

UNIVERSITY OF ZIMBABWE

**THE ZIMBABWE BULLETIN
OF TEACHER EDUCATION**

DEPARTMENT OF TEACHER EDUCATION

THE ZIMBABWE BULLETIN OF TEACHER EDUCATION

VOLUME 5 No 1, MARCH 1997

The Zimbabwe Bulletin of Teacher Education is published threetimes a year by the University of Zimbabwe, Department of Teacher Education, Faculty of Education.

The Zimbabwe Bulletin of Teacher Education

Volume 5 NO 1, MARCH 1997

ISSN No - 1022-3800

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THE TEACHER, THE SCHOOL AND EDUCATION EFFECTIVENESS IN ZIMBABWE: A PILOT STUDY

Boniface Runesu Samuel Chivore,
Department of Teacher Education,
University of Zimbabwe

Introduction

Education is about teaching and learning. This is the case at school level. At the centre of learning are pupils. The effectiveness of education is measured in terms of the amount of learning acquired by the pupils. In any society children go to school to acquire academic skills. At primary school level, children go to school to learn reading, writing and mathematics. At secondary level children go to school to acquire academic skills based on various subjects broadly categorised as mathematics and science, arts and humanities, practical and commercial subjects. To acquire these skills pupils need teachers and schools. It is against this background that a study on secondary teacher effectiveness in Zimbabwe was undertaken.

Conceptual Analysis

When considering teacher effectiveness it must be noted that the teacher is one variable. This variable interacts with other variables such as the school, the community and resources. Resources include human [teachers] material and financial. That being the case while the teacher is at the centre of learning; there is no way that teacher can be effective without these other variables. The question is what is teacher effectiveness?

To start with, "effectiveness" is the realisation of the desired result, outcome or product [Levine and Lezotte 1990]. The concept "effectiveness" is about quality and equity. Teacher effectiveness has been described as teacher quality or the quality of teaching [Fuller 1985, Henderson 1978, Sharples 1983, UNESCO 1986]. Thus teacher effectiveness involves use of time, mastery of subject matter, ability to deliver that subject matter to pupils; pupil achievement based on tests and examinations, systematic attention to weak pupils' learning patterns, effective rapport between teachers, school officials and the community, particularly children's parents [Chivore 1995, 1994, Fuller 1986, Montero-Sieburth 1989, Rugh 1991, Nyagura 1991].

Avalos [1985:191] argues that:

A successful teacher in current terminology 'an effective teacher' would be the person able to

discern from alternatives what makes instruction successful and what does not, and to that end, this person would hold views about what teaching seeks to achieve.

Anderson [1991] regards effective teachers as the teachers who achieve the goals set for them by the school administration and ministries of education. This means goals imposed on teachers, as well as goals teachers set for themselves. Thus Anderson [1991:16] notes that:

A corollary of this definition is that effective teachers must possess the knowledge and skills needed to attain the goals and must be able to use that knowledge and those skills appropriately if the goals are to be achieved.

Medley [1982] argues that the possession of knowledge and skills by the teachers is called teacher competence while the use of that knowledge and skills in the classroom is referred to as teacher performance. Hence Anderson [1994] in the same vein notes that research into teacher effectiveness should link teacher competence and teacher performance with the accomplishment of teacher goals, which is teacher effectiveness.

Ryans [1960] argues that good teachers, no less than successful persons in other professions, have always been more readily recognised than objectively described. On the other hand Biddle and Ellena [1967] are of the opinion that it is difficult to define, prepare for or measure teacher competence because the bulk of available literature has produced negligible results. The same line of argument is taken by Poppleton [1989] who argues that scholars may be chasing an illusive myth. This is because there are several variables at interplay so much so that each situation is different from the other. Avalos sees practical agreement that scholastic success of the pupils is at the centre of teacher effectiveness. But the conditions that affect such success either have been too difficult to examine or have not guaranteed agreements in terms of their importance. Omari and Moshia [1987] argue that the world over, children go to school for nothing other than reading, writing and arithmetic. Other variables such as self-reliance, and attitudinal changes are complementaries.

We argued that for effective learning to take place there must be a school. Not surprisingly currently [1997] in Western Europe and North America research emphasis is on school effectiveness. School effectiveness has been described by Mortimore 1991:8 "as one in which students progress further than might be expected from consideration of its intake". This to me is inadequate. How do these students progress? In Sammons et al [1994] effective schools are described as those that have "all round" achievement; have 'progression' from school to higher academic success and 'life long learning'? In the same document an effective school was summed up as one where "purposeful interaction amongst purposeful people" flourished [1994:10]. Reid, Hopkin and Holly [1987:22] argue that "there is no consensus yet on just what constitutes an effective school". Sammons et al 1995:3 argue that "there is

now a much greater degree of agreement amongst school researchers concerning appropriate methodology for such studies, about the need to focus explicitly on student outcomes..." While this could be true one gets disturbed by arguments put by authors such as Riddell 1996 who seems to think that only multilevel analysis is suitable for school effectiveness research. This narrow prescriptive approach would not be suitable in every situation. No two situations are identical. Situations are affected by the levels of general development of any country. Thus Firestone [1991:2] recognised that "Effectiveness of a particular school always requires choices among competing values" and that "criteria of effectiveness will be the subject of political debate".

Thus as Stoll and Mortimore [1995:2] observe, recognition must be made of context specificity of school effectiveness for they write:

It has become increasingly clear that 'what works' in one context may lack relevance in others. This has been found in studies of schools serving students from different social class backgrounds and in international attempts to replicate one country's findings elsewhere or examine the same factors. This has implications for generalisability of research findings.

This means studies carried out in different countries cannot lock stock and barrel be transferred to other contexts [Creemers, Reynolds and Swint 1994].

The Importance of Schools

In the 1960s in Western Europe and North America emphasis was on family background of students as major determinants of pupil achievement. Researchers in developing countries tried to be copycats of this theory. The present author [Chivore 1985, 1986, 1994] has consistently argued that in developing countries it is the school and the teacher that mattered as well as school input variables. Of late, in Western Europe and North America, there has been school effectiveness research which stresses that "schools matter, that schools do have major effects upon children's development and that, to put it simply, schools do make a difference" [Reynolds and Creemers 1990:1. Similar studies were carried out by Reynolds 1976, 1982; Gray, 1981; Edmonds, 1979, Brookover et al 1979; Madaus et al 1979; Rutter et al 1979; Mortimore et al 1988; Tizard et al 1988; Smith and Tomlinson 1989, Nuttal et al 1988; Gray et al 1993; Daly 1991, Thomas and Mortimore 1994; among others. Sammons et al [1995:4] noted:

Such studies, conducted in a variety of different contexts, on different age groups, and in different countries confirm the existence of both statistically and educationally significant differences between schools in students' achievement.

The present author is of the belief that the teacher still plays a major role in student achievement in a developing country such as Zimbabwe where educational technology is relatively limited. The school becomes an important institutional variable in that school inputs such as resources, community participation, learning environment, assist in making the teacher effective.

The study

This study was conducted in the Harare urban area between 1994 and 1995. It was more of a pilot than a case study. The main purpose was to test instruments, to test data collection techniques, to estimate cost and implications for the proposed countrywide study, to test selected hypotheses and establish trends that might have some implications for the study, and to minimise problems likely to be encountered when the final study was undertaken. This study also served as a training opportunity for the principal researchers based in the Faculty of Education of the University of Zimbabwe by refining as much as possible, the issues under investigation.

Methodology

This was a survey type of research. The present author is aware that studies in this area in developed countries tend to use multi-level techniques. Examples are Goldstein [1987], Scheerens, 1992; and Creemers 1994. It is argued that multi-level research techniques enable researchers to take a better account of differences between schools, facilitate exploration of issues such as consistency and stability in school's effects upon outcomes. [Refer to Gray et al 1993; Sammons, Mortimore and Thomas 1993; Reynolds et al 1994; Thomas and Mortimore 1994]. In developing countries studies by Nyagura 1991 used similar techniques. The present study was not concerned about comparing school performance as such. It was concerned about getting an overall picture of teacher performance using variables such as school background, the head, the background of the teacher, resources available and observing the teachers teach.

Instruments Used

Major, empirical studies of national and international magnitude normally use questionnaires of different types when carrying out educational research surveys such as this one. Indeed a questionnaire was used. In fact it was a combination of a questionnaire and schedule. The questionnaire used in this research was fairly detailed. It solicited information on the background of the school, that is the region where the school was located, responsible authority, location, category, status, number of teachers and pupils; background of the head which included gender, age, highest academic and professional qualifications; the teacher observed teaching, which included gender, highest academic and professional qualifications, age, teaching experience, marital status, types of training, number of pupils in class, form taught, lesson/subject observed when teaching, promotion since initial training, frequency of supervision by heads and education officers, and satisfaction with issues such as workshops, su-

pervision, teaching guides, syllabuses, school facilities, financial support, heads and parents' attitude towards the subject taught when observed, teaching textbooks for pupils' exercise books for pupils, classrooms, chairs, desks, among other issues.

The above items were 'blocked' items. This means there were sub-items within them. To illustrate, under schemes, the researchers looked at statement of broad aims, variety of sources and evaluation. In planning, issues highlighted were: regular planning, specific objectives, planning sequence, content coherence, adequacy and appropriateness; on records, aspects such as marking exercise books, projects and register, progress tests, remedial, and individual records were examined. As for learning and teaching aids, items assessed were: relevance of aids to lesson objectives, utilisation of a variety of aids, utilisation of local teaching aids, resourcefulness, use of chalkboard and neatness of aids.

Under classroom management were: lesson introduction, lesson development, practical demonstrations, quality control, supervision style, teacher-pupil interaction, questioning techniques, class control, pupil participation, remedial work in class and amount and quality of work given.

Methodology assessed consisted of role play, problem solving, individual pupil attention, lecture, lesson summary and group work. Studies by Bennett and Galton [1976] Galton et al [1980], Mortimore et al [1988] have attempted to show the importance of teaching styles particularly at primary level. At secondary level, studies by Rutter et al [1979], Steedman [1987], Eggleston et al [1976] attempted to tackle this aspect of teacher effectiveness. But as Messon [1990:44] argues, "it is not the findings directly from these studies which are most valuable but the questions about teaching processes these studies have raised". Moreover, the problem in examining teacher effectiveness from a methodological view point is the sheer diversity of teaching situations, contexts and styles.

Language and communication covered voice clarity, modulation and expression, while personal qualities included teachers' dress, tidiness and mastery of subject content.

An attempt was made to select those issues deemed relevant and applicable to the Zimbabwean secondary education system. It is the author's contention, however, that the items/variables used to solicit information on secondary and school effectiveness in Zimbabwe are applicable to both developing and developed countries. Differences may occur in the application. For the Zimbabwe secondary education system, the issues raised are applicable to the country as a whole.

The Sample

The sample for this pilot study was confined to Harare Urban secondary schools. Indeed we would have liked to include rural secondary schools but finances were a limiting factor. The sample consisted of 17 [out of 74] secondary schools and 90 [out of 3613] secondary teachers. This was 23.0 percent of secondary schools and 25.0 percent of secondary teachers respec-

tively. The sample was chosen using a stratified random procedure. The schools were numbered and even numbers were chosen. The process was repeated until the number required was reached.

Data Collection Techniques

Data was collected using a questionnaire. Researchers visited selected secondary schools. They first collected background data about the school and the head from the head of that school. Then they went into the classroom. In the classroom they collected background information about the teacher, availability of the classroom, its state, resources such as books, facilities and so on. After collecting this background information, they observed the teacher teaching whatever subject according to what was contained in the plan book. Face to face interviews were also carried out with the teachers observed.

Data Processing Techniques

The techniques used in data processing were determined and tested at the planning stage. A lot of data was collected. That being the case it became inevitable that such information be computer processed. This was done using the Statistical Package for Social Science [SPSS] at the university of Zimbabwe Computer Centre.

The type of statistics chosen was descriptive and chi-square. The descriptive statistical analysis used consisted of the number [N] of respondents and their corresponding percentages [%]. The descriptive statistical analysis was preferred by the author because it was relatively simple such that frequencies could be transformed into chi-square or even multivariate analyses. The chi-square was used when comparing variables, for example male versus female, category of school etc. As argued above there are other methods that could have been used and the present author is conversant with these methods. But the simple descriptive statistical analysis was preferred because of the audience who would read the report. The majority of the secondary teachers are familiar with the descriptive statistical analysis. The findings were aimed at benefitting these secondary teachers among other educationists.

Discussion of the main findings **Background of the Schools In the Sample**

The responsible authorities of the sampled schools were : 13 [76.5 per cent] Government, and 4 [23.5 percent] mission. The categories of these schools were; Group A, 9 [52.9. percent] and Group B. 8 [47.1 per cent]. The status of these secondary schools was urban day 9 [52.9 per cent] and urban boarding 8 [47.1 per cent].

Background of School Heads

There were 17 heads. These consisted of 12 [70.6 per cent] male and 5 [29.4 per cent] female. These figures were representative of the situation in the country as a whole in that

there were more male than female heads at secondary level. The same situation obtains at primary level [Chivore 1994]. The ages of these heads were distributed as follows: 31-35, 3 [17.6 per cent], 36-40, 1 [5.9 per cent], 41-45, 5 [29.4 per cent] and 46 and above, 8 [47.1 per cent]. It should be noted that the highest number of heads namely, 8 [47.1 per cent] was 46 and above. This is as it should be because for one to be a head of a school, one should have experience that is normally translated into a relatively mature age.

In terms experience as heads, the results were: 2 [11.8 per cent] had less than one year; 4 [23.5 per cent] were between 1-2 years; 3 [17.6 per cent] were between 3-4 years; 4 [23.5 per cent] were between 5-6 years, 3 [17.6 per cent] were between 9-10 years; and 1 [5.9 per cent] was 11 years and above as secondary heads. Nine [52.9 per cent] were acting while 8 [47.1 per cent] were permanent heads. The majority of the acting heads were substantive deputy heads who were acting on the day the school was visited. In fact only one head, was acting without being a substantive deputy head.

Qualifications of the Heads

The highest academic qualifications of these heads revealed that 5 [29.4 per cent] had 'O' levels, 3 [17.6 per cent] 'A' levels, 7 [41.3 per cent] BA/BSc and 2 [11.8 per cent] Masters degrees. In other words the majority 9 [53.0 per cent] of the heads were university graduates. Whether this is the case throughout the country is difficult to say. It may be correct to state that this is the situation in urban secondary schools while this may not be the case in rural secondary schools.

Information on the highest professional qualifications of the heads was given as follows: Graduate Certificate in Education, 6 [35.3 per cent], Certificate in Secondary Education, 6 [35.3 per cent], B.Ed. 2 [11.8 per cent], and M.Ed. 3 [17.7 per cent]. The majority of these heads therefore had university graduate or post-graduate professional qualifications.

Background of Secondary Teachers in the Sample

As noted above, there were 90 secondary teachers in the pilot sample. These consisted of 53 [58.9 per cent] male and 37 [41.1 per cent] female. These gender statistics should be representative of the situation in the country as a whole in which male are more than female secondary teachers. This is because to teach at secondary level one needed and still needs relatively high academic qualifications. In a traditional African set up such as that obtaining in Zimbabwe, as well as other developing and developed countries, parents preferred [still prefer] to educate boys rather than girls. This attitude affected the number of boys and girls who did "O" levels, "A" levels and university education which in turn affected those who trained as secondary teachers. Girls were disadvantaged in this regard.

Qualifications of the Secondary Teachers

Secondary teachers' highest academic qualifications in the pilot study were given as follows: "O" levels, 35 [38.9 per cent], Grade 11, 8 [8.9 per cent], BA/BSc 26 [28.9 per cent], MA/

MSc 2[2.2 percent], and "A" levels 19 [21.1 percent]. It is clear from these results that the majority of the secondary teachers 62[68.9 percent] were non-university graduates. We believe that this is the case not only in the Harare region but the country as a whole. In other words, the majority of secondary teachers at the time this pilot study was carried out were non-graduates.

As far as highest professional qualifications were concerned, these were given as follows: PTL/T4 16[17.8 percent], PTH/T3, 1[1.1 percent], Graduate Certificate in Education, 17[18.9 percent], Certificate in Primary Education 2[2.2 percent], Certificate in Secondary Education 39[43.3 percent], and B.Ed. 15[16.7 percent]. These results show that the majority, [64.7 percent] of the secondary teachers in the pilot study had non-university professional qualifications. But it should be noted that some of these non-university secondary teachers such as those with PTL/T4, PTH/T3 and Certificate for Primary Education were not supposed to teach at secondary level. As a result, at the end of 1994 the Ministry of Education gave some instructions to the effect that all those teachers who were trained for primary education but were teaching at secondary level, had to be deployed in primary schools.

Type of Training

With regards to type of training information gathered [Table 1] showed that 38[42.2 percent] were four-year conventionally trained; 29[32.2 percent], three year conventionally trained; 7[7.8 percent] Cuban trained and 16[17.8 percent] were post-graduate trained.

Table 1: Secondary Teachers Analysed According to Type of Training

	N	%
4-year conventional	38	42.2
3-year conventional	29	32.2
Cuban trained	7	7.8
Grad C.E.	16	17.8
Total	90	100.0

Teaching Experience

Table 2: Secondary Teachers' Teaching Experience

	N	%
Less than 1 year	6	6.7
1-2 years	21	23.3
3-4 years	22	24.4
5-6 years	14	15.6
7-8 years	8	8.9
9-10 years	6	6.7
11 years and above	13	14.4
Total	9	100.0

Marital Status

The majority of respondents in the pilot study were married. To illustrate, 71 [78.9 percent] were married, 15 [16.7 percent] were single 1 [1.1 percent] was separated and 3 [3.3 percent] were divorced.

Information contained in Table 2 is on the teaching experience of the secondary teachers in the pilot study. The majority of these teachers had taught for less than ten years. This is confirmed by information relating to these teachers' ages. In terms of ages, data collected showed that 3 [3.3 percent] were 18-23 years; 41 [45.6 percent] 24-28 years; 26 [28.9 percent] 29-33 years; 13 [14.4 percent] 34-38 years; and 7 [7.8 percent] 39 years and above.

Forms Taught By Participants

Table 3 contains information on forms taught by secondary teachers observed teaching in the pilot study.

Table 3: Forms Taught by Secondary Teacher in the Pilot Study

	N	%
Form One	14	15.6
Form Two	11	12.2
Form Three	14	15.6
Form Four	26	28.9
LVITH	13	14.4
UVITH	12	13.3

Secondary teachers in the pilot study were observed teaching in all the forms at secondary level, that is, from Form One to UVITH. In fact, at least 12 percent were observed teaching at each form.

The majority of the subjects taught in Zimbabwe's secondary schools were observed being taught by secondary teachers during the pilot study [Table 4]. In other words, the subjects used during the pilot study were representative of the majority of subjects taught in the whole country.

Table 4: Subjects Taught by Secondary Teachers in the Pilot Study.

	N	%
Shona	7	7.8
History	10	11.1
Extended Science	7	7.8
Geography	10	11.1
Mathematics	10	11.1
Graphics	4	4.4

Biology Promotion Since Initial Training

Under normal circumstances, promotion is partly a reflection of a person's effectiveness in his/her work. That is why it was necessary to find out whether these secondary school teachers had been promoted since their initial training. Information submitted was as follows: senior teacher 33[36.7 percent], teacher-in-charge, 1[1.1 percent], deputy head 1[11.2 percent], head 1[1.1 percent] and not promoted 44[48.9 percent]. That the biggest number 44[48.9 percent] of the teachers had not been promoted is not surprising. This is because as noted above, these teachers were relatively young with the majority [77.8 percent] being below 33 years of age. In addition, in any country in the world, Zimbabwe inclusive, teaching as a profession, constitutes the biggest percentage of white collar professions. This means promotions take long for teachers. In fact, the majority of teachers in Zimbabwe retire having not been promoted. Having said that, in the pilot study sample, the majority of these secondary teachers, 51.1 percent, had been promoted. Admittedly some of these promotions such as senior teacher and teacher-in-charge are at the lower levels of promotions. But that is a start. Whether these promotions are a reflection of the situation in the country as a whole will have to be verified when the study spreads to the whole country.

Supervision of Secondary Teachers

Supervision of teachers by their superiors, that is heads and education officers is one of the most important aspects of education. [Tables 5 and 6]. Respondents were requested to indicate how often they had been supervised by their heads and education officers per year.

As far as heads were concerned [Table 5] the biggest number of the secondary teachers in the sample 44[48.9 percent] had not been visited at the time data was collected which was towards the end of the third [final] term. In other words, they were not visited during that year [1994]. The second number 23[25.6 percent] of the secondary teachers in the sample were visited once. On the whole, therefore, the conclusion to be drawn is that secondary teachers in the pilot sample were inadequately supervised by their heads.

Information pertaining to frequency of supervision by education officers [Table 6] shows that the majority 69[76.7 percent] of these secondary teachers had not been supervised by education officers for the whole of 1994. It is clear from this pilot study that secondary teachers were inadequately supervised by both heads and education officers. In a major study [Chivore 1994] carried out among primary teachers similar trends were established. But compared with secondary teachers in this sample, primary teachers were by far better supervised than secondary teachers. The pilot study was carried out in Harare urban region. Headmasters at these schools reside in Harare and are based at these schools in terms of their work place. As for education officers, the distances they cover visiting schools are relatively shorter than those of education officers who are responsible for rural areas. True, some heads delegate supervision to deputy heads and senior teachers. But there is a problem that if such a style of supervision is perpetuated, heads as well as education officers lose touch with their subordinates. On the importance of systematic supervision by headmasters, Ozigi [1988:88] notes

that:

Evaluation of your staff and their teaching effectiveness is important from every point of view, and is very closely related to evaluation of learning. To a great extent the quality of education provided depends on teaching effectiveness and the attitude of staff. You [heads] must therefore attempt to know how each member of staff is getting on and how well he is performing his duties; you must be interested in finding out what techniques are being taught, whether relevant areas of prescribed syllabus are being followed and whether teachers prepare adequately for lessons on the basis of the schemes of work.

Supervision, monitoring and evaluation of both teachers and pupils are part and parcel of leadership which are key factors in both school and teacher effectiveness. Gray [1990:27] argues that “the importance of the headteachers’ leadership is one of the clearest messages from school effectiveness research.” Reviews by Purkey and Smith [1983] and studies by Rutter et al [1979; Caul [1994]; Simmons et al [1994] and American studies by Edmunds [1979], Brookover et al [1979] have shown the importance of heads’ leadership especially the quality of monitoring. The present authors’ study [Chivore 1994] established that primary teachers were inadequately supervised in Zimbabwe. The study [Chivore 1994:74] concluded.

Put in other words, whatever fine training student teachers may receive, without adequate supervision to reenforce what has been learnt at college, qualified teachers deteriorate into ineffectiveness.

Table 5: Frequency of Supervision by Heads Per Year

	N	%
Nil	44	48.9
Once	23	25.6
Two times	12	13.3
Three times	9	10.0
Four times	1	1.1
Five Times	1	1.1
TOTAL	90	100

Table 6: Frequency of Supervision by Education Officers Per year

	N	%
Nil	69	76.7
Once	18	20.0
Two times	3	3.0
Total	90	100.0

Secondary Teachers' Perception of Facilities And Related Issues

Secondary teachers in the pilot study were requested to give their views on a number of issues pertaining to the schools and their facilities. These issues covered supervision, syllabuses, teaching and learning materials among others [Table 7]. The teachers used a four point rating scale namely: 1-'not satisfactory'; 2-'somewhat satisfactory'; 3-'more satisfactory'; and 4-'most satisfactory'. Scales 1 and 2 were collapsed and became 'not satisfactory' while 3 and 4 became 'satisfactory'. The cut off point was 50.0 per cent.

Information contained in Table 7 indicates that respondents were satisfied with 7 out of a total of 25 items. Since 7 items were less than 50.0 percent of the 25 items, the conclusion reached was that, on the whole, secondary teachers were not satisfied with school facilities and related issues. The items in which these secondary teachers were satisfied were: exercise books for pupils 63[70.0 percent], pupils' attitude towards their subjects 58[64.4 percent], heads' attitude towards subject 57[63.3 percent], classrooms 48[53.4 percent] and chairs for pupils 47[57.3 percent].

Harare region in terms of facilities, equipment and other secondary education inputs, should be the best. This is because it is within the capital city of the country. But the results contained in Table 7 seem to suggest that there are problems. As established under Table 5 and 6, supervision by heads, senior teachers and education officers was rated as unsatisfactory. In fact supervision by education officers in Harare was rated as the least satisfactory. True the results in Table 7 show that in addition to supervision, other items rated as unsatisfactory include: laboratories, maintenance and service of equipment, links with industry, sports facilities, equipment, financial support, consumables, reading textbooks for pupils, timetable and time allocation to subjects and so on. We need to objectively analyse these results. At secondary level there is subject specialisation. The rating given was not necessarily per subject. Some items rated were not applicable to particular subjects for example history may not have consumables as is the case with chemistry. That being the case therefore, there was need to improve on the instrument used. For such a study more than one instrument was required which reflected upon different subjects for example a questionnaire for arts and humanities, science and mathematics, commercial studies, practical subjects and so on. The lesson we learnt from this pilot study was that in the main study we would have questionnaires based on subjects or subject related fields in order to obtain assessments which are realistic and objective. This had to be done to improve upon the data gathering

instruments without necessarily implying that all the results obtained under this section were not representative of what was observed when the pilot study was carried out. These results showed that instruments had to be improved.

Having said that for a developing country such as Zimbabwe, facilities are crucial. The present author is aware of arguments by Hanusheck (1986) who argues that resources should not be taken as crucial in determining teacher or school effectiveness. Among British scholars [Stoll and Mortimore (1995:6)] the view seems to be that "resources help but do not guarantee effectiveness." For the present author, particularly in a developing country such as Zimbabwe, resources are crucial for both school and teacher effectiveness. In the study [Chivore 1994] on primary teacher effectiveness, it was discovered that on the whole facilities were inadequate. Specifically, rural schools were more disadvantaged than urban schools. Furthermore, the Grade 7 results of urban primary schools were comparatively and relatively better than those of their rural counterparts. Hence Chivore [1994:116] noted:

Generally it would be correct to conclude that in these three subjects [Mathematics, English and General Paper] pupils whose schools were situated in urban areas obtained better results than pupils in rural areas.

The importance of resources, particularly books was highlighted elsewhere outside Zimbabwe by Heynman et al [1978:27] who observed:

Books have the capacity to deliver amounts of new information to the most remote locations. If the content is not understood, books can be studied again and again; if quickly understood, individuals can read ahead. Ideally books can be delivered to all children equally, urban, rural, rich and poor alike.

In her studies, Dove [1986:198] stressed the importance of material and facility provision at school for she wrote:

Common sense suggests that teachers, however well educated and trained are rendered less effective if schools lack basic facilities, equipment and materials necessary for teaching and learning. Only too often teachers in training learn how to use overhead projectors only to be posted to schools where seating, chalkboard and chalk are lacking.

Heynman [1983] noted that in industrialised countries 14.0 percent of the recurrent expenditure on primary schools was allocated to classroom resources, that is, books, maps, visual

aids, furniture, while 86.0 percent went to salaries. On the other hand, in developing countries, schools tend to be grossly under-resourced. In Asia [Dove 1986] the average is 9.0 percent on material resources and 91.0 percent on salaries; and in Africa, 4.0 percent and 96.0 percent respectively.

According to Windham [1985] Thiagarajau and Pasiona [1983], providing learning materials in schools is vital for pupil achievement. One multinational study [Heynman 1978] reports correlations between textbooks, and pupil achievement in Chile. Educational achievements amongst underprivileged pupils in Malaysia was found to be related to textbook availability. In Uganda, regardless of socio-economic status, it was found that there was a positive relationship between textbook availability in the classroom and pupils' examination performance. In El Salvador, children without textbooks achieved significantly lower test scores than those who had textbooks. Heynman [1978:23] wrote:

When few or no students have textbooks, the teacher has to use the textbook as a guide, and rely on the chalkboard or on the oral dictation; and students have to copy material into their notebooks... This wastes the time of both teacher and students. When most or all students have texts, a teacher has no option of working with small groups...and engaging in other teaching practices. If this is the case then textbooks may be important not simply as learning aides for individual students who have them, but as a necessary condition for teachers to use more effective teaching technique.

In this pilot study, there was a glaring disparity in terms of resources between Group A [formerly for whites] and Group B [formerly for blacks]. Former Group A schools had better facilities than former Group B schools. The situation for Group B secondary schools was not helped by the fact that in the majority of these schools there was double sessioning, locally known as "hot sitting".

The Effectiveness of secondary Teachers

The broad categories of items assessed under this section were: schemes, plans, records, learning and teaching aids, classroom management, class management methodology, language and communication and personal qualities [Table 8]. Under each broad area were found details of specific variables which were assessed.

Table 7: Secondary Teachers' Views On School Facilities and Other Related Issues

	Not		Satisfactory		Total		Rank
	Satisfactory		Satisfactory				
	N	%	N	%	N	%	
Supervision by Sen. Trs.	71	78.9	19	21.1	90	100	20
Supervision by EOs	82	91.1	8	8.9	90	100	25
Teaching guides	60	66.6	30	33.3	90	100	13
Labs/Workshops	73	81.1	17	18.9	90	100	21
Sports facilities	71	78.9	19	21.1	90	100	19
Practising ground/land	79	87.8	11	12.2	90	100	24
Physical facilities	49	54.4	41	45.5	90	100	12
Consumables/materials	70	77.8	20	22.2	90	100	16
Equipment	70	77.8	20	22.2	90	100	18
Teacher/pupil ratio	47	52.2	43	47.8	90	100	9
Timetab./Time allocated sub.	48	53.4	42	46.7	90	100	
10.Links with industry	77	85.6	13	14.4	90	100	22
Maintenance and service	77	85.6	13	14.4	90	100	23
Financial support	64	71.1	26	28.9	90	100	17
Head's attitude towards subject	33	36.7	57	63.3	90	100	5
Parents' att. towards subject	47	41.1	44	48.9	90	100	8
Pupil's att.	32	35.5	58	64.5	90	100	2
Exercise books for pupils	27	30.3	63	70.0	90	100	1
Reading textbooks for pupils	61	67.3	29	32.2	90	100	15
Classrooms	48	53.4	42	46.6	90	100	16
Desks for pupils	42	46.6	48	53.4	90	100	6
Chairs for pupils	43	47.7	47	52.3	90	100	7
Desks for teachers	32	35.5	58	64.4	90	100	3
Charis for teachers	32	35.6	58	64.4	90	100	4
In-school seminars	56	64.2	34	37.8	90	100	14
Supervision by heads	63	70.0	27	30.0	90	100	16

Table 8: The Effectiveness of Secondary Teachers in The Pilot Study

	Not Effective		Effective		Total		ks
	Not Effective		Effective				
	N	%	N	%	N	%	
(i) SCHEMES							
Statement of broad aims	57	63.4	33	36.6	90	100	25
Variety of Sources	67	74.4	23	25.6	90	100	37
Evaluation	63	70.0	27	30.0	90	100	31
(ii) PLANS							
Regular Planning	48	53.3	42	46.7	90	100	5
Specific Objectives	60	66.6	30	33.3	90	100	28
Planning Sequence	56	64.2	34	47.8	90	100	12
Content Sequence	50	55.5	40	44.5	90	100	17
Content Coherent	53	58.9	37	41.1	90	100	18
Content adequacy	48	53.4	42	46.7	90	100	14
Content appropriateness	47	52.3	43	47.8	90	100	13
Source of matter	63	70.0	27	30.0	90	100	32
Evaluation	61	67.8	27	32.2	90	100	30
(iii) RECORDS							
Marking Ex. Books	53	58.9	37	41.1	90	100	18
Marking Projects	57	63.3	33	36.7	90	100	24
Marking Register	57	63.3	33	36.7	90	100	23
Remedial Record	67	74.5	23	25.5	90	100	38
Progress Test Record	60	66.6	30	33.3	90	100	27
Individual Record	66	63.4	24	36.6	90	100	36

(iv) LEARNING AND TEACHING AIDS

Rel. of Aids to less objts.	69	76.6	22	23.4	90	100	43
Utilisation of variety Aids	70	77.8	20	24.2	90	100	
Utilisation of local Teaching Aids	70	77.8	20	24.2	90	100	41
Resourcefulness	65	72.2	25	27.2	90	100	35
Use of chalkboard	52	57.7	38	42.3	90	100	18
Neatness of Aids	71	78.8	19	21.2	90	100	44
Clarity of Aids	69	76.7	21	23.4	90	100	42

(v) CLASSROOM MANAGEMENT

Lab/Workshop layout	73	81.1	17	18.9	90	100	45
Seating arrangements	52	57.8	38	42.2	90	100	20
Stock control	75	83.3	15	16.7	90	100	46
Neatness/tidiness	44	38.9	46	51.1	90	100	11
Safety	68	75.5	33	24.4	90	100	39
Pupils protective dress	78	86.6	12	13.4	90	100	35
Teacher displays	63	70.0	27	30.0	90	100	33

(vi) CLASS MANAGEMENT

Lesson Introduction	52	67.8	38	42.2	90	100	19
Lesson development	40	44.4	50	55.6	90	100	10
Practical demonstrations	64	70.1	26	28.9	90	100	34
Quality control	65	72.2	25	26.8	90	100	
Supervision Style	50	55.6	40	44.5	90	100	15
Teacher-pupil interaction	39	43.3	51	56.7	90	100	9
Pupil-pupil interaction	60	66.6	30	33.3	90	100	29
Questioning techniques	33	36.6	57	63.3	90	100	8
Class control	26	28.9	64	71.1	90	100	6
Pupil participation	30	33.4	60	66.6	90	100	
Remedial work in class	63	70.0	27	30.0	90	100	33
Written work given	49	54.6	41	45.5	90	100	15

METHODOLOGY

Role play	77	85.6	13	14.4	90	100	34
Problem solving	55	61.1	35	38.9	90	100	22
Individual pupil attention	51	56.7	39	43.3	90	100	17
Lecture	54	60.0	36	40.0	90	100	21
Lesson summary	58	64.4	32	35.6	90	100	26
Group work	67	74.4	33	25.6	90	100	28

(viii) LANGUAGE AND COMMUNICATION

Voice clarity	16	17.7	74	82.3	90	100	2
Modulation	11	12.2	79	87.8	90	100	1

(ix) PERSONAL QUALITIES

Teachers' dress	17	18.9	73	81.1	90	100	4
Teachers' tidiness	19	21	71	78.9	90	100	5
Mastery of subject matter	17	18.9	73	81.1	90	100	3

Schemes

Detailed items assessed under schemes were: statement of broad aims, variety of sources and evaluation. [Table 8(i)]. In all these items, secondary teachers in the pilot study were rated as ineffective.

Plans

On plans, the researchers assessed specific objectives, regular planning, planning sequence, content sequence, content coherence, content adequacy, content appropriateness, sources of matter and evaluation. [Table 8(ii)]. It was disturbing to note that as in the case of schemes, secondary teachers in the pilot study were rated ineffective in their plans.

Records

The records that were analysed were: marking exercise books, marking projects, marking register, remedial record, progress test records and individual records. Sadly secondary teachers in the pilot study were rated ineffective in these items as well. [Table 8 (iii)].

Learning And Teaching Aids

Items considered under learning and teaching aids were: relevance of aids to lesson objectives, utilisation of local teaching aids, resourcefulness, use of chalkboard, neatness of aids and clarity of aids. None of these items scored a 50.0 percent score. The conclusion reached was that secondary teachers were ineffective in the use of learning and teaching aids. [Table 8(iv)].

Classroom Management

The items assessed under classroom management were: laboratory/workshop layout, seating arrangements, stock control, neatness or tidiness of the classroom, safety, pupils' protective dress and teacher displays [Table 8(v)]. The only item which scored more than 50.0 percent score was neatness or tidiness of the classroom [51.1 percent]. In other words we concluded that secondary teachers in the pilot study were rated as ineffective in classroom management. Few comments are necessary. Under this section, it will be noted that some items did not apply to certain subjects for example laboratory layout and stock control were more applicable to science than to arts subjects such as history, English and so on. Consequently it was decided that in the final study as already noted, assessment of such items would be based on a particular subject so that what was assessed reflected what took place under a given subject.

Class Management

In all there were twelve items which were assessed. Out of this number five were rated as effective. There were: lesson development, [55.6 percent] teacher-pupil interaction [56.7

percent], questioning techniques, [63.3 percent], class control [71.1 percent] and pupil participation [66.6 percent]. These five items were less than 50.0 percent of the total items [12] assessed under this section. On the whole therefore the observation made was that secondary teachers in the pilot study were rated as ineffective in class management.

An analysis of items rated as effective indicates that most of these items tended to be routine. These include: teacher-pupil interaction, questioning techniques, class control, and pupil participation. In the majority of cases pupil participation was a result of the method used by the teacher which was the lecture method. Under this method teachers dominated by concentrating on questioning the students and in the process of answering the questions given, this made the pupils participate.

On the other hand, the items in which secondary teachers in the pilot study were rated ineffective were 'high order skills' related. These included pupil-pupil interaction, remedial work in class, supervision style, lesson introduction, quality control and written work given. These items make a difference between outstanding and mediocre teachers. That these secondary teachers were found ineffective in remedial work is in line with the fact that they were rated ineffective in their remedial records.

Methodology

The items which were rated under methodology were role play, problem solving, lecture, lesson summary and group work. [Table 8 (vii)]. Secondary teachers in the pilot study were rated ineffective in all these items.

Language and Communication

Under this section [Table 8 (viii)] items rated were : voice clarity, modulation and expression. Secondary teachers in the pilot study were rated as effective in these items.

Personal Qualities

As was the case with language and communication, secondary teachers were rated as effective in their personal qualities. These qualities included teachers' dress, teachers' tidiness and mastery of subject matter. In fact mastery of subject matter belongs to class management. In the final draft, this correction was made accordingly.

Teaching and Learning

Within the Zimbabwean context teaching and learning are at the centre of school and teacher effectiveness. In Zimbabwe factors considered include: schemes, lesson plans, records, learning and teaching aids, classroom management, class management, teaching methods, language and communication and mastery of subject matter. The other factors such as leadership, facilities, resources, teachers' qualifications among others discussed above are equally important.

It was noted under Table 8, that there was a total of 45 items directly concerned with teaching and learning which researchers rated when the teachers were observed teaching. Out of this figure, only 11 [2.4 percent] were rated as effective. In rank order these were : modulation [87.8 percent], voice clarity [82.3 percent], mastery of subject matter [81.1 percent], class control [71.1 percent], pupil participation [66.6 per cent], questioning techniques [63.3 percent], teacher pupil interaction [56.7 percent], lesson development [55.6 per cent] and neatness and tidiness of the classroom [51.1 per cent]. To stress a point already made, on the whole secondary teachers in the pilot study were rated as ineffective classroom practitioners.

A closer look at the items rated as effective clearly shows that these items were routine. Due to this situation it was decided not to analyse these results by gender, qualifications, experience etc. But the question that arose was why were these secondary teachers rated ineffective? What implications did this have for pupil performance?

The above questions are relevant because what we looked at in this pilot study has been found to be central to learning and teaching in other contexts as well. Sheerens [1992] regards teaching and learning, and classroom processes as key determinants in schools' academic effectiveness. He has factors such as professional leadership, learning environment, decision-making, management, learning organisation, monitoring of progress as important if learning and teaching are to be realised. Using slightly different words but emphasising the same point, Stoll and Mortimore [1995] have participatory leadership, learning environment, high expectations, monitoring and enquiry, positive re-enforcement and school improvement for effective learning and teaching.

In this pilot study, it was established that secondary schools had inadequate facilities and resources, supervision by both heads and education officers was not only inadequate but non-existent in the majority of schools. Given that scenario, it would have been surprising to find teachers and schools being rated as effective. Another factor militating against secondary teacher effectiveness was to do with the delivery system or teaching methodology. True these teachers were found effective in their mastery of content. But in teaching it is not only what one knows but how to put across what one knows. For the art of teaching is to be understood by the learners. Nobody is prescribing a method of teaching as suitable in such a complex area. But effective teaching methodology cannot be mistaken when seen. The majority of the teachers observed did not have teaching aids, except obvious ones such as chalk, chalkboard, and textbooks. One researcher observed a biology lesson on 'grass'. The teacher did not have a single grass in that lesson. To us this was a classic example of "how not to teach" but how to demotivate the taught.

While nobody can prescribe any method as suitable, reference can be made to what has been written by other scholars in this respect. Rosenshine and Stevens [1981] highlight the importance of structured teaching. Others [NREL (1990)] draw particular attention to questioning techniques which focus on pupil's attention on key elements of lessons. Stalling [1975] points to improvement in pupil outcomes through systematic teaching methods with open-ended questions, pupil answers, followed by teacher feedback.

In this pilot study, secondary teachers were generally weak in the schemes, lesson plans and evaluations. This suggests that they were not adequately prepared for what they taught. As for evaluations, the majority of these were meaningless. In extreme cases the evaluation columns were just ticked [] to show that the schemes were carried out. For lesson plans statements such as "the lesson was a success", "children enjoyed the lesson" were common. There was little evidence of self-evaluation.

Observations

We would like to remind the reader that this was a pilot study meant to synthesise and establish pointers for the final country wide study. In fact the purposes of the pilot study were accomplished. Lessons were learnt.

It became clear to us that the team had to be expanded to include researchers from teachers' colleges as well as education officers from the regions and districts. This was done to enable college lecturers to see what was taking place with the teachers they produced.

Modifications were made to the instruments. Questionnaires were separated. We had questionnaires for science, mathematics, arts and humanities, commercial and practical subjects. This was to reflect these subjects as they were studied at secondary level. Added to that the area of focus had to be streamlined. Instead of concentrating on secondary education as a whole, that is Form I - UVITH, it was agreed to concentrate on examinable Form IV ['O' level - Cambridge School Certificate]. The reason being that in the final study an assessment would be made between school and teacher effectiveness on the one hand and pupil performance on the other in the final public examinations in the year(s) data was collected by the researchers.

The pilot study established certain trends which were pointers towards what might be looked at closely in the final study. These were: that supervision by heads and education officers was inadequate, and that generally there were weaknesses in classroom teacher effectiveness.

Conclusion

It is possible that what was noticed under the pilot study could be reversed under the final study. Be that as it may trends were established. Some of these trends raised more questions than answers and created more curiosity among researchers. This curiosity should enable researchers to look more systematically and thoroughly into secondary teacher and school effectiveness by gender, qualifications, experience, type of training, type of school, responsible authority among other variables. At the time of writing [1996] data for Matabeleland and the Midlands have been collected and some of the trends established during the pilot study are already emerging.

REFERENCES

- Anderson, L.W. [1991]: *Increasing Teacher Effectiveness*, UNESCO IIEP, Paris.
- Avalos, B. [1985]: *Teacher Effectiveness in (ed) Metzel, M.E. Encyclopedia of Educational Research, Fifth Edition*, New York, The Free Press.
- Bennett, N. [1976]: *Teaching styles and Pupils' Progress*. Open Books, London.
- Biddle, B. and Ellena, W. [1976]: *Contemporary Research on Teacher Effectiveness*. N.Y. Holt Rinehart and Winston.
- Brookover, W. Beady, C. Flood, P., Schweitzer, J. and Wisenbaker, J. [1979]: *School Social Systems and Student Achievement: Schools can make a difference*, New York Praeger.
- Chivore, B.R.S. [1974]: *The Effectiveness of the Primary School Teacher In Zimbabwe*, Mambo Press, Gweru, Zimbabwe.
- Chivore, B.R.S [1995]: *Secondary Teacher Effectiveness In Zimbabwe, A Pilot Research Study Funded by the Research Board of the University of Zimbabwe, Faculty of Education, University of Zimbabwe, Harare, Zimbabwe*.
- Chivore, B.R.S. [1985]: *Recruitment and Training of non-Graduate Secondary Teachers in Zimbabwe Since Independence*. PhD Thesis, University of London, Institute of Education, unpublished.
- Chivore, B.R.S. [1986]: *Form IV Pupils' Perception of and Attitude Towards the teaching profession in Zimbabwe*, *Comparative Education* 22(3) 2333-253.
- Caul, L. [1994]: *School Effectiveness in Northern Ireland: Illustration and Practice*, Paper for the Standing Commission on Human Rights.
- Creemers, B.P.M. [1994]: *The History, Value and Purpose of School Effectiveness Studies in Reynolds D. et al (eds); Advances in School Effectiveness Research and Practice*, Oxford, Pergamon.
- Creemers, B.P.M., Reynolds, D. and Swint, F.E. [1994]: *Value, and Purpose of School Effectiveness Studies in Reynolds D. et al (eds); Advances in School Effectiveness Research and Practice*, Oxford, Pergamon.
- Daly, P. [1991]: *How Large Are Secondary School Effects in Northern Ireland?* School Effectiveness and School Improvement 2(4) 305-323
- Dove, L.A. [1986]: *Teachers and Teacher Education in Developing countries, Issues in Planning, Management and Training*, Croom Helm, London.

Edmunds, R. [1979]: *Effective Schools for the Urban Poor*, Educational Leadership 37(1) 15-27.

Eggleston, J.F., Galton, M.J., and Jones, M.E. [1976]: *Process and Products of Science Teaching*, London, MacMillan.

Fuller, B. [1985]: *Raising School Quality in Developing Countries. What Investment Boost Learning?* Washington D.C. The World Bank, Education and Training Department, Report no ED17.

Fuller, B. [1986]: *Is Primary School Quality Eroding in the Third World?* Comparative Education Review 30(4) 491-507

Gelton, M. and Simon, B. [1980]: *Inside the Primary Classroom*, London, Routledge and Kegan Paul.

Gray, J. [1990]: *The Quality of Schooling: Framework For Judgements*, British Journal of Educational Studies. 38 (3), 203-233.

Gray, J. [1981]: *A Competitive Edge: Examination Results and the Probable Limits of Secondary School Effectiveness*, Educational Review 33(1) 25-35.

Gray, J., Jesson, D., Goldstein, H., Hedger, K and Rasbash, J. [1993].: *A Multilevel Analysis of School Improvement: Changes at the 5th European Conference of the European Association for Research on Learning and Instruction*, 3, September. Aix-en-Provence, France.

Goldstein, H. [1987]: *Multilevel Models in Educational and Social Research*, London, Griffin and Co.

Henderson, E.S. [1978]: *The Evaluation of In-Service Teacher Training*, London Croomhelm.

Heynman, S.B., Farrel, J.P. and Sepulveda-Stuardo, M.A. [1978]: "Textbook and Achievement: What we Know". Washington D.C. The World Bank, Staff Working Paper no 298.

Heynman, S.B. [1983]: *Improving the Quality of Education in Developing Countries*, Finance and Development, March 18-21.

Levine, D.U. and Lezotte, L.W. [1990]: *Improving School Effectiveness: A Scottish Approach*, Paper presented at the Annual Conference of the British Educational Research Association, Oxford.

Madaus, G.G., Kellagham, T., Rakow, E.A. and King, d. [1979]: *The Sensitivity of Measures of School Effectiveness*, Harvard Educational Review (49) 207-230.

Medley, D.H. [1982]: *Teacher Effectiveness in Metzler, M.E. (ed) Encyclopedia of Educational Research*, Fifth Edition, New York. The Free Press.

Merson, M. [1990]: The Problem of Teaching Style in TVI, in Hopkin, D. (ed) TVEI at the Change of Life, British Multilingual Matters.

Montero-Sieburth, M. [1989]: Classroom Management: Instructional Strategies and the Allocation of Learning Resources. Bridges Research Series no 4, Cambridge Mass. Harvard University.

Mortimore, P., Sammons, P., Stoll, L., Lewis, D and Ecob, R. [1988]: School Matters: The Junior Years, Somerset, Open Books, reprinted 1994 Paul Chapman, London.

Mortimore, P. [1991]: The Nature and Findings of School Effectiveness Research in the Primary Sector in Riddell, S. and Brown, S. (eds): School Effectiveness Research: Its Messages for School Improvement, London H.M.S.O.

North West Regional Educational Laboratory (NREL) [1990]: Onward to Excellence: Effective Schooling Practices: A Research Synthesis, North Western Regional Laboratory, Portland Oregon.

Nuthal, D., Goldstein, H., Prosser, R. and Rasbash, J. [1989]: Differential Effectiveness, International Journal of Educational Research - Special Issue-Developments In School Effectiveness Research 13, 769-776.

Nyagura, L.M. [1991]: Multilevel Investigation of the Effects of Schools, Classrooms and Students, Characteristics on the Academic Achievement in Zimbabwe's Primary Schools, HRRC, Harare, Zimbabwe.

Ozigi, O.A. [1983]: A Handbook On school Administration and Management. The College Press.

Poppleton, S.E. [1989]: Psychology At Work. London, MacMillan.

Purkey, S.C. and Smith, M.S. [1983]: Effective School: A Review. Elementary School Journal. 83(4) 427-452.

Reid, K., Hopkins, D. and Holly, P. [1987]: Towards the Effective School, Oxford, Blackwell.

Reynolds, D., Creemers, B., Nesselrodt, P.S., Shaffer, E.C., Springfield, S. and Teddlie, C. [1994]: Advances in School Effectiveness Research and Practice, Oxford Pergamon.

Reynolds, D. and Creemers, B. [1990]: School Effectiveness and School Improvement: A Mission Statement, School Effectiveness and School Movement. 1, (1) 1-3.

Reynolds, D. [1976]: The Delinquent School in Woods, P.(ed): The Process of Schooling, London, Routledge and Kegan Paul.

Reynolds, D. [1982]: The Search for Effective Schools, School Organisation, 2(3) 215-237.
Riddel, A. [1996]:

Rosenshine, B. and Stevens, R. [1981]: *Advances in Research On Teaching*, unpublished manuscript, University of Illinois.

Rugh, A. [1991]: *Teaching Practices to Increase Student Achievement: Evidence from Pakistan*, Bridges Report Series No 8 Cambridge Mass. Harvard University.

Rutter, M., Maughan, B., Mortimore, P. and Ouston, J. [1979]: *Fifteen Thousand Hours: Secondary Schools and their Effects on Children*, London, Open Books.

Ryan, J. [1972]: *Educational Resources and Scholastic Outcomes: A study of Rural Primary Schooling in Iran*, Stanford University. Ph.D. Thesis Unpublished.

Sammons, P., Mortimore, P. and Thomas, S. [1993]: *Do Schools perform consistently across outcomes and areas?* Paper presented to the ESRC series "School Effectiveness and School Improvement" July University of Sheffield.

Sammons, P., Thomas, S., Mortimore, P., Owen, C. and Pennell, H. [1994]: *Assessing School Effectiveness: Developing Measures to put school effectiveness in context*, London Office of Standards in Education. [OFSTED]

Sammons, P., Hillman, J. and Mortimore, P. [1995]: *Key Characteristics of Effective Schools: A Review of School Effectiveness, A Report by the Institute of Education, for the office for Standards in Education, Institute of Education, University of London.*

Schreens, J. [1992]: *Effective Schooling: Research, Theory and Practice*, London Cassell.

Sharpes, D.K. [1983]: "Methodological Issues in Researching Teacher Education in Developing Countries. Paper presented at a meeting of the Northern Rocky Mountain Educational Research Association, Jackson, New York.

Smith, D.J. and Tomlinson, S. [1989]: *The School Effect : A Study of Multi-Racial Comprehensives*, London: Policy Studies Institute.

Stalling, J. [1975]: *Implementation and Child Effects of Teaching Practices in Follow Through classrooms*, Monographs of the Society for Research in Child Development, 163(40) 7-8.

Steedman, L. [1987]: *Its time we changed the Effective Schools Formula*, Phi Delta Kappan 69(3) 215-244.

Stoll, L. and Mortimore, P. [1995]: *School Effectiveness And School Improvement*, Viewpoint No 2 June Institute of Education, University of London.

Thiagarajan, S. and Pasigna, A. [1988]: A Literature Review on the Soft Technologies of Learning, Cambridge, Mass. Research Report Series no2. Harvard, Bridges Project.

Thomas, S. and Mortimore, P. [1994]: Report on value added analysis of 1993 GSCE Examination Results in Lancashire, Research papers in Education.

Tizard, B., Blatchford, P., Burke, J., Farquahar, C. and Plewis, I. [1988]: Young Children at School in the Inner City, Hove, Lawrence Erlbaum.

UNESCO [1986]: School Based In-Service Training: A Handbook, Regional Office for Education in Asia and the Pacific, Bangkok, Thailand.

Willms, J.D. and Raudenbush, S.W. [1989]: A Longitudinal Hierarchical Linear Model for Estimating School Effects and their Ability. Journal of Educational Measurement. 26(3) 209-232.

Windham, D.M. [1985]: Internal Efficiency and the African School, Paper prepared for the Iredu, University of de Dijon, France, Mimeo.



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