The inquiring teacher: Clarifying the concept of teaching effectiveness

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Why do I need to know about teaching effectiveness?

You may think, given all that is new to your role as principal, that teaching and learning is the one area that you do not need to know more about. While this may well be true of your own classroom teaching, for a number of reasons the assumption needs to be examined when applied to your leadership role:

1. Much of what you know about teaching and learning is **implicit and tacit**. In other words, as a teacher you operated instinctively and were not often asked to articulate what you were doing and, more importantly, why you were doing it.

2. Teachers are often successful for **idiosyncratic** reasons. What "worked" for you may not work for your colleagues.

3. As a Principal you are in a **different relation to teaching and learning** than you were as a teacher. The principal is ultimately responsible for the performance of the most important function of schooling – teaching in ways that enhance student learning. In this role you need to rely on more than intuition and personal style. You need to be able to define an explicit vision for teaching and learning and to justify it within a coherent theoretical frame of reference that:
    – is defensible in relation to research on effective teaching,
    – makes sense to teachers, and
    – is inclusive of different ways of teaching.

It is true that there are external standards that define what teachers are required to do for registration and for promotion and that a principal has to sign off on these — but without a guiding framework for teaching and learning this may be reduced to a technical exercise.

Module 2 aims to help you conceptualise what it means to teach effectively and, in so doing, to help you answer the following question:

> How will I know that there is effective teaching happening in the school?

Three views of effective teaching

Module 2 examines three views of teaching effectiveness:

- **The 'style' view**
  A common view of teaching effectiveness which focuses on how teachers teach.

- **The 'outcomes' approach**
  A common view of teaching effectiveness which focuses on student results.

- **The 'inquiry' approach**
  An alternative view of teaching effectiveness that incorporates style and outcomes within an inquiry-based framework.

> It will be argued that the **inquiry** framework offers the principal the most defensible conceptualization of teaching effectiveness.

The 'style' view

"Teaching effectiveness is determined by what the teacher does."

The following statements illustrate this view of teaching effectiveness:

1. Effective teachers display warmth.

2. Effective teachers are enthusiastic.

3. Effective teachers provide an overview at the start of teaching something new.

4. Effective teachers minimize the amount of time they are teaching the whole class from the front (direct instruction).

5. Effective teachers facilitate the joint construction of knowledge through teacher-student and student-student conversations.

6. Effective teachers use teaching techniques and approaches that research has shown to be effective.

These statements have an obvious appeal to teachers:

▪ **Experience** develops expertise, and experienced teachers can draw on this experience to describe the qualities of effective teaching. They can generate lists of the qualities of effective teachers and distinguish effective and ineffective teachers in the basis of these qualities.

▪ These lists have the *appearance* of being **inclusive**. Lists of effective teaching qualities are often long and incorporate qualities related to personal attributes (Statements 1 and 2 above); teaching techniques (Statement 3 above); and general teaching approaches (Statements 4 and 5 above).

▪ **Research** can often be cited to support these qualities giving them credibility and strength.

While none of the statements in the box above are themselves unimportant, the assessment of teaching effectiveness against such qualities is flawed for at least three reasons. These are illustrated in Figure 1 and explained in the following text.
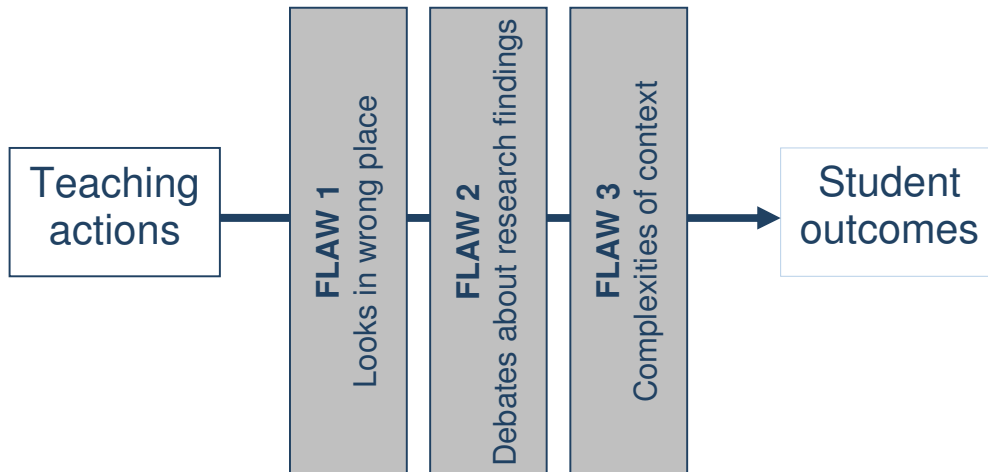
Figure 1: Style-based teaching effectiveness

The solid arrow in Figure 1 represents the thinking behind the style-based conception of teaching effectiveness, that is, particular teaching actions generate desired student outcomes. The three vertical boxes summarise the main flaws in this conception.

Flaw 1: The approach looks in the **wrong place**. It focuses on **what the teacher demonstrates** (against a predetermined list of qualities deemed to be "effective") rather than **what is happening for the students**. As David Berliner (1987) [1] explains, the fundamental flaw of this approach is that a teacher can be judged to be good if they model the desired practices *irrespective of whether the students learn* [italics added] (p. 266). It is not unlike assessing a golfer or a tennis player on the quality of their swing or action rather than where the ball goes[2].

Flaw 2: It assumes that the research generalizations are **unequivocal**. The ongoing and sharply polarised **debate** around teacher use of rewards is one of the many examples in teaching of disputed findings which challenge the assumption that there are clear research generalizations available about the impact of particular styles.

Flaw 3: The arrow assumes a linear connection that is complicated by such contextual factors as:
– the nature of the students
– the subject being taught
– the time of day
– the nature of the teaching environment
– the availability of resources.

The **complex context of** teaching are such that it is simplistic to claim that there is one right way to teach (for example, cooperative learning, or facilitation, or direct instruction) or that there are a list of qualities that can define a right way of teaching.
Research generalisations, as generalisations, are not necessarily valid for all students in all contexts. That is why it was claimed above that lists of style-based teaching criteria only *appear* to be inclusive.

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[1] Berliner, D. (1987). Simple views of effective teaching and a simple theory of classroom instruction. In D. Berliner, B. Rosenshine (Eds.), *Talks to teachers.* New York: Random House.
[2] Michael Scriven – comment during workshop presentation.

They are often inclusive of a general idealised view of teaching, not for the particular daily circumstances of teaching.

The key question as Ackerman (2003)[3] explains is not the approach the teacher is using but the value of that approach in the particular context within which they are teaching:

> there is nothing intrinsically 'bad' about (direct instruction) or 'good' about co-operative learning. The overriding question must always be: In the time available, which pedagogical pathway is likely to lead students to the biggest pot of educational gold? (p. 345)

In summary – it is not what the teacher does that matters – it is what is happening for the students.

This brings us to the second approach to conceptualizing teaching effectiveness.

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[3] Ackerman, D. (2003). Taproots for a new century: Tapping the best of traditional and progressive education. *Phi Delta Kappan*, *84* (3), p344–349.

The 'outcomes' approach

"Teaching effectiveness is determined by student results."

The following statements illustrate this view of teaching effectiveness:

> 1. Teaching effectiveness is determined by what students achieve.
>
> 2. The comparative effectiveness of teachers is best determined by comparing the achievements of the students they teach.
>
> 3. The comparative effectiveness of teachers is best determined by comparing the *added value* they contribute to the achievements of the students they teach.

The first two statements have popular appeal (especially outside the teaching profession) and a simple logic.

> "Effective teachers cause students to learn. Thus high student achievement can be attributed to effective teaching; low achievement to ineffective teaching."

The league tables of school pass rates in national examinations reflect such logic – the implication being that the best have the highest pass rates and by extension have the best teachers. A further extension of this logic is to suggest that teachers should be rewarded, through the mechanism of performance pay, for the successes of their students.

While there is no disputing the need to relate the assessment of teaching effectiveness to student learning and achievement this simple logic has three main flaws. These are illustrated in Figure 2 and explained in the following text.
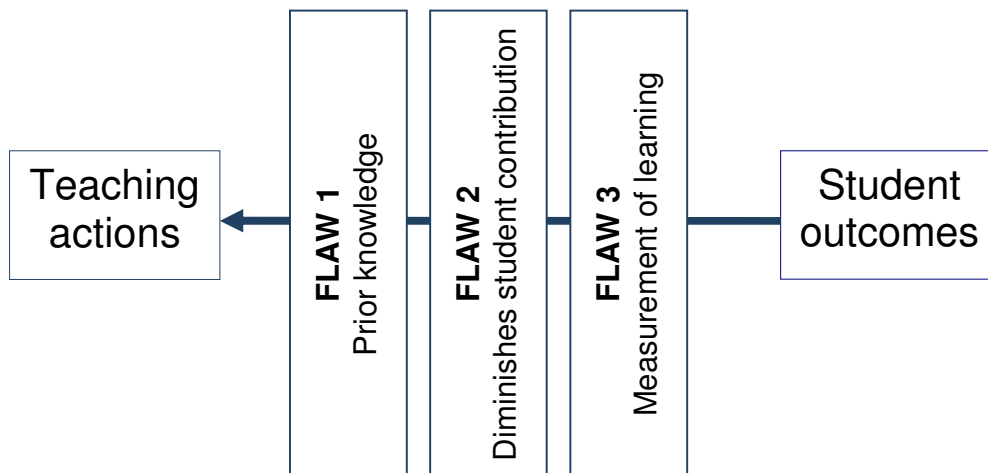
Figure 2: Teaching effectiveness and outcomes-based conception

The solid arrow in Figure 2 represents the thinking behind the outcomes-based conception of teaching effectiveness, that is, student outcomes determine preferred teaching actions. The three vertical boxes summarise the main flaws in this conception.

Flaw 1: Prior knowledge is a powerful determinant of current achievement. This makes it unfair to compare summative achievements of students and to attribute any difference to superior or inferior teaching.

Flaw 2: By linking achievement to teaching actions, the 'outcomes' approach **diminishes the role of the student** as a source of success for their own achievement. A teacher's ability to progress a student between time-points 1 and 2 is influenced by factors internal to the student. Factors include a student's personal organisation, interest, motivation, personal attributions of success or failure, and beliefs about and motivations for particular subjects and tasks. While it is certainly true that a teacher can mitigate these influences, these factors cannot be simply dismissed as irrelevant to student progress and by extension to the assessment of teaching effectiveness.

Flaw 3: The **measurement of student learning** between time-points 1 and 2, if it is to be genuinely attributed to a teacher's teaching, is extremely complex. The complexity arises because learning is not just influenced by teaching, and by factors internal to the student, but also by such factors as family background, ethnicity and social class. A genuine measure of a teacher's contribution to learning would need to take account of these significant influences.

There are three related complications:

– The complexities of measurement may bias the assessment of teaching effectiveness towards more easily measured, objective, short-term outcomes.
– Even if more sophisticated measures were used there is no guarantee that the student's learning could be attributed to the teacher. The student may well have received extra tutoring or support from external sources.
– Even if learning could be attributed it would lead into something of a "black box". We would know that Teacher A had contributed substantially to the learning and

achievement of the students but we would not know what, of the many things that Teacher A did, made the difference.

> **In summary – while the assessment of teaching effectiveness must attend to student outcomes and a teacher's role in developing these, outcomes do not determine effectiveness.**

The 'inquiry' approach

"Teaching effectiveness is determined by the quality of inquiry into the relationship between teacher actions and student learning."

This alternative view conceptualizes teaching effectiveness in a way that addresses the problems raised in the discussion of style and outcomes. Put simply, this approach argues that:

> Effective teachers **inquire** into the relationship between what they do (style) and what happens for students (outcomes). But effective teachers do more than simply inquire (or reflect) – they take **action** (in relation to what they are doing in the classroom) to **improve** the outcomes for students and continue to inquire into the value of these interventions.
>
> Thus effective teaching is more than style and it is more than outcomes – **it is the continual interrogation of the relationship between these two dimensions with the aim of enhancing student achievement**.
>
> Such a model implies particular attitudes or dispositions (open-mindedness, fallibility) and particular actions (questioning students about what they are understanding) but it **does not prescribe or checklist such qualities. It simply prescribes inquiry, action and the search for improvement.**

The dimensions of this inquiry model are illustrated are illustrated in Figure 3.

The inquiry model depicts two phases of inquiry:

Inquiry 1. This inquiry focuses on the impact of teaching actions on student outcomes. Central to this inquiry is the collection and analysis of **high quality evidence** based on the key question: "What is happening for students in my classroom?" and sub-questions that explore the relationship between teaching actions and student learning.

Inquiry 2. This inquiry focuses on identifying possibilities for improvement sourced in the experiences of other teachers (craft knowledge) and from research.

Inquiry 2 adopts a different approach to such evidence than the style-based approach describer earlier. Craft and research knowledge are not regarded as absolutes to be applied in all circumstances. They are regarded as the source of **working hypotheses** for enhancing the relationship between teacher actions and student learning. As such, they too need to be evaluated in the particular context within which the teacher is teaching.

The cycle of inquiry established by the processes of Inquiry 1 and Inquiry 2 enhances the **opportunity to learn** for the teacher (in the sense that they are learning about the impact of their own practice) and for the students (in the sense that changed teacher practices are aimed at increasing student engagement and success).
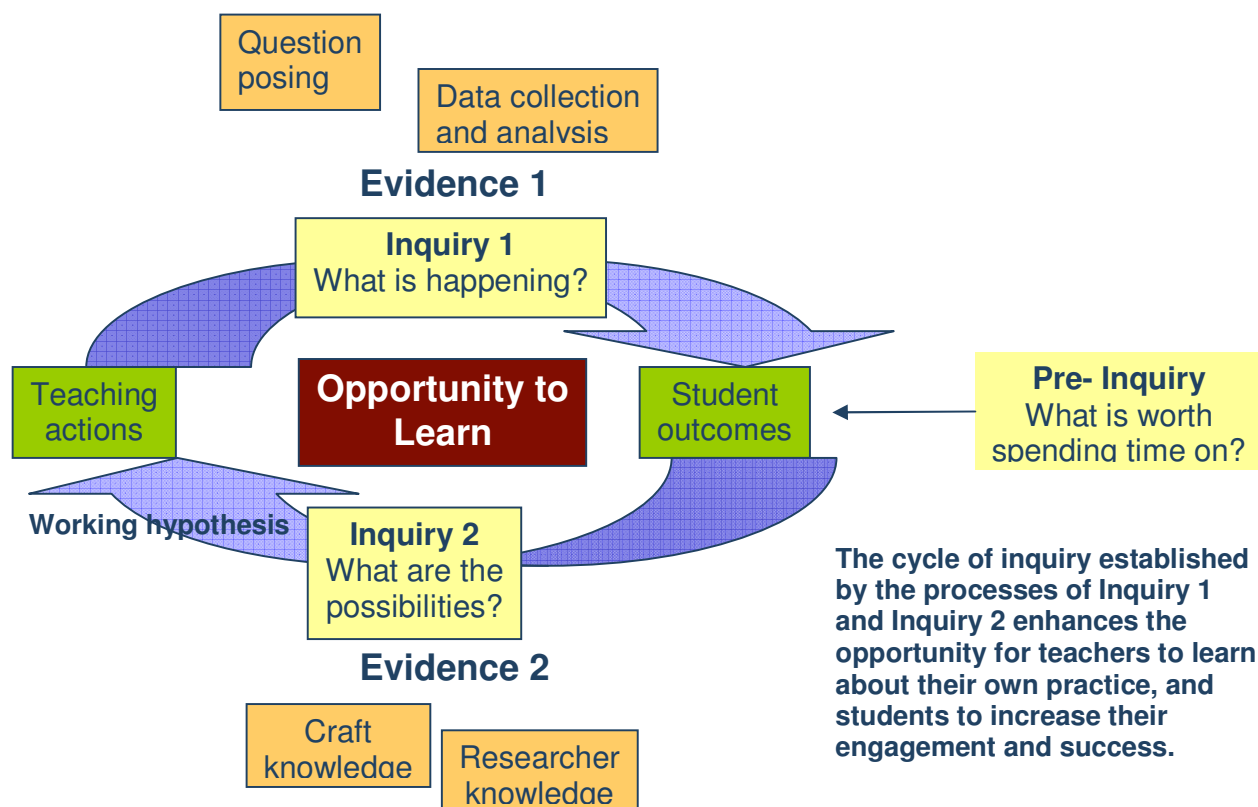
Figure 3: Teaching effectiveness as inquiry

The approach to teaching effectiveness requires particular **knowledge and skills,** and **attitudes**.

Knowledge and Skills
Knowledge and skills relate to such areas as:
1. how to pose questions that capture the main dimensions of the relationship between teaching and learning
2. how to collect valid and reliable information that helps answer the questions about the relationship between teaching and learning
3. how to analyse data to identify patterns and issues
4. how to observe and analyse the teaching of others in ways that identifies actions that impact positively on student learning
5. how to locate and evaluate research that provides strong evidence of impacts on student learning.

Attitudes
These may be even more important than knowledge and skills because they are so influential on the willingness to learn and apply the knowledge and skill.   They are also more difficult to develop.

1. Openness to
    a. **advancing knowledge** about personal practice. Cochran-Smith and Lytle (1993)[4] refer to this as adopting an "inquiry stance" that is deliberate and systematic. They do not

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[4] Cochran-Smith, M., and Lytle, S. (Eds.) (1993). *Inside/Outside: teacher research and knowledge*. New York: Teachers College Press.

deny that much inquiry and action in teaching is, and needs to be, spontaneous but the inquiry stance implies a genuine willingness to *re-search* one's own teaching – to open it to ordered and intentional analysis and critique.

b. **ideas from all sources.** In searching for possibilities for improvement (Inquiry 2) it is easy to drawn to the ideas that are familiar and to restrict ourselves to sources that support our beliefs (about the "right" way to teach). As Popper (1965)[5] has explained, however:

> There are no ultimate sources of knowledge. Every source, every suggestion, is welcome; and every source, every suggestion is open to critical examination …The proper epistemological question is not one about sources; rather we ask whether the assertion made is true – that is to say, whether it agrees with the facts…And we try to find this out, as well as we can, by examining or testing the assertion itself; either in a direct way, or by examining or testing its consequences. (p. 27)

2. Fallibility – Phillips and Burbules (2000)[6] refer to three dimensions of fallibility:

a. understanding and accepting that in an area such as education there are no absolute truths. As Bruner (1963) commented:

> I should warn you … to beware of the likes of us. We do not have a tested theory of instruction to offer you. I warn you for good reason. Educators are a curiously doctrinal or ideological people. You are given to slogans and fight and bleed on their behalf. You have looked to psychology to help and have often been misled into accepting mere hypothesis as the proven word.

There are two cautions here – the caution about certainty, but also the caution about ideological conservatism in teaching. Such cautions do not mean, however, that one idea is as good as any other. Some are better supported by evidence than others and we should certainly seek out those with the most *competent warrants* to back up their claims. No matter how powerful their support, however, they are only ever our best *conjectures or working hypotheses*.

b. understanding that *our hypotheses may fail* but that it is important to keep searching because "to give up the quest is knowingly to settle for beliefs that will almost certainly be defective" (p. 3)

c. accepting that our own ideas and beliefs, no matter how powerfully held, might be wrong – in Oliver Cromwell's famous words "My brethren, by the bowels of Christ I beseech you, **bethink** *that you might be mistaken*." This means not searching only for the fragments of evidence that might "prove" our pet theories right but increasing the strength of their warrant by *searching for evidence that indicates the approach might **not** be working* (for particular outcomes, with particular students, in particular contexts).

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[5] Popper, K. (1965). *Conjectures and Refutations*. New York: Basic.

[6] Phillips, D.C. and Burbules, N. C. (2000). *Postpositivism and educational research*. Lanham, Maryland: Rowman & Littlefield. The authors draw on the work of Karl Popper and John Dewey in developing these characteristics. If you are interested in these ideas it is a very readable, short book – see especially pp 1–4 and pp 89–92.