 20 countries with the European Commissioner for Education to showcase innovative practice and to formulate policy recommendations.

"I was very surprised and pleased when I realised that the 'KidSmart Early Learning Programme' is not just an ICT programme, but much more a programme for a new learning culture for pre-school and primary school kids."

Manfred Jerusalem
Head of Division 'New Media in Schools'
Standing Conference of the Education Ministers of the German Länder, Bonn.

The research findings

Strong gains in quality of learning

Research commissioned by IBM on the programme's effectiveness was led by John Siraj-Blatchford from the University of Cambridge and Iram Siraj-Blatchford from the Institute of Education, University of London, working with a team of university researchers from France, Germany, Italy, Portugal, Spain and the UK. The key findings were that the KidSmart Programme had led to significant curriculum development and substantial improvements in teaching and learning using ICT within a year.

An international ICT environmental rating scale was applied to demonstrate levels of practice and provision ranging from inadequate (level 1) to excellent (level 7). A level 5 rating represents the kind of 'good' practice which would fully satisfy the requirements of most countries' early learning goals. While none of the pre-schools achieved 'good' against the ICT rating scale criteria prior to delivery of the KidSmart Early Learning Centres, after just one year all of the schools sampled in Italy, Portugal and the UK achieved this rating. Portugal scored 'very good' on 2 of the 3 elements. France achieved 'good' on 2 of the 3 elements. Spain and Germany started from a much lower base but doubled their scores over 18 months and improvement is continuing.

"It has only been through the KidSmart initiative that many pre-school settings have learnt how ICT may be integrated right across the pre-school play based curriculum. I have been incredibly encouraged by IBM's support."

John Siraj-Blatchford, University of Cambridge.



A confidence boost for professionals

Improvement in the confidence of the KidSmart teachers has been dramatic and they are making increasing use of the equipment in each country. Teachers are also much more confident and sophisticated in their approach to using computers than comparable teachers in other pre-school settings. While many teachers in the 'control' pre-school settings reported modest improvements over the two years of the study, improvement in the confidence of the KidSmart teachers has been dramatic. In Portugal, the number of teachers reporting feeling 'very comfortable' with computers increased from 18% to 70% in just six months, clearly demonstrating the 'user friendliness' of the KidSmart Programme.

The KidSmart Programme has also shown that outstanding improvements can be made when coherent high quality training is provided. While training provided through KidSmart has been good overall, the Portuguese programme has been exceptional and this is reflected in the country's particularly high achievement in the ICT rating scale.

Involving parents

Many studies have shown that when parents, teachers and children collaborate towards the same goals this can lead to improved academic performance across the curriculum. Schools also report that children whose parents contribute to their education in the home show a more positive attitude towards learning and are better behaved in school.

There are some encouraging indications that KidSmart increases parental involvement with their child's pre-school and participation in their learning. In some German settings KidSmart has already led to:

"Contact with parents being intensified... There is more communication now. The staff room was used for parents to work with their children at the PC and parents find the PC very useful"

From the KidSmart research data, Germany.

The KidSmart Early Learning Centres have been very well received in all the evaluation countries

"Children are very confident in accessing the pre-installed software – it encourages independence and free choice, with no CDs lying around to be posted in inappropriate places!"

"It is simple to use and it builds the confidence of both the staff and the children".

"Children love it; they have no fear of it as it looks like a toy".

KidSmart's child friendly features are in line with the researchers' own views that ICT should be introduced in a sensitive and monitored way than enhances children's awareness of computers and technology as part of daily life.

Table demonstrating improved quality of teaching and learning with ICT in the KidSmart settings :

	Information handling and communication skills		Access and control of ICT tools		Learning about the uses of ICT	
	Visit 1 pre-intervention	Final visit	Visit 1 pre-intervention	Final visit	Visit 1 pre-intervention	Final visit
UK	2.7	4.9	2.1	5.2	2.3	4.8
Spain	1.0	2.4	1.0	2.8	1.0	2.8
Italy	3.0	5.0	2.7	5.0	1.3	4.4
Germany	1.4	3.9	1.0	4.0	2.4	3.4
France	2.0	4.0	2.3	5.5	1.5	5.3
Portugal	3.1	5.9	3.0	6.0	3.1	5.3

Key 1 = inadequate, 3 = minimal, 4 = fair, 5 = good, 6 = very good, 7 = excellent.



Challenges ahead

The report makes the following recommendations for developing policy for early education

- Resources for professional training in ICT in early education should be expanded to take account of the need and benefits highlighted by the KidSmart Early Learning programme
- ICT resources should be made more generally available to the early education sector and fully integrated into pre-school curricula to deliver the established benefits for early childhood development
- Parents should be helped to support the education of their children through the development of parental partnerships. ICT has the potential to stimulate this involvement
- There is a need to support knowledge building and co-operation at all levels. Resource should be made available to support active networks of parents and teachers.

Copies of the IBM KidSmart Early Learning Programme European evaluation report can be downloaded in English, French, German, Italian, Spanish and Portuguese from: ibm.com/ibm/ibmgives/reports/

Further information about the IBM KidSmart Early Learning Programme can be obtained from:

ibm.com/ibm/ibmgives/grant/education/programs/kidsmart.shtml

