



Cyclic innovation in ELT: implications for implementation

Fred Chambers discusses models of innovation and considers implications for the implementation of change processes in the ELT industry.

Innovation is endemic in ELT (Delano et al 1994, Hutchinson and Torres 1994, Palmer 1993). Whilst the concept of innovation is relatively simple and a subject of broad agreement amongst most writers concerning its definition (Nicholls 1983, White 1988), the practice of innovation is difficult. For instance, resistance to innovations is commonplace, in fact, it is largely this that makes innovation interesting.

This is a shortened version of a chapter of "The life cycle of an innovation: implications for implementation in education" in Lynch J., Modgil C., Modgil S. (eds), *Education and development: tradition and innovation*, (1997), and a more ELT orientated paper in the Proceedings of the International Conference on Management in English Language Teaching, Bilkent University, Ankara, "Quality Management and the Management of Change", November 1995. It will be in two parts. The first will briefly outline a model of innovation, suggesting how innovations occur. At the end you will be able to consider the implications of this model to you as an ELT practitioner and a manager. The second part will present some of those implications. Shortage of space prevents examples of the model in action but they are available in the chapter and paper mentioned above. It will, however, be useful for any reader, as they read this, to think of an innovation - a new textbook, an examination, a new teaching technique,

or whatever - they have tried to implement or which has been "foisted" upon them and to see if the model fits with their own experiences.

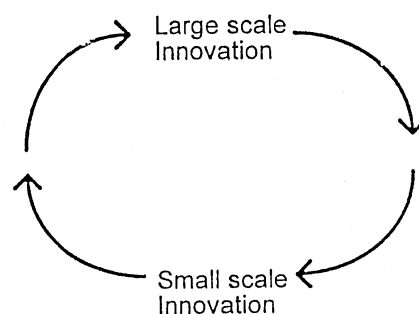
The cyclic nature of innovation

The cyclic theory of innovation is more than the common place idea that innovations (such as the centrality of grammar to ELT) occur, become fashionable, fade from favour and then, at a later date, once more become fashionable.

In a classic paper concerning the relative advantage of small incremental innovations over large scale innovations, Weick, quoting from Hollander, noted:

"... minor innovations were dependent on preceding major innovations, Ten to fifteen years after a major innovation the number of minor changes that were improvements was close to zero (Hollander 1956:205-6). Small alterations in techniques can improve productivity for some time after a major function but these improvements may not go on indefinitely."

K.E. Weick, American Psychologist, vol. 39, pp.40-9, 1984 suggesting a circular model of innovation. (Fig. 1)



A simple cyclic model of innovation after Hollander

It is this model that we will refine. We suggest that following a large scale innovation, in the normal order of things, there are smaller innovations, but that over time these smaller innovations will vary in purpose and number. Following a large scale innovation, there initially will be a period of amending innovations, then a period of small-scale refining innovations, then a period of small-scale resuscitating innovations before finally returning to a new large scale innovation. (Fig. 2)

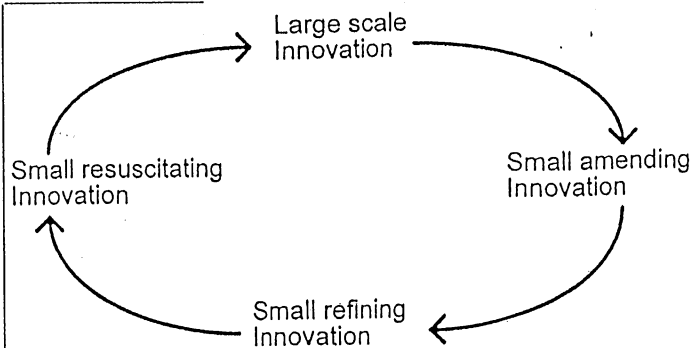


Fig. 2 The cyclic model of innovation

To investigate this phenomenon we will begin at a point in the cycle where a large scale innovation has just occurred. Any point is equally acceptable as a starting point. One effect of beginning at this point is to suggest that this model is "top-down" in management terms. This is not the case and as we will demonstrate later the model permits both top-down and bottom-up processes to occur.

Small amending innovations

Following a large scale innovation there is likely to be a period of relative disarray. A number of factors will contribute to this including:

- lack of knowledge of the new system;
- lack of appropriate skills to implement the programme;
- inadequacies in the system such as management difficulties caused by failure resulting from new resource requirement.

The extent of these problems is likely to be dependent upon the effectiveness of the managers of the planning and implementation. To meet these shortcomings various actions have to be taken. Some of these actions are merely attempts to re-introduce more effectively, aspects of the original innovation which had already been attempted but for one reason or another had failed. However, in addition, it is common to find that a whole series of further, small innovations have to be undertaken in the period immediately following the large-scale innovation. These are intended to correct the problems caused directly by various inadequacies in the implementation of the large-scale innovation.

As such "small-scale amending innovations" occur during a period when there is maximum disruption from the large scale innovation, at this point, small scale innovations appear effective when compared to large-scale innovations.

Small scale refining innovations

As time passes the effect of the small scale amending innovation is to correct

the problems associated with the original large-scale innovation and hopefully eventually the innovation will have been largely effectively introduced. At this point small-scale innovations take on a different role. They now become concerned with updating and improving the system. Note, unlike small-scale amending innovations they are not concerned with correcting problems caused by the original large-scale innovation, but are rather concerned with refining current practice.

Depending upon the effectiveness of the large scale innovation, and the extent of the general degree of stability in the wider system, the wider system may go on for a considerable time being refined by a whole series of such refining innovations.

Small scale resuscitating innovations

Over time, however, the general external conditions of the world will change. The education system that was appropriate will, step by step, more or less quickly, become inappropriate. This transition is often not a sudden and violent change (though it can be, see below) and a series of small-scale resuscitating innovations will be introduced to attempt to rescue the now flagging system. These innovations are attempts to identify and meet the individual problems that are evident within the general system.

However, such small changes were increasingly unlikely to meet the major changes that the Malaysian society was undergoing. Small scale innovations increasingly resembled a doctor giving resuscitation to a patient who was going to die anyway. What was needed at this point was a new, major change across the whole curriculum.

Large scale innovations

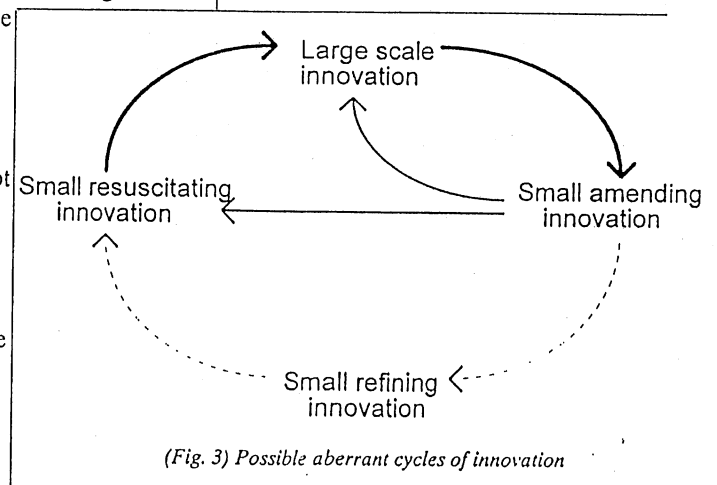
As result of major changes in the wider system, the old practice, designed to meet different conditions, becomes increasingly inappropriate. Small innovations become too weak to bring about the major changes needed, or they are needed in such profusion that they become impossible to co-ordinate. The obvious option is to bring in a new, large-scale, co-ordinated paradigmatic change.

Rather than a series of "one off" undertakings to meet particular problems, it is recognised that a whole new concerted effort was required to provide the fundamental changes required.

... and so the cycle begins once more.

Variations within the cycle

Not all innovations complete this full cycle. It is possible for a large scale innovation to be either so badly implemented, or for conditions to change so extensively rendering the innovation inappropriate (Eastern Europe after 1988?), that the cycle is short-cut and a further large scale innovation introduced (Fig. 3).



(Fig. 3) Possible aberrant cycles of innovation

Implications for innovation in ELT

As interesting as such a pattern might be the reader is quite justified in demanding "So what?" What are the implications, if any, for innovation in ELT? They are considerable, including:

1. a resolving of the question of the

cyclic innovation

relative effectiveness of large and small scale innovations;

2. an understanding of the essentially iterative nature of innovation;
3. the provision of a pattern of innovation "effectiveness";

Large and small scale innovation

All those involved in introducing innovation are likely to be concerned with maximising impact. Considerable debate has centred around the argument of which is most effective, large scale innovation (supported by writers such as Berman & McLaughlin 1977) or a series of small scale innovation (favoured by Weick 1984). The relative and somewhat confusing arguments in favour of each can be summarised as in table 1.

The cyclic model makes clear, as

The iterative nature of innovation

Innovations are iterative. That has been already noted. Smaller innovations occur to correct improve or sustain larger innovations. However, the smaller innovations also, in turn, propagate small amending innovations of their own. So amending innovations have their own amending innovations (amending amending innovation) and those in turn may well have further amending innovations. The net effect of this is that one large scale innovation, particularly if not well planned or well implemented, can result in a plethora of amending innovations, and, given that the original innovation was poorly planned and implemented, then this can well pre-dispose the amendments to be equally poorly

Patterns of innovation effectiveness and evaluation

There is considerable evidence of the results of innovation evaluation being ignored (Cronbach 1982, Cook & Shadish 1986, Kushner & MacDonald, McLaughlin 1985). This has many potential explanations including stupidity, cupidity or corruption. However, such continuing rejection of apparently dysfunctional activity suggests that some "hidden agenda" is being met and that the apparently dysfunctional is, in reality, succeeding.

It has already been noted that innovations in their early stages are likely to face particularly and unique problems from their novelty. Thus, early in the life of an innovation success is likely to be, at the best, limited. Typically, presuming a basic soundness, however, the innovation is likely to become more effective as initial problems are met by small-scale amending innovations and more become persuaded of the innovations effectiveness (Rogers & Shoemaker 1971). At this point, it may be that those involved with the innovation are aware of the explanation for its shortcoming, more or less consciously, and are willing to ignore initial evaluation results. This, of course, suggests the common hypotheses that innovation should be formative at the early stage of an innovation rather than summative.

Later on the pattern of effectiveness will peak and be maintained by small-scale refining innovations (see fig. 5) until the general appropriacy of the innovation becomes dates by changes in the wider system. Resuscitating innovations will battle to maintain declining effectiveness until eventually an new large scale innovation is introduced.

Conclusion

In this article we have considered a cyclic model of innovation that relates innovations as extended, on-going events rather than as single events. The model suggests that innovations occurring in cycles. Major innovations are brought about by stress caused by

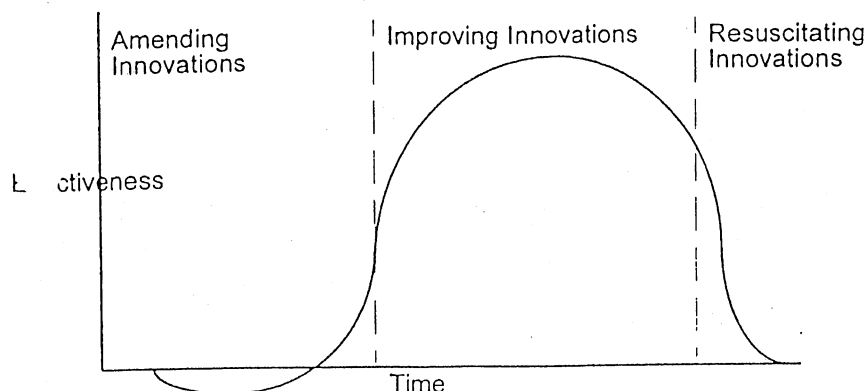
	ADVANTAGES	DISADVANTAGES
SMALL SCALE INNOVATION	<ul style="list-style-type: none"> • "Manageable" • Flexible • Tends to reduce resistance • Less risk of unintended consequences • Can create confidence through success 	<ul style="list-style-type: none"> • Limited impact • Slower to achieve impact • May lose impetus • May be considered "not worth the effort"
LARGE SCALE INNOVATION	<ul style="list-style-type: none"> • Swift to have major impact • Can meet "window of opportunity" • Meets need for urgency • Suits research and Development models of innovation in hierarchical organisations • Presents "fait accompli" in competitive fields • Highly visible 	<ul style="list-style-type: none"> • Can provoke greater resistance • Has potential for major unintended consequences • Tends to be less flexible • Requires more management skills • Complex, therefore more difficult to control

(Table 1) Respective advantages of large and small scale innovations

already noted, that neither large scale nor small scale innovations has inherent advantages over the other. Each is more or less effective depending upon the point in the cycle at which the innovation occurs. Small scale innovations appear more effective following large scale innovations when they can "tidy up" or improve a basically sound system. However, without such a basically sound system to operate within, small innovations appear to be ineffectual fiddling and what is required is a large scale innovation that will bring around a major alignment with current conditions. Thus we have a contingency theory of innovation.

devised. This, in turn, is likely to lead to innovation overload and the associated "innovation fatigue" (Hutchinson 1993) or what Wallace (1991) considers as "chaotic conditions".

Such a phenomenon has been recently evidenced in the English education system where numerous reforms with accompanying amending innovations, spawned an immense number of innovations leading to the inevitable fatigue with the Government at one point having to call a moratorium on innovations to ensure some degree of stability.



(Fig. 5) Time-effectiveness patterns in incrementally adjusted, large scale innovations

dissonance between current practice and the demands of the wider system. Problems met in the large scale innovation are met by small scale amending innovations, which are then followed by small-scale refining innovations which aim at improving the then current system. Eventually dissonance again creeps into the system. This is initially met through small-scale resuscitating innovation but eventually a further large scale innovation is deemed necessary.

Such a model suggests potential insights into various questions in innovation theory that have direct relevance for ELT. First it suggests the question of relevant effectiveness of large and small scale innovations is not irrelevant, but neither can it be met by a simple categorical answer. Rather the answer is contingent upon the circumstances with large scale innovations being more effective at some points in the cycle and small scale innovations being more effective at others. Second, it recognises the iterative nature of innovation that suggests why we must accept innovation as an on-going process. The only question is the degree of stability between the periods of paradigmatic change. It is this iterative nature of innovation that is exacerbated by bad management and which eventually leads to innovation fatigue in teachers, suggesting that good planning and management of innovations is essential. Finally, it identifies, over time, a "sine wave" pattern of effectiveness associated with innovations that may have reference for evaluation.

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