Capturing employers' perceptions of the benefits of teacher placements in industry to facilitate education-industry linkages

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Abstract

This study reports the perceptions held by industry personnel concerning the long term placements of experienced teachers in their organisations. Staff from fifty five organisations participating in the Teacher Release to Industry Program (TRIP) were surveyed using a methodology found useful by BP (U.K.). The benefits of TRIP to the organisation and its impact on the organisation were ranked in priority order as were the perceived benefits for schools and the impact of the program on schools. The thirty four respondents also commented about the program from their experiences with the teachers. Subsequently a subset of nine employers were interviewed about the perceived benefits of having teachers on long term placements in their organisations. In selecting organisations a balance of large and small enterprises and medium size industry were included.

Of particular interest were the results of the benefits analysis of the value added by participating in partnership programs. It was evident that participating organisations strongly valued the access that TRIP has provided to different resources, the expertise and fresh perspectives of the teachers involved.

An analysis of the qualitative data showed that the Program was achieving objectives in three areas: enabling business and industry better to meet the needs of education, increasing the productivity of the organisation, and providing relevant professional development for teachers.

These analyses also reveal the importance of unintended outcomes in education-industry partnerships and that each partner has the possibility of increasing the potential for becoming "a learning organisation".
Introduction


The interest in partnerships is expressed in a variety of forms including teacher placements in industry, project funding, staff time, curriculum materials development and dissemination, and provision of work placement for school students to name a few.

Smithers and Marsden (1992) working with BP (UK) have developed an approach to assess the value to business of working with education. The display of benefits to both partners are plotted and costs are brought into consideration. These authors report that within BP (UK) the approach has "been found valuable in clarifying objectives, setting priorities, assessing impacts, identifying opportunities and showing how more benefits can be obtained for both partners: in short, in improving decision-making" (Smithers and Marsden, 1992 p. 1).

They suggest the necessity for both companies and their education partners to conduct periodic strategic reviews to answer the hard questions: Just what is the company getting out of its involvement? What is in it for education?

Working with education primarily involves an investment, not profitability, but to be worthwhile the partnership should bring tangible (measurable) benefits. There appear to be central questions in regard to evaluation of the benefits from partnerships:

1. What are the company and its education partners seeking to achieve?
2. How well does a particular activity meet its objectives?
3. How much does it cost?

The answers according to Smithers and Marsden's ideas are to be
found in a value assessment process which involves firstly a
ranking of the benefits sought, secondly, in making a rating of
the impact of a particular project. The multiplication of ranking
by rating yields a perceived value for the activity which can
then be plotted. Costs can be established and can be depicted by
varying the size of the plotted points to correspond to costs.

Scope of Investigation

This paper reports an attempt to replicate the type of analysis
suggested by Smithers and Marsden in relation to the Teacher
Release to Industry Program based in Victoria, where teachers
undertake forty week placements in industry whilst undertaking a
Graduate Certificate of Education with Deakin University. This
approach is then contrasted with evaluative approach using a more
traditional qualitative analysis using interview data.

The Teacher Release to Industry Program.

The Teacher Release to Industry Program is a well established
partnership between the Department of School Education
(Victoria), industry as represented by the Victorian Chamber of
Commerce and Industry, Deakin University and the teacher
unions. The program has operated since 1991 and has been strongly
supported by the Victorian Education Foundation.

The program aims to link the culture of education with the
diverse world of work through a full-time professional
development program which places teachers, who are recognised as
crucial to bringing about change in student outcomes, in industry
for an extended period of time. Participants undertake a Graduate
Certificate of Education at Deakin University whilst undertaking
the program which covers an induction phase, the placement in
industry across forty weeks, and a post placement phase.
Participants develop workplace projects which are used in various
educational programs in both primary and post primary schools.
Several of these projects have been published by the host
employers, whilst others have been made available to interested
educators.

In the first four years of the program, 226 teachers were placed
in positions in a range of industries eg. science teachers have
been placed in positions in government funded laboratories such
as the Police Forensic Science Laboratory, and the Commonwealth
Scientific and Research Organisation as well as with private
enterprise companies such as Exxon and Wimmera Industrial Metals.
A significant number of teachers are placed in training and
development positions eg. IC Technologies, Ford Motor Company and
Ericsson Australia, and have been tasked with the development of competency standards and training, and in issues of total quality management. Others have been placed with companies such as BP Australia and Melbourne Water and have developed educational materials and modules for use in industry and schools.

The participants are experienced teachers who are selected in progressive stages by both the education system and individual employers, University staff and TRIP project officers assist in the monitoring of and supporting the teachers' professional growth whilst on the program. Each industry usually appoints a mentor to assist in the transition process and in promoting the active involvement of the teacher across a range of activities within the host organisation. Strong support has been given to the development of participant networks which facilitate support mechanisms with participants during the program. Many of these continue beyond the placement.

Ranking the likely benefits to industry and education.

Smithers and Marsden (1992) proposed a set of five statements of likely benefits to the company. These statements had been progressively refined, but were presented as separate constructs which are capable of having extended meanings. Figure 1 lists the concepts used by Smithers and Marsden in their work at BP (UK) for the ranking task of likely benefits to an organisation from an educational partnership. Prioritising these statements has proved to be a simple but effective way of focussing respondents on what it is they are wanting to achieve.

Figure 1 List of Likely Benefits to Company.
Source: Smithers and Marsden (1992)

* contributes to the motivation and development of staff

* creates opportunity to understand, influence and learn from education

* helps in recruitment in short and long term

* earns goodwill

* gives access to resources: expertise and facilities

Each of these likely benefits can be extended in meaning. e.g. "earns goodwill" can include the enhancement of a company's reputation/licence to operate, as a response to expectations of
government and opinion formers, as a positive attribution in the media.

In the exercise respondents are asked to consider the relative priority of each of these benefits to the company with respect to a particular partnership activity and the statements are then ranked from "5" to "1" to reflect these priorities.

The respondents are then asked to consider what are the likely benefits from an activity from the point of view of education and a parallel set of benefit statements are ranked in priority order. Smithers and Marsden express the idea that the one to one correspondence and symmetry of the two lists reflects a philosophy that there should be mutual benefits to industry and education.

Figure 2 provides the set of constructs to be ranked in respect to benefits to education.

Figure 2 List of Likely Benefits to Education.  
Source: Smithers and Marsden (1992)

* contributes to the motivation and development of staff and students

* creates opportunity to understand, influence and learn from business

* helps students make informed career choices

* earns goodwill

* gives access to resources: money, expertise, materials, facilities

As with the benefits to the company these statements are just convenient labels for more extensive ideas. e.g. "gives access to resources" implies that education could receive: financial support for projects and events, company sites could be used as learning environments, specialised expertise of the company's employees could be provided, e.g. science and technology, the company's equipment, materials and case studies could be used, access could be gained to management expertise etc.

Rating the impact of activities

Once the range of partnerships activities has been itemised then each can be rated on a five point scale "5" indicating considerable impact through to "1" implying little or no impact. In rating, unlike ranking the same number e.g. "4" can be given
more than once. The rating procedure is conducted twice, once for the impact on the company and again for the impact on education.

The next stage is the multiplication of the priority rankings by the rated impact. Product scores can range between 15 and 75. A score is obtained for both benefits for company and education and these can then be plotted on a value assessment graph. Costs can be estimated for each activity and Smithers and Marsden (1992) suggest that the size of the circles used to mark the plotted points can represent this dimension.

Figure 3 reproduces an value assessment of a series of School Links programs by one of the businesses within BP (UK) with the names removed for confidentiality.

The value of this depiction is that it allows the business personnel to examine the relation between costs and perceived benefits of the activities, and to consider whether some activities merit further attention, either to consider whether there are potential ways to achieve more benefits from an activity or whether they should be removed from the portfolio. e.g. more company personnel might be involved as links officers, more use might be made of the education partners premises for meetings, etc. The process of value assessment outlined here can be a powerful tool in looking at specific activities. It represents a means of setting out opinions so that they can be considered and discussed.

Figure 3  Plot of Value Assessments for a Series of School Links Programs
Source: Smithers and Marsden (1992)

The TRIP employer survey

Early in 1993 all employers involved in the Teacher Release to Industry Program were contacted by the senior author and requested to complete a two part survey instrument.

Part 1 was entitled : Assessing the value of TRIP from an employer's viewpoint and contained four tasks modelled on the Smithers and Marsden approach.

Task 1. The list of benefits of TRIP to the organisation - to be prioritised and ranked in perceived priority order. The perceived priority order was expressed as first through fifth 1= highest priority ... 5 = lowest priority. These orderings were reversed scored for subsequent analysis. The five statements were
developed around the same constructs as used by Smithers and Marsden, they are similar in meaning to those used in the U.K. but were customised to focus attention to the TRIP experience.

To check for coverage of benefits, respondents were also asked to state any other benefit that was not listed and provide a relative ranking.

Figure 4 Statements used in the assessment of benefits to the organisation

TRIP has contributed to the motivation and development of our staff

* TRIP has created an opportunity for us to understand, influence and learn from education

* TRIP has helped us in recruitment

* TRIP has earned us goodwill and has enhanced our reputation in business-education partnerships

* TRIP has provided access to different resources: expertise and fresh perspectives

Task 2. The impact of TRIP was rated using the same five statements on a five point rating scale. These ratings were subsequently rescaled to the number 5 through 1.

(high) A B C D E (low)

Task 3. Perceptions were then sought about the benefits of TRIP participation by the education sector. The five statements to be prioritised were developed from the U.K. research but customised to refer to TRIP. The prioritising was conducted the same way as task 1.

Figure 5 Statements used in the assessment of TRIP benefits for education

* TRIP has contributed to the motivation and development of teachers and indirectly their students

* TRIP has created opportunity for education to understand, influence and learn from business

* TRIP can help school students make more informed career choices
TRIP has earned goodwill for education and makes allies who can lobby for education

TRIP has provided education with access to different resources: financial support, specialised expertise, use of materials and/or facilities

Again, respondents were asked to identify any other benefit not listed above and to indicate where it would be ranked.

Task 4. Perceptions were then sought of the impact of TRIP on Education using the five statements in Task 3 on the same rating scale as used in task 2.

Part 2 of the survey instrument asked for some personal comments on TRIP and one of three issues was listed for each respondent for comment. The issues were similar to those used in the interview study (reported below) but in the survey instrument only one issue was randomly allocated to each employer.

The three issues were:

a. From your point of view what has being involved in TRIP meant for your organisation? What role does TRIP play in your organisation's strategy for developing links between education and industry?

b. Having been involved in a TRIP placement, what are your expectations/hopes for it contributing to the education of young people?

c. Can you provide information on what specific ways your organisation might have benefited from participating in TRIP?

Results of the Value Assessment Exercise

Thirty eight useable responses were received from the mail survey. This is a response rate of 69%. A small number of responses were incomplete because respondents had missed out whole pages of the survey. Some respondents made comments which are relevant to the analysis. e.g. one respondent noted their difficulty because they were an educational organisation and some of the questions seemed to be framed from "another industry viewpoint". Other benefits noted in the open-ended response area were "many of our employees seem to have developed a broader understanding of teachers - their ability, their transferable skills and the ability to work hard and productively", and, "the
teachers helped to speed up organisational change", and "now we have a personal direct contact to provide accurate information quickly about education matters: VCE CATs textbooks". These responses could be seen to represent specific extended meanings of the constructs to be prioritised. None of the respondents who gave these benefits included them in their priority rankings.

Several respondents assigned equal priority for an number of the rankings. In these cases the rankings concerned were shared across those items. e.g. if two items were ranked equal first then each was given the rank 1.5 after transformation.

Table 1 presents the summary statistics for the ranking of the items representing benefits to industry. Clearly the item which was ranked consistently higher than the others is the benefit that "TRIP has provided access to different resources: expertise and fresh perspectives. Respondents also consistently ranked the benefit that "TRIP has helped us in recruitment as a low priority". There is no evidence that respondents ranked items in the same order as their order of presentation.

Table 1
Summary Statistics for Priority Ranking (Task 1)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIP has contributed to the motivation and development of our staff</td>
<td>2.75</td>
<td>1.12</td>
<td>2</td>
</tr>
<tr>
<td>TRIP has created an opportunity for us to understand, influence and learn from education</td>
<td>3.00</td>
<td>1.25</td>
<td>3</td>
</tr>
<tr>
<td>TRIP has helped us in recruitment</td>
<td>1.96</td>
<td>1.39</td>
<td>1</td>
</tr>
<tr>
<td>TRIP has earned us goodwill and has enhanced our reputation in business-education partnerships</td>
<td>3.20</td>
<td>1.24</td>
<td>4</td>
</tr>
<tr>
<td>TRIP has provided access to different resources: expertise and fresh perspectives</td>
<td>4.25</td>
<td>0.99</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2 presents the summary statistics for the ratings of how these benefits impacted on the organisation, and it is clear from the data that the impact that "TRIP has provided access to different resources: expertise and fresh perspectives" was demonstrated across the respondents. It is interesting to note
the high correlation between the priority rankings of items in Table 1 and the ratings of their impact in Table 2, which seems to imply that where a benefit is sought then likely impact will tend to be higher.

Table 2
Summary Statistics for Impact Rating (Task 2)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>* TRIP has contributed to the motivation and development of our staff</td>
<td>2.71</td>
<td>1.25</td>
<td>2</td>
</tr>
<tr>
<td>* TRIP has created an opportunity for us to understand, influence and learn from education</td>
<td>3.18</td>
<td>1.14</td>
<td>3</td>
</tr>
<tr>
<td>* TRIP has helped us in recruitment</td>
<td>1.92</td>
<td>1.34</td>
<td>1</td>
</tr>
<tr>
<td>* TRIP has earned us goodwill and has enhanced our reputation in business-education partnerships</td>
<td>3.29</td>
<td>1.11</td>
<td>4</td>
</tr>
<tr>
<td>* TRIP has provided access to different resources: expertise and fresh perspectives</td>
<td>4.21</td>
<td>0.81</td>
<td>5</td>
</tr>
</tbody>
</table>

Turning to the tasks that involved the perceived benefits of TRIP to education there is a difference in outcome which is presented in Tables 3 and 4. The same themes were represented in the items, but as Table 3 indicates the two benefits which were perceived to have highest priority were those in the mid range of the employer benefits. These were "TRIP has contributed to the motivation and development of teachers and indirectly their students" and "TRIP has created opportunity for education to understand, influence and learn from business". As shown by their mean rankings these items almost tie for the top priority.

Table 3
Summary Statistics for Perceived Priority Ranking (Task 3)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>* TRIP has contributed to the motivation and development of teachers and indirectly their students</td>
<td>4.01</td>
<td>0.91</td>
<td>5</td>
</tr>
</tbody>
</table>
* TRIP has created opportunity 3.93 1.13 4 for education to understand, influence and learn from business

* TRIP can help school students 2.37 0.94 2 make more informed career choices

* TRIP has earned goodwill for 2.07 1.27 1 education and makes allies who can lobby for education

* TRIP has provided education 2.62 1.33 3 with access to different resources: financial support, specialised expertise, use of materials and/or facilities

The impact of these perceived benefits on the education system were also rated highly with similar levels of rated impact.

Comparing the rated impact of items in Table 2 and 4 indicates that as a general rule TRIP benefits are perceived to be stronger for the education partners compared to the industry partners. e.g. the range of the means of the items rated for impact in Table 2 is from 4.21 to 1.92, whereas the same themes rated for impact on education range from 4.18 to 3.03.

Using the multiplication of priority rankings and impact ratings produced a notional "value for industry" score for each respondent. Similarly the multiplication of priority ranking for education and perceived impact ratings produced a notional "value for education" scores. The summary statistics for these scores are shown in Table 5 and plotted in Figure 6. It can be seen that the values for education have a higher mean and a somewhat lower variance than the scores for value for industry. This is no doubt a consequence of the reduced range of mean ratings for impact on education discussed above and shown in Table 4.

Table 4
Summary Statistics for Perceived Impact Rating (Task 4)
Table 5
Summary Statistics for Value Assessment Scores (n=38)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value for industry</td>
<td>52.11</td>
<td>9.68</td>
<td>32/75</td>
<td>50.5</td>
<td>48</td>
</tr>
<tr>
<td>Value for education</td>
<td>57.82</td>
<td>7.57</td>
<td>37.5/73</td>
<td>58.5</td>
<td>57</td>
</tr>
</tbody>
</table>

The plot shows a fairly weak positive correlation ($r=.59$) between the two value scores. However, this correlation is affected by at least one obvious outlier shown in the top left quadrant of Figure 6 where one respondent's scores show the highest benefit to industry score and a relatively low value to education score.
Plot of values scores for industry and education

It has not been possible to superimpose costs onto this plot, but is important to realise that each employer would have outlaid a similar level of contribution for each teacher placement. The complication here is that where an employer has multiple placements the second and further placements are charged at a higher rate. Because of the anonymous nature of this survey it is not possible to identify such placements.

What Figure 6 also indicates is that respondents show a fair degree of variance in the outcomes scores for value for business and suggests that some placements have a stronger impact and benefit on the organisation than others.

The type of analysis proposed by Smithers and Marsden applied to this initiative is designed to point up differences between programs (placements in this study) and the technique does indicate the diversity of these outcomes for the TRIP program.

Qualitative Assessment of Benefits of TRIP

The remainder of this report draws on the work of Jones (1994) and gives a summary of the ways some employers and representative of employing agencies see their organisations benefiting from participating in TRIP.

It should be noted that the use of the term "employer" covers the whole spectrum of personnel who spoke on behalf of the employing agencies in industry, business, government and service organisations which offered work placements to TRIP teachers.

What follows is drawn from interviews conducted with nine personnel from business, industry, government and service organisations, from contributions to published articles on TRIP and from written responses to a question requesting a view of a selected aspect of the program, that appeared as Part 2 of the survey of employers outlined above.

In selecting organisations from which personnel would be interviewed, effort was made to include large and small enterprises and medium sized industry, small owner operated business. Local, state and commonwealth government agencies, were also represented.

What was sought by the interview process centred largely on specific benefits that came with providing a work placement for a
TRIP teacher. Two further interests in interviewing employers were firstly, to discover how participation in TRIP fits with ideas, plans and strategies an organisation is developing for linking education and industry, and secondly, to learn how organisation personnel see schools and school students benefiting from TRIP.

The data leave no doubt that participation in TRIP brought significant benefits to all employing agencies. Each organisation is different in its operation and purpose, and each provided a TRIP teacher with different work experiences, nevertheless analysis of the data reveals three themes where employing agencies see TRIP making a positive impact.

Theme 1. Enabling business and industry better to meet the needs of education

TRIP is providing a link between the education sector and the business-industry sector, that is serving several purposes. Firstly, it is serving as a channel of communication for the exchange of views and information. Secondly, TRIP is maintaining and strengthening the links between schools and employers already forged by careers and work-experience programs, and projects such as school-industry partnerships. Further, it is enabling new projects to be undertaken as both sectors come to understand the potential for a partnership that can more fully serve community interests.

A significant benefit that TRIP provides to employing agencies, is in keeping them informed of the issues and problems that education currently faces. As one employer said: “TRIP gives us great insight into the education system - before we had a TRIP teacher, we were doing all sorts of things; getting out and meeting a range of people, trying to understand the agenda for education, trying to understand the concerns and problems, and how perhaps, we could help”.

Other employers spoke of TRIP in terms of the role it is playing in providing "an exchange of information", and "insights into others' work cultures in schools"; and in allowing "industry to influence education in a number of ways through the new networks developed."

Several small business employers spoke of how TRIP enhances the service they provide schools and teachers. As one explained of his organisation: “We all have teaching backgrounds, but have been out of schools for an average of 5 or 6 years”, during which there have been significant moves towards students working in groups and "more negotiation going on between the kids and the teacher as to goals and objectives and so on". In his view, the
TRIP teacher provided his organisation with an up-to-date, realistic perspective of what is happening in schools, thus enabling it to service teachers' needs more effectively in light of this heightened awareness. Another small business operator spoke of employing a TRIP teacher in terms of it "speeding up the process of providing appropriate equipment to schools". In his view TRIP is supporting his work servicing schools through the preparation of 3 year acquisition plans that relate the purchase of materials to subject area development plans.

A municipal organisation used its TRIP participation to try to come to terms with the needs of local schools for VCE materials and resources. As this employer said: "We became involved through our concern with the effect of VCE; we felt the best way of schools finding out about what resources we had available and of us finding out about what schools wanted, was to have a teacher here for a while." A large organisation, keen to do a good job in their involvement with schools, found it extremely beneficial having TRIP teachers participate in the process. The organisation representative explained that at corporate level they were "struggling with the best way to deal with schools" in areas such as work experience, increasing requests as a consequence of VCE and so on. By having TRIP teachers join their workforce, the organisation hoped to co-ordinate the company's activities and "to find efficient ways to satisfying as many schools and students as possible in a fairly uncertain environment." Having the services of teachers enabled the company to experiment with ways of becoming involved with schools in an educative way and to learn that "all schools don't ask for the same thing - they ask for a multitude of different things... some of these are unbelievably time consuming, so we're trying to rationalise that with our own limitations, and still try to achieve our objective of doing it well".

On another hand, an employer within a large industry organisation spoke of the part TRIP is playing in supporting the commitment his company has to education. He said: "It's the company philosophy to get involved in education. As a corporate citizen we are involved in a range of community activities - arts, sports, all those sorts of things and there has been an emphasis on education for the last 4 or 5 years".

For this company, TRIP is seen as an adjunct to partnership programs it has developed between certain of its facilities and local schools. "Initially TRIP was seen as a pilot program because we didn't really know what to expect, and didn't know how it would fit into our commitment to education and particularly to the Partnership Program." Since becoming involved in TRIP, the
company sees it as a very important link with the Partnership Program, as one of the tasks of the TRIP teacher was "to get around different parts of the company and explain to people within the company why we're getting involved with education". For that reason, among others, the company hopes TRIP will continue after 1993.

Participation in TRIP has led to the production of some company-directed and some company-initiated curriculum resources using teachers' expertise. One employer initially saw TRIP as an opportunity for teachers to work on company sponsored material: "We started out with the view that the teachers with their projects could possibly prepare curriculum material sponsored by us, and then use that back in the school, and perhaps it could go through the teacher support centre". However she now wonders how widely these materials will be disseminated because, as she said: "There doesn't seem to be a very clear avenue of how to go about doing that". Further, when their TRIP teacher put together "a schools booklet or modules with answers to questions, materials that students might be able to use in order to understand the industry a bit better", the company applied for half-funding from the education sector, without success. (There appears to be an area of ambiguity here, as to what section of the community should fund educational resources).

Another employer spoke of the TRIP teacher in his organisation producing a book that is, in his view, "of high quality and should be of great value in contributing to children's understanding of sustainable agriculture, chemicals in agriculture and so on". For the Australian Bureau of Statistics, TRIP participation has increased its knowledge of the education sector market and "thanks to TRIP, the ABS now provides a Quality Client Service to the education sector". The employer wrote: "The Education Servicing Unit at ABS engages in Statistical Education through:

1) provision of hardcopy and electronic resources to students and teachers,
2) Classroom presentations and service/conference attendance.

TRIP placements have helped develop professional and relevant products and presentation kits for 1) and 2)".

TRIP is helpful to industry as the demands made by schools and students are increasing, particularly as a consequence of the VCE. As one employer said about involvement in TRIP, it meant "we were able to increase the amount of resource material available for projects, VCE CATs and so on". Another said TRIP
meant "we have developed new services and programs directly
relevant to education and teachers that we would otherwise have
been unlikely to consider".

On another hand, some employers see the need for some
rationalisation of the demands coming from schools and students,
and this may become something TRIP teachers take back to share
with schools and colleagues. As the employer representative from
CSIRO said: "We will continue to respond to student/teacher
requests for information but we believe that these requests
should be co-ordinated to 1) prevent duplication of effort and
2) better utilise CSIRO's resources and their willingness to
assist in education".

Theme 2: Increasing the productivity of the organisation

As a consequence of participation by their organisations in TRIP
many employers are seeing the benefits of linking the education
and the industry sectors, as of benefit to them. As one said:
"When we decided to participate in TRIP we wanted to make sure
it was a two-way street. We wanted the participant to learn
about industry and the company to benefit from having a teacher
on the staff. This company has received more than value for
dollars from its TRIP teacher and the program". This sentiment
is echoed by other employers as they recognise the value to their
organisation of the range of well developed intellectual and
technical skills, such as the training, supervising,
communication, and interpersonal skills that TRIP teachers bring
to their work placements. Employers recognise also the benefits
to their organisation of having people who understand what
constitutes effective learning, particularly at this time when
there is movement in industry to teamwork and greater worker
control. They recognise the value to their organisation of
people who can plan and implement training programs, and who can
design and produce quality educational and training resources.
As a consequence of their experience, employers acknowledge that
the community generally does less than justice to teachers in the
way it undervalues their skills.

Some industry organisations became involved in TRIP with the idea
that providing work placements was largely in the teachers'
interest and ultimately in the interests of the education sector.
Nevertheless many employers acknowledge their companies have
benefited by the unexpected productivity of TRIP teachers. As
one explained: "We really approached it as a learning curve for
the teacher. To be perfectly honest we didn't expect to get a
lot of industry out of the person concerned". However, since
becoming involved in TRIP, there is a recognition of the value to
the company in its corporate commitment to education, of having TRIP teachers as part of the team. The company representative supported this, saying "from our point of view, if TRIP came to an end, we would think it would be an absolute tragedy, given our experience of it. Rather our objective is to broaden our participation in the years ahead, so if it continues in '94, our objective would be to take 3 teachers, and in '95 maybe 4 and build up slowly in that way".

Another employer commented that "the set tasks were done most capably and efficiently by a person who was very skilled, professional and reliable; and without the TRIP placement, these tasks would not have been achieved". Likewise another employer saw the work placement as an "opportunity to embark upon a number of projects which have utilised the specialist skills of the TRIP teacher". A third employer reflected "we were provided with expertise that we otherwise did not have access to". Another spoke of the commercial benefit arising from the skills of the TRIP teachers "their fundamental skills in communication and interpersonal skills were a great basis to build on. They often impressed our customers (once we'd trained them sufficiently) and have led to much repeatbusiness".

Several employers spoke of the value of TRIP teachers to their company training programs currently underway as a consequence of industry re-structuring. One employer explained that traditionally training programs in industry largely targeted white collar workers and management personnel, whereas current moves to improve the skills of blue collar worker has meant shop floor personnel becoming trainers of their colleagues. In his view TRIP has provided his company with people who have curriculum skills to assist in designing programs and the teaching skills that demonstrate appropriate presentation of the material. He said: "We've got our own trainers out there on the shop floor; people who have always been the cream of the crop, coming up with solutions, leading others, always doing a bit more - so we've developed a core of trainers on the shop floor and the TRIP people have been instrumental in training up and mentoring these people, because they needed refining in their presentation skills. The TRIP people ran the presentation skills program for 8 weeks and just in interpersonal relationship skills, they were brilliant".

One employer spoke of how a training-needs analysis undertaken by their TRIP teacher, revealed the low level of literacy among some of the out-door staff of the organisation. "It was really something we had not considered at all, we just saw people as resources who did the job that they were expected to do and that was it. The fact that could have done the job better if they
knew how to read English hadn't really dawned on us I don't think". The TRIP teacher went on to design programs to improve reading skills, that are currently being implemented and which in turn enhance the morale of the staff members involved.

Another employer sees her company benefiting through employing TRIP teachers, not only "from their actual work contributions but we've benefited also, from their ideas". In the case of her company, it entered TRIP with the intention of having the teachers work on the company school-industry links: "It wasn't as if x is missing, so we'll just go and put a teacher in x's spot, rather there was a whole selection of activities that teachers could do". What the company has gained she says, is "more that we expected; they (the teachers) have added value to our thinking....they would think of something in a bit different way and they would be prepared to do something new". In her view the capacity of TRIP teachers "to use their initiative and their propensity to cooperate and share ideas, coupled with their flexibility in working in an environment that was ambiguous", has contributed to, and enhanced, company initiatives that link schools and industry, particularly with regard to female participation in traditionally male-oriented domains.

This capacity of teachers to try out new things, to experiment and to use their initiative was acknowledged too, by a small business owner-operator. In his view: "teachers seem to be more flexible, more open to new ideas, to trying things, than someone who comes through the industry, who thinks they know it and been there, done that " and this is a benefit he wonders if TRIP employers anticipate. He sees TRIP in the long term working both ways through industry helping education, and businesses benefiting by having teachers work in them. "People will find out how industrious teachers are, how concerned they are with quality and how they tackle a job with a fairly open mind - they are good lateral thinkers and they bring a lot of positive stimulus to industry".

Other supporting statements employers made about the way their organisations benefit from employing skilled personnel are, one that read "the teachers provide us with ongoing capacity to deliver programs to tight budgets and timelines", with another saying; "no doubt that our company benefited; another member of staff making both personal and financial contributions to our 'world' ", with a third claiming; "we have benefited from the fresh vision of our TRIP participants; their energy, willingness to learn and work within a very different culture to their own was invaluable". A fourth comment reveals another insight, in saying that TRIP meant to his organisation: "a different perspective on training and education methodology. TRIP has allowed us to explore other alternatives in presenting
information and improving the vital link of communication. While there are benefits to both the industry and the teacher, the teacher will benefit more than industry. However they will become very marketable in private industry".

One employer wrote of how the company benefited from TRIP in the area of curriculum development and training programs, in providing an insight on how people learn and not just training for "training's sake" ... and in providing expertise in the presentations given by training staff". Further, employers valued the teachers' capacities to design and put into practice train-the-trainer programs. As one said of the 39 week period of TRIP: "Having that period of time allows the teachers to, not just think of an idea or plan and then just put it down on paper, but to actually try and work it through the implementation and evaluation stages, and revise it".

While it is hard to say what views were held by industry before participation in TRIP, nevertheless there are many employers who acknowledge that their limited views of what teachers can do, are considerably broadened through their involvement with TRIP teachers. As one employer said about plans for expanding TRIP within his company, "the difficulty is convincing others in the company that teachers have skills other than teaching skills". He recalled his own initial reluctance to becoming involved being coloured by his own experience of schooling, but suggests "the way to overcome a blinkered vision like that, is to expose people to the sort of energy, flexibility and skills that our TRIP teacher had". In his view it is through programs like TRIP, that industry can come to understand and appreciate that "teachers don't just teach, they have a wide range of skills we can use". This was supported by another employer who wrote about the benefits of TRIP: "the key issue for me is the transferable skills, and the willingness and capacity of each of the teachers we have had on the program. Their sense of commitment and willingness to learn has made many of our staff change their naive perceptions of the teacher profession ... Each has made a special contribution that is still evident even after 12 months. I have an absolute commitment to the concept and the practice".

From another standpoint, an employer sees the stereotypical images of teachers and teaching held by industry and the community generally, being broken down by programs like TRIP. He said: "there's a whole range of attitudes towards teachers out there and in industry - from they're no-hopers to they're absolutely brilliant." However through his involvement with TRIP, he believes people with school teaching experience are ideal for work in training and development, particularly now that
social, problem-solving and communication skills are becoming essential skills in the workplace.

In a similar vein, another employer wrote how his organisation benefited through participating in TRIP, "principally from the learning techniques and the fresh approach. Should we endeavour recruiting an Industrial Trainee, we will definitely seek someone from a teaching background".

Theme 3 Providing relevant professional development for teachers

In offering work placements for teachers, employing agencies provide TRIP teachers with a variety of opportunities for professional development. The long term placement means teachers temporarily become 'insiders', part of the organisation and contributors to its effective working, rather than remaining 'outsiders looking-in' as visitors or observers might do. This is a significant aspect of TRIP in that it allows teachers to become familiar with the way industry organisations operate - the goals, concerns and work practices, and to come to understand the challenges, the frustrations and the rewards of working in industry. As one employer said: "Anything less than 6 months would not be as beneficial - it takes time to learn a company's culture". As a mode of professional development for teachers, TRIP makes it possible that school students will make work-related and career choices from more enlightened viewpoints as a consequence of their teacher's experience in, and understanding of, industry.

By creating work placements for teachers, industry provides teachers with an array of opportunities for professional development. As an employer wrote: "TRIP, sabbatical leave, or other forms of industrial release are most important to the broadening of teachers' experience and this can only benefit their students". Other employers endorsed this view in different ways. Firstly: "We believe a TRIP placement in our company exposes teachers to the wider application of skills they are teaching their students". Secondly: "I feel sure the experience refreshes the individual, provides a greater appreciation of self worth, that is transferable to the students. The students benefit from the exposure and personal developments of the teacher in the form of an invigorated individual". Thirdly: "The teacher has gained insight into business needs and is better equipped to re-enter the formal educator arena".

From another point of view, an employer sees TRIP enabling teachers to come to an "understanding of how businesses operate and need to be flexible to meet changing market conditions".
Similarly, a small business operator sees the TRIP experience teaching them that "time is money". In his view teachers lack awareness of the economic realities: "they're unaware of how to measure - how to gauge their time in relation to what a job is worth. 'If this is a quick job, just do it quickly', though it's hard for a teacher to let it go in less than what they expect is their best". Furthermore, this employer believes industry work placements like the one he offers in computer training, provides teachers with a range of experiences that enhance professional development. He said that "whereas in a school, a computer person may get 2 hours a week working on computer problems, (as opposed to using the computer) trying to trouble shoot, trying to develop a system; here they probably get 10 to 20 hours a week in that area, so they go back to schools able to very quickly diagnose and sort out problems of computers".

Another employer hopes TRIP will continue, so that future teachers can go beyond what he sees as the rather peripheral view of the workings of the company that it has been able to provide so far. "Our long term objective is to get the teachers into other areas than public affairs - into other departments - the retail section, exploration section and chemical section - so they're really getting an experience first hand of those specific business activities". Furthermore, this employer expressed concern that though the initial phase of TRIP is "superb", both for the employing agency and for the teacher ("we both learn a lot from it"), nevertheless in his view: "It's what happens afterwards that concerns me and I don't think it's been addressed yet - that is: how do the teachers use those skills learnt, back in the schools? It's been left, basically, to the individual to incorporate some of the ideas back into the classroom. But it hasn't been a structured process". He went further to suggest: "It's got to be formalised, for though TRIP people are encouraged to share their industry experience - that is all very fine; other pressures will dictate" unless there is a structured process for dissemination and implementation.

Several employers value TRIP as an avenue for communicating to schools and school students a wider vision of the career and work opportunities available within their particular field of endeavour. As an employer in a telecommunication industry aligned with manufacturing said: "Students probably don't understand the opportunities they could have from an organisation like ours". She cited research that shows young people have "a very bad view of the manufacturing industry as a place to work". As the company has made changes in the workforce structure, "going from being heavily manufacturing-dominated, to having a very big design and development centre", it sees TRIP as a way of
communicating to students the breadth of opportunities encompassed within its domain. Moreover, the company sees TRIP supporting other initiatives it undertakes with the universities and colleges, to encourage women into engineering. Thus through company supported school-industry programs as a consequence of TRIP and by teachers returning to schools and talking with students about the opportunities available, the organisation hopes both boys and girls will be influenced, though, as this employer said, "we really would like to see more females in our engineering area, to bring a 'new-think' to the organisation", which is currently heavily male-oriented.

Other employers spoke of their expectation and hope that TRIP teachers, in returning to schools, would share with students their experience of working in industry. As one employer in a large manufacturing plant said: "If teachers can go back and say to students: 'look; no longer if you're working at an assembly line job are you at a non-thinking job - it's a very thinking job now; you've got to be able to detect faults, you've got to be able to pick up problems straight away' ". In his view, there is a need to change the myth of shop floor workers as "the unskilled", as he said: "They work hard now, they're intelligent system failed them 10, 20, 30 years ago) - they left school when they were 15, they were told they weren't very bright. Now they're having a taste of going back to school at our training centre, and they love it! They're succeeding!" What is important for this employer is that teachers "go away with a bit more understanding", a clearer picture of what working conditions are like in industry, and convey it to schools and students.

To gain this sort of understanding, most employers see the benefits of at least 39 weeks of placement. (Some see merit in a longer period). Representative of this, is the view of an employer who said: "It takes a long time to just come to grips with who's around - I'm sure it's the same everywhere - it's a whole set of acronyms, a whole culture; anything less than 39 weeks and they (the teachers) only get a superficial feel for the organisation: they're just like a visitor, whereas with 39 weeks they feel like an employee".

Many employers see TRIP working to help school students become better prepared for their working lives. As one wrote: "It is hoped that teachers will take back to the classroom a clear view of industry's expectations of students entering the workforce. The extent of this information being fed back to students will depend on the individual experiences of teachers in industry even if some teachers may gain a very clear view of the expectations industry has of students, others may not. The key is in how
teachers use their experience back in school”. This view is confirmed by another employer saying: "I have high expectations that the knowledge and experience gained by teachers about industry, will provide a new/different insight for students about their potential working life in industry .."

On another hand, one employer sees the significance of TRIP for students, not only in vocational education but in general education also. He wrote that "by opening the horizons of teachers, I hope TRIP provides greater choice for students about their future careers and the subjects which may be useful to them, as well as subjects which have no direct relationship to vocational skills but which are essential for a contextual understanding of the world".

From another perspective, an employer sees TRIP teachers contributing to students understanding that the manufacturing industry needs "a different type of person than what we've traditionally employed. We can no longer afford to employ the person who isn't literate, who doesn't have statistical skills or communication skills". Moreover, as employees are now working in a culture that emphasises continued improvement, and continuing enhancement of skills, this employer sees TRIP contributing to "changing the ideas held about work; helping young people see that university is not the only option for work satisfaction, there are other jobs in industry that are equally rewarding". A second employer hopes teachers will convey to students "the sense that we're in a bit of a crisis situation where some industry is threatened quite seriously because it can be done cheaper and better elsewhere, and in losing that, we would lose a lot of our brainpower - technical, engineering, psychology personnel - if we lose a lot of that we will revert to a second class, non-industrial society and that will mean losing our standard of living".

Conclusion

It can be seen from the above analysis of themes emerging from open-ended comments in Part 2 of the survey and from the interview data that employers' perceptions are a very rich information source. Compared with the Smithers and Marsden approach they present a detailed and elaborated view of the perceived benefits for the scheme.

The writers feel that both approaches: the quantitative and qualitative have their advantages and disadvantages in terms of time and effort in data gathering and analysis, but both approaches offer some useful information in assessing the impact and value of this particular type of partnership.
References


