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USING RESEARCH TO ENGAGE STAKEHOLDERS AND INFLUENCE POLICY IN MALAWI

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Introduction

Malawi introduced Free Primary Education (FPE) in 1994. This improved pupil access to school in that enrolment rose from 1.9 to 3.2 million pupils, an increase of about 70%. However, this sudden rise in pupil enrolment created some problems in our education system. For example, *teacher/pupil* ratio doubled from 1:60 to 1:120 in the lower classes; *teaching and learning materials* became inadequate, and there was a *shortage of classroom space*. These and other problems have affected the quality of education in the country. Therefore, Malawi, in collaboration with donor agencies such as USAID, has embarked on formidable challenges of improving the quality of education in the country while meeting the tremendous demands of high pupil enrolment. It is hoped that by expanding the research scope, educators will be in a better position to improve *instruction and learning in Malawi*.

In January, 1999, through collaborations with IEQ and USAID, a partnership was formed between Malawi Institute of Education (MIE) and Save the Children Federation (SCF) with the purpose of expanding the research agenda and its potential to inform and guide national policy.

The Malawi Institute of Education is a parastatal organization under the Ministry of Education, Sports and Culture. It is a curriculum development and research institution charged with the responsibility of developing curricula for both primary and secondary schools, and primary teacher training programmes (including teacher in-service programme).

This paper discusses how research is being used to engage stakeholders and influence education policy in Malawi.

What is research?

First, perhaps it might be appropriate from the outset to define what the term “**Research**” means. Collins Concise English Dictionary (1980) defines *research as a systematic investigation in a field of knowledge, to discover or establish facts or principles*. Howard and Sharp (1983, p.6) define research as “*seeking through methodical processes to add to one’s own body of knowledge and, hopefully, to that of others by the discovery of non-trivial facts and insights*”. Drew (1980) agrees that “*research is conducted to solve problems and to expand knowledge*” (p. 4) and stresses that “*research is a systematic way of asking questions, a systematic method of enquiry*” (p. 8). Indeed, in conducting research, it is the systematic approach that is important and not the title of “research”, “investigation”, “inquiry” or “study”. Thus, where collection of data is involved (notes of interviews, questionnaire responses, checklists, articles, official reports, etc), orderly record-keeping and thorough planning are essential.

However, in the context of education, Mouly (1963) best describes the nature of research as:

..... Simply the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of data ... we can define educational research as the systematic and scholarly application of the scientific method

interpreted in its broadest sense, to the solution of education problems.

From the above description of research, the idea of a systematic approach is applied through the scientific method. This therefore supports the views of Wiersma (1969) that the idea of a systematic approach in education is indeed essential. Education research, as indicated above, involves the solution of educational problems; and this includes both practical and theoretical problems. In other words, *educational research is considered as the total procedure employed in collecting, organizing, summarizing, and interpreting data for the purpose of arriving at dependable answers to questions about education.*

Why Research in Education?

First, research is expansion of Knowledge. Hauya, (1992) has argued that the expansion and diversification of knowledge has influenced social change in countries such as Malawi where awareness has become high. Access to ideas and information has also become easy and efficient.

Second, in this modern age, research and scientific and technological advances have instigated profound change in the structures of social organizations; educational administration, educational technology, the training of teachers, subject matter and the development of education in general has been affected by research findings (ECA, 1992). Specifically, these developments have affected education in four main ways:

- the knowledge teachers have commanded is challenged since many people have access to it;

- the authority of the teacher as a professional and a community leader is eroded due to loss of trust;
- pupils in schools do not take things for granted as they are exposed to so much through the family and other influences;
- teaching methods have tended to become antiquated while adaptation and adjustments tend to be slow.

But, although *educational research and development* is a **very demanding, expensive and time-consuming strategy for educational improvement**, it is, however, a very powerful tool that bridges the gap between policy and classroom practice.

Impact of Research on Teaching and Learning

Although expansion of knowledge is necessary, *its impact on teaching and learning is critical*. The school has to meet the challenge of reconciling the learners' home experience, knowledge and skills with what schools have to teach. Methods and techniques of giving instruction should meet the demands of changing generations. However, if education fails to equip the youth with the knowledge, skills and attitudes that the society needs, it is said to be pursuing an irrelevant curriculum (ibid, p. 28).

As Malawi enters the twenty-first century, the need to re-visit the curriculum and the function of education cannot be over-emphasized. The following are, therefore, some of questions that require answers. Should the function of education be geared to:

- prepare students for a democratic world?
- Pave the way for global unity?

- create awareness about environmental degradation? And/or
- solve problems of moral degeneration and the resultant health hazards like HIV/AIDS, among many other challenges?

Baseline and Follow-up Surveys

The quality Education through Supporting Teaching (QUEST) project was launched in Mangochi, with funding from USAID, by Save the Children Federation-USA. The purpose of the QUEST project is to:

- (1) Increase access
- (2) Enhance quality
- (3) Increase efficiency.

During the first year, the QUEST targeted all primary schools in Mangochi, a district along the southern tip of Lake Malawi. Later, the project extended to two other Southern Region districts, namely; Balaka and Blantyre.

Through the partnership between MIE and SCF, a Baseline Survey was conducted in February 1999 in Balaka and Mangochi districts. The purpose of the baseline survey was to investigate the quality of learning, teaching, availability of materials and community participation in schools.

Data Collection Procedure

The baseline data were collected from a random sample of 65 primary schools. The sample consisted of two thousand (2,000) pupils (of which 49.3% were girls), 183 teachers, 65 headteachers, as well as committees of community members and parents from each of the participating schools.

Data were collected through interviews, observations, and testing. The tests were curriculum-based and were administered to pupils and class teachers only. Information collected included pupils', teachers', and headteachers' background and general class data, for example, availability of books and other facilities in the schools. In October, 1999 a follow-up survey was also conducted.

Follow-up Survey: October 1999

The aim of the October follow-up survey was to investigate further and ascertain the quality of education in primary schools following some interventions to enhance learning by Save the Children (US), Mangochi. The findings of the two surveys were then compared to determine how much learning had taken place in the sampled primary schools and under what conditions.

As in February, during the data collection, the activities included:

- Measuring pupil proficiency in Chichewa, English and Mathematics for Standards 2 – 4;
- Identifying teacher knowledge and skills in English and Mathematics;
- Observing classroom teaching and learning;
- Surveying availability and use of instructional materials; and
- Interviewing teachers, headteachers, and community members.

Data Analysis: Findings

First, pupils' performance in literacy and numeracy was analyzed against a number of independent variables such as sex, age, and home language. A comparison was also made between pupils' performance at the beginning of the school year (i.e. in February) and at the end of the school year in October to determine the gain in mastery of mathematics, English and Chichewa skills.

Further analysis were also done to attempt answer the following research questions:

- Do girls perform better than boys?
- Is there any difference in learning gains between girls and boys in Standards 2, 3 and 4?
- What is the level of mastery of mathematics skills of girls and boys by the end of standards 2, 3, and 4?
- How do Chichewa speaking children differ from Chiyao speaking children in their performance in Mathematics, English, and Chichewa?

Summary of Findings

Analysis of student test scores in literacy (English and Chichewa) and numeracy (Mathematics) revealed that pupils of both sexes had learning gains in both literacy and numeracy as illustrated in figure 1. A gain score is the difference between the posttest score and pretest score. It is interpretable as what was learned in the subject during the school year.

Figs 1a to 1c: Results for pupils who participated in both baseline and follow-up surveys:

Figure 1(a) Learning Gains in Mathematics by Standards

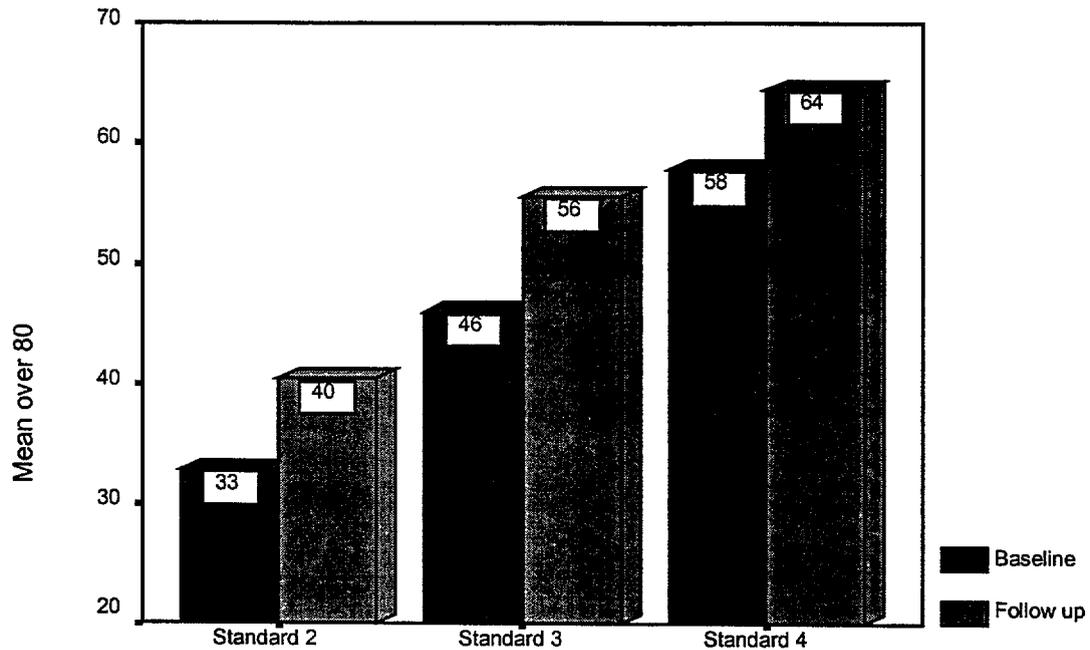


Figure 1(b) Learning Gains in English Comprehension

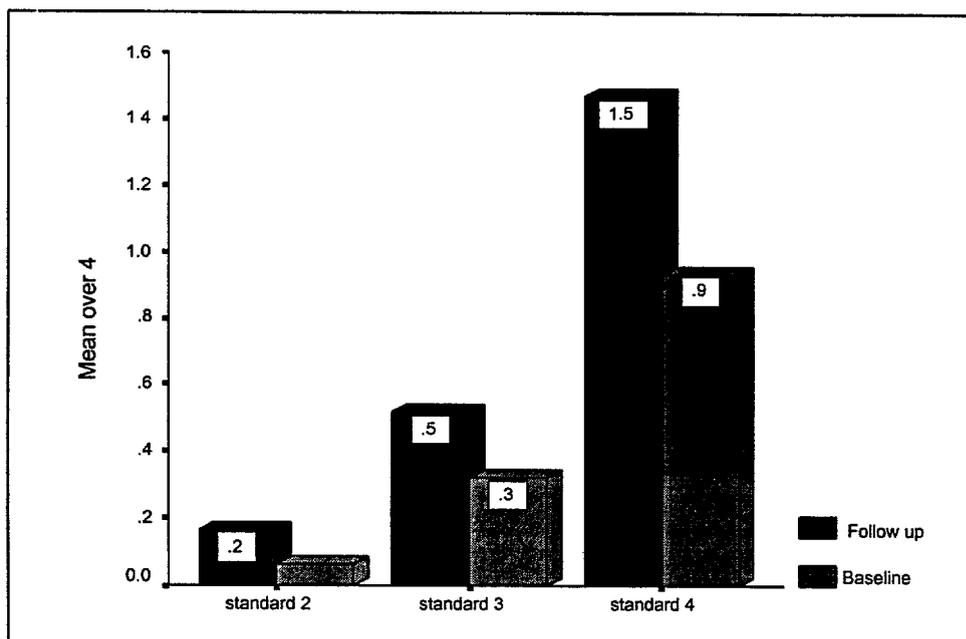
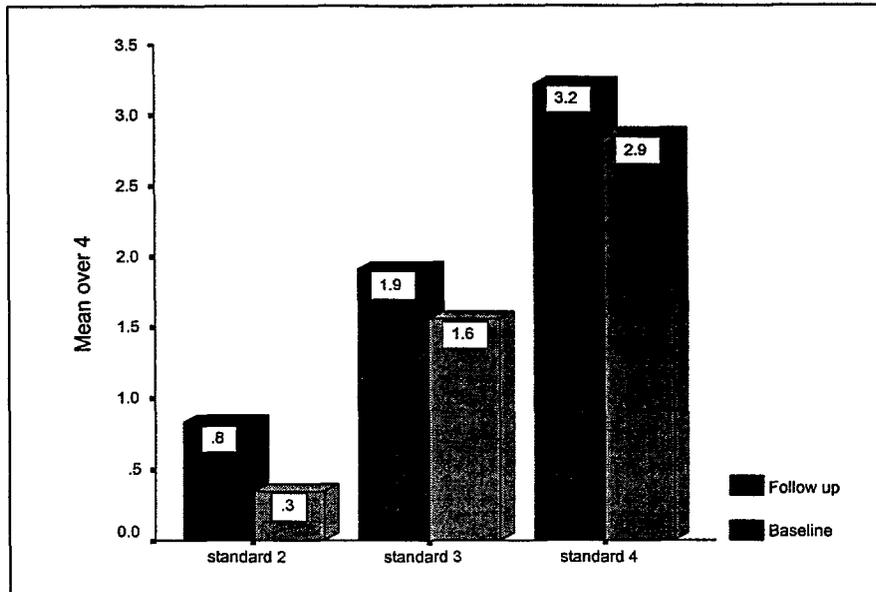


Figure 1(c) Learning Gains in Chichewa Comprehension



Performance in Language and Mathematics by Gender

Enrolment in all the schools visited was relatively high. Girls’ enrolment was high too but did not surpass that of boys. In terms of performance, the survey revealed that generally boys performed better than girls in all three classes in copying letters, writing their names, and reading English and Chichewa passages. The table below shows such differences in performance between boys and girls in language.

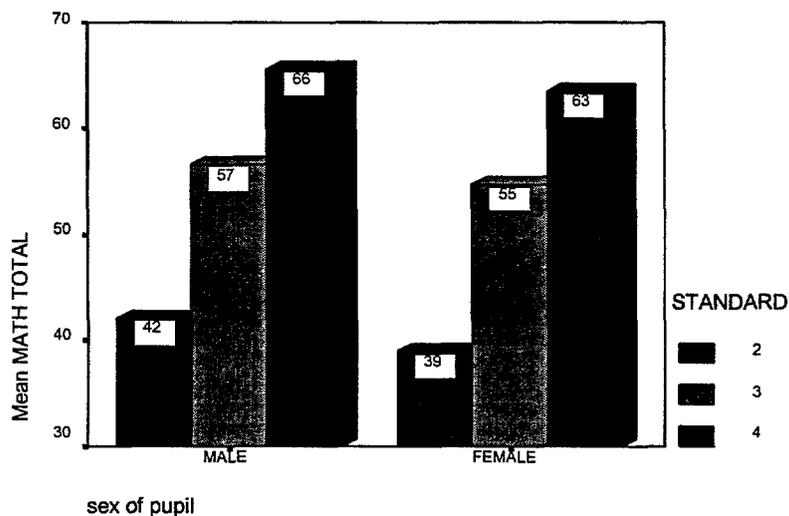
(a) Performance in Language and Mathematics by Gender

Gender	Class	Copying Letters	Writing Names	Chichewa Reading	English Reading
Boys	2	86.6%	52.4%	11.4%	3.4%
	3	97.5%	92.2%	42.7%	19.1%
	4	98.72%	99.15%	73.6%	54.5%
Girls	2	82.9%	41.4%	3.4%	1.5%
	3	41.4%	86.1%	24.8%	8.8%
	4	98.7%	96.5%	72.9%	48.9%

(b) Performance in Mathematics by Gender

The survey further revealed that boys performed better than girls in mathematics in all the three classes. Overall boys scores in all the three classes were 2 points above the class mean while that of girls was 1 point below the class mean as in figure 2 below:

Figure 2 Mean Math's Total (Follow up Survey)



Level of Mastery in Language Reading

While the findings of this longitudinal study has shown that pupils' posttest scores were higher than the pretest scores, generally there was also a good % of pupils in each cadre or standard who had not mastered anything in Chichewa and English as illustrated in figures 3a and 3b.

Figure 3a: Chichewa Reading Standard 2 Passages

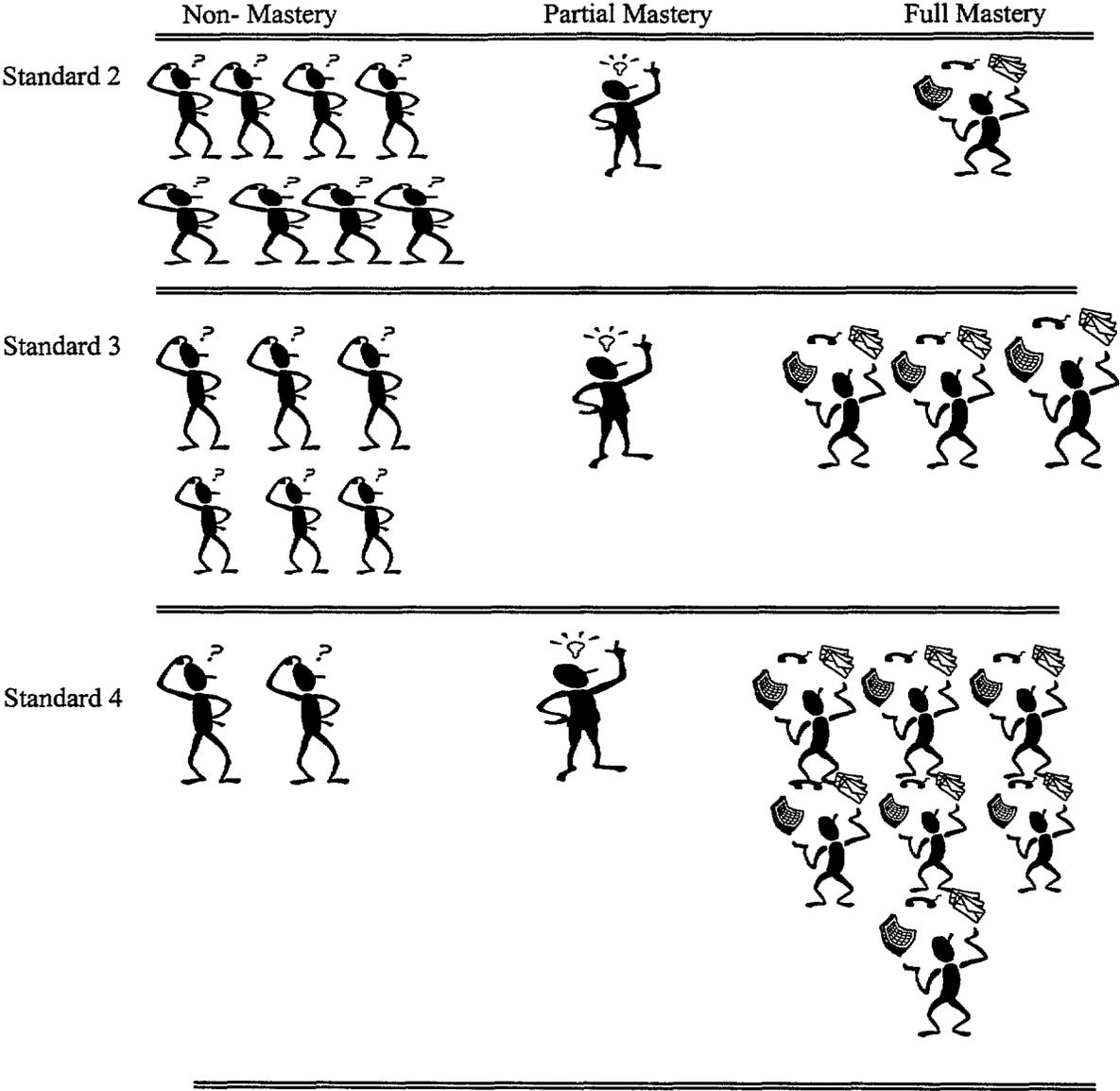
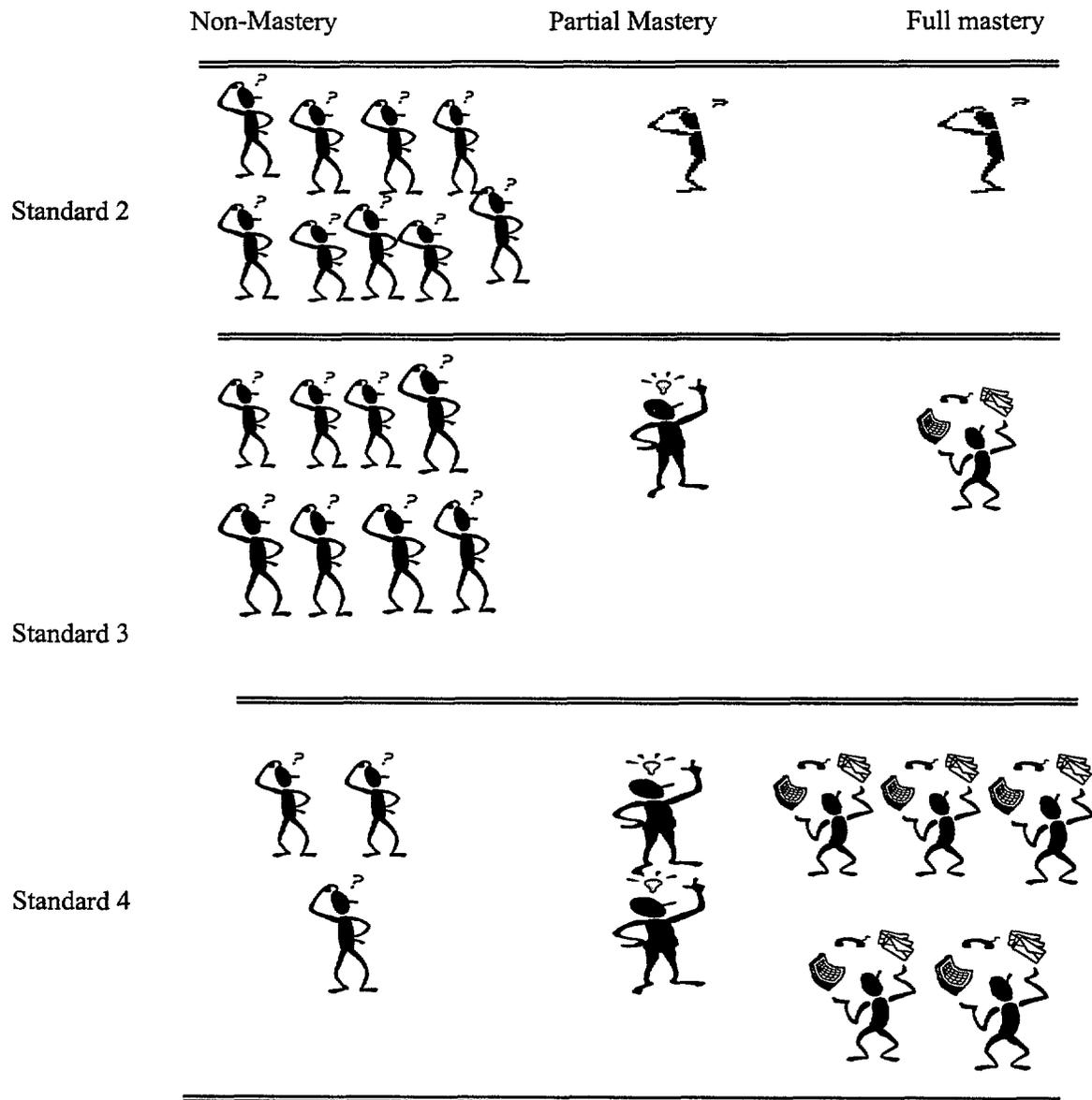
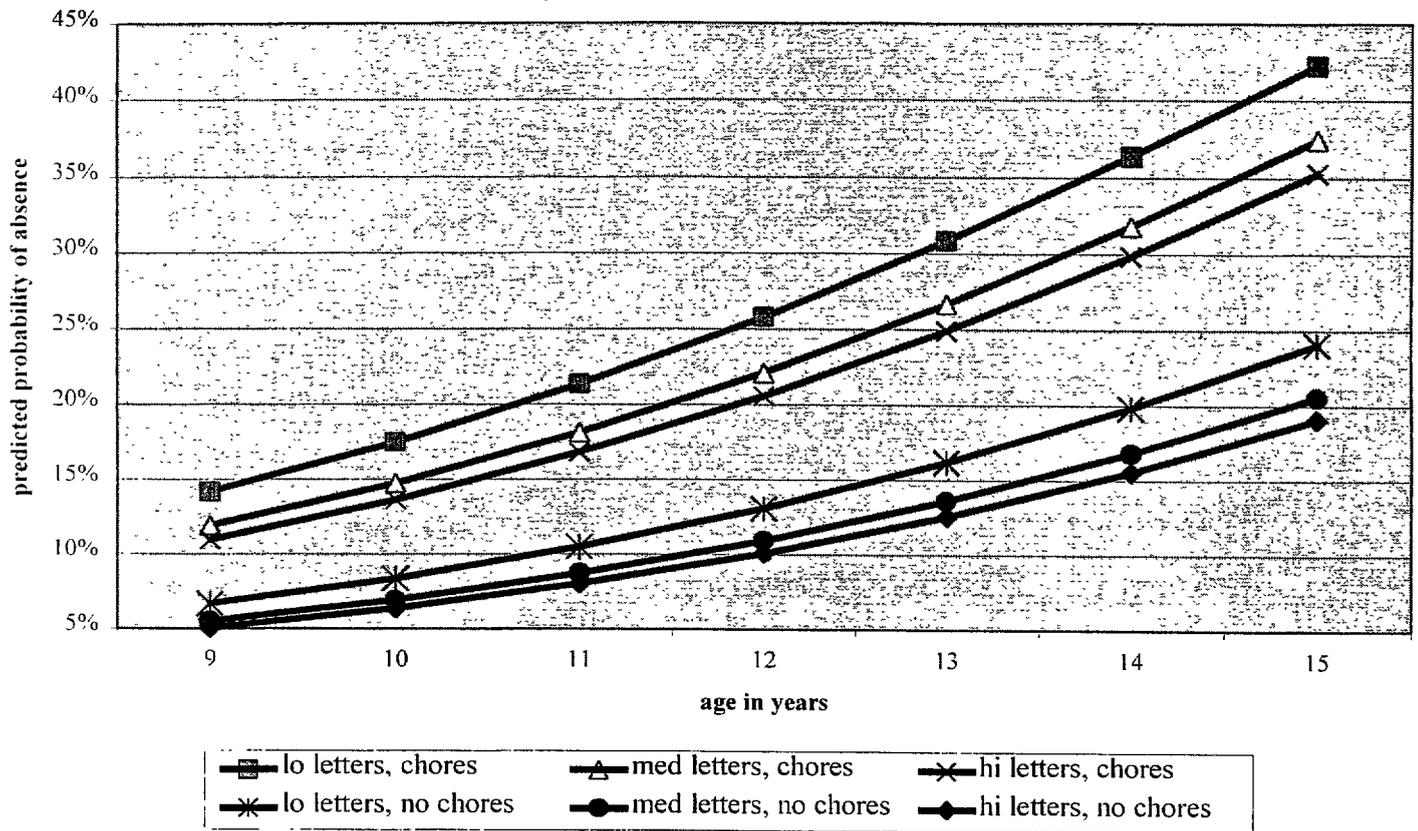


Figure 3(b) English Reading Standard 2 Passages



The findings above have serious educational implications for both stakeholders and policy makers. For instance, further analysis of the October Follow-up survey shows that there is a high correlation between non-mastery of letters and absenteeism as figure 4 below illustrates:

Figure 4: Predicting Probability of Posttest Absence in Standard 4



Source: Amy Jo Dowd

18 January 2000

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Discussion

These findings lead to more questions such as:

- i) Why are girls underperforming in most areas?
- ii) Why are the Chiyao-speaking children older than the Chichewa-speakers in each standard?
- iii) Is there a relationship between high teacher mobility and pupil achievement?

- iv) What are the characteristics of pupils who fall into the non-mastery category?
- v) How does the dropping out of pupils in the study affect the investigation?

At present these findings are already assisting in planning interventions for the QUEST project and it is hoped that policymakers and stakeholders will be guided in making informed decision about how to improve quality education in Malawi. Perhaps. Of particular interest are issues relating to:

- High teacher mobility and quality of teaching.
- Implications of teaching/learning in mother tongue.
- Implications of high % of non-mastery of the subject matter in both Chichewa and English.
- Causes of high absenteeism and dropout.

Lastly, further analysis of the survey study data is revealing that there is generally lack of high quality teaching as regards to the following :

- Effective use of time;
- High command of subject matter knowledge;
- Ability to present the subject matter to pupils in the way they can comprehend;
- Systematic attention to the weak areas in pupils learning pattern.

Effective learning does not occur by accident. It is the product of an effective learning situation created by skilful teachers. Thus, in addition to enhancing the learning environment, research evidence from the

Malawi/IEQ survey has shown that the need for an adequate supply of trained teachers cannot be over-emphasized. Indeed, it is the trained teachers that are critical determinants of teaching, namely; knowledge of the subject matter, pedagogical skills and motivation to teach, are “*reposed*”.

Dissemination of Research Findings

IEQ research is providing a vehicle for generating valuable research findings for national and local decision making. These findings are being disseminated through articles in newsletters and forums such as the National Seminar that was held recently in Malawi where stakeholders, policy makers, decision makers, practitioners, and other partners attended. These forums are raising local awareness of the valuable role that research can play in improving education quality and in guiding policy and decision makers to make informed and rational decisions about matters affecting the education of our children.

CONCLUSION

In conclusion, this paper has discussed the importance of research in education. A research on Educational Quality which IEQ II Project carried out in Malawi in February and October, 1999 has been outlined. Some of the findings from this research have also been discussed in this paper. Finally, the paper has also discussed how research is being used to engage stakeholders in a dialogue on *educational quality* and influence policy in Malawi.

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