

**IMPROVING EDUCATIONAL QUALITY (IEQ) PROJECT
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**NON-FORMAL TEACHER DEVELOPMENT
BY NGOs IN SOUTH AFRICA:
A REVIEW OF SELECTED STUDIES
AND POLICY IMPLICATIONS**

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NON-FORMAL TEACHER DEVELOPMENT BY NGOs IN SOUTH AFRICA: A REVIEW OF SELECTED STUDIES AND POLICY IMPLICATIONS

by

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INTRODUCTION

The Improving Educational Quality (IEQ) Project was funded by the United States Agency for International Development (USAID) to provide technical assistance to non-governmental organisations (NGOs) in the areas of research, evaluation and monitoring. These NGOs, funded under the South African Basic Education and Reconstruction (SABER) and Education Support and Training (ESAT), provide in-service education for teachers in primary education and Early Childhood Development (ECD). The following goals were articulated for the IEQ Project in South Africa:

1. Conduct impact assessments of grantees' products and services that influence instruction and learning at the school and classroom level;
2. Strengthen grantees' capacity to establish and maintain monitoring and evaluation systems of individual projects;
3. Strengthen grantees' expertise in educational research and evaluation methodology;
4. Facilitate professional linkages between grantees and the educational research and development community within and outside of South Africa.

In fulfilment of its goals, the Improving Educational Quality (IEQ) Project completed a number of evaluation studies of NGO interventions aimed at improving the practice of learning and teaching through non-formal training of teachers.

This paper, at one level, is a logical extension of this process and seeks to provide a composite report based on five individual studies with the view to discussing the findings across individual samples. At a second level, the paper attempts to draw out implications which go beyond the findings of the particular studies into an exploration of the implications of the IEQ's work in the process of transforming and renewing learning and teaching at the classroom level in South Africa. The latter and more expanded aim of this

paper is motivated by the belief that, the evaluation studies referred to, may contain experiences, insights and findings which could make a contribution to addressing two important issues: First, the general paucity of empirical analyses of learning and teaching in the classroom on which to base deliberations around policy; and, second, the urgent need to debate and implement the operationalisation of new paradigms which underpin emerging policy on teacher development.

The paper begins with a brief background to the studies by sketching the major issues facing INSET and INSET NGOs in South Africa. This is followed by an overview of the main trends in the findings and a discussion and conclusions based on these trends. The final section tries to link the findings and other aspects of the studies under review to pertinent issues in the policy context of INSET in South Africa.

BACKGROUND

INSET, while being universally recognised as important for quality improvement in education, assumes a particular importance in the context of education in South Africa. The huge disparities, so widespread in education today, have been shaped by a social investment policy based on apartheid. Today, the newly elected government, in varying partnerships with stakeholders, is formulating policies which are aimed at the amelioration of historical disparities in education (White Paper on Education and Training, 1995). This is no easy task considering that the legacy of neglect and mismanagement, driven by inappropriate policies, have resulted in a system which requires fundamental transformation to meet the government's stated goals of democracy and equity while effectively responding to the imperative of human resource development in an increasingly competitive international economy.

If education is being charged with an onerous responsibility, then in-service education and training of teachers (INSET) (or in-service teacher development) is being charged with the similarly onerous task of optimising the capacity of the education system to deliver on this responsibility: "The Ministry believes that the most direct way of raising the quality of learning and teaching is through a comprehensive reform and re-direction of in-service education for teachers (INSET) (White Paper on Education and Training, 1995, p30).

INSET was only offered to a very limited extent by the erstwhile government departments of education, and was progressively neglected when viewed along the gradient of the racial hierarchy established by the grand architects of apartheid. While these offerings often followed divergent approaches, the overwhelming majority were of poor quality, were teacher-centred and informed by an authoritarian paradigm. The proliferation of INSET NGOs in the country, spawned by government neglect, did not simply attempt to fill the vacuum but posited a radically different paradigm of learner-centredness. Today, INSET is being conducted on a large scale; about two-thirds of the teaching corps is currently involved in some form of INSET (Hofmeyr and Hall, n.d.)

Most NGOs have not operated to scale, and probably as a consequence are widely recognised to have strengths in educational innovation. Hofmeyr and Hall, commenting on the findings of an audit on teacher education, noted that,

NGOs were found to be flexible and innovative and to work closely with their client communities and are therefore well placed to ascertain needs in the areas in which they work. As such, they provide early warning of changing INSET needs. (Hofmeyr and Hall, n.d., p57).

The process of clarifying and debating the role of INSET NGOs must be predicated on an analysis of the quality of their teacher development programmes and on the impact of these programmes on the quality of education. For the future, whatever the institutional arrangements for the provision of INSET may be, a comprehensive mechanism of quality assurance will have to be established on grounds of efficiency and equity, and in deference to the government's goal of realising quality education in South Africa. Such a mechanism needs to be based on a set of clearly defined indicators of quality which will be assessed through an established and ongoing system of evaluation and monitoring:

The teacher education system as a whole pays little attention to defining or developing quality and has no ongoing quality assurance system in place to maintain quality teacher education. The quality of teacher education is the biggest challenge confronting South Africa at the close of the twentieth century. The quality of PRESET and INSET is generally poor, despite pockets of excellence and innovation. (COTEP, 1996b, p7).

These NGOs, many of whom were established during the days of apartheid, are now operating in a rapidly transforming terrain. A notable feature of the new terrain is that even though a democratic government is now in place, the challenges in education are simply too vast and too urgent to be dealt with exclusively through the mobilisation of government capacity and resources. Indeed, many are arguing that the new government should not, even in the future, strive to meet all the educational challenges on its own. Instead, every effort should be made to establish creative and synergistic partnerships with institutions and organisations in civil society. This debate is a complex one and need not concern us within the bounds of the scope of this paper, save to say that there is a compelling need, given the challenges, to assess the potential role of NGOs in the reconstruction of education in South Africa. This paper touches on this debate only to the extent that it conducts an analysis of some aspects of the impact of a selection of INSET NGOs. This is based on the assumption that any discussion on the future role of INSET NGOs in South Africa will have to be informed by empirical evidence of their impact and an analysis of future potential. This study hopes to make a contribution to informing this process.

AIMS AND PURPOSE OF THE STUDIES

This paper reviews five independent studies, all of which have a common focus, purpose and similar aims. The purpose of the impact evaluations was to assess the relationship of participation by teachers in in-service teacher training (INSET) programmes with instructional practices and learner participation variables associated with high quality. The knowledge gained through the evaluations was used to show impact to potential donors and departments of education and to inform decision-making related to in-service teacher training. Programme co-ordinators may use the results of the assessments to examine their curricula and training methods in their efforts to enhance teaching and learning. It was an explicit goal of all the studies to work collaboratively with NGO personnel with the view to building capacity within the NGOs for monitoring and evaluation.

THE STUDIES

Each of the studies under review generated a separate data set which, in turn, was written up into separate reports. However, the researchers (including participants from the NGOs) across the individual studies worked collaboratively in conceptualising the research designs and planning analysis, and shared ideas on the analysis and discussion of findings. This review is therefore a logical step in the process of collaboration between the studies, and is made easier by the fact that all the studies were based on a common methodology.

It should be stressed that this composite report is not intended to be a comparative analysis of the participating NGOs. Even if the authors were enamoured of such an exercise, it would not be tenable on methodological grounds and could, consequently, result in misleading conclusions. In an effort to avoid any temptation to compare NGOs, it has been decided not to list the names of the organisations in this paper. Evaluation studies were conducted of the work of five NGOs which will henceforth be referred to as Programmes A, B, C, D, and E in the sample description and discussion.

Methodology

In keeping with the purpose of the studies (outlined above) and the brief (to assess whether the specific NGOs were making a difference in the classroom), the following broad questions were common to all the studies:

- In what ways do teachers with different levels of training teach differently?
- In what ways do learners in classrooms taught by teachers with different levels of training participate differently?
- In what ways do the classroom learning environments of teachers with different levels of training differ?

- What is the relationship of other variables such as education, teaching experience, age, and gender, on the one hand, to teaching, learning, and classroom learning environments, on the other hand?

The individual studies sought to compare the performance of teachers at different levels of training in the respective programmes and teachers who had not been trained by the NGO with respect to certain variables associated, in the literature, with high quality learning and teaching. The comparison group was referred to as the teachers who were not trained or non-INSET group. Within the trained groups, there were groups with low, medium, and high training.

There are, obviously, a number of ways in which the research questions listed above may be interpreted. Each interpretation will in turn suggest a number of ways in which it may be operationalised into a methodology for a study. Some of these differences may arise because of different epistemological grounding, while others may indeed arise between adherents of the same epistemology. Often, as we will shortly indicate was the case with the studies under review, contextual factors exercise a powerful mediating influence in the final research design implemented in the field; this often, despite the philosophical persuasions of the participants. This situation is rendered even more complex in situations where the study is conducted using collaborative and participatory approaches. Given these complexities, we believe it worthwhile, for the sake of clarifying, and for the purpose of encouraging debate, to make explicit the rationale which underpins the methodology selected for the studies under review.

One of the immediate questions the research team had to face, some of which would undoubtedly recur when the studies are subjected to careful review and scrutiny, are:

- Should the studies measure impact (which necessitates the assessment of measurable indicators after the analysis of baseline data)?
- What about learning gains? Surely one cannot talk about whether NGO training has made a difference outside of an analysis of the item where it matters most: learning gains.

On the first of these questions, the time required to conduct a study that compared outcomes to a related set of baseline data was immediately ruled out by the tight time-frame stipulated in the brief. The second constraint was that baseline data and pupil achievement data did not exist in South Africa.

On the issue of learning gains, the researchers were faced with the perennial question: How does one ascribe learning gains to any one teacher at a particular temporal juncture, thus ignoring the complex historical and contextual factors which shape learner achievement?

These issues presented two intractable problems which the researchers attempted to solve by developing a research design based on the following:

1. Numerous empirical studies, reported in the literature, in different contexts and locations have produced a range of proximal indicators of quality of learning and teaching. These indicators, it has been shown, are proxies to learning outcomes and other desired outcomes based on progressive approaches to learning and teaching. Following a review of the literature to isolate key indicators of quality to be used in these studies to assess teacher performance, the research team conducted an analysis of the NGOs' own expectations of their programmes. [In this regard, it was very instructive that the expectations of the NGOs resonated very strongly with the indicators of quality identified independently through the literature review, suggesting the conceptions of the NGOs' programmes resided in a similar paradigm to the one which the literature was based on. The significance of this finding will be discussed in more detail later.]
2. A stratified, random sample was used to allow for a comparison between teachers who were not trained teachers and teachers at different levels of training. The assumption being that that if training is making a positive difference, then teachers with more training would, in general, display more of the behaviours identified than teachers with less training.

The methodology used for the studies tried to identify observable teacher and learner behaviours which corresponded to the indicators of quality identified. Significantly, this aspect of the methodology is consistent with the outcomes approach which has assumed such importance in emerging education policy in South Africa at present. A point worth stressing at this stage is that an implicit aim of these studies, in addressing the wider aim of the project, was to contribute to developing a system of evaluation and monitoring which NGOs and other institutions could use. If, as it should be, this approach is applied on an ongoing basis, the method of evaluation and monitoring developed may form the basis for an important component of a comprehensive quality assurance system which has a strong participatory and formative dimension to it.

Collaboration and Capacity Building

The methodologies employed were informed by a participatory and collaborative approach to evaluation and research. In addition to its more conspicuous democratic appeal, this approach helped to facilitate an atmosphere in which the evaluation was not perceived as a hostile and extraneous intrusion into the work of NGOs - a perception which has generally been an unfortunate consequence of the traditional approaches to evaluation.

Further, and very important, there was an explicit aim in the process to develop the institutional capacity of NGOs to understand, develop, and implement their own systems of evaluation and monitoring. For unless institutional capacity is developed at the levels of teacher educators, programme implementers and teachers, the tremendous value of

formative feedback which accrues from a process of ongoing evaluation and monitoring will not be forthcoming.

NGO personnel, therefore, worked with the IEQ team in the various stages of the design and implementation of the evaluation. NGO staff participated equally with IEQ team members at the design, instrumentation, and data collection stages, and the IEQ team took the lead at the data analysis and report writing stages. Additional training workshops were arranged to enhance the skills of NGO personnel in data analysis and report writing activities.

Instrumentation

The primary instrument used for data collection was a classroom observation instrument which consisted of eleven core components that were common across the studies. The core components focused on the following teaching and learning indicators:

- Use of a Variety of Teaching Methods.
- Use of Materials by Learners.
- Use of Materials by Teacher to Enhance Learning.
- Grouping of Learners.
- Learners Work in Groups.
- Critical and Creative Thinking Activities.
- Questioning Skills.
- Learners Asking Questions.
- Teacher Feedback To Learners.
- Use of Language to Improve Learner Understanding.
- Opportunities for Learners.

Each of the above components contained a scale of four categories for the observation. The categories ranged from “1” (the least acceptable) to “4” (the ideal). For example, in the case of the component “Critical and Creative Thinking Activities”, the categories were as follows:

- 1 - Teacher lectures, learners listen to teacher.
- 2 - Learners involved in teacher-directed activities.
- 3 - Learners involved only in sharing of ideas.
- 4 - Learners involved in discussions and problem solving and/or creative activities.

The relevant classroom observations were rated by observers selecting the category of the four-point scale which best described the instructional behaviours that were observed. In an attempt to improve the reliability of the ratings, observers wrote a brief description below the categories to record the basis for the entry. These descriptions and related rating were compared between observers to assess the consistency and reliability of the ratings.

Teacher interviews, teacher questionnaires and classroom environment and resources checklist were used to collect additional data. The classroom environment and resources checklist was used to gather information on the physical environment and resource availability in the classroom. The teacher interview schedule was used to obtain more qualitative data through the use of open-ended questions, about teachers' views or perceptions. The teacher profile schedule was used to collect demographic data on teachers.

The Sample

The primary source of information was the teachers who had received NGO training and untrained teachers who comprised the comparison group. Teachers were selected from geographic areas covered by NGOs. Table 1 indicates the number of teachers and the provincial and geographical areas from which teachers were selected. The sample for each NGO included teachers who had received NGO training and those who had not received training. Teachers who had not received training constituted a comparison group. Trained teachers were further differentiated into groups with basic or low training, medium training, and high training.

TABLE 1: Sample of Teachers in Five Studies

NGO	Trained Teachers	Untrained Teachers	Total Number of Teachers	Regions	Geographic Distribution
A	72	13	85	KwaZulu Natal Free State Eastern Cape	rural, urban
B	40	10	44	Gauteng	farm
C	32	10	50	Eastern Cape,	rural, urban, farm
D	41	11	52	Eastern Cape Free State Gauteng Western Cape Mpumalanga	rural, urban, farm
E	34	10	44	Eastern Cape	rural

DISCUSSION OF FINDINGS

The findings discussed in this report are based on an analysis of teacher ratings on the classroom observation instrument. Further analysis was done using ANOVAs to examine if there were any significant differences between the ratings of trained teachers and those of untrained teachers. The relationships of other variables which could account for differences, such as education, teaching experience, age, and gender will also be discussed. Table 2 summarises the differences between teachers with different levels of training observed on individual components of teaching and learning.

TABLE 2: Overview of Component Findings by Training Level by Organization

COMPONENT	NGO A	NGO B	NGO C	NGO D	NGO E
	Significance Levels	Significance Levels	Significance Levels	Significance Levels	Significance Levels
1. Use of a Variety of Teaching Methods	High > no training	No differences	High > no training	Medium, Low > no training	No differences
2. Use of Materials by Learners	High > no training	No differences	High, Medium, Low > no training	High, Medium, Low > no training	High > no training
3. Use of Materials by Teacher to Enhance Learning	High > no training	High > no training	High, Medium, Low > no training	High, Medium, Low > no training	High > Low and no training
4. Grouping of Learners	High, Medium, Low > no training	High > no training	High, Medium, Low > no training	High, Medium, Low > no training	No differences
5. Learner Work in Groups	High, Medium, Low > no training	No differences	No differences	No differences	High, Low > no training
6. Critical and Creative Thinking Activities	High, Medium, Low > no training	High > no training	High > no training	No differences	High > no training
7. Questioning Skills	High > no training	No differences	High > no training	Medium > no training	No differences
8. Learners Asking Questions	High > no training	No differences	No differences	No differences	No differences
9. Teacher Feedback to Learners	High > no training	No differences	High > no training	Medium > no training	No differences
10. Use of Language to Improve Learner Understanding	ANOVAs not computed	ANOVAs not computed	ANOVAs not computed	ANOVAs not computed	ANOVAs not computed
11. Opportunities for Learners	No differences	No differences	No differences	No differences	No differences

Component 1: Use of a Variety of Teaching Methods

The observations for this component were focused on whether the teacher used a variety of teaching methods to involve learners and enhance learning. Traditional teachers are expected to rely almost exclusively on the “chalk and talk” method, while learners typically remain passive throughout the lesson or chant in chorus what the teacher directs them to. The latter approach to teaching relies on rote learning and simple recall, and is thus seriously limited in the learning gains it can encourage. All the NGOs involved in the studies have adopted approaches such as discussions, role-playing, and problem-solving as ways of improving learning, learner independence and critical thinking.

Trained teachers were rated higher in three studies. In two of these studies, only high training made a significant difference. While teachers who were not trained tended to rely on “telling”, question and answer, choral and individual reading, and some demonstration, teachers with training used a much wider variety of methods. Some of these methods observed included role-playing, story-telling by pupils, and discussions between learners.

Component 2: Use of Materials by Learners

The literature on learning and teaching is replete with evidence which posits the importance of active learner involvement in the learning process. This component focused on whether the teacher provided opportunities for learning to take place through learners using and manipulating learning materials. The use of real objects and manipulatives (for example, stones used as counters in maths) helps children to develop concepts related to numbers, words, ideas, etc. The observations for this component sought to rate teachers according to the ways in which children in their classes used materials, with a focus on the degree of involvement observed.

The findings show that trained teachers in four of the five studies tended to perform better than teachers who were not trained in respect to the use of materials by learners. In two of these studies, only high training made a difference. While most untrained teachers did not use materials during the lesson, in the few lessons of teachers who were not trained where materials were used, these were limited to textbooks or flash cards. All trained teachers in two studies and teachers with high training in two studies, on the other hand, used a variety of materials including the newspaper, pictures, sentence strips, real objects (stones and plants), and books. In some cases learners developed or built their own resources from low-cost materials. Most of the materials used by trained teachers were low-cost and generally developed by the teachers and/or the learners themselves. This practice is emphasised by all the NGOs and, apart from the obvious economic advantage, develops a sense of ownership and achievement while creating opportunities for creativity and problem-solving. Thus pedagogic value is gained from the development of the material as well as from its subsequent applications in the learning process.

Component 3: Use of Materials by Teacher to Enhance Learning

This component reflected the use of materials by the teacher in ways that enhance learning. The effective use of teaching materials such as the chalkboard, charts, pictures, etc. implies the enhancement of learner interest and involvement in the learning task, and subsequent learning. In this component observations were made in respect to the extent of materials usage by teachers which enhanced learning.

Our findings showed that across the board, NGO-supplied materials were available and used in classrooms of all trained teachers irrespective of the level of training. Training made a significant difference in two studies, while only high training made a difference in three of these studies. The supply of materials by NGOs and use of materials by trained teachers is important given the total neglect by the former Department of Education and Training (DET) in providing innovative learning materials other than the chalkboard and the textbooks. The findings in three studies indicate that further training may be needed in enabling teachers to use materials in a manner that enhances learning in three studies.

Component 4: Grouping of Learners

This component focused on how the teacher organises the learners for instruction. Traditional teachers typically "teach to" the entire class. The potential for learner participation and active involvement in learning increases when teachers group learners in pairs or small groups. Flexible groups allow for changing learner interests and needs, whereas permanent groups "lock" learners into a track. The assignment of roles in the group such as discussion, leader and recorder encourages learners to take responsibility for their learning in groups.

Our findings show that training made a difference in the physical grouping of children in four of the five studies; in one of these, high training made a difference. Trained teachers tended to group learners in a way that provided opportunities for enhanced learner interaction. Physical grouping of learners does not tell us anything about the teachers' awareness of the importance of learner-learner interactions. However, a better indicator would be the learner-learner interactions in small groups- the next component.

Component 5: Learner Work in Groups

In contrast to the previous component, this component focuses on what learners actually do in groups. When teachers are first introduced to the idea of grouping, they will often arrange learners in groups, but will continue teaching as if they were instructing the whole class. Learners continue to work as individuals on assigned tasks. When groups of learners discuss questions, solve problems, and create things together, the potential to enhance learning is maximised.

Findings showed that training made a significant difference in two studies. This finding and the finding from the previous component show that training has made a difference in

making teachers aware of the importance of small groups. It further shows that grouping of learners alone does not lead to effective learner interactions. Learner-learner interaction in small groups seems to be an aspect that requires more time and more classroom-based training where small group interactions can be modelled to teachers by NGO trainers.

Component 6: Creative and Critical Thinking Activities

Critical and creative thinking are deliberate teaching and learning activities that stimulate the development of thinking skills. Complex, and even simple learning tasks involve questions that require critical consideration, or, perhaps, indicate problems that need solutions. Appropriate for all levels of learners, the development of critical and creative thinking skills requires teaching methods that actively involve learners in discussion and problem-solving.

Training seemed to make a significant difference in creative and critical thinking in four of the five studies. Only high training made a difference in three of these. This finding is important as the premise of most NGOs' work is based on learner-centredness and reflective learners and teachers. Changing to critical and creative thinking seems to take time as high training makes a difference in more studies. Given the history of authoritarian, teacher-centred and rote-learning that prevailed in the schools, more training is needed to see significant changes.

Component 7: Questioning Skills

Effective questioning by the teacher can capture pupils' attention, arouse their curiosity, and focus their attention on important parts of the subject matter. The use of a variety of types of questions, including open-ended questions that have more than one right answer, allows teachers to probe for learners' understanding. In contrast, traditional teachers often rely on closed-ended questions with one right answer or simply ask learners to recall or "give back" information.

High training seemed to make a difference in two studies while medium training made a difference in one study. This findings further confirms the importance of change as a process which takes time. With more training, it seems that teachers will acquire skills for asking more open-ended questions instead of close-ended questions only.

Component 8: Learners Asking Questions

Encouraging learners' questions and contributions sends a steady, positive message that learners are an important part of the teaching and learning environment. Traditionally, the role of the learner in classrooms has been to passively receive information. To question the teacher was viewed as a lack of respect. Thus, learners may be reluctant to ask questions, or show creative thinking without continued encouragement from the teacher in a learning environment where the learner feels "safe".

In all five NGOs, teachers, irrespective of training, were rated low for “Learner Questions”. One exception was one study where teachers with high training were rated significantly higher than untrained teachers. This finding is no surprise given the authoritarian nature of education received by teachers both as students and as trainee teachers over the past forty years. The apartheid policy of education was embedded in assumptions which regarded the teacher as an authority figure who had all answers. In this paradigm, the learner’s role was to receive knowledge from the teacher. NGO training, as indicated earlier, is embedded in assumptions of a democratic, and learner-centred philosophy. Interviews with teachers show that teachers’ perceptions of learners are changing. Teachers believed that learners should assume a positive and active role in classroom instruction. Teachers’ perceptions about the role of learners may have changed. However, more time may be needed for teachers to acquire skills of soliciting questions from learners. In a new democratic education system, one of the biggest challenges in the transformation of the education is to lead both teachers and learners to a position where teachers facilitate teaching and learning and promote active learner participation. One key aspect of this change is the role of learners in asking questions.

Component 9: Teacher Feedback to Learners

A key element in guiding and enhancing learning is providing feedback to learners about their performances and mastery of learning objectives. Effective feedback includes suggestions for improving performance, and encouragement of subsequent effort. During the process of learning, feedback helps shape pupils’ learning and broadens understanding and mastery of content.

Findings indicate that high training seemed to make a difference in two studies while medium training made a difference in one study. Again this component indicates that teachers need more training to reach a stage where they are able to provide meaningful feedback to both correct and incorrect learner responses.

Component 10: Use of Language to Improve Learner Understanding

Lessons in Substandard A (grade 1) and Substandard B (grade 2) are conducted in Zulu, the home language of learners. Beginning in Standard 1, lessons are supposed to be in English, with the home language integrated as needed to facilitate understanding. Teaching content in the learners’ second language is a daunting task. The teachers’ approach is a good indication of his/her sensitivity to both the difficulties experienced by learners and the need for them to become proficient in English.

Findings do not indicate if there were any significant differences between groups by training. The ANOVAs were not computed in four of the studies. The rationale for this was that the variations in the component were not arranged on a continuum that matches the philosophy of some of the NGOs. For instance, in the component, the variation which had the ideal rating, “integrating English and the mother tongue consistently” was stated

as “ideal”. For some NGOs, the approach on language is that mother tongue should be used as a bridge when learners do not understand.

Component 11: Opportunities for Learners

This component focuses on gender equity in the classroom. Actively soliciting all pupils' involvement sends a strong message that all pupils are important participants in the classroom learning environment. Opportunities to participate include response opportunities (who gets "called on"), designation as group leaders, and more subtle verbal and non-verbal interactions between teacher and learners that convey the expectations of the teacher for learner participation and achievement.

All teachers, irrespective of training, were rated high for this component in all five NGOs. The items stated in this component were general. Therefore it is not known if ratings would have been different if one had looked at specific examples of teacher behaviours that have been found to be associated with gender bias, for example: calling on boys more often and providing more prompts to boys when they have difficulty answering questions, maintaining eye contact with boys more often, etc.

DISCUSSION OF FINDINGS ACROSS COMPONENTS

In this section we present a discussion of trends in the findings across components.

TABLE 3: Number of NGOs where trained teachers performed well (close to “ideal” or a rating of 3 or 4) or significantly better than teachers who were not trained for respective components.

All five NGOs	Four out of five NGOs	Three out of five NGOs	Two out of five NGOs	One out of five NGOs
Use of Materials by Teachers	Use of Materials by Learners	Teacher Uses a Variety of Teaching Methods	Learners Work in Groups	Learners Asking Questions.
	Critical and Creative Thinking Activities	Teacher Questioning Skills		
	Grouping of Learners	Teacher Feedback to Learners		

Table 3 provides an overview of the success rates of different NGOs in achieving or fostering the desired instructional practices (as reflected in the respective components), through training of teachers. The higher the number of NGOs achieving high performance by trained teachers, relative to teachers who did not receive training (that is, where there was a significant difference between trained and untrained teachers), may give us some indication of the relative ease of achieving success in respect of the relevant component. It needs to be stressed though, that this is not a reflection in any way on the programmes of respective NGOs as the contexts in which the observations were conducted differ (in some instances considerably) from each other. It does give some indication of which components appear to be relatively easy to achieve across contexts.

The findings show that teachers trained by all the NGOs tended to perform much better than teachers who were not trained with respect to the component “Use of Materials by Teachers to Enhance Learning”. As all the NGOs involved in these studies have materials development and materials acquisition as an important component of their teacher development programmes, the results for “Teacher Use of Materials” is not surprising.

Similarly, most NGOs (four out of five) appeared to achieve success in encouraging, through their training, teachers to implement “desirable” practices in the following areas: “Use of Materials by Learners”, “Critical and Creative Thinking Activities”, and “Grouping of Learners”. Although it is reassuring that most trained teachers tended to perform well in respect of all of the above-mentioned and although these practices are germane to a progressive learning and teaching paradigm, the results on their own are no reason for rejoice. Unless teachers understand why they are doing this, progressive or

new practices tend to simply get integrated into a traditional paradigm. Teachers then go through the “motions” of the new practice, performing all the actions until they are part of the usual routine, without succeeding in realising the outcomes which the practice is intended to facilitate. Notwithstanding this, the findings suggest that the success rate of institutionalising these two sets of practices is very high through NGO training.

In the case of the teacher samples obtained from three out of five NGOs, training appeared to make a significant difference in relation to “Teacher Uses a Variety of Teaching Strategies”, “Teacher Questioning Skills”, and “Teacher Feedback to Learners”. Despite the high number of trained teachers, across NGOs, who divided learners into groups, for the majority of observations in three of the samples, learners did not actually *work* in groups. In such cases, the fact that learners were in groups made no material difference to the extent of active learner involvement in the learning process and teachers tended to teach the class as if the groups did not exist.

Not surprisingly, the findings show that four out of the five NGOs did not succeed in significantly improving teacher practices with respect to encouraging learner questions. The general pattern is also not surprising; it appears that the more abstract the practice, the more difficult it is to achieve. Teachers generally implement certain things very early in training. For certain practices, it often happens that the superficial manifestation of certain teacher behaviours is not a sufficient basis to assume that a substantive change in instructional practice had taken place - deeper probing suggests that the rationale is not sufficiently internalised during training for these practices to be implemented in ways that result in the pedagogic gains which are intended.

ASSESSMENT OF THE ASSOCIATION BETWEEN TEACHER PERFORMANCE AND OTHER VARIABLES (OTHER THAN TRAINING)

In all five studies, an assessment was made of the extent to which variables other than training may or may not be associated with teacher performance. Analysis of variance showed that there were no significant differences among teacher groups based on education, teaching experience, gender, and age. These findings show that NGO training was more associated with teacher’s ratings than other components such as teaching experience, education, gender, and age. However, an exception was observed in educational qualification. There were no differences among groups based on educational qualifications in one study. A breakdown of teachers by education and level of training showed that teachers with the highest level of training also had the highest level of education.

CONCLUSIONS

Using a standard research methodology, it is instructive that all the studies reviewed found that, in general, non-formal in-service teacher development offered by the respective NGOs is making a difference in instituting certain important instructional

practices in the classroom. Significantly, these changes in instructional practices are being effected in classrooms and by teachers, where the impact of apartheid neglect is perhaps greatest. The studies suggest that certain practices can be facilitated in a short space of time through the flexible medium of NGO training.

More substantive systemic change is not going to be easy and will not happen overnight. A creative approach may be to explore whether in the interregnum, NGO training can be used to begin the process of improving instructional practices. The transformation of the practice of teaching and learning and the transformation of teacher development operate in a contingent relationship where each co-exists as a positive feedback mechanism in its relationship with the other. Major strides in overcoming the shortcomings in teacher development will drastically enhance the possibilities for improving learning and teaching which will produce more appropriately skilled entrants to the teaching profession which will, in turn, optimise possibilities for successful (or more appropriate) teacher development.

It will take more time and follow-up support to see the more abstract practices being realised in a substantive way, and to optimise the pedagogic gains which are intended by practices which are easily copied (simulated in visible practice) without sufficient regard being given to how these result in pedagogic gains.

The findings that variables such as formal education background and qualifications and experience do not appear to influence performance of teachers in the studies under review needs to be placed in context. It would be irresponsible and indeed incorrect to generalise these findings across time and space in South Africa. The studies were conducted at particular historical moments and within particular contexts - all of which have shaped the outcomes of the findings. This caution is easily illustrated if one considers the results for the relationship between teaching experience and teacher performances. The overwhelming majority of teachers in the sample have experienced only the appalling conditions of "Bantu education" during their schooling years as well as during the professional development. The experience they accumulated occurred in context where practice is treated as fixed. In the absence of any systematic effort to break this cycle, practices tend to become ossified. Under different conditions (perhaps when the negative consequences of "Bantu education" have begun to be ameliorated?) one may find that both formal qualifications and experience may register very different results to those registered in the studies under review. Time will tell whether different approaches may deliver different results. However, for the moment, these studies do raise some implications for important aspects of policy on teacher education in South Africa, bearing in mind the *caveat* that these findings are grounded in a very specific empirical context, shaped by a very complex history, and that the implications identified are a product of this empirical context. The impact of other variables stand in a dynamic relationship with teacher performance and must vary across time and space due to differing contextual factors and the possible impact of new policies. Studies such as those under review should be viewed, not as a one-off, but as a process of continuing monitoring and evaluation and of policy analysis.

There is a reassuring resonance between the literature which underpins the new thinking in policy for teacher development and that which informs the conceptualisation by NGOs of their programmes and expected outcomes. This, at least at the level of rhetoric, suggests a basis for productive co-operation between the NGOs and the government's transformation project.

If these gains can be achieved in a short time, while continuing the process of developing capacity in departments and teacher education institutions, it may suggest a very cost-effective way of bringing about some important initial changes to the practice of learning and teaching. More direct analyses need to be conducted.

The methodology applied and, in particular, the indicators developed, represent an attempt at evaluation within the context of an outcomes-based approach and can be drawn on in undertaking the more detailed work that should necessarily follow. The studies have demonstrated some of the advantages of the collaborative approach, notably, insofar as it has developed capacity in the area of evaluation and monitoring. The overall research design was implicitly based on a conception of quality assurance that is ongoing and participatory. A number of possibilities are opened up by facilitators recognising their role in quality assurance and through the development of skills to make this participation possible.

POLICY IMPLICATIONS

Although the earlier section already touched on some policy implications of the findings, this section will explore the policy implications of the studies in their entirety - beyond only the findings. This discussion will be preceded by a very brief overview of the main issues of the present policy context on teacher development which are pertinent to this study.

The new priorities for INSET, as reflected in official policy documents¹ are not only aimed at improving the professional development of teachers, most of whom are inadequately prepared for their tasks, but, perhaps more importantly, to do so within a radically different paradigm compared to the past:

If the system of teacher development is to undergo the necessary transformation, new approaches to and methods of providing teacher education will be essential. These new approaches and methods amount to a paradigm shift, one which, in many ways, is already beginning to take place in education around the world. (COTEP, 1996b, p1).

The rapid and far reaching changes in technology which characterised humankind's recent past, has impacted in powerful ways on the world of work and on the processes of learning. As a direct consequence of this, human resource development, more so now than ever

¹ See for example, the White Paper on Education and Training (1995), The National Teacher Education Audit (n.d.), COTEP (1996a), COTEP (1996b) and Department of Education (1996).

before, has to emphasise the development of problem-solving with good facility for critical thinking. Changes to the way information is stored, accessed and processed must surely impact on any effective learning context as it does in the world of work. In this unfolding context with its attendant learning challenges, the primary responsibility of the effective teacher has shifted away from being the conveyor of knowledge, towards developing the skills for learning and problem-solving. The above changes to the world of work and to the learning context has important implications for teacher development, the most notable being a shift away from teacher-centredness to learner centredness. Further, given the ever-reducing turn-around time for new technology and the rate of proliferation of new knowledge, it is unwise (and indeed, not possible) to assume that teacher education can be completed in one concentrated period during pre-service training. Consequently, teacher professional development has to be seen as a lifelong process.

By taking cognisance of the above developments, the policy community dealing with teacher development has demonstrated an awareness that the challenges to be addressed go beyond a simple amelioration of the provisioning distortions under apartheid. Consequently, the new discourses are rooted in a radically different paradigm. Some of the more notable proposals to emerge in the new policies on teacher development are the following:

- The need to move from an input model, which has characterised teacher education in the past, to an outcomes model.
- That teacher development is to be viewed as a process of lifelong learning.
- That teacher development should aim to facilitate the development of teachers who are flexible, critical and reflective.
- That teaching and learning should be learner-centred. (COTEP, 1996b, p12).
- That the focus of education in general (including teacher development) should be on developing skills of accessing and producing knowledge and on problem-solving.
- That quality assurance mechanisms should be developed which are based on a set of simple, easily monitored quality indicators.

All the above proposals reside in a paradigm which supports a progressive approach to instructional practice. The indicators of quality used in the studies under review similarly reside in progressive paradigm, and consequently, the evaluation methodology has attempted to operationalise this progressive paradigm into specific observable teacher behaviours which may be assessed through particular research instruments. Substantive observations, which generated the bulk of the data for the study, were based on outcomes in the classroom and not what NGOs provided in their programmes. In this way a number of training institutions can assess the effects of the programmes by focusing on outcomes in the classrooms as opposed to what teachers and student teachers are subjected to during the training process. The ideal observations defined in the observation instrument used correspond with the importance afforded such concepts as problem-solving and learning-centredness.

The studies have, through a collaborative and participatory process, and by drawing on the literature, explicated, developed and applied indicators of quality. Their value need not lie in their immediate appropriateness for wide-scale use, but rather in that they have made a start in giving effect to the discourse on teacher development is very important. The collaborative and participatory approaches have also resulted in a nascent capacity in NGOs and amongst researchers in the country to take this project further. Various follow-up activities have seen researchers working with NGOs to institutionalise a system of ongoing evaluation and monitoring. This will help to integrate evaluation into the practice of NGOs, thus promoting formative dimensions and establishing important mechanisms for quality assurance.

There are certainly many aspects of the studies reviewed which could arguably be done differently. Indeed the same research teams would in all probability want to change certain things having had the benefit of hindsight. This does not detract from the need to critique these studies and interrogate the findings and assumptions for the purpose of enriching the process of policy formulation and implementation in South Africa.

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