TARGET SETTING IN SCHOOL EDUCATION

A DISCUSSION PAPER

Prepared for

THE NATIONAL EDUCATION PERFORMANCE MONITORING TASKFORCE

By

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INTRODUCTION

Background

In 1999, Australia's Ministerial Council for Employment, Education and Youth Affairs (MCEETYA) adopted the National Goals for Schooling in the 21st Century. The council also made a commitment to nationally comparable reporting of educational outcomes in six areas covered by the goals:

1. Literacy
2. Numeracy
3. Student participation
4. Vocational education and training
5. Science
6. Information technology.

MCEETYA then appointed the National Education Performance Monitoring Taskforce to identify measurement methods, agree on definitions and pave the way for the collection of data necessary to make possible the nationally comparable reporting of educational outcomes.

Specifically, the NEPM Taskforce terms of reference required it, among other things, to:

> Identify areas where it may be appropriate to establish national targets or benchmarks in relation to the agreed key performance measures (in the six areas listed above) which assist state- and school-level planning and reporting for improvement.

The Taskforce commissioned this paper on the:

♦ theoretical literature on effective target-setting, and
♦ lessons to be learned from education systems that have included target-setting as part of national or state reporting.

The Project Brief stated that the paper should:

1. identify and evaluate the various definitions of "targets", "benchmarks" and other similar terms commonly used in research and organisational literature, with a special emphasis on educational settings;

2. provide a brief overview of the theoretical literature on the relationship between target setting and student achievement and the use of performance targets by public and private educational organisations, as a means of improving students' learning outcomes;

3. describe and evaluate examples of the setting of targets related to key performance measures in school education used by educational systems for national or state reporting;

4. analyse the strengths and weaknesses of target setting as part of the parcel of measures designed to improve national education performance levels, and

5. consider, within education settings, the potential range of consequences of a failure to achieve designated targets.

Approach

A proposed mixture of consultations using a qualitative research methodology, and national and international literature review, was proposed and accepted as appropriate. The details of the methodology are described fully in the Methodology section of this paper.

However, in addition to this prosaic description, we would like to make a statement about the philosophical approach we took to this task.

The issue of target setting is controversial. Our approach at all times has been to:

♦ report the data as objectively as possible;

♦ provide an analysis of the data that is as fair to all points of view as we can possibly make it;

♦ pose questions for discussion in as even-handed a way as possible;

♦ refrain from comment or value judgments (except in the broad descriptive component of the literature review, where value judgments had to be exercised as part of the selection process).

All the research was conducted by Denis Muller, who also wrote this paper.

How this paper is organised

The paper is organised into five parts, each corresponding to each of the five requirements of the project brief enumerated above.

An executive summary is also provided.

There are four appendices. Two contain very short summaries of what were considered to be critical pieces of evaluative literature. One contains a short summary of relevant documentation supplied to the researcher by officials in

Australian jurisdictions, and one contains the discussion schedule used in the interviews with policy makers in the Australian jurisdictions.

Acknowledgments

We would like to thank the Taskforce for the opportunity to carry out this fascinating and important work.

We would also like to thank most particularly all those who gave so generously of their time, and so comprehensively of their views, in the qualitative interviews.

Finally we would like to give special thanks to Professor Brian Caldwell and Professor Peter Hill of the Faculty of Education at the University of Melbourne for their invaluable advice about the international literature and their views on target setting in school education.

METHODOLOGY

There were two parts to this work. The first consisted of an extensive series of consultations with policy makers in each Australian jurisdiction.

The second consisted of an extensive survey of the literature on the subject of target setting in schools, and of practice in a number of international settings, but mainly the UK and the US.

Consultations

The consultations took the form of ten in-depth face-to-face and telephone interviews with senior policy makers in all Australian jurisdictions and sectors, nominated by the Taskforce Secretariat. Most of the ten interviews were carried out with multiple respondents, making 22 respondents in total.

All except the Northern Territory interview were conducted in person.

They were tape-recorded on condition that while direct quotations could be used, they would not be attributed to any individual, and that the tape remained with the researcher.

The purpose of this was to place all respondents on the same footing and to provide circumstances in which people could frankly express their views without the constraints that life in the necessarily political environment of public policy sometimes imposes.

The interviews were carried out mainly in respondents' offices. The first was conducted on 27 June and the last on 18 August 2000.

In addition, face-to-face interviews were conducted with Professor Brian Caldwell and Professor Peter Hill of the Faculty of Education, University of Melbourne.

Literature review

The main resources for the literature review were the Educational Resource Centre, the Baillieu Library, the Giblin Library and the library of the Melbourne Business School at the University of Melbourne. In addition, extensive use was made of the internet. Literature was collected from England, Scotland, Northern Ireland, the United States and Hong Kong.

EXECUTIVE SUMMARY

Part 1: Definitions

The organisational, business and management literature most commonly uses "target" to mean either:

♦ a company singled out for takeover ;
♦ a market or market segment which is the focus of activity;
♦ an outcome of some easily quantifiable kind (e.g. share price) or
♦ a diagnostic control in which performance in measured against some pre-set outcome.

The educational literature presents a broadly accepted definition which can be summed up in the well-travelled acronym SMART:

Specific
Measurable and manageable
Achievable, appropriate and agreed
Relevant, realistic and recorded
Time-related

Australian and UK education policy makers broadly agree that a target has the following three essential characteristics:

1. It is an outcome to be aimed for.
2. It is measurable, quantitatively or qualitatively or both.
3. It is to be attained within a specified time.

US policy makers use the term differently. There, a target lacks the specificity and measurability of the term as used in Australia and the UK. Desired levels are not given, nor is a time frame stated.

RECOMMENDATION

It is recommended that the following definition be adopted by the Taskforce:

A target is a quantifiable performance level or change in performance level to be attained within a specified time.

Part 2: (A) Relationship between target setting and student achievement

Formal theory here is seriously under-developed. There is a body of *descriptive* literature about policy and practice but little which sets out a *theoretical* rationale for saying target setting will lead to improved student achievement.

An important exception is Hill and Crevola. They state that targets and standards "constitute the starting point for re-focusing the missions of schools . . . so that meeting the standards comes first in everything schools do". High expectations needed to be reflected in explicit standards benchmarked against "best practice".

This is the nearest the literature comes to making a theoretical connection between targets and student learning outcomes. Inferentially, Hill and Crevola say that high expectations of student achievement, coupled with standards reflecting those expectations and targets for achieving them will, on the evidence of their work in early literacy, lead to improved student outcomes.

Written material from the DfEE in England was no more than speculative, and a review of current theory on educational administration in Australia neither mentions nor explores any theories in relation to target setting.

Major reviews of recent changes to schooling in the United States are also descriptive rather than theoretical.

While there has been no systematic evaluation of the effectiveness of target setting in Australian schools, it is widely believed by policy-makers that targets help bring about cultural change in schools, make them more conscious of the value of gathering and using data on student outcomes, and more focused on providing assistance to students where it is needed.

Part 2: (B) Literature on use of performance targets for improving students' learning outcomes

Many jurisdictions use some form of measurement to track system, school or student performance.

The literature describes the process. It usually consists of:

- school-level planning to improve student learning outcomes;
- targeting built into that planning but set at a system level;
- regular internal review, and
- external audit to assess progress.

Over the past decade there has been a shift from backward-looking to forward-looking measures to assess student, school and system performance.

The precursor to targets was indicators, but these were passive measurements, essentially reporting on what *had* happened, not on what was *going to* happen next.

Targets are more active measurements: they are about what is going to happen next, how the efforts of systems, schools and students in reaching the targets will be assessed, and what will be done with those results when they have been obtained.

There are many approaches to this, but researchers at the UCLA see a particular strength in tightly coupling curriculum and standards-led assessment, with pre-set performance targets, to ensure that assessment is relevant to what is being taught.

Part 3: Examples of target setting for national or state reporting

Target setting England is largely "bottom-up": that is, the schools set targets consistent with the Local Education Authority's curriculum policy and the Education Act.

By contrast, in the US it is "top-down", with state systems having highly centralised indicator systems providing comparative achievement data for local schools and districts.

Australian jurisdictions operate on the English model rather than the American. Seven of the jurisdictions and sectors in Australia use targets, even if one or two do not like the word. One jurisdiction disapproves of the targets concept, and elements of the non-government sector are dubious about it.

For the most part, targets are used for improving student learning outcomes, and for reporting on them at a jurisdictional level. Most commonly, they involve testing in literacy and numeracy among primary school students. There are also some targets for resourcing.

There is widespread support for a national data-collection effort so schools can have a better idea of how their students are performing compared with those in similar schools elsewhere.

There is very little evaluative material available on the effect of target setting. One of the few rigorous evaluations was done on the Kentucky Instructional Results Information System (KIRIS). This evaluation arrived at three important findings:

First, KIRIS illustrated the consequences of creating perverse incentives.

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Second, the targets were set arbitrarily, without information on actual patterns of school performance.

Third, the gains required of all schools were very large, and grades were inflated accordingly.

The KIRIS evaluation appears to bear out all six of the conditions about target setting espoused by many Australian policy-makers, namely:

1. That the target represents the realisation of some accepted good.
2. That the target is owned by those who are expected to achieve it.
3. That the target is relevant to the circumstances of those expected to achieve it.
4. That the target is achievable – with some stretch – by those expected to achieve it.
5. That there is confidence in the means by which progress will be measured.
6. That there is confidence in the use to which results of the measurement will be put.

Part 4: Strengths and weaknesses of target setting

A comprehensive list of the potential benefits of target setting in education is provided by a report prepared for the European Training Foundation in 1997.

This report listed 10 potential benefits of target setting, including providing a focus for planning and action, enabling measurement of progress, and increasing accountability.

By contrast, Wyatt (1999) identified various problems, including the limited range of information to which target setting can be applied, measurement limitations, and creation of political pressures.

Australian policy makers raised the following issues:

♦ the risk of measuring the measurable and overlooking the unmeasurable;

♦ the difficulties inherent in setting targets that are realistic for a wide range of situations, particularly where indigenous students are concerned;

♦ the potential for generating unhelpful or even harmful comparisons.

♦ the risk of linking results to resource-distribution in a way that looked like a rewards-and-punishments regime.

Part 5: Potential consequences of failure to reach targets

The potential range of consequences of a failure to achieve designated targets may be positive and negative.

On the positive side, if weaknesses are revealed, remediation can follow, or additional resources allocated to meet a demonstrable need. Moreover, diagnostic capabilities are enhanced.

On the negative side, damaging comparisons might be made, creating division between schools, systems and sectors, or resources may be allocated on a rewards-and-punishments basis, or schools and systems might take a soft option and adopt lowest-common-denominator targets.

In Australia, England, Scotland and Ireland, there is a conscious attempt to separate school performance from discussion about "rewards and punishments".

In the United States, by contrast, there is commonly an explicit connection made between school performance and "rewards and punishments".

FINDINGS IN DETAIL

PART 1: DEFINITIONS OF RELEVANT TERMS

Introduction

The project brief asks for "an appropriate operational definition of 'target'". It also states: "Although the terms of reference of the Taskforce include reference to "benchmarks", at this stage the Taskforce is confining its work to targets.

However, the project brief also states that this paper should "identify and evaluate the various definitions of "targets", "benchmarks" and other similar terms commonly used in research and organisational literature, with a special emphasis on educational settings".

The approach taken here is to focus on the term "targets", but to do so in a context that brings in other related terms.

Discussion

A literature review covering the period 1989 to 2000 was carried out. In 1989, the theoretical debate was about "indicators for school improvement", but the issues were strikingly similar to those which arise when "targets" are discussed today:

- the need for care to ensure the validity of data used to measure improvement;
- whether the data source used is appropriate for the purpose of measuring improvement;
- the need to recognise the political processes at work in indicator selection, and
- the need to recognise that not all educational concepts are directly measurable.[1]

Just as "targets" are used today in a quest for quality and accountability in education, so the term "indicators" was used a decade ago, and up until the mid-1990s. They were seen as the means by which the "health" of the education system

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[1] *Indicators and Quality in Education*: Papers from the National Conference sponsored by the Directors-General of Education, 1989. Wyatt ,T. (ed.)

could be reported on – what students learn, how well the system is working and whether these outcomes are improving over time.[2]

They were also seen as an early warning device, directing attention to something that may be going wrong.[3]

In the organisational and business literature, the two commonest uses of the word "target" are in the sense of:

- ♦ a company singled out for takeover (a takeover target), or
- ♦ a market or market segment being the focus of activity (a target market).

The organisational and business literature tends not to use "targets" in the sense that the educational literature does – as a measurable outcome to be achieved within a particular time.

However, the term "targets" used in this sense does have some currency in that branch of business literature which focuses on management tools. Here they are seen as part of a process for continuous improvement and as a driver for organisational change. The are highly quantitative in nature, being used to drive transformation in easily measured outcomes such as share price, return on capital, or sales.[4]

In the management literature, "targets" are also described as a means of diagnostic control. A company adopts a strategy, targets for performance are embedded in this strategy, and performance is tested for variance against these targets. Operational activities are then adjusted accordingly.[5]

In tandem with "targets", the organisational and business literature uses "benchmarks". By this is meant best-in-field practice, and it becomes the standard of performance to which a company or organisation aspires. The often tacit expectation is that this will be attained in the shortest possible time.[6]

In the educational literature, however, "benchmarks" is used in a variety of ways:

- ♦ as best-in-field practice;
- ♦ as a minimum standard from which to improve;
- ♦ as a level of practice attained by schools in like circumstances to which all similar schools should aspire.[7]

Australian education policy makers who were interviewed for earlier work on definitions conducted for the Taskforce tended to prefer the second of those

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[2] *Making Education Count: Developing and Using International Indicators*, OECD, 1994.

[3] Ibid.

[4] See, for example, *The Balanced Scorecard*, 1996. Kaplan, R. S. & Norton, D. P.

[5] See, for example, *Levers of Control*, 1995. Simons, R.

[6] See, for example, *Re-Engineering at Work*, 1997. Loh, M.

[7] *Targets for Tomorrow's Schools*, 1999. Gann, N.

definitions – a minimum standard from which to improve -- although some accepted the first – best-in-field practice.

The MCEETYA Benchmarks Taskforce at that time (1998) had adopted the second definition. Australian central-agency policy makers interviewed for that same work strongly preferred the first definition.

As for "targets", the educational literature presents a broadly accepted definition which can be summed up in the well-travelled acronym SMART:

Specific
Measurable and manageable
Achievable, appropriate and agreed
Relevant, realistic and recorded
Time-related[8]

Australian policymakers were also broadly agreed on what they meant by "targets". For them, a target has three essential characteristics:

1. It is an outcome to be aimed for.
2. It is measurable, quantitatively or qualitatively or both.
3. It is to be attained within a specified time.

The term "targets" is in current use in most Australian jurisdictions, and embodies the characteristics listed above. Some avoid the word because of political considerations or because it is thought it might frighten the stakeholders, especially the teachers. Some think it is the wrong word or would send the wrong message about what they are trying to do.

In some jurisdictions where it is used, policymakers say that the rigour with which the targets are adhered to at the school level is not as uncompromising as they would wish. For example, it was stated in one jurisdiction that the system-level administrators had to ensure that schools set targets which had substance: that it was something more than "this school will provide a pleasant learning environment". In other places, the adherence to a fixed time frame was also open to some flexibility.

A target is seen as different from a benchmark in that it has an aspirational quality. It is something to be aimed for. However, a range of interpretations are placed on this aspirational idea. Most say it is something you aim for and will be held to account for achieving or failing to achieve. Some say it is something you aim for but might not achieve.

The connection between standards, targets and benchmarks is discussed in the literature. Hill and Crevola, for example, write:

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[8] See, for example, *Improving Schools and Governing Bodies*, 1999. Creese, M. & Earley, P.

High expectations of student achievement must be reflected in explicit standards that have been benchmarked . . .to ensure they reflect "best practice". Standards and targets . . . constitute the starting point for re-focusing the mission of schools.[9]

Using literacy standards of kindergarten and grade one as an example, they highlight three features:

1. They are objectively achievable.
2. There is a minimum standard and a target standard so every school and every student – not just those at the bottom – has something to aim for.
3. The targets are linked to an explicit level of performance and to an assessment procedure.[10]

At a practical level, the United Kingdom Government adopted the following national targets for literacy and numeracy which have all the characteristics Australian education policy makers expect a target to have:

> 80 per cent of 11-year-olds will reach Level 4 in English by 2002.
> 75 per cent of 11-year-olds will reach Level 4 in Mathematics by 2002.

These targets have:

♦ A measurable outcome.
♦ An explicit level of performance.
♦ A time frame.

The usage in the United States is somewhat different. At the federal level in the US, eight national goals have been adopted. They cover a wide range of factors, including health, participation, school completion, academic achievement, citizenship, teacher education, adult literacy, life-long learning, drug, safety and alcohol-related issues.

The goals ask whether the United States has improved or not improved. The answers are obtained by an extensive program of quantitative data-gathering. General targets are attached to the goals. For example, the goal "Ready to Learn" states that by 2000 all children will start school ready to learn – that is, their health, home experience and pre-school participation will make them ready for school.

The term "targets" is used by the US in a different sense to the way it is used in Australia. In the US, "targets" lacks the specificity and measurability that are seen as central to meaningful use of the term in Australia and the UK. Instead, it is a desired outcome, but might not be measurable or achieved by a pre-determined time.

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[9] Op. Cit.
[10] Op. cit.

Recommendation

It is recommended that the following definition be adopted by the Taskforce:

A target is a quantifiable performance level or change in performance level to be attained within a specified time.

PART 2:
(A) RELATIONSHIP BETWEEN TARGET SETTING AND STUDENT ACHIEVEMENT

(B) USE OF TARGETS FOR IMPROVING STUDENTS' LEARNING OUTCOMES

Introduction

The project brief requires "a brief overview of the theoretical literature on the relationship between target setting and student achievement, and the use of performance targets by public and private educational organisations as a means of improving students' learning outcomes".

There are two distinct parts to this:

♦ the relationship between target setting and student achievement, and
♦ the use of performance targets for improving students' learning outcomes.

They are treated separately in this section.

Discussion

(A) RELATIONSHIP BETWEEN TARGET SETTING AND STUDENT ACHIEVEMENT

Conventionally, one looks to theory to predict in abstract terms what might occur if certain actions are taken.

In the present context, one might expect to find theoretical literature which tackled questions such as this: does the setting of targets in school education improve student learning outcomes?

In other words, can a relationship be established between target setting and student learning outcomes?

After an extensive review of the literature, it has to be said that formal theory in this area is seriously under-developed.

There is a body of *descriptive* literature about policy and practice but little which sets out a *theoretical* rationale for the introduction of target setting. In the literature, for the most part targets are a given; improved student learning outcomes are assumed.

An important exception is Hill and Crevola. They trace the development of targets from the rise of the "Standards Movement" in the United States and the adoption in Australia of similar principles by Ministers in the Hobart Declaration. They then profess optimism that "the war on low standards" can be won and provide a General Design for Improving Learning Outcomes, of which standards and targets are an integral part.

From their work on early literacy, they state that the literature on educational effectiveness supports three factors:

- high expectations of student achievement;
- engaged learning time, and
- structured teaching focused on the learning needs of students.

Targets and standards fit into the first. "They constitute the starting point for re-focusing the missions of schools . . . so that meeting the standards comes first in everything schools do". High expectations needed to be reflected in explicit standards benchmarked against "best practice".

This is the nearest the literature comes to making a theoretical connection between targets and student learning outcomes. It may be inferred that Hill and Crevola are saying that high expectations of student achievement, coupled with standards reflecting those expectations and targets for achieving them will, on the evidence of their work in early literacy, lead to improved student outcomes.[11]

In the quest for a further exposition of the theoretical basis for target setting in school education, Professor Hill and Professor Brian Caldwell, of the Faculty of Education at the University of Melbourne, were interviewed.

Professor Hill offered a comprehensive and eloquent oral argument in support of target setting. He said, in summary:

> *Why do you set targets? Essentially to plan where you're going. It's fundamental to achieving anything. They enable you to focus and regulate and motivate. They allow you to answer the question, "How will I know when I've got where I want to be?"*
>
> *But there must be meaning built into targets. They must not be arbitrary. They must connect with what you're trying to achieve.*
>
> *You must also have standards, and you use a target to find out how many meet them and with what accuracy.*

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[11] Op. cit.

The standards should be the same for everyone; the targets can be tailored to systems, schools, classes, groups, individual students. They should always be negotiated at each level. They must be achievable and realistic.

You should have a small number of targets -- ones you really believe in -- and keep them for at least five years. The majority should be about student outcomes and a small minority on things that enable outcomes (resources). Avoid input stuff; go for outcomes.

You can reward those who are well above the standard consistently. For those who are well below, resources should be applied, but at the discretion of some external agency.

In the UK, as will be seen from some of the literature quoted later, there is an element of scepticism about the theoretical basis for target setting in schools. This scepticism is vividly summarised in the following remark, made in a private communication with the author:

Such targets typically rest on vaguely articulated beliefs, loosely evidenced, that the UK is behind other countries and that economic prosperity requires ceaseless expansion of numbers in education and in their qualifications. This is very rarely analysed, and rests at the level of saloon-bar economics and emotional special pleading.

By "emotional special pleading" I mean that advocates support the idea because it appeals to them on the basis that education is intrinsically good, so it follows that more is better, and will be the solution to all our troubles.

The researchers obtained via the internet written material from the Department for Education and Employment (DfEE) in England. Seeking to describe its rationale for target setting in schools, DfEE was no more than speculative:

School effectiveness research, and our direct experience with schools requiring special measures and schools with serious weaknesses, show how important are high expectations in raising standards of achievement. The effective use of targets, especially quantitative targets, may help schools to articulate clearly what is expected of, for example, each pupil, class or group or indeed of the school as a whole.

An extensive international literature search yielded nothing which took the argument further, nor did a more fine-grained study of literature since 1989 on the topics of school management and student improvement.

Professor Caldwell and his co-author Jim Spinks describe the introduction of targets in Britain for literacy (1998) and a proposal for targets in numeracy (1999), but they too note the lack of any normative information.[12]

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[12] *Beyond the Self-Managing School: Student Outcomes and the Reform of Education*, 1998. Caldwell, B. and Spinks, J.

Their work is an up-to-date and wide-ranging review of international changes in school management and accountability containing a bibliography of no fewer than 232 references. None is about theory which provides a foundation for target setting.

Similarly, a review of current theory on educational administration in Australia, neither mentions nor explores any theories in relation to target setting.[13]

A decade ago, Peter Cuttance of the University of Sydney, wrote about the introduction of "performance indicators" in education as being part of wide-ranging changes to public sector management characterised by devolution of authority and responsibility to operational levels, but requiring increased audit in order to ensure that accountability was maintained.

He described performance indicators as a fundamental tool in the assurance of quality in an education system, because they provide "crucial information for the processes of review and evaluation". He did not go beyond this somewhat functional analysis to propose a relationship between the setting of performance indicators and improved student outcomes.[14]

Major reviews of recent changes to schooling in the United States are no different.

There is plenty of material which *describes* policies and practices that have been implemented to improve student learning outcomes, but which advances no *theoretical* basis for target setting as means of improving student learning outcomes.[15]

There is abundant evidence that educational organisations do use performance

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[13] *Education Administration – An Australian Perspective,* 1995. Evers, C. and Chapman, J. (eds).

[14] *Performance Indicators and the Management of Quality in Education*. Cuttance, P. Keynote address at the third and final conference on Performance Indicators in Education: What Can They Tell Us, Australian National University, December 1990.

[15] See, for example, *Bold Plans for School Restructuring: The New American Schools Design* 1996. Stringfield, S., Ross, S., and Smith, L. (eds); *Rethinking Effective Schools: Research and Practice* 1991. Bliss, J. R., Firestone, W. A., and Richards, C. E.; *Holding Schools Accountable: Performance-Based Reform in Education* 1996. Ladd, H. F., the Brookings Institute.

targets in the *belief* that they will improve management and accountability in schools and school systems, and that this will either:

- ♦ flow on to improved learning outcomes for students, or
- ♦ expose weaknesses in the operation of schools and school systems which can then be remedied.

(B) THEORETICAL LITERATURE ON THE USE OF PERFORMANCE TARGETS FOR IMPROVING STUDENTS' LEARNING

As discussed above, the use of some form of measurement to track system, school or student performance has taken hold in many jurisdictions in Australia, the United Kingdom, the United States and other places over the past decade, even if the theoretical basis for doing so is under-developed.

The literature describes the process. It usually consists of:

- ♦ school-level planning to improve student learning outcomes;
- ♦ targeting built into that planning but set at a system level;
- ♦ regular internal review, and
- ♦ external audit to assess progress.

In the literature, the precursor to targets was indicators, and indicators were used for a wide range of purposes, of which measuring student learning outcomes was only one. Indicators were also used for resource management, keeping track of enrolment trends and assembling quantitative data about students that reflected on their learning outcomes, such as graduation rates, trends in year-to-year grade promotion, and proportions of students studying mathematics, science, English and social science.

They were also used to track factors that had an effect on their learning outcomes such as truancy, and time spent on core subjects such as maths, science and English.[16] These were passive measurements, essentially reporting on what *had* happened, not on what was *going to* happen next.

Targets are more active measurements: they are about what is going to happen next, how the efforts of systems, schools and students in reaching the targets will be assessed, and what will be done with those results when they have been obtained.

It is argued by some authors that targets make sense only in the context of the values that lie behind them.[17] These might be values espoused by a school, a system or a government. They might be expressed as answers to the following questions:

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[16] *Education Indicators: A Review of the Literature*, 1994. Wyatt, T. in *Making Education Count: Developing and Using International Indicators*. OECD.

[17] *Targets for Tomorrow's Schools*, 1999. Gann, N.

What are schools for?
What do you want your pupils to do?
What are your pupils able to do?
What are other similar schools doing?
How will your schools achieve the vision?[18]

Hill and Crevola (1999) provide a rationale for educational policies which include targets as part of what they call "zero tolerance of educational failure".

These policies – common to Australia, Canada, the US and the UK – are based on the conviction that educational failure leads to severe social and economic costs to individuals and society, including unemployment, crime and welfare dependency.

The policies involve setting challenging standards and targets for meeting them over a stated period of time.[19]

The active nature of targets for improving students' learning outcomes is demonstrated by the fact that standards-led assessments are closely linked to curriculum, producing a tight coupling between what is taught and what is tested. Standards-led assessments also incorporate pre-established performance goals (or targets).[20] The Executive Summary of the report containing these observations is included as Appendix 1 to this paper.

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[18] Ibid.

[19] Op. Cit.

[20] *Standards-led Assessment: Technical and Policy Issues in Measuring School and Student Progress*, 1997. Linn, R. L. and Herman, J. L., CRESST, UCLA.

PART 3: EXAMPLES OF SETTING TARGETS RELATED TO KEY PERFORMANCE MEASURES USED FOR NATIONAL OR STATE REPORTING

Introduction

The project brief requires a description and evaluation of e examples of target setting used for the purpose of reporting at a state or national level. We begin with descriptions, and later make an evaluation, not in the sense of establishing their efficacy but in the sense of analysing the nature of the examples.

Examples are drawn from Australian and international experience.

Description

AUSTRALIAN EXAMPLES

In the late 1980s the New South Wales Department of Education was required to report to the Minister for Education in terms of "performance indicators". These covered enrolment trends, age of children in each grade, details of student attendance, staff experience and qualifications, financial affairs of schools, and results from the major external tests (HSC, SC and Basic Skills Test).

It was argued that, in reality, there were two sets of indicators here – one relating to student performance, the other to system performance, and that this was an essential distinction that needed to be made but was not being made at that time.[21]

The processes in which indicators were used were somewhat different to the processes in which the use of targets is normally talked about. With indicators, the emphasis was on school review. In South Australia, for example, reviews and audits were carried out by the Education Review Unit. These processes were largely driven from outside the school. Today, the literature – which incorporates the use of the term "targets" -- concentrates on processes driven largely from within schools, although monitored from outside.[22]

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[21] *The Place of Education Indicators,* 1989. Watt, J. in *Indicators and Quality in Education: Papers from the National Conference 1989.* Wyatt, T. (ed).

[22] *A Framework for Reviewing the Effectiveness of Education.* Cuttance, P. in *Education Indicators for Quality, Accountability and Better Practice,* 1989. Wyatt, T. and Ruby, A. (eds.)

Wyatt and Ruby (1989) reported that the difficulties with the "performance indicators" were that schools had fuzzy goals, and found it difficult to implement forms of assessment which would supply meaningful measures of change.[23]

In 1992, Victoria introduced the Schools of the Future policy, which devolved substantial management responsibilities to schools. In parallel with that, the Victorian Government introduced a statewide curriculum which all Government schools were obliged to teach, and statewide testing of Years 3 and 5 students in literacy and numeracy. This testing, known as the Learning Assessment Project (LAP) was centrally set, then marked by a combination of internal school and external procedures.

Results were centrally collated, and reported at a child, class, school and system level, but in ways which avoided comparisons.

Schools are required to make the achievement of nominated standards the main priority in their school charters and to report publicly on their progress towards achieving these standards annually.[24]

Further examples of target setting in Queensland and South Australia are given in Appendix 2.

Practice in the various Australian and overseas jurisdictions reviewed for this paper is beginning to provide a retrospective basis for a theoretical framework which might explain why targets might be set in order to improve student learning outcomes.

That basis perhaps might be expressed in the following terms.

Performance indicators, as used in the past, were essentially passive measurements, focused on what had happened yesterday, but saying nothing about what was to happen tomorrow. Nor did they help schools decide priorities, or diagnose strengths and weaknesses. Targets, with their focus on the future, preserve the measurement function inherent in indicators, but have the potential to assist schools in deciding their priorities, and in responding to diagnostic signals in ways that benefit students.

INTERNATIONAL EXAMPLES

When target setting was introduced in England, it was argued that the process should be largely "bottom-up": that is, the schools should set targets but that the targets should be consistent with the Local Education Authority's curriculum policy which in turn would conform to national legislation (the Education Act).[25]

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[23] Op. Cit.
[24] Hill and Crevola. Op. Cit.
[25] *School Development Planning*, 1992. Davies, B. and Ellison, L.

Since September 1998, the governing bodies of schools have had a statutory responsibility to ensure that targets are set by their schools in certain key areas – mainly literacy and numeracy – and that their results are reported to parents.

The principle underpinning this approach is that "schools must take responsibility for their own improvement".[26]

The national targets for England refer to English and mathematics, and require set percentages of 11-year-olds to be performing at a specified standard (Level 4) by a specified time (2002).

By contrast, the US adopted a "top-down" approach, with state systems having highly centralised indicator systems providing comparative achievement data for local schools and districts.[27]

However, the states of the Union vary widely in how they do this. Some categorise schools or districts on a scale of 1 to 10; some assign each school or district a numerical value to show how they are performing along some continuum; others set an absolute standard (e.g. 90 per cent must pass each subject); still others measure growth or improvement over time; some use a combination.

At a national level, the US sets National Education Goals. There are eight of these and they range well outside the activities of schools. The eight are:

Ready to learn (a child's health, immunisation, exposure to reading, pre-school participation).

School completion (proportion with a high school credential).

Student achievement and citizenship (academic performance in reading, writing, mathematics, science, civics, history, geography).

Teacher education and professional development.

Mathematics and science (US performance in international tests; number and distribution of maths and science degrees domestically).

Adult literacy and lifelong learning (participation, literacy skills).

Safe, disciplined, alcohol and drug-free schools (incidence of reporting of alcohol or drug use, threats of violence, and class disruption).

Parental participation (attendance at parent-teacher meetings, involvement in school policy-making).

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[26] *From Targets to Action*. OFSTED 1998
[27] *Education Indicators: A Review of the Literature*, 1994. Wyatt, T. Op. Cit.

These goals are not like "targets" as Australian policy-makers conceive of them. They are based on the question: Has the US increased/decreased the percentages or incidence of the various phenomena? Desired levels are not given, nor is a time frame stated.

Evaluation

Current practice suggests there are six conditions which are believed by policy-makers to be necessary for effective target setting in schools:

1. That the target represents the realisation of some accepted good.
2. That the target is owned by those who are expected to achieve it.
3. That the target is relevant to the circumstances of those expected to achieve it.
4. That the target is achievable – with some stretch – by those expected to achieve it.
5. That there is confidence in the means by which progress will be measured.
6. That there is confidence in the use to which results of the measurement will be put.

THE AUSTRALIAN PERSPECTIVE

As we have seen, target setting is widely used by educational administrators in Australia. Seven of the jurisdictions and sectors interviewed use targets, even if one or two do not like the word. One jurisdiction disapproves of the targets concept, and elements of the non-government sector are dubious about it.

For the most part, targets are used for improving student learning outcomes, and for reporting on these outcomes at a jurisdictional level. Most commonly, they involve testing in literacy and numeracy among primary school students. There are also some targets for resourcing.

The targets in use around Australia for improved student outcomes usually have five characteristics:

1. They are driven by data, derived quantitatively from tests of students' achievements, and qualitatively from a process of self-assessment and strategic planning conducted within each school.

2. They are defined by the individual school.

3. They are reviewed by the school system to ensure that they measure up to the system's expectations or requirements.

4. They are integrated into the school's accountability framework.

5. They are focused on literacy and numeracy, mainly at the primary level.

Many jurisdictions have processes to coach schools in the use of data, to assist schools in articulating targets, and to coax schools into setting targets which are rigorous and fulfil the system's requirements.

By involving schools in the target setting process, administrators in many Australian jurisdictions try to get a fit between the particular circumstances and ambitions of the school, and the requirements of the system overall. There is a widely held belief that the more localised the targets, the more effective they will be.

Many policy makers place a high value on the setting of targets which are realistically achievable. This does not mean they give up on setting "stretch" targets, but they try to walk a fine line between stretching and demoralising the people on the ground. This is especially the case where indigenous education is concerned.

They also say there is anxiety and some cynicism at school level about what the results will be used for.

Many see an advantage in having some kind of inter-jurisdictional comparability to give their schools a better idea of where their students sit in relation to students at comparable schools in other parts of Australia. In this respect, they accept the need for some overarching national requirements to make this possible.

Some prefer to think about these requirements in terms of national "best practice" benchmarks; each jurisdiction would then set its own targets for achieving those benchmarks.

There are two overarching issues here:

1. Is it national targets or national benchmarks we should have?
2. What items are amenable to target setting?

There is widespread support for a national data-collection effort. As part of this, it is recognised that some form of national benchmarking is needed as the basis for a meaningful system of measurement. This is not seen as the same thing as national target setting.

Most jurisdictions want schools to continue to set their own targets for improvement within a State or Territory framework. They see the national effort as feeding into their existing target setting practices which they have developed and adapted for their own environments.

For example, attainment of a national benchmark might be seen as an appropriate target for a system as a whole, but within that system there might be schools for which attainment of that benchmark would be hopelessly out of reach in the short or medium term.

Therefore, the jurisdictions want to be able to go down into each of their schools, and look not only at some national benchmark but at a benchmark of performance among "like schools", and use this as the basis for developing a target for that school.

This approach would dovetail into existing target setting arrangements in many jurisdictions. They have made a substantial psychological as well as financial investment in their own target setting arrangements, and for many jurisdictions an important part of their arrangements is that the targets are owned locally by the school, and take account of the school's circumstances.

There is considerable debate about what items are amenable to target setting.

Literacy and numeracy: It is widely agreed that literacy and numeracy are amenable to target setting in the sense that it is possible to develop credible measurement instruments for the purpose.

It is not so widely agreed that target setting in literacy is desirable without more thought about what constitutes literacy. Some people make the point that today's young people live within a wide range of "literacies", and are required to process a wide range of aural and visual stimuli.

Having said that, it is widely agreed that literacy and numeracy are so fundamentally important to the welfare of students that there can be no objection to setting targets.

There is much less unanimity about the inclusion of the other four areas.

Science: Some people say that Science is begun at different levels in different jurisdictions, so a national measurement would be difficult. Others say it is possible to find enough curriculum common ground to develop a useful measure.

Information Technology: While it is seen as quite straightforward to measure inputs such as the ratio of computers to students, it is seen as much more complex to measure student achievement in this area.

The main difficulty people see is that the field is moving so quickly that what looks like an important skill today is trivial or non-existent tomorrow.

The second difficulty is that while it might be possible to easily check on manual skills, it is important that teaching of IT be broader than that, particularly in hard-to-measure areas such as ethics, privacy and information management.

Vocational education and training: It is generally believed that this is a very immature area of educational endeavour, and that systems are so disparate in their arrangements, a national target would be extremely difficult to develop.

People say that while it is possible to measure how many are doing how much, this is saying nothing qualitative because at this stage it is not known what the optimal mix of academic and vocational education might look like.

There is also some concern that the inclusion of vocational education on this list would elevate its importance, reinforcing what is seen as a narrow concept of education – preparation for work.

Participation and completion rates: There is considerable doubt about the value of this. Many people say that with access to education now available via the internet, it is less and less meaningful – and increasingly difficult – to measure the real participation and completion rate.

Some say that participation is generally defined in traditional terms – attendance at school – while there are many programs where students in the final years find jobs as part of their educational experience and so make a direct transition into the workforce. This means they do not "participate", but they have benefited.

Others say that behind participation and completion rates lie profound value judgments about what is best for individuals. A young woman, for example, might be fulfilled at home looking after her child, yet her withdrawal from education would count as a negative in terms of the participation rate.

Yet others say that participation and completion rates can go up without any meaningful consequences for the students involved, because attainment rates go down. This is seen as an exercise in futility.

Altogether, participation and completion rates are not favoured for target setting purposes.

There is some concern about what is not on the list of six. Three subject areas specifically mentioned were: the arts, civics and citizenship, enterprise education.

Even though the NEPM Taskforce has projects under way in the areas of civics and citizenship, and enterprise education, some respondents, particularly in the non-government sector, are concerned that areas of the curriculum or of school experience may not become the subject of targets because they are difficult or impossible to measure. They then go on to say that because they will not be measured, they may be accorded lesser importance.

THE INTERNATIONAL PERSPECTIVE

In England there is national legislation which establishes a system of targets as part of what the Department for Education and Employment (DfEE) describes as "a concerted drive towards higher standards". The explicit purpose of the target setting is to improve student performance. As in Australia, the focus is on literacy

and numeracy, although in England targets are set at various levels of schooling, including Years 10 and 11.

It is common practice for schools to use a baseline data scheme provided by their local education authority. They also receive guidance in the form of published material from the DfEE which is designed to answer the most common questions schools have about how to set targets.

Schools are obliged to make their targets public. They must be set within a national framework of targets which states the proportion of students who will reach given levels of accomplishment in English and mathematics within a stated time frame. These national targets are set for Level 4.

Students are tested on literacy and numeracy skills, and schools' performance is monitored by a national inspectorate.

In addition to targets for literacy and numeracy, schools are encouraged to set other relevant targets for improving student outcomes, such as attendance rates.

In addition to these targets, national targets are also set for the proportion of young people who achieve a given level at matriculation and for the proportion who attain various competencies by age 19.

In Scotland, the Scottish Executive introduced target setting in schools in 1998. It is also focused on literacy and numeracy in the primary years. There are three levels of student performance: starting level, current level and targeted level. As in England, performance of students is monitored by an inspectorate as well as by the examination of data from the tests.

Targets are set by schools in agreement with their education authorities. There are no targets at the national level.

Evaluatively, there is a report entitled *Examination Results in Scottish Schools 1997-99* which show pupil performance, but the Scottish authorities are cautious about the extent to which they ascribe any change to the target setting policy. There is no other evaluative material available.

Scotland is also in the midst of reviewing its target setting processes. A consultative document entitled *Improving Our Schools (July 1999)* proposes some changes to the process by which targets are set.

The Department of Education for Northern Ireland included targets in its School Improvement Program launched in 1998. Student performance in literacy and numeracy was the focus, but schools were able to set their own targets within the context of overall targets for Northern Ireland. A system of statutory assessment was introduced to monitor pupil achievement and assess the value added by schools.

There is no evaluative material available.

In the United States, many States have established mechanisms for driving school improvement, but they are quite different from the approaches taken in England, Scotland and Ireland.

Most states of the US require that schools or districts compile "report cards" based on data such as drop-out rates, spending per pupil, teachers' qualifications and enrolment trends.

Now, an increasing number of States – 26 at last count -- are starting to use comparative data, showing how schools or districts are performing on the above criteria when compared with either a general standard or against other like schools or districts.

The results of these comparisons are then made public – often on a website -- with the intention of showing communities how their schools and districts are performing.

A particular feature of target setting as used in the US is that success or failure is, in some States, accompanied by punishments or rewards in the forms of allocation of resources and effect on reputation. The archetype is the Kentucky Instructional Results Information System (KIRIS).

The importance of the KIRIS lies in the fact that it is one of the few systems of target setting which has been subjected to rigorous evaluation. The results have been alluded to earlier, and a summary of the evaluation report is included at Appendix 3 to this paper.

This evaluation arrived at three important findings.

First, KIRIS illustrated the consequences of creating perverse incentives. These consequences included the production by schools of results which were statistically improbable and had no external validity.   Faced with the prospects of rewards or punishment, schools artificially inflated the grades of their students on the Kentucky State tests, and were exposed when these supposed gains were compared with the same students' results on the National Assessment of Educational Progress (NAEP), which is administered federally.

Second, KIRIS targets for schools were set arbitrarily, without information on actual patterns of school performance. Regardless of their starting points, all schools were required to reach the same target in the same period of time. Therefore, lower-performing schools were expected to make the greatest gains.

Third, the gains required of all schools were very large – typically 0.2 standard deviation per year. Faced with the incentives of rewards or punishments, schools produced what appeared to be gains in mathematics of 0.6 standard deviation statewide. However, the NAEP scores of Kentucky students increased by 0.17 – a

very considerable improvement, but less than one-third of the improvement claimed under KIRIS.

The KIRIS evaluation appears to bear out all six of the conditions about target setting espoused by many of the Australian policy makers interviewed for this paper, namely:

1. That the target represents the realisation of some accepted good.
2. That the target is owned by those who are expected to achieve it.
3. That the target is relevant to the circumstances of those expected to achieve it.
4. That the target is achievable – with some stretch – by those expected to achieve it.
5. That there is confidence in the means by which progress will be measured.
6. That there is confidence in the use to which results of the measurement will be put.

The KIRIS case aside, there is little by way of evaluation of target setting in the literature or in the practice of the jurisdictions reviewed here.

In England, case studies of exemplar schools provided by the DfEE include descriptions of improved student performance, and this improvement was ascribed to target setting.

Unfortunately, there was no systematic evaluation which held other factors constant, or which isolated the introduction of targets from other factors which might influence student learning outcomes. In some schools, for example, the introduction of targets coincided with the arrival of a new Head. Subsequent improvements in student performance were ascribed solely to the introduction of targets. This might be true, but equally it might not. The new Head might have had at least something to do with it.

No comprehensive or systematic evaluation of the effectiveness of target setting in Australian schools was brought to the attention of the researchers.

However, there is a widely held belief among policy-makers that targets are efficacious in helping bring about a cultural change in schools, making them more conscious of the value of gathering and using data on student outcomes, more focused on providing assistance to students where it is needed and thereby leading to an improvement in the overall outcomes for students.

In these circumstances, we conclude that the evaluation of target setting in Australia, or in jurisdictions similar to Australia, must await the design and execution of appropriate research.

PART 4: STRENGTHS AND WEAKNESSES OF TARGET SETTING

Introduction

In this part, the strengths and weaknesses of target setting are analysed as part of measures designed to improve national educational performance.

This is dealt with in two sections, Strengths and Weaknesses. In each there is reference to the literature where literature exists. There are also quotations from the interviews with Australian policy makers conducted for this paper, illustrating their views.

Strengths

A comprehensive list of the potential benefits of target setting in education is provided by a report prepared for the European Training Foundation in 1997.[28]

This report reviewed the vocational education and training systems of eight countries, including Australia, and listed 10 potential benefits of target setting:

1. Provide a focus for planning and action
2. Test the realism of aims and objectives
3. Motivate people to improve performance
4. Harness effort
5. Enable measurement of progress and corrective management action
6. Constitute the basis for detailed work and time plans
7. Promote transparency
8. Increase accountability
9. Add to the basis for evaluation
10. Offer measurable outputs in return for the resources invested

A more tendentious approach is offered by Michael Fielding (1999).[29] Taken as a whole, his paper challenges the UK Labour Government's approach to target setting in school education. In doing so, however, he offers a useful analysis of the case for target setting.

He gives five intrinsic and three extrinsic bases for target setting. The five intrinsic ones we have already described under the acronym SMART, which he uses too.

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[28] *The Setting up of National, Regional and Sector Targets as a Tool for Reforming the System*, 1997. Loveman, S. European Training Foundation, Turin.

[29] *Target setting, policy pathology and student perspectives: Learning to labour in new times*, 1999. Fielding, M. Cambridge Journal of Education, Vol 29 No 2.

The three extrinsic ones are, that target setting provides us with ways of working that:

- ♦ clearly demonstrate what it is we are doing;
- ♦ open up our work to external scrutiny in ways which are easily understood, and
- ♦ fit sympathetically within a rigorous framework of audit and control.

He writes:

> *At best, then, target setting is potentially and pre-eminently a means of helping us actually achieve what we aspire to, holding us to account to ourselves and others, and doing so in a way that is entirely consistent with democratic values: it democratises achievement in the sense that it makes achievement possible for all and visible to all.*

His counter-arguments are presented later under "Weaknesses".

The Australian policy makers interviewed for this paper saw many similar strengths, and offered many arguments in support of target setting, as well as describing how it was done in their jurisdiction.

The specific nature of the targets, their ownership at school level, and their existence within an accountability framework were all features of the target setting described here:

> *We have is an explicitness of intention in terms of targets for the next three years for that school. It is self-driven in that the school largely controls the processes, but it is done within a compulsory framework. It is signed off by the school principal, a representative of the parent community and on behalf of the system.*

In other places, additional strengths were identified:

> *We have more rigour in the planning, greater stakeholder involvement, community participation, more open transparent processes linked to the budget.*

> *In the TAFE area we have certain targets where we want to be more efficient.*

> *As a system we say, this is where we are at, and what is it we would like to achieve? How will we get there?*

> *We want to answer questions for parents about how you know whether the achievement is good enough.*

> *It concentrates the mind and highlights the priority and people can formulate strategies to get there.*

Thus it was argued that target setting brought additional direction to people's work; allowed schools and systems to agree on outcomes; added to school and system

accountability by providing a more rigorous and transparent mechanism; allowed aspirations to be defined, and provided some measure of efficiency.

Weaknesses

Just as Fielding[30] usefully articulated the strengths of target setting, so he argued the need for certain reservations and counter-arguments to be taken into account. He enumerated six major ones.

First, target setting was a means to a wider educational end, not an end in itself. Thus, while its pragmatic virtues might include an apparent capacity to raise test scores, questions about how those scores were raised, whose test scores were raised and what test scores were for, needed to be borne in mind.

In this context (and with the Kentucky experience not forgotten) the cautionary words of Reay and Wiliam (1999) seem apposite:

> *The more specific the government is about what it is that schools are to achieve, the more likely it is to get it, but the less likely it is to mean anything.*[31]

Second, with the limitations of current measuring instruments, there was a risk not only of mis-measuring the measurable, but of misrepresenting the more elusive or unmeasurable aspects of education.

Third, while the emphasis on realism in target setting was to be applauded, there was a risk that competence would be elevated at the expense of creativity.

Fourth, while it was also necessary for targets to be relevant and meaningful, what was meant by those terms, and whose version of those meanings was to prevail?

Fifth, it was important to remember that while transparency was a virtue, interventions such as audits could themselves alter behaviour and thus distort outcomes.

Sixth, was target setting really about development or accountability?

Fielding also referred to the lack of theoretical underpinning for target setting which

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[30] Ibid.

[31] *"I'll Be Nothing": Structure, Agency and the Construction of Identity through Assessment,* 1999. Reay, D. and Wiliam, D. British Education Research Journal, Vol 25, No 3.

this paper identified at the outset:

> *At a theoretical level, there is little evidence that the nature of the problem as it affects education policy has been adequately understood . . . and at the pragmatic level there is mounting evidence that the consequences of this confusion are hitting teachers, parents and students hard.*

Also writing about target setting in the English context, Gann (1999)[32] stated:

> *There is no evidence that setting a target actually improves performance.*

He went on to say that none of the arguments put forward against target setting invalidated the use of targets, but did raise serious questions about how schools should go about implementing targets set by government.

He argued that targets should be founded upon a set of performance indicators which are agreed as accurate definitions of what a school wants to be and do. The performance indicator becomes the criterion against which current achievement is measured and future performance targeted. He then stated that there were three questions to be answered about the way performance is measured:

- ♦ how (what kind of target?);
- ♦ where (at the input or output stage?), and
- ♦ what (quantitative or qualitative outcomes?)

Wyatt (1999)[33] also discussed the importance of developing performance indicators and noted that the literature both in education and in other fields such as industry and the public service had identified various problems and limitations. Even though he was writing about performance indicators, their close relationship to targets suggests that the issues concerning them have a place in the current discussion.

He listed eight issues regarding indicators:

1. They provide limited information
2. There can be problems with simple models
3. There are problems with collection and analysis of data
4. They affect subsequent performance
5. They create political pressures
6. They raise questions about comparisons
7. There are questions about the costs and benefits of extensive indicator systems
8. Who designs the indicators?

These issues were common to indicator systems in all settings, not just in education.

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[32] Op. Cit.
[33] Op. Cit.

He also presented three lessons from experience of using indicators in economic and social policy:

♦ It is important to develop multiple measures. No single set of test scores offers a workable basis for assessing a system, whether it be education or something else.

♦ Indicators make us aware of puzzling new questions. They cannot and should not be expected to provide all the answers.

♦ It is important to educate the users of indicators about how to interpret the data.

Australian policy makers raised many of the issues identified by Fielding – that is, the risk of measuring the measurable and overlooking the unmeasurable; the difficulties inherent in setting targets that are realistic for a wide range of situations, particularly where indigenous students are concerned; the potential for generating unhelpful or even harmful comparisons.

The problem is that the things that get measured get done.

You have a general mass of people for whom the happiness of their child at school is important, so we must be able to reassure them or measure it in some way. Now, can you set a target on that?

I'm happy for a little bit of stretch. But it would be about what messages you were going to give people. If you're going to give them a broken heart because it's unachievable and beyond their imagination . . .

We have serious arguments about setting realistic as opposed to what they call stretch targets. The indigenous issues are the really compelling ones.

Targets can be unrealistic. They don't provide information that informs teaching and learning or improvement within a school. They provide another means of comparison but not the level of information required for schools to act on to make a difference.

Do you set up a league ladder of schools?

PART 5: THE POTENTIAL RANGE OF CONSEQUENCES OF A FAILURE TO ACHIEVE DESIGNATED TARGETS

Theoretically, there might be positive and negative consequences of failing to meet targets. To a large extent it depends on the policy setting within which the failure occurs. Obviously, if it were in Kentucky, there would be negative financial consequences. If it were in England, it would draw the school's performance to the attention of its stakeholders and of the DfEE. If it were in Australia, it might lead to a loss of autonomy while the system stepped in to set matters right. In the UK or Australia it might mean the reallocation of resources to meet needs identified through the failure to meet targets, and thereby lead to long-term improvement for the students.

The potential range of consequences of a failure to achieve designated targets may be summed up as follows:

> The school's weaknesses are revealed, leading to an internal review of priorities, practices and resources, or external intervention by the system authority.

> The school's and system's diagnostic capabilities are enhanced, allowing them to focus on the question: why is it so?

> There may be a change in resource allocation. In Australia and the UK this would usually be directed at putting extra resources in to combat a weakness where the need for this had been demonstrated by failure to reach a target. In the US, this might mean resources being taken away as a "punishment".

> In any published list of comparisons, schools which fail to meet targets would be shown as under-performing, compared with those that had reached the targets.

> A system might take a "soft option" and lower targets so that all could reach them, but in the process cause a levelling down of achievement across schools.

The exposure of weakness, diagnosis of cause and application of remedy might all be seen as positive consequences in the long run, even if they are clearly negative in the short run.

In Australia, England, Scotland and Ireland, there is a conscious attempt to separate school performance (as measured largely by student performance) from discussion about "rewards and punishments".

In the United States, by contrast, there is commonly an explicit connection made between school performance and "rewards and punishments" at state level. The Kentucky example referred to earlier is only one of many.

No Australian jurisdiction countenances – much less executes – a policy of "rewards and punishments".

However, the experience of policy makers in all the States and Territories, as well as in the non-government sector, is that schools fear precisely that.

This question is has two major components:

1. Resource allocation.
2. Comparisons.

Resource allocation

For people with this view of world, this issue is dominated by the spectral imagery of a kind of Judgment Day when rewards will be handed out to the successful, and to the unsuccessful will be meted out punishment.

None of the policy makers interviewed wanted this to happen, but many either feared it would, or said that schools would instinctively suspect that it would.

No one regarded the "rewards-and-punishments" paradigm as a sensible way to think about this. Many had an alternative: a needs-based approach.

The needs may be determined by the presence of socio-economic or other factors which commonly cause educational disadvantage. Or the needs might be identified simply as a result of students' failing to achieve at the target level, in which case other causes would need to be sought.

Many policy makers look at the achievement or non-achievement of a target as a diagnostic indicator which should prompt the question: why is it so? They want an answer to that before making any decisions about resource-allocation.

Some jurisdictions already use failure to meet a target as a ground for central intervention in the running of a school, taking away some of the autonomy until the problem is rectified. This is a feature of system administration that some see could be strengthened by the introduction of targets.

As was noted earlier in this paper, most jurisdictions do use target setting in some way already. A common feature of the target setting they use is that the results are fed back to the schools, and the implications are then discussed with the school.

If any resource allocation follows, it is mediated by the feedback process, and based on needs identified in that process. Resource decisions are based on the discussion about the implications of the school's success or failure in meeting targets; they are not made as a direct consequence of whether the targets were met.

Comparisons

In the Australian jurisdictions, closely allied to the issue of resource allocation was the issue of comparisons – comparisons between schools, between sectors, between jurisdictions.

There were three main issues relating to comparisons:

1. The motive for making comparisons in the first place.
2. How to ensure comparisons are fair.
3. How comparisons are presented.

The general view was that if the motive is to inform schools about how their students are going compared with students in other similar schools, that's fine. It was seen as data which is useful to the school and to school systems because it could help identify strengths and weaknesses and thereby improve the decision-making process.

On the other hand, if the motive was to "name and shame", it was strongly deprecated.

The issue of fairness was resolved for many people by the use of a "like schools" model, where data from schools with similar demographic and geographic characteristics are collected, assessed and shared on the basis that:

♦ schools can learn from each other, and
♦ they can set targets for improvement which are realistic for them, while still representing improved student outcomes.

Many policy makers saw this as a positive reason for having a nationwide data-collection effort.

The issue of how comparisons are presented came down to the matter of league tables. These were generally opposed.

Yet many said that parents had a right to know how their child's school was going. Sharing data on a "like-schools" basis, with the parent community was seen by many people as meeting this accountability requirement while avoiding the league table problem.

They wanted the results used in ways that would avoid invidious comparisons and a "reward or punish" mentality.

It was recognised that schools do not compete on a level playing field and that therefore blanket comparisons were unfair and not useful.

At the same time, there was concern that targets should not be set in a way that levels down schools and students.

The following quotations illustrate these points:

> *There is also a responsibility at system level for us to use the data to identify schools that are under-performing, to look at factors that might be operating in that school that we could do something about.*

> *Do you put more resources into the schools that are doing well as a kind of reward or do you put it into the schools that are doing badly because they haven't done very well?*

> *We would be comfortable with saying to a school if they are performing badly that we are going to take away some level of your school decision-making autonomy, but not take away money because that is probably going to disadvantage the students even more.*

> *What happens to you if you don't achieve them? Or what happens to you if you do achieve them? What are the funding and resource implications?*

> *It is not reward or punishment, but the data is used as a surrogate to measure need and then it is need that determines extra allocation.*

> *The emphasis is on school improvement and not on accountability and compliance.*

> *Government schools have to take anyone who comes knocking at the door, but it's not necessary for independent schools to take anyone who comes knocking at the door. So when you're setting targets and looking at the consequences of succeeding or failing to achieve those targets, then you've got to take into account the fact that the playing field is not level, and can't be.*

> *The first thing you ask, why is this so? That is the most important thing. Because unless you can satisfy that, you can't do anything.*

> *The major danger is that next time the target will be set lower. Then it does come down to the danger that you really work to the lowest denominator, and that would be a tragedy.*

> *The aim is really to make everybody successful, isn't it? Find ways of ensuring that the weaknesses in the system are fixed.*