Introduction

Outcomes of a national study funded by the Ministerial Council on Education, Employment, Training and Youth Affairs (Pendergast et al. 2005) investigating the practices, processes, strategies and structures that promote lifelong learning and the development of lifelong learners in the middle years of schooling have been previously published in this journal (Pendergast 2006). The paper reported on the development of a three-phase model that can be used to guide the sequence in which schools undertaking middle schooling reform attend to particular core component changes. The model was developed from the extensive analysis of 25 innovative schools around the nation and provided a unique insight into the desirable sequences and time spent achieving reforms, along with typical pitfalls that lead to a regression in the reform process. The model has subsequently proven to be an invaluable guide for schools and education systems on the reform path. Importantly, the model confirms that schooling reform takes much more time than planners typically expect or allocate. It also confirms that there are predictable and identifiable inhibitors to achieving reform. Since the model has been in use, an audit tool has been developed to assist in determining the phase of reform, and to assist in the process of reforming the middle years, in the unique context of the individual school. This paper shares an example of the audit tool in use, and how it has benefitted the reported site to advance the middle years agendas at the local site.
School reform: using an audit tool for practical purposes

Donna Pendergast and Katherine Main
Development of the reform model and the audit tool

The development of the three-phase model was an unexpected outcome of the original study which set out to investigate whether lifelong learning attributes were enhanced when students engaged in middle schooling practices. The model brings together key sequences combined with school reform principles.

Three-phase model of change

The three-phase model provides the general sequence, in an ideal situation, in which reforming schools attend to particular core component changes in their reform initiatives.

As this figure indicates, there are three broad phases of any major school-based reform in the middle years: Initiation phase that typically occupies the first year or two; Development phase that typically consumes the next two to five years; and Consolidation phase that can last over a further five to 10 years.

The time periods associated with each of the three phases are indicative only, being based on the experience of the reforming schools investigated in this project. But they reinforce many other findings in the research literature attesting to the fact that schooling reform takes much more time than planners typically expect or allocate. The Initiation phase includes aspects of school visioning (in this case around lifelong learning), as well as key practices associated with middle schooling and school reform. The Development phase is generally focussed on teachers and the development of processes and systems that engage them in realising the vision and practice that has been initiated in the school. The Consolidation phase focuses on refinement and a clearer focus on student learning.

The arrows in Figure 1 indicate typical pathways that project schools used to sustain their reforms and to progress from one phase to another. This pattern also suggests that some core change variables may be more critical in this trajectory, as some factors appear to connect more variables across two phases. For example, the formation of effective teams, the development of new models of innovative leadership and a focus on both social and academic outcomes for students appear most critical for progression from Initiation to Development phases. Enhanced pedagogies, especially the provision of greater intellectual challenge in classroom work, appear to be most critical for successful progression from the Development to Consolidation phases.

The model serves as a useful guide for schools at any stage of middle schooling reform. In addition to the actual sequential model, with enablers for shifting from one phase to the next, it was typical for schools to experience a ‘dip’ in the reform process. The nature of this dip varied, but included the loss of continuity in the reform, substantial changes to the nature of the reform, loss of momentum, loss of financial commitment, refusal by staff to continue to be involved in the reforms, and the like. The dip was often the result of predictable events, such as the loss of ‘champions’, changes to leadership, teacher-team breakdown, failure to establish protocols for determining the efficacy of the reform process, all of which could be predicted from the list of key components in the model.

Important: the reform process can be less traumatic and achieved in the most expedient time typically when the following key factors are aligned and sustained:

- team membership across several years
- congenial, philosophically aligned dynamics among team members
involved. Since the publication of the initial report outlining the model, it has been used effectively as a guide to explore and help explain the trajectory of developing and reforming middle schools. For example, in a study of the formation and development of middle school teaching teams in Queensland schools, Main (2007) concluded that a key factor identified as being able to lessen the severity of the dip and reduce the time taken for schools to move between these phases of the reform implementation was effective teaming practices, particularly (a) consistency in team membership, (b) congenial, philosophically-aligned dynamics among team members, and (c) a strong emphasis on posing and solving problems as a team (Pendergast et al. 2006:18). Furthermore, she noted that inadequately trained staff was also seen as a possible inhibitor (Pendergast et al. 2006:18) which is consistent with the introduction of changes sustained initially by teachers' enthusiasm but unable to be sustained without formal guidance of the team.

Importantly, while there is no single, ‘right’ way to undertake reform in the middle years, typically there is progression through three phases that involve the systematic linking of many components of a school's operation. The boom-to-bust middle school cycle that has been experienced in the United States has been argued to have been caused by schools ‘cherry picking’ elements of middle schooling practices and not implementing the holistic suite of components identified for effective middle schools (Swaim 2004). To avoid this same negative cycle and remain on a positive trajectory in their reform journey, schools in Australia need to be able to identify the strengths and gaps within their school’s reform plan. With respect to the elements of middle years reform, many have argued the need for a comprehensive approach. For instance, middle schooling practices are interdependent. In other words, practices depend upon one another for success’ (DET 2005:50) and ‘implementing sustainable reform in the middle years is asking schools and teachers to change many of the long accepted practices as they relate to school organization, pedagogy, and curriculum’ (Taylor 2001:9). De Jong and Chadbourne (2007) convincingly argue that there needs to be a critical mass of features of middle schooling — there is a need to go the ‘whole hog’. They refer to a colleague who argues it in this way: if the recipe for a cake contains ten ingredients and the chef chooses to use only five of them, then no one should be surprised if, when cooked, the cake collapses into a pile of crumbs. It is generally agreed then that for reform to be effective, what is required is the articulation of all key aspects, rather than isolated change.

Audit tool

Subsequent to the development of the model, there was an opportunity to extend this knowledge by developing an audit tool to identify the phase in which a school was located with respect to their middle years reform journey. Understanding this can inform and guide the reform process in a positive way. The audit tool could also assist in identifying potential inhibitors to reform, and thereby guide the reform process. The instrument, called the Middle Schooling Audit Tool, has now been used in a number of school reviews conducted by the author, and in professional development conducted with representatives from up to 50 schools at several professional development sessions. The instrument can be used in isolation to provide a general understanding of the school context. However it is best used as one component of a comprehensive investigation which includes at least the following:

- **School site visit** where personal and focus group interviews are conducted with teachers, administrators, students and parents.

- **Middle Schooling Audit Tool** administered to representative sample of teachers and administrators.
The audit tool is divided into three sections, each with a number of sub-questions. A five-point Likert scale is used to make an assessment of the practices associated with middle school reform, and then space is provided to provide evidence of the proposed rating. The five-point scale ranges from 'no evidence' to 'fully in place'. The three sections and the subsections link back to the phase components. However, the subsections are not presented in the phases on the data collection sheet so as not to bias the responses. They are presented in Table 1.

The instrument is administered to as many teachers and administrators as possible at the school site. Data is collated on a frequency basis and the analysis is presented for the three sections of the instrument. An example follows in Figures 2, 3 and 4.

**Figure 2 21st century learner needs**

![21st Century Learner Needs](image)

**Table 1 Indicator and phase of alignment for the Middle School Audit Tool**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>21st Century Learner Needs</td>
<td>Initiation</td>
</tr>
<tr>
<td>Viewers and receiving processes about the long term</td>
<td>X</td>
</tr>
<tr>
<td>Student transactions and transactions procedures</td>
<td>X</td>
</tr>
<tr>
<td>Access to recent acquisitions combined to maintain a household</td>
<td>X</td>
</tr>
<tr>
<td>Access to the learning environment</td>
<td>X</td>
</tr>
<tr>
<td>Teacher training and support concerning middle years</td>
<td>X</td>
</tr>
<tr>
<td>Campus</td>
<td>X</td>
</tr>
<tr>
<td>The development of instructional and professional development in science</td>
<td>X</td>
</tr>
<tr>
<td>Integration of student-centered STS in science and technology</td>
<td>X</td>
</tr>
</tbody>
</table>

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Middle Years of Schooling Association
In this graph there is a relatively high degree of agreement that the school meets the needs of 21st century learners and at a high level, though for ‘learner and learner-focused programs’ there is a dip from all respondents, but particularly from heads of departments.

**Figure 3 Middle years of learning**

The data in Figure 3 related to middle years practices shows quite wide variation in opinions of the implementation of middle schooling practices. Certainly the researcher would be alerted to the need to investigate the evidence provided for the claims made.

**Figure 4 School reform**

In Figure 4, related to school reform, the data reports a high degree of agreement and a high level of achievement of these practices.

Following an interpretation of this data, such as briefly presented above, including providing the examples reported in the instrument, the analysis is then presented in the three phases, with the decoding of the sub-questions shown in Table 1.

**Figure 5 Phase Analysis**

In Figure 5 (note, this is a different data set to that used in Figures 2, 3 and 4) the researcher would point out the relatively high levels of reported performance, noting the variations.

The data is then presented, along with other information collected through site visits and interviews, to form a comprehensive picture of the middle schooling practices in place (with examples of evidence). The phase in which the school is located can then be determined. From this, recommendations for future directions and alerts about potential inhibitors can be identified.

**Need to gain evidence of middle schooling practices**

Main & Bryer (2007) argued that, to date, middle schooling reform in Australia has had limited success in replacing traditional teacher practice and in justifying teacher efforts to make changes. Evidence of effective practice is necessary to drive and sustain enthusiasm for the reform. The two main challenges reported in other western education systems for sustainable middle schooling practices have been the piecemeal implementation of middle schooling practices (Bean 2001; Taylor & Garson 1982) and the uncoordinated approach to the evaluation of practices (Main & Bryer 2007). However, a review of research has also shown that effectiveness is not enough to sustain an innovation (Stevens 2004). In Australia, in many instances, the usefulness of data gathered using a range of methodologies, relevance to the local context, timeliness of the data, as well as the fragmentary and unsystematic approach to research have resulted in inconclusive evidence about the effectiveness of middle schooling practices (Yates, 2004). What is needed as middle schooling gains momentum is both a coordinated and systematic approach to guide as well as evaluate the implementation of middle schooling practices.
Summary and conclusion

Middle school research and practice are intrinsically linked. The development of instruments which enable a critical reflection on the implementation of middle years reform is one way of building efficacy in this field of education. Adding confidence and competence to the researchers' repertoire, makes them better able to work strategically to develop processes and practices that enable evidence-based reform. This instrument, the Middle Schooling Audit Tool, has been used in a range of schools over the last five years and has proved to be an invaluable asset for connecting with the key components of middle years reform.

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References


