The Importance of Context in Work Placements: Cooperative Education and the Development of Graduate Attributes for a Global Work Force

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ABSTRACT
Higher education in Australia is being challenged by industry to produce graduates who are equipped both theoretically and practically to take their place in the work place. This challenge is often couched in very general terms, and generally does not consider specific work places or their cultural context.

Within the Marketing and Logistics undergraduate degrees at RMIT University, cooperative education programs have been designed to prepare students for the work placement, as well as supporting the students whilst they are on their placement. Through close consultation and liaison with industry, cooperative education has the ability to contribute to the development of the graduate attributes that industry have identified they require in business graduates.

The research to date indicates that the context of the work place itself is critical to the development of generic and specific skills. Cooperative education provides opportunities for learning within a context that should be relevant and personally satisfying for students. In an increasingly global business environment, graduate attributes should also be developed with the cultural backgrounds of the students in mind.

This research suggests that industry, in collaboration with educational institutions, has a significant role to play in cooperative education programs, and in structuring a curriculum that will best support student learning. The partnership between industry and education is a vital one. More emphasis on joint collaboration at all stages of the placement process to mutually set learning objectives and frameworks to support learning will be required if the attainment of the graduate attributes that industry desires is to be achieved through cooperative education.

INTRODUCTION
Higher Education in Australia continues to be challenged to produce graduates who are equipped to contribute productively to increasingly complex, dynamic and competitive workplaces operating in a global marketplace.

Universities such as RMIT University in Melbourne, Australia are responding to this challenge by including a one-year compulsory cooperative education program in their business undergraduate degrees. In line with graduate recruitment strategies, cooperative education employers are able to identify generic skills such as well developed communication skills, the ability to work in teams and a broad array of computing skills, as desirable skills for cooperative education students to be able to demonstrate. The wide and diverse range of employers and placement experiences however often constrains the formal construction of a cooperative education curriculum.

The diversity of workplace experiences is further complicated by the diversity of students who undertake cooperative education placements. With increasing numbers of students from multi cultural backgrounds undertaking their undergraduate degree studies at RMIT, international students, particularly from South East Asian cultures, are exposed to educational and business cultures and practices that are quite dissimilar to their own cultures.

Given that Cooperative Education provides opportunities for students to learn in the context of the business environment in which their knowledge and skills will be used, this research aimed to identify any key factors about the placement context and experience itself which supported student learning. It aimed to identify factors that could be said to be critical for positive general learning outcomes, and for specific skill acquisition for the students on placement. The outcomes of the research suggest that the focus for achieving the desired graduate outcomes should be on the partnership arrangements between the university and the host employer. It is vital that collaboration exists between the university and the host employer in developing a cooperative education curriculum and placement experience that supports the identification and acquisition of the skills required by industry in diverse and international educational and workplace settings. It is suggested that increased emphasis should be placed on communication between industry and universities in the identification of the skills that industry requires and the learning approaches that best support the acquisition of these skills in the cooperative education year. Such communication should address not only the opportunities and experiences of the work placement, but the cultural backgrounds of students and the supervisory skills of employers.

The context for student learning through observation, application, and reflection provided by the workplace has great potential for supporting knowledge and skill acquisition in ways that certainly complement the generally more abstract approaches by universities. Ongoing communication and program management to allow such communication will, however, require decisions about the resources required to support such a commitment both at an industry and an institute level.
SOME BACKGROUND
The Economic, Political and Technological Context
And Its Influence on Educational Policy Setting

Since the 1960s, Western governments have reduced funding to the massive public sectors, including higher education. In addition, technological and economic changes have brought about a situation of constant change and restructuring in industry. From the mid 1980s, the economic recession facing Australia and many other countries has been characterized by high levels of unemployment, including long term structural youth unemployment. The restructuring which occurred in the private and public sectors, together with the introduction of increasing levels of technology, in turn led to changes in the skill levels and working conditions of employees.

Information increasingly has become the valued commodity. Industries that gather, store, interpret and explain information have thus become areas of employment growth. In Australia, the Quality of Education Review Committee (1985:87) argued that “the types of employment most likely to grow appear to be those in installation, maintenance and repair, information processing, administration, clerical and other office activities, and personal services, both public and private.” The Committee went on to note that “these areas are noteworthy in that they are not tied to any particular industry or employer. Neither are they clearly associated with particular formal educational qualifications. At the same time, they tend to involve high degrees of client contact and interpersonal skills”.

The growth of high technology, according to the Australian Education Task Force (1985:2), would produce a context of deskilling and reskilling of the labor force. They noted the following as some of the effects that would be likely to occur:

- Redundancy among certain skilled and unskilled groups and a need for training in emerging technologies
- More frequent changes in occupation during a person’s working life
- A growing emphasis on generic skills

Berryman and Bailey (1992) have also examined changes in economic activity, and the implications of such for the nature of work and the knowledge and requirements of the workforce over the last twenty years in the USA. They identify the profound changes that have been occurring as being a result of intensified international competition, a proliferation of products, accelerating product cycles, a faster pace of change in production technologies and a generally heightened level of uncertainty (1992:10). As a consequence of these developments, they conclude that workers will need more formal education, and a broader understanding of the context in which they work (1992:10). Berryman and Bailey (1992:27) also suggest that workplaces which are becoming increasingly more flexible and with work roles which are less well defined will require workers who are educated, with higher level skills that allow them to be able to cope with change and uncertainty.

Researchers such as Garvin (1993), Senge, Roberts et al. (1994), and Chaula and Renesch (1995), have identified that to sustain an organization whose major function has become the creation and transformation of information through product delivery or service delivery, the organization needs to evolve into a learning organization, in which systems are put in place to allow workers to learn individually and collectively. Seng (1990) identifies the following as the principles that learning organizations need to adopt:

- Systems thinking: the ability to use knowledge and tools that provide a conceptual framework to embody an entire process
- Personal mastery: having a commitment to learning that allows the worker to view the environment objectively
- Mental models: the ability to develop images of how the world works and road maps to courses of action
- Shared vision: a picture of what the organization wishes to create
- Team learning: thinking together to create the results that the organization requires of its members.

Within this context of social, economic and labor market changes, Australian governments have released numerous policy papers aimed at restructuring public education. Debate on higher education occurred following the release of the Green Paper (1987) and the White Paper (1988) by the then Federal Minister for Education, John Dawkins. The policy papers signalled several major changes to the organization and funding of Australian higher education. Resource allocation procedures were implemented which focussed on student output and aimed at ensuring that university courses were adapted to meet the needs of the changing student clientele and prospective employers (Ramsey, 1988:23). The dominant motivation behind these proposals was political and economic. Dawkins stated (1988:13-14):

“In education, we failed to place sufficient premium on knowledge and skills in sciences, mathematics, technologies and related disciplines.”

Gardiner and Singh (1991:7) identify these changes in Federal government higher education policy, together with social, economic and technological conditions as contributing to the growth of cooperative education programs in Australian universities. These cooperative education programs addressed the following imperatives outlined by Dawkins for higher education; to develop links with industry to support their consultancy and applied research funding, to consult with industry in the design and delivery of curriculum, to assist student’s entry into the workplace and to cater for the more diverse student clientele entering higher education institutions.

GRADUATE ATTRIBUTES DESIRED BY INDUSTRY

The above overview of the changing economic, social, political and technological environment facing graduates today indicates some of the skills that are required
of graduates if they are to contribute successfully to very dynamic and international workplaces. These skills encompass client contact and communication skills, interpersonal skills, generic skills, team thinking and acting skills, systems thinking and a commitment to lifelong learning.

In 1992, a task force was established by the Business/Higher Education Round Table in Australia to pursue initiatives that would advance the goals and improve the performance of both business and higher education. After interviews with 28 key education and business leaders, a disturbing finding was that there appeared to be an increasing number of students who struggled when required to apply their knowledge and discipline to a work environment (1992:3). The task force identified the following key findings:

- A broad education is required of graduates, which ensures that they have high order skills in the areas of oral and written communication skills, have well developed interpersonal skills, are numerically and economically literate, and have a grounding in the study of Asian culture and values.
- Tertiary courses should equip students to apply knowledge intelligently—there is a need for universities and business to work more closely together to produce, practical, clever graduates.
- Students and employees need to be accepting of change and able to recognize and seek out change.
- Universities should not only be autonomous, but also responsible to their stakeholders. There is a legitimate responsibility of the business community to ensure that appropriate attention is given to providing a sufficiently broad education to undergraduates.

Table 1 shows the ranking of the emphasis given to suggested characteristics of university graduates by business and university respondents.

This data indicates that there is quite a variance in the views of business and university with regards to the importance of the desirable characteristics of graduates. By considering the rankings of business, a profile of the most desirable graduate attributes can be identified. There is consistency with this data, and the views of the Business/Higher Education Round Table (1992) in that communication skills and the capacity to learn new skills, together with a broad knowledge base are

### Table 1: Business/Education Round Table (1992: 28)

Emphasis given to suggested characteristics of university graduates: business and university respondents*

<table>
<thead>
<tr>
<th></th>
<th>Business</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Mean</td>
</tr>
<tr>
<td>Communication skills (e.g. writing and speaking)</td>
<td>1</td>
<td>4.29</td>
</tr>
<tr>
<td>Capacity to learn new skills and procedures</td>
<td>2</td>
<td>4.21</td>
</tr>
<tr>
<td>Capacity for cooperation and teamwork</td>
<td>3</td>
<td>4.18</td>
</tr>
<tr>
<td>Capacity to make decisions and solve problems</td>
<td>4</td>
<td>4.17</td>
</tr>
<tr>
<td>Ability to apply knowledge to workplace</td>
<td>5</td>
<td>4.05</td>
</tr>
<tr>
<td>Capacity to work with minimum supervision</td>
<td>6</td>
<td>3.65</td>
</tr>
<tr>
<td>Theoretical knowledge in professional field</td>
<td>7</td>
<td>3.52</td>
</tr>
<tr>
<td>Capacity to use computer technology</td>
<td>8</td>
<td>3.43</td>
</tr>
<tr>
<td>Understanding of business ethics</td>
<td>9</td>
<td>3.21</td>
</tr>
<tr>
<td>General business knowledge</td>
<td>10</td>
<td>3.03</td>
</tr>
<tr>
<td>Specific work skills</td>
<td>-11</td>
<td>3.02</td>
</tr>
<tr>
<td>A broad background of general knowledge</td>
<td>-11</td>
<td>3.02</td>
</tr>
</tbody>
</table>

*University respondents were asked: ‘In educating undergraduates in your faculty… what emphasis is given to developing each of the following characteristics?’

Business respondents were asked: ‘In selecting newly-graduated professionals to work in your company… what emphasis do you consider should be given to each of the following characteristics of applicants?’
identified by both these research studies. Many of these attributes can also be identified in Table 2. This table lists the required attributes identified by a major graduate employer of business graduates of the Bachelor of Business (Transport and Logistics Management at RMIT University).

In response to these and other similar findings, a set of graduate attributes has been developed to guide the teaching and learning at RMIT University. These graduate attributes identify that all graduates from RMIT University should be:

- Knowledgeable
- Creative
- Critical
- Responsible
- Employable
- Lifelong learners
- Potential leaders

Degree courses thus should be designed to produce graduates who can demonstrate these attributes.

### The Curriculum of Cooperative Education & The Development of Graduate Attributes

Given the great diversity of cooperative education programs that have developed over the last one hundred years, uncertainty still exists in the literature as to whether there is one appropriate educational framework upon which to develop a cooperative education curriculum. As noted by van Gyn (1994:17), “the cooperative education model has in common with many other curriculum models the fact that its design evolved out of a practical need, rather than any explicit theoretical orientation”. Van Gyn (1994:17) argues that since the educational experience of the cooperative education student involves both academic and work components, the theoretical perspective adopted for the cooperative education curriculum should address both these aspects, and must ensure that the two experiences are linked theoretically and practically. An “orientation” should be adopted for the development of a curriculum approach that could encompass several curriculum theories.

The “transaction orientation” described by Miller and Seller (1985) is identified as an appropriate approach to curriculum development for cooperative education. The transaction approach is described as supporting an inquiry approach to curriculum, which regards the learner as rational and capable of problem solving. The learning process is described as a dialogue between the learner and the curriculum. Central to the transaction orientation is the facilitation of problem solving within meaningful contexts (van Gyn, 1994:19). Taba (1962) has described a similar view of curriculum, known as the interactive or dynamic model. In this model, curriculum is seen as a dynamic process and the elements are interactive and able to be modified. There is an acknowledgement that the nature of learning and the participants within the process can determine the starting point and the sequence for curriculum development.

DeFalco (1995:60) also aims to identify a learning approach or educational model on which to develop a curriculum for cooperative education. He postulates that an appropriate approach for curriculum is that espoused by the pragmatic school of educational thought, which describes “knowledge as being created by the dialectic of the student with the text or the experience: the meaning emerges from the interaction”. In support of the pragmatic view of learning, DeFalco refers to the work of Gardner (1991) on apprenticeships, as this model is firmly based on pragmatic epistemology. Gardner suggests that the apprenticeship curriculum model provides structure, rigor and discipline. He identifies that most crucial to our purpose is that the learning in apprenticeship is heavily contextualized—the reasons for the various procedures being taught are generally evident, because the master is in the process of producing goods or services for which there exists an explicit demand and an evident use (Gardner 1991:122).

Berryman and Bailey (1992: 65) also acknowledge the importance of context for learning. They state that “context turns out to be critical for understanding and thus for learning….the importance of context lies in the meaning that it gives to learning”. They also identify the traditional apprenticeship, including on the job training, as a way of promoting effective learning (1992:77), and refer to the studies of Lave (Lave et al, 1988) in which she describes the work to be done as the driving force for learning in apprenticeships.

Even though traditional apprenticeships such as those researched by Lave and others are not entirely relevant in modern workplaces, the notions of a community of experts and novices, the teacher as master, the ordering of skills and the engagement in real work by the master and the student can be identified in programs such as cooperative education, where there is a workplace supervisor and a student as learner relationship.

### Table 2: Graduate Attributes Desired of Business Graduates (BHP Transport, 1996)

<table>
<thead>
<tr>
<th>Work Standards</th>
<th>Planning and Organizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
<td>Individual Leadership (Influence)</td>
</tr>
<tr>
<td>Teamwork (co-operation)</td>
<td>Career Ambition</td>
</tr>
<tr>
<td>Technical/Professional Proficiency</td>
<td>Analysis (problem identification)</td>
</tr>
<tr>
<td>Innovativeness (creativity)</td>
<td>Written Communication</td>
</tr>
</tbody>
</table>
THE CONTEXT FOR LEARNING IN COOPERATIVE EDUCATION

Factors That Best Support Learning in the Workplace

Students in cooperative education programs engage in workplace learning, in which the workplace provides the context for learning. This research aims to identify:

- Aspects of the workplace context that best support student learning in cooperative education placements
- An integrated approach to structuring the workplace context and the curriculum of cooperative education so as to support the acquisition of graduate attributes identified by Australian business as being most required in today’s workplaces.

SUBJECTS OF THE RESEARCH, METHODOLOGY, DATA ANALYSIS

The subjects of this research were undergraduate students enrolled in the Bachelor of Business (Marketing) at RMIT University. These students were undertaking their cooperative education placement in 1997 in a wide variety of businesses in and around Melbourne. In the main, the RMIT placement staff had sourced the host organizations. Many of the organizations have been supporting the cooperative education program for several years, such that staff within the host organizations have a good understanding of the nature of the undergraduate degree, and the cooperative education program.

In 1997, there were around 75 students undertaking their one-year cooperative education placement. The placement occurs in the third year of the four-year degree program. Students attend preparation for cooperative education placement classes in the second year of the degree, prior to the placement. Each student has both a work place and an academic supervisor appointed to guide the learning on the placement.

Contact is maintained with the university during the placement year by way of a series of workshops. The students, as part of the cooperative education curriculum are required to attend these workshops at the university. They occur:

- Three months into the placement—to review the settling in experiences of the students, review workplace learning approaches and encourage reflection and goal setting for the students in the remainder of the placement. Students are required to write a report at this stage of their placement around aspects of their host organization, the marketing function within the organization and their learning experiences.
- Half way through the placement—to review the progress of the placement as per the first workshop. More specifically, this workshop explores problem based/inquiry based approaches to learning, so that students are able to identify a work-based problem which they will research, report upon and aim to make recommendations about. This report forms the major component of assessment for the placement.
- At the conclusion of the placement—to review the placement in terms of the skills, knowledge that the students can identify they have acquired through the placement, overall suitability of the placement in terms of meeting the curriculum objectives, career awareness and goal setting for the return to study in the following semester.

In the final workshop, a questionnaire was administered to one group (25) students; thus the sample comprised 33% of the students on placement in 1997. All of the students responded to the questionnaire, which asked students to review and rate their placement in terms of how satisfactory the placement was for the student. Respondents were asked to identify at least five factors they considered as elements of “satisfaction”, and then provide specific examples of experiences that described the factors around satisfaction that they had identified. Thus, the questionnaire aimed to identify, from the experience and viewpoint of the students who had completed their cooperative education placement, what factors described and contributed to satisfactory placements.

Table 3 summarizes the ratings that students gave to their cooperative education placement.

The data indicates that the majority of the students described their cooperative education placement experience as most satisfactory, thus the placements in the main were appropriate for these students. Of much more interest to the researcher were the factors that students considered to come up with their satisfaction rating.

Table 4 on page 6 lists the factors and the frequency of the factors identified.

The responses indicate that there is a wide range of factors that these students perceived as necessary to providing a satisfactory placement experience. The workplace environment, or what we might describe as the context of the work placement was clearly the most frequently cited factor.

When examining the detail of the responses that asked the students to de-

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
<th>% response</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not at all satisfactory</td>
<td>4%</td>
</tr>
<tr>
<td>1</td>
<td>Fair</td>
<td>8%</td>
</tr>
<tr>
<td>2</td>
<td>Satisfactory</td>
<td>24%</td>
</tr>
<tr>
<td>2.5</td>
<td>Quite satisfactory</td>
<td>8%</td>
</tr>
<tr>
<td>3</td>
<td>Most satisfactory</td>
<td>56%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: Satisfaction Ratings Given to the Total Placement (0 = Not at all satisfactory, 3 = Most Satisfactory)
scribe specific examples of the factors identified, students identified their relationships with managers and colleagues as key contributors to satisfactory work environments. The respondents described satisfaction coming from “learning the respect of my colleagues, working in a team environment where I am treated as an equal, having my ideas heard, made to feel welcome, real camaraderie, having fun and friendly and approachable staff.” One student described the workplace environment as allowing her to meet many people who “provide different views of how to approach and solve problems.” Another stated that “the most important thing that I will take from my co-op placement is the importance of work place relationships, knowing how to work with and motivate others.”

Learning new skills and knowledge was also frequently cited as a factor contributing to satisfaction in the workplace. These students wanted to learn through the experience, they often described their satisfaction in terms of their own personal growth. New skills identified were business skills generally, computing skills, problem solving and communication skills, as well as more general comments about getting to know how the organization worked. The ability to apply concepts learned at university was evidenced by many of the descriptions that students provided, for example, “I was involved with a test evaluation of a new product—now I have a better understanding of all the stages involved in new product development and bringing a product to market.”

The nature of the tasks set and the level of responsibility given to the students were also frequently identified as contributing to feelings of satisfaction with the placement. In line with responsibility, was the satisfaction students expressed about having their contributions acknowledged, and being seen as part of a legitimate work role, with observable outcomes. Acknowledgment was by way of feedback on the job, and the ultimate acknowledgement was described as “being asked to stay on as a full time graduate”. Comments such as “I was able to decide what project/task I needed to work on, and I was left to prioritize, with the onus being given to me for completing the work” describe the student’s view of responsibility. A strong message from the responses was with regard to the nature of the tasks set—students were most satisfied when the work was challenging, and project based. “Being challenged, but not overwhelmed”, was one student’s description. Many examples of challenges that students had felt satisfaction with were outlined, including “project managing customer trials of a new product with over 20,000 customers involved, had to build a new web site, co-produced and launched an entire car care program from pricing to supply to marketing and dealer support.”

It should be noted that students who provided this data were typically Australian students undertaking their placements in organizations in their home country. Unpublished research undertaken by Bricknell (1998) as to how Australian and Asian students understand concepts such as “teamwork” indicates that there is quite a different understanding between these two groups of students. Asian students perceive teamwork as meaning working with others in harmony, as a normal approach to life in general, to achieve a common (not individual) goal and where cooperation is vital. On the other hand the Australian students interpret teamwork as applicable to a business environment, as distinct from their total life, something you have to learn to do, because it is emphasized in the coursework. Bricknell’s work suggests that cultural differences should also be explored to more completely understand the concept of a satisfactory placement from the point of view of the student on placement.

**DISCUSSION**

This work suggests that in satisfactory cooperative education placements as described by the students who were the subject of this research, there are many factors operating which contribute to that satisfaction. The factors are in the main around the learning environment, the ability to approach mentors and colleagues and seek their guidance, support and feedback, as well as the nature of the work itself. The workplace should structure the cooperative education placement so that

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency of identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>The work environment, including support of colleagues, team environment</td>
<td>16</td>
</tr>
<tr>
<td>Learning new skills and knowledge</td>
<td>10</td>
</tr>
<tr>
<td>Applying concepts learned at university</td>
<td>9</td>
</tr>
<tr>
<td>Taking responsibility for work/projects</td>
<td>8</td>
</tr>
<tr>
<td>Challenging work/projects</td>
<td>7</td>
</tr>
<tr>
<td>Enjoyment, fulfillment</td>
<td>6</td>
</tr>
<tr>
<td>Autonomy in work role</td>
<td>5</td>
</tr>
<tr>
<td>Learning particular business practices of the organization</td>
<td>5</td>
</tr>
<tr>
<td>Legitimacy/real work roles and projects</td>
<td>4</td>
</tr>
<tr>
<td>Variety of tasks and opportunities</td>
<td>4</td>
</tr>
<tr>
<td>Opportunity to learn, grow</td>
<td>3</td>
</tr>
<tr>
<td>Career, employment opportunities</td>
<td>3</td>
</tr>
<tr>
<td>Feedback, acknowledgement of contribution</td>
<td>3</td>
</tr>
<tr>
<td>Earning respect of colleagues</td>
<td>2</td>
</tr>
<tr>
<td>Development of expertise in an area</td>
<td>1</td>
</tr>
</tbody>
</table>
it provides tasks which students see as challenging, for which the student can take responsibility and which they see as legitimate, real work which contributes to the organization.

One implication of these findings for curriculum development is that the traditional apprenticeship concept, where learning takes place in the context in which it will be used and where a community of experts exists, is a relevant concept for cooperative education practitioners to further explore. However, the nature of the learning tasks needs further consideration. The teacher as master, and the ordering of skills may not support the type of learning that this research indicated was most appropriate for students in their workplaces. Autonomy, responsibility and challenge were strong messages from the research. A curriculum model that is based on an inquiry approach, is dynamic, and which supports a dialogue between the learner, and their colleagues within the context in which the learning will be used is more appropriate.

Such findings suggest that given the dynamic nature of workplaces and the diverse range of students and practitioners involved with cooperative education, a negotiated curriculum for each student and their workplace could be appropriate. This curriculum should have as its central methodology a series of learning contracts to be developed by the student and their supervisor over the placement, and which identify projects that support the posing and solution of workplace problems. Review and reflection about the approach to, and the outcomes of these projects should occur regularly.

In line with the key graduate attributes that have been identified, the negotiated curriculum should identify a set of skills, competencies and knowledge to be attained throughout the placement. Assessment should require demonstration of these skills in the workplace, and through the projects completed. The assessment should also be negotiated between the student and their supervisors at each workplace, to reflect the context and the needs of that particular workplace.

THE IMPLICATIONS OF SUCH AN APPROACH

The partnership and communication between the educational institution, the organization, students and employers would have to be strongly established. Ongoing communication would be required for the negotiation of the cooperative education curriculum for each student. The outcomes of such should be a curriculum for each student that identifies skill acquisition and problem setting and solving within a workplace context in which the skills and knowledge can be applied. Such an approach is in line with the principles of the learning organization, encompassing the notions of personal mastery, mental models, shared vision and team learning. It also addresses the requirement that education and industry should both attend to the education of graduates who will best be prepared for the rapidly changing workplaces of the future. It is acknowledged that such an approach would require resources, time and commitment from all the parties—but such is the nature of learning organizations.

REFERENCES


