Paper 2: Models of the Impact of Leadership on Improvement in Pupil Outcomes:Results from the survey research

Pam Sammons[1], Qing Gu[2]
[1]*University of Oxford, Oxford, United Kingdom,* [2]*University of Nottingham, Nottingham, United Kingdom*

Background

The paper summarises the way quantitative analyses of national assessment and examination datasets were used to identify a sample of highly effective and improving schools for further investigation. Three sub-groups of schools were identified based on these analyses identifying trends across three years (2003-2005). The groups were: (1) low start (improving from low to moderate or low to high in attainment and highly effective in value added), (2) moderate start (improving from moderate to higher moderate or high in attainment and highly effective in value added) and (3) high start (stable high in attainment and highly effective in value added).

Research Questions

This research, similar to a large American study also now in mid-stream (Leithwood et al., 2004), aims to examine how the work of successful leaders contributes both to teachers' pedagogy and to changes in pupil outcomes. It seeks to contribute to understanding of the features (actions and strategies) of successful leadership and the way it relates to changes in pupil outcomes over time.

The paper presents some key results derived from a questionnaire survey of headteachers and key staff conducted in 2006/7 (response rate: 24% for primary and 32% for secondary) designed to explore different aspects of leadership and school improvement that was administered in this purposive sample of schools (Gu et al., 2008). Discussion focuses upon patterns of leadership practices in relation to the improvement group of the school. The categorisation of schools into three distinctive improvement and effectiveness groups reveals statistically and educationally significant differences in certain features and practices.

There are important relationships between school context and the school improvement group, and between school context and headteachers' time in post. It is shown that schools in disadvantaged contexts are more likely to have experienced many changes in leadership during the last decade and that heads are less experienced also. The quantitative surveys of headteachers and key staff views identified a number of key dimensions of leadership and relevant school and classroom processes that are important in accounting for changes in a range of pupil outcomes including improvements in academic results over three years. For example, average change in GCSE results for secondary schools, maths and English test scores for primary schools.

Methods

Structural equation modelling was used to further examine underlying dimensions (i.e. Leadership Practice; Leaders' Internal States; Leadership Distribution; Leadership Influence; School Conditions; Classroom Conditions) in the responses to both headteacher and key staff surveys. This helps to establish whether the theoretical scales derived from the literature are empirically confirmed in our sample. In addition, these quantitatively derived dimensions are related to hypothesised models of the proposed links between different features of leadership practice and measures of pupil outcomes. The paper will discuss in detail their predictive ability, as indicated by relationships between several measures of change in pupil academic outcomes derived from the national data sets and from staff and headteacher perceptions of degree of change in non-academic pupil outcomes collected in the surveys.

Frame

The new SEM models discussed in the paper explore the associative and potentially causal relationships that underpin significant improvements in academic outcomes or sustained effectiveness for a large sample of English primary and secondary schools, and thus contribute to new understanding of the links between leadership and pupil outcomes.

A number of statistical models were constructed that demonstrate these important interrelationships and the way they predict institutional change. Moreover the rich case study evidence allows the research to go beyond the mapping of these associations and reveals in detail both how and why different strategies and actions were adopted and, through a retrospective element, illuminates the way leadership practices develop and shape the processes of change over different phases of school development.

Research findings

Among the most powerful variables mediating leaders' influence on pupils are improvements in school conditions such as emphases on raising academic standards, assessment for learning, collaborative teacher cultures, monitoring of pupil and school performance, coherence of teaching programmes, and the provision of extra-curricular activities. Leaders' trust in teachers makes a modest but significant contribution to the willingness of teachers to collaborate and is associated with distributed leadership.

Taking a review and evaluation of the growing international evidence base as a point of departure, the study investigated not only how successful school leaders impact on students' learning outcomes but also how, in order to do so, they adapt their practices to suit the many different contexts in which they carry out their work. For our purposes, such contexts include: sectors of schooling (primary, secondary); amounts of experience leaders bring to their work; socio-economic levels of their school's student intakes; and leadership in schools in three different 'improvement' groupings.

The influence of variables on pupils' learning and behaviour is itself indirect but there is clear evidence of its effects through: reductions in staff mobility and absence; improvements in pupil attendance and behaviour; and increases in pupil motivation, engagement and sense of responsibility for their own learning, which are themselves the result of leadership values, strategies and actions.

The paper provides new quantitative evidence of the way leadership activities predict change in various aspects of school work and how these lead to change in school conditions and various pupil outcomes.