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TEACHER ATTENTIONAL BEHAVIOUR

An Exploratory Study

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ABSTRACT

This investigation reports an ex post facto exploratory study of teacher attentional behaviour, in which a number of theoretically and methodologically, but not logically, independent measures of attention were employed. There is evidence to suggest that teachers differentially distribute their attention in the classroom, and that such distribution may have implications for their pupils. The concern, however, is not only with the way in which teachers do in fact distribute their attention, but also with the factors, internal or external to the teacher, which may pre-dispose them to attend to some features of the classroom stimulus situation, and not to others. Thus, it was expected that teacher biographical; attitudinal and 'stylistic' characteristics would play a role in the structuring of teacher attentional behaviour. Furthermore, it was expected that correlations would exist between the various measures of attentional behaviour utilised in the study.

All the teachers from two intermediate schools in a provincial area of New Zealand, participated in Phase One of the study, completing a Teacher Questionnaire designed to solicit teacher biographical information; several cognitive tests from the French Kit of Reference Tests for Cognitive Factors; a devised series of perceptual tasks, which required teachers to respond to a series of questions after viewing videotape extracts of teaching situations; and the Minnesota Teacher Attitude Inventory, which was included as a measure of teacher-pupil attitudes.

Phase Two of the study, focussed on the 'in situ' attentional behaviour of eight teacher volunteers, who had completed all parts of Phase One of the study. These teachers were then videotaped in their own schools teaching their own classes during social studies lessons. Teacher attentional behaviour in Phase Two of the study was operationally defined in terms of teacher verbal behaviour, in interaction with their pupils. Each incident or exchange between the teacher and his pupils was coded three times, for Target (to whom was the teacher directing his attention); Function, or purpose of the interaction; and Action (the nature of the exchange).

The analysis of the data revealed that there were no statistically significant relationships between the MTAI and the various attentional measures employed. Similarly, there only appeared to be chance associations between the Hidden Figures Test and most of the other variables utilised in the study, except that male teachers appeared to make significantly higher scores than female teachers. The Gestalt Completion Test, on the other hand, appeared to correlate significantly with most of the other attentional measures used (apart from the HFT), and with a number of biographical variables. Teacher 'in situ' attentional behaviour correlated with a number of biographical variables, and with the Gestalt Completion Test, but not with the HFT or the teacher responses to the video-tape extracts.

The relative independence of the HFT and the GCT suggests that they may be measuring differing levels of attentional processing; a link between these differing levels of processing and attentional style is proposed and discussed.

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CHAPTER I

INTRODUCTION

There is ample evidence which indicates that teachers distribute their attention differentially within the classroom, and that this distribution of attention has marked effects upon the students within the classroom (Good,1970; Kranz et al.,1970). Hargreaves (1972) furthermore, suggests that the teacher selectively perceives and interprets pupil behaviour in the light of his 'definition of the situation'. The pace of classroom life, however, is extremely rapid (Jackson, 1968) and demands are continually being made upon the teacher, not only from students within the classroom, but also by administrators and supervisors, among others, outside the classroom. This suggests that teachers rarely have time to consider their own teaching behaviour, and that in general, they are 'reactive' (Brophy and Good, 1974) to classroom and contextual stimuli.

The Problem

This exploratory study is not only concerned with the way teachers distribute their attention, but also with the factors which may pre-dispose them to attend to some features of the classroom situation and not to others. These pre-disposing factors may be internal to the teacher (for example, attitudes to children; attentional style) or they may be a function of stimulus salience (a fight, for example, in the far corner of the classroom). It may well be that teacher attentional behaviour as Brophy and Good (1974) infer, is a function of emergent precipitating factors which mask or dominate long term attitudinal and stylistic tendencies.

Little, if any research has been conducted exclusively and directly into teacher attentional behaviour. Many difficulties abound in any attempt to capture the 'act of attention', let alone understand the processes underlying attentional behaviour, particularly, such behaviour manifested in 'natural' settings. Essentially, the construct 'attention' has to be inferred on the basis of behaviour. This raises a number of inter-related

problems, including for example, a lack of consensus among researchers on the adequacy of indices of attention, and basic theoretical limitations which currently hamper progress within the field. These limitations and difficulties remain, despite or because of, the growth of theoretical work which has burgeoned over the past two decades. In addition, many of the tasks given to subjects in much of the experimental work into attention, have tended to be somewhat simplistic, and few studies into attention, particularly teacher attention have been conducted in complex stimulus situations such as classrooms.

Rationale

Despite what the 'de-schoolers' might say, teachers still have an extremely important part to play in the development of the nation's young people (Good, Biddle, and Brophy, 1975). Teacher attentional behaviour can have a marked effect on student school performance and self concept (Good and Brophy, 1973; Purkey, 1971), and indirectly, the student's life chances. Teachers, therefore, need to be aware of their own behaviour in the classroom, and perhaps more importantly, the reasons for their reacting in certain ways to some classroom events, rather than in others ways, and to other events.

Such reactions may be a function of a number of variables, including personal, biographical characteristics; personality and attitudinal traits; life and training experiences; and situationally specific factors. It could well be that among the situationally specific factors that function to determine teacher attentional behaviour, is the 'conditioning' of teachers (by their students) to respond to certain categories or classes of stimulus events (Barham and Boersma, 1975) and implicitly, to ignore others.

If in fact teachers learn to attend or perceive incidents in certain ways, then there are opportunities for the modification of such learnings, either at Teacher Training Colleges prior to entry into full-time teaching, or after entry into teaching, through in-service training courses.

The chain of inference among the 'presage' variables in the Dunkin and Biddle (1974) model of teaching influenced the sequential phasing of this research. The teachers in two intermediate schools in a provincial area of New Zealand completed in their own time, a Teacher Questionnaire which solicited information of a personal, biographical nature. The teachers also completed an attitude inventory which purports to measure teacher attitudes towards students. The assumption underlying the use of these instruments is, of course, that the teacher's background; his life experiences and his attitudes to students structures his attentional behaviour, particularly, in his exchanges with his students in the classroom.

A number of paper and pencil group tests were administered to the teachers. These were standardised tests which have been shown in the research to be linked with attentional style (Witkin et al., 1954;1962) and attentional processing (Pachella,1975). The tests were employed in this study to explore 'stylistic tendencies', or as Dunkin and Biddle (1974) prefer- 'teacher properties'.

The recognition, however, that paper and pencil tests may measure 'constructs' but not reflect actual attentional behaviour, led to the devising of a series of perceptual tasks, which attempted to measure teacher attentional behaviour in relation to the presentation and recall of complex stimuli. Three short extracts were culled from videotapes of teaching-like situations and combined into the one videotape for presentation to the teachers. After each extract was shown, teachers then, completed a series of questions relating to the extract presented. This latter series of tasks presented a number of problems not encountered usually in the administration of standardised tests.

All teachers in the two intermediate schools were asked to participate in the above activities- this constituted Phase One of the investigation. Phase Two of the study extended the Dunkin and Biddle (1974) inferential chain of 'presage' variables, which are concerned with the examinable characteristics of teachers

thought likely to affect teaching behaviour, into a study of teacher attentional behaviour in the classroom. It was planned, therefore, to film a limited but equal number of teachers from each of the two schools, and to measure the 'in-situ' attentional behaviour of these teachers.

The assumption, then, is that teacher attentional behaviour is a function of a multitude of influences, but for the purposes of this study, it has been operationalised in terms of the various methods and approaches employed in the research. It would be expected that positive correlations would exist between the various 'attentional measures'. Furthermore, consequent upon the shift from paper and pencil measures to the in-situ measurement of attentional behaviour, the correlations would tend to decrease in magnitude, but should remain positive. In other words, as the emphasis moves away from the measurement of specific attentional skills, to the measurement of generalised classroom behaviour, there is paradoxically, the possibility of the longer-term, relatively stable stylistic tendencies, being submerged by highly specific classroom events and incidents.

Chapter Two reviews current research into attention and perception, in particular, the role of the 'orienting response' and some current models of attention. The theoretical exploration of the construct'attention' continues with a proposal linking the work of Broadbent (1958;1971) and others, notably Keren (1975; 1976) into levels of attentional processing, with research into attentional style.

The third chapter, on the other hand, moves away from the theoretical aspects of attention explored in Chapter Two, and is concerned with a review of some of the in-situ classroom research. Chapter Three essentially, focusses on some of the features of the classroom environment which assist in the structuring of teacher attention.

Chapter Four outlines the methodology; the procedures and instruments utilised in the research. The relative length of

of this chapter is dictated in part by the fact that instruments and procedures had to be devised for the collection and analysis of much of the data. Chapter Five, very briefly outlines some of the characteristics of the sample subjected to the'testing' and discusses some of the statistical procedures used in the analysis of the data.

The results of the investigation are presented in Chapter Six. First of all, the results of Phase One of the investigation are presented- these, for the total (reference group) population of teachers. Then, secondly, the results emanating from the filming of the eight teachers who comprise the target group, are subjected to scrutiny in terms of the variables outlined in Phase One of the research.

The final chapter discusses the results, drawing out and commenting upon the conclusions and indicating some of the implications not only for research into attention, but also for teacher attentional behaviour.