Evaluating Service Quality for Cooperative Education Programs

Richard K. Coll* and Richard Chapman

Cooperative Education Unit, School of Science and Technology, The University of Waikato, Private Bag 31 05, Hamilton, New Zealand

Received 17 July 2000; accepted 6 October 2000

This study reports an investigation of employers’ perceptions of service quality for a science & technology cooperative education program at a New Zealand university. Five dimensions of service were identified, namely, communication, placement organization, student selection, placement support and general. The employers reported receiving good service, with most satisfaction reported for communication and student selection. Areas of concern included a comparative lack of support for students on placement and some ambiguity in the role of the university academics (general). The employers’ perceptions of service quality differed from those of placement coordinators with coordinators perceiving service quality more favorably than the employers. This study illustrates the importance of understanding employers’ needs in order to ensure that the placement process is managed effectively (Asia-Pacific Journal of Cooperative Education, 2000, 1(2), 1-12)

Keywords: employer; quantitative survey; service quality.

Many of the research reports in the cooperative education literature are concerned with students’ or placement coordinators’ views. By way of contrast there are few reports of research into employers’ views (e.g., Apostolides & Looye, 1997; Dubick, McNerney, & Potts, 1996; Wagstaffe 1995; Wessels & Pumphrey 1995a, 1995b). Employers are an integral part of the cooperative education triangle and clearly their continued support is crucial to the long-term success of any program (Coll, 1996). The fact that many employers show considerable loyalty to programs is often taken as an indicator of satisfaction (Varty, 1996), but as Hurd and Hendy (1997) state “employers need data upon which to base their decisions, so it would be prudent for co-op practitioners to conduct research regularly to ensure that employer needs are in fact being met by co-op programs” (p. 60).

We share the view of Hurd and Hendy (1997) that knowledge of the employers’ needs is crucial for the success of cooperative education programs. As a consequence we have undertaken a survey of our employers in an attempt to identify potential areas in which the performance of our cooperative education placement team could be improved. Our focus in this investigation has been on how well the Cooperative Education Unit (CEU) at Waikato is performing in providing good service to employers, rather than why the employers choose to be involved in our program, although clearly the issues are related.

Context of the Study

It is a key feature of central Government strategy in New Zealand that tertiary institutions need to be more mindful of their students’ needs (Coll, 1996; Hawke, 1988; Todd, 1994). Likewise, the New Zealand State Services Commission and New Zealand Treasury believe that competition for students and finance will increase the efficiency and cost-effectiveness of educational institutions in New Zealand. There has been a recent change of Government and it appears likely this stance will be softened somewhat. However, currently, the New Zealand university system is operating in a highly competitive market with tertiary institutions competing for students and the commensurate funding. The cooperative education program at Waikato has proven a strong recruitment tool and the future of the School of Science & Technology is dependent on its continued success (Coll, 1996).

At Waikato cooperative education is primarily offered in the form of the BSc (Technology) degree, one of three undergraduate programs offered by the School of Science & Technology (Chapman 1994). The degree consists of a full BSc degree, with two additional management papers and a
total of 12 months relevant work experience (Chapman 1995). The work experience is normally carried out as two placements, one of three-months duration at the end of the second year, and a second of nine-months duration at the end of the third year. Student selection and admission to the program is carried out on a case-by-case basis, with students screened on the basis of academic record and personal interviews. The program has been offered for over 20 years and has experienced a steady increase in enrolments (Coll, 1996). Recently the School has introduced the BTech degree, a four-year engineering-oriented degree, that incorporates two three-month placements. Presently numbers in this degree are modest (<10), although they are expected to increase rapidly in the next few years. Currently nearly half the students in the School are enrolled in the BSc (Technology) cooperative education program. The CEU, a team of academic staff who hold joint appointments between the subject discipline and the Unit, facilitates student placements and due to the long history of the program, a large number of potential employers are available.

Methodology

Research Question and Sample Used in the Inquiry

The research question can be summarized as: Are employers satisfied with the service provided by the placement coordinators of the Cooperative Education Unit at the University of Waikato? The sample comprised 360 employers, being those employers who had employed at least one student from the BSc (Technology) program within the last two years. Of these, approximately 60% were commercial science-based organizations, 30% Central Government-funded science research organizations and the remainder Local Government organizations.

Theoretical Framework

Education researchers have a choice of quantitative of qualitative means of inquiry (Fraser, 1994; Gogolin & Swartz, 1992). Quantitative means of inquiry are based on scientific empiricism, utilizing the power of mathematical analysis to establish general laws and principles. Tools used include self-completion questionnaires and other instruments. In contrast, a qualitative methodological approach with its foundations in ethnography uses data gathering tools such as unobtrusive observation, participant observation and in-depth interviews. Quantitative and qualitative methods of inquiry each possess advantages and disadvantages, and the choice of methodology often comes down to a trade-off between breadth and depth (Coll & Chapman, 2000; Peshkin, 1993; Reichardt & Cook, 1979). The advantage of the quantitative approach is that it is possible to measure the reactions of many subjects to a limited set of questions, thus facilitating comparison and statistical aggregation of data. In contrast, qualitative methods typically produce a wealth of detailed data about a much smaller number of people and cases (Patton, 1990).

Because the study was concerned with gaining a general picture of the employers' perceptions of service quality, a quantitative approach by means of a survey instrument was deemed appropriate.

Data Collection

Data collection was achieved by means of a self-completion questionnaire containing 29 statements using a 5-point Likert scale (providing respondents with options ranging from, strongly agree, to strongly disagree), developed from the research question (Appendix). The instrument was developed after consultation with a focus group of four placement coordinators and data collection was preceded by a pilot study of four employers. The pilot study involved administration of the instrument to the employers, followed by in-depth interviews with the participants and further consultation with the placement coordinators. The instrument was organized into four sections. The first section contained five headings, each representing a dimension-of-service of the program. The second section requested respondents to rank the five dimensions-of-service in order of importance, and the third section gave the respondents an opportunity to provide an overall rating of satisfaction and to comment on the best and worst aspects of service. The final section contained six questions for the purpose of sample description, and to give the employers an opportunity to provide suggestions about the service quality.

In order to add an extra dimension to the research question, two versions of the questionnaire were devised. One version was administered to the employers and the second version was administered to the full complement of placement coordinators of the CEU. The purpose of this was to discern any mismatch of perceptions between the two parties, thus providing a means of identifying the areas of service that most required improvement (Cina, 1989; Gulledge, 1996). This required some modification of the questions, for example, Q14. The coordinators provide adequate support to students in their placement organization.

The questionnaire was administered by a mail-out procedure together with an explanatory letter and was followed up with a reminder letter one month later. There was a response rate of 70% for the employers (n= 252) and a full response for the coordinators (n=8).

Results and Discussion

The Employers' Perceptions of Service Quality

The results of the study are summarized in Table 1. The employers and coordinators' views are described before comparing differences in perceptions of service quality. All of the questions were posed in a positive manner that suggested the employers were satisfied with the service they received from coordinators.
<table>
<thead>
<tr>
<th>Dimensions of Service Quality</th>
<th>Employer Perceptions (n=252)</th>
<th>Coordinator Perceptions (n=8)</th>
<th>Difference</th>
<th>Correlation with Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Response (Std Error)</td>
<td>Mean Response (Std Error)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Clearly communicating to clients the nature of the program and what it entails.</td>
<td>1.89(0.06)</td>
<td>2.00</td>
<td>0.11</td>
<td>0.338</td>
</tr>
<tr>
<td>2. Clearly communicating to clients the role of the university and coordinators.</td>
<td>2.24(0.07)</td>
<td>1.80</td>
<td>-0.44</td>
<td>0.488</td>
</tr>
<tr>
<td>3. Coordinators accessibility to clients.</td>
<td>1.88(0.05)</td>
<td>1.20</td>
<td>-0.68</td>
<td>0.563</td>
</tr>
<tr>
<td>4. Inform clients of issues relevant to their organization.</td>
<td>2.27(0.07)</td>
<td>1.60</td>
<td>-0.67</td>
<td>0.513</td>
</tr>
<tr>
<td>5. Clients are provided with opportunities to comment on issues relevant to the program.</td>
<td>2.07(0.07)</td>
<td>1.60</td>
<td>-0.47</td>
<td>0.538</td>
</tr>
<tr>
<td>Placement Organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Contacting clients at a time when they can plan for projects for student placements.</td>
<td>1.97(0.07)</td>
<td>2.00</td>
<td>0.03</td>
<td>0.456</td>
</tr>
<tr>
<td>7. Contacting clients at a time when they can budget for student placements.</td>
<td>2.54(0.08)</td>
<td>2.80</td>
<td>0.26</td>
<td>0.514</td>
</tr>
<tr>
<td>Student Selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Suggesting students whose personalities suit the organization they are placed in.</td>
<td>1.99(0.06)</td>
<td>2.00</td>
<td>0.01</td>
<td>0.497</td>
</tr>
<tr>
<td>9. Suggesting students who match the practical requirements of the organization.</td>
<td>1.76(0.05)</td>
<td>1.80</td>
<td>0.04</td>
<td>0.336</td>
</tr>
<tr>
<td>10. Ensuring students are motivated and interested in their projects.</td>
<td>1.65(0.05)</td>
<td>2.00</td>
<td>0.35</td>
<td>0.207</td>
</tr>
<tr>
<td>11. Ensuring students have the required level of technical skills.</td>
<td>1.95(0.05)</td>
<td>2.40</td>
<td>0.45</td>
<td>0.178</td>
</tr>
<tr>
<td>12. Ensuring students have the required level of writing skills.</td>
<td>2.21(0.06)</td>
<td>2.80</td>
<td>0.59</td>
<td>0.204</td>
</tr>
<tr>
<td>13. Ensuring students have the required oral communication skills.</td>
<td>2.12(0.05)</td>
<td>2.20</td>
<td>0.08</td>
<td>0.149</td>
</tr>
<tr>
<td>Placement support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Providing adequate support to students during placement.</td>
<td>2.19(0.06)</td>
<td>1.20</td>
<td>-0.99</td>
<td>0.517</td>
</tr>
<tr>
<td>15. Providing support to students, during their placement, when they need it.</td>
<td>2.56(0.06)</td>
<td>1.20</td>
<td>-1.36</td>
<td>0.468</td>
</tr>
<tr>
<td>16. Organization is required to assist students with their industry reports.</td>
<td>2.11(0.06)</td>
<td>2.20</td>
<td>0.09</td>
<td>0.190</td>
</tr>
<tr>
<td>17. Supervisors provide adequate support to students, while they are writing their reports.</td>
<td>2.54(0.06)</td>
<td>3.00</td>
<td>0.46</td>
<td>0.295</td>
</tr>
<tr>
<td>General</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. The program provides clients with a flexible way to manage labor costs.</td>
<td>2.38(0.07)</td>
<td>1.80</td>
<td>-0.58</td>
<td>0.245</td>
</tr>
<tr>
<td>19. The program provides clients with a more convenient way to organize short-term employment.</td>
<td>2.28(0.07)</td>
<td>1.80</td>
<td>-0.48</td>
<td>0.273</td>
</tr>
<tr>
<td>20. The timing and duration of placements meet the requirements of our organization.</td>
<td>2.07(0.06)</td>
<td>2.00</td>
<td>-0.07</td>
<td>0.360</td>
</tr>
</tbody>
</table>

Mean for all Dimensions of Service Quality: 2.14(0.06)
For example, Q1. On taking a BSc (Technology) student into our organization, we had a clear and accurate view of the program and what it entailed, and, Q8. The coordinators understand the type of personality that suits our organization. Therefore, the average mean response for all service quality variables (Appendix, Section 1, Q1-Q20), gives an overall measure of satisfaction with the service provided. Such an approach contains two limitations. First, the mean possesses some disadvantages as a measure of central tendency, in that it is subject to influence of single outlying results. This can skew results and potentially produce a misleading impression (Moore & McCabe, 1998). The fact that the maximum responses could only vary across five values substantially negates this limitation. Second, the use of a consistent positive proposition in question formulation could potentially lead respondents towards a particular response, thus introducing some bias into the data. However, the instrument also contained open-ended questions to provide triangulation (Appendix, Section 3).

The overall mean response for the employers surveyed was 2.14. This combined with the high level of satisfaction (Appendix, Section 3, Q1, 82% strongly agree/agree) indicates that the employers are in general happy with the service provided by the coordinators. However, the value of the mean does suggest that there are still some areas that require improvement. The areas of most concern can be readily identified from the data in Table 1, and each of the five dimensions is discussed in turn.

The mean responses for the communication variables (Appendix, Section 1, Q1-5) are all low, close to two. This suggest that the employers are happy with the communication skills of coordinators, the only areas of concern being communicating the role of the university supervisor and informing the employers of issues relevant to their organization. The employers’ perception of the coordinator’s knowledge of the placement organization shows some variation, suggesting that the coordinators are contacting the employers at a time at which they can plan for student placements, but this is not appropriately tied to a time when budgets are known (Q6-Q7).

Student selection also is an area of high satisfaction for the employers with low means for most student selection variables, selection of students with the right personality, and matching students with the practical requirements of the organization (Q8-Q13). With the exception of ensuring students have the adequate writing and oral communication skills, all the means were under two for the student selection process. Placement support was the area of greatest dissatisfaction for the employers surveyed (overall mean for Q14-Q17, 2.35), with most concern related to report writing and providing support to students when they most need it. The results for the employers’ general perception of the program (Q18-Q20) indicate that the timing and duration of the placements are more important than other advantages such as providing a convenient means of organizing short-term employment and flexibility in managing labor costs.

The Employers’ Ranking of Dimensions of Service

Factor analysis consisted of a principal component analysis of the employer responses to the twenty variables (i.e., Q1-Q20). This provided a five-factor solution that accounted for 62 percent of the variance (Moore & McCabe, 1998). The five-factor solution produced in the factor analysis distributed the twenty variables identically (except in order) across the five dimensions of service. This model was used subsequently to ascertain which dimensions of service the employer’s rate most important (Figure 1). In order to interpret the results of the five areas of service investigated in the study the respondents were asked to rate each of these areas in order of importance. Matching areas of dissatisfaction with areas of importance identified the most important areas to target for improvement. The respondents overwhelmingly rated student selection as the

Figure 1
Service quality model used in the study
most important dimension (Appendix, Section 2, student selection 77% most important, and 15% next most important). Communication and timing of contact are the next most highly ranked in importance.

Responses to each question in Section A were correlated with overall satisfaction rate and the correlation data (Table 1, RHS column) suggests that most variables are positively correlated with satisfaction. However, ANOVA analysis indicated that there are only three variables where there is 95% confidence that the means are independent. These data suggest possible causality between service variables and satisfaction for coordinators’ ability to ensure students are interested in and motivated towards the type of research the employer desires from the placement, providing the employers with a more convenient way or organizing short-term employment, and the assistance the university supervisors give students with report writing. Whether there is actual causality between these service variables and satisfaction is perhaps debatable, however, these data indicate that these are the most influential variables. Consequently, adequate performance for these variables is critical to ensuring the satisfaction of the employers. Due to the interrelated nature of the variables, the performance of all variables is critical to an increase in overall service quality.

The Employers’ Ranking of Service Variables

The instrument also provided respondents with an opportunity to specify the best and worst aspects of service quality (Appendix, Section 3, Q2-Q3). The results of this section were quite variable. The responses were, however, in general similar to many of the responses in the other sections of the questionnaire, for example, the employers again emphasized the importance of successful matching of students and many responses indicated that in their view this was achieved to a high degree of satisfaction. Other factors identified as the best aspects of service included, the professionalism, commitment and enthusiasm of the coordinators, timely early approach, and the quality of the students. A small number of the employers expressed considerable dissatisfaction with one aspect of service, namely, the lack of follow-up to requests for information and clarification of discussions. Other comments from the employers were, inadequate contact with coordinators, ambiguity regarding the role of the university supervisor, circumventing appropriate hiring channels, unavailability of promised research facilities, lack of some specific technical skills, and lack of forewarning of site visits.

The Employers’ Recommendations for New Areas of Service

The employers also made a number of recommendations to improve service quality. These included, provision of a database of all available students, sending a letter before the placement commences confirming the appointment and starting date, the establishment of a confidentiality agreement between the University and organization, provision of a detailed description of the placement tasks prior to placement, seminars in which the employers can discuss their research interests and skill requirements, and the establishment of scholarships that could be used to promote research in certain areas. Seventy percent of the employers felt that there was a cost benefit to the organization as a result of student work placements (Appendix, Section 4, Q6), although only one employer provided a detailed breakdown in terms of the actual financial benefit to their organization as a result of participation in the program. This employer cited a saving in that the administrative overhead attracted for student employment (10%) was considerably lower than the charge associated with a full-time employee (120%). Interestingly, a number of the employers felt that although there was no tangible cost benefit to their organization, the use of students provided other spin-off benefits, for example, “provides an opportunity to evaluate the caliber of students” and “improves morale, as full-time staff can then take time off.” A high proportion of the employers reported that the principal reason for involvement in the program stemmed from a commitment to being involved in the education of young people. That is, even if the employers felt their organization failed to accrue any direct financial benefit, placements satisfied a desire to benefit the community.

The employers indicated that they required advance warning in order to consider the likelihood of taking on students for summer vacation placements (i.e., beginning November in New Zealand) indicating that August and September are the best months for coordinators to approach their organization. Some of the employers indicated that they wished to be approached as early as December preceding the placement year, that is, for a placement beginning November 2000; they wished to be contacted in December 1999. The data shows that there is a considerable range in responses given by the employers. Hence, it is important that the coordinators endeavor to spread their initial approaches throughout the year to meet the individual needs of the employers. The employers prefer the shorter three-month placement with some 60% rating it as their preferred option. Seven percent of the employers indicated that the preferred duration of the placement was dependent on the project involved, and 11% had no preference. With a response of 75%, November was the preferred month for the beginning of the placement. A small number of the employers (3%) indicated more than one particular month in which they would prefer placements commence.

Retention of the Employers in the Program

The average time the employers have been involved with the program is three years, but few of the employers have been with the program longer than five years. This suggests there may be some difficulty in maintaining long-term relationships, but may also indicate the employers changing needs and financial circumstances. For example, there has been considerable increase in competition for funding experienced by Government research organizations in New Zealand in recent years, and it is likely this has some influence on the ability of such organizations to take on students. There is evidence of an association between the number of years an employer has been involved with the
program and their satisfaction with the service provided. Predictably, the longer the employers have been involved with the program, the greater the degree of satisfaction.

Comparison of the Employers and Coordinators’ Perceptions of Service Quality

It is interesting to compare the perceptions of service quality of the employers and coordinators (Table 1, RHS). Clearly some caution must be exercised in this process due to the large difference in the number of respondents for the two groups, but the comparison provides an indication of potential mismatch between the employers’ and coordinators’ perceptions of service quality.

The coordinators perceive overall service quality more favorably than the employers. The variables that the employers perceive less favorably than coordinators are, providing timely support to students during placements, providing adequate support for students during their placements, informing the employers of issues relevant to their organization, coordinator accessibility, providing a flexible way of managing labor costs, providing a more convenient way to organize short-term employment, providing opportunities for the employers to comment on issues, communication of the role of the university supervisor, and the timing and duration of placements.

The remaining variables are perceived more favorably by the employers than coordinators with the greatest differences being relating to student selection, ensuring students have the right technical skills, ensuring students have the required writing skills and ensuring motivation of students. The only other large difference was in the provision of adequate support for the students during report writing.

Response to the Employers’ Perceptions of Service Quality

The analysis of the results suggests that the employers are in general satisfied with the service provided by the CEU. However, the results have also suggested areas of dissatisfaction with service quality. Some of these issues have already addressed, the remainder will be addressed in the upcoming placement season.

Student Support

It appears that lack of student support may have arisen from inequitable workloads within the CEU resulting in some coordinators having so many commitments that they were not able to provide adequate support. This is in fact a rather complex issue since workloads allocation is based on area of expertise, with coordinators responsible for student placement and support in their specialist subject. Since student numbers vary from year to year, workloads also vary. This means that whilst many of the students and employers were happy about their support, others were less satisfied. Some redistribution of workloads within the CEU has already occurred and this should ensure that all of the coordinators have more time available to provide the support needed by students on placement.

Employer Input to Curriculum

Direct employer input into curriculum design is rare in New Zealand science degrees, although it is common in engineering-based programs. However, at Waikato, the CEU holds an annual meeting of a selection of employers who act as an advisory committee for the cooperative education program. This meeting also provides an opportunity for University staff to inform the employers about curriculum matters (e.g., introduction of new courses and degree programs) and further allows the employers to comment directly to staff of the CEU. This had traditionally been held at the end of the academic year (November in New Zealand) but it is often difficult to find employers who are able to attend at this time. Based on the results of this study, the timing of this meeting has been changed to earlier in the year. This is time of year that is not so busy for the employers and this will hopefully enable more employers to be involved in this important exercise.

Role of University Staff

It is interesting that the employers indicated that they are unclear on the role of the university supervisor. This is consistent with students’ views as discovered in a previous investigation (Coll, Halsey, & Eames, 1997). The coordinator is responsible for securing the placement, providing support during the placement, and coordinating the assessment. The university supervisor is required to provide academic support in the form of advice on matters of specialist scientific content, and to assist in the writing of the placement report. In part, this problem reflects the increasing workload of academics at Waikato. A partial solution to the problem has involved the coordinators assuming the role of university supervisor where they have appropriate expertise in the subject. This means that academic staff now have less students to supervise which will hopefully lead to an improvement in service. It does of course increase the workload of the placement coordinators, but they have greater ownership of the cooperative education program and their greater sense of commitment means they take these duties more seriously.

Conclusions and Implications of the Research for Practitioners

There are two major outcomes of this study. The first is the development of a service quality model for cooperative education programs. This study found service quality could be assigned to five categories, student selection, student support, coordinator contact with the employers, communication, and employer benefits. Second, the study highlighted areas of satisfaction and some areas of dissatisfaction for employers in the cooperative education program at Waikato that may well have relevance for other placement coordinators. The research has enabled the CEU at Waikato to gain a clear view of service areas rated as...
The matching of students to employers’ needs is the core business of placement coordinators, and it is perhaps not surprising that it is rated so highly by many of the employers. Other research reports have noted that employers place great importance on the so-called soft skills (e.g., Sweeney & Twomey, 1997). Hodges, Rainsbury, Sutherland and Wong, (1998) describe how interaction with employers and agencies enabled the identification of graduate competencies of most importance to employers. Skills like communication, and interpersonal skills were rated highly, with less emphasis placed on technical skills. The lack of emphasis on technical skills may mean that the employer assumes students possess the required technical skills, and once that has been established other skills assume greater importance (Sweeney & Twomey, 1997). In other words, because possessing technical skills is seldom an issue in practice, it is attributed relatively low status by the employers. Indeed, in the case of the present study, pre-selection means students invariably possess the requisite technical skills. In fact an issue of concern for students identified in a previous study is that they have felt inadequately challenged in some placements (Coll, et al., 1997). Soft skills are difficult to measure, and in order to obtain some insight into students’ abilities in this area the CEU at Waikato employs a novel model for the structure of the CEU (Coll & Eames, in press). Briefly, the placement coordinators at Waikato as mentioned previously all hold joint positions between departments and the Unit. Because coordinators are involved in teaching students in lectures and laboratory classes, they are able to get to know students well. This helps to identify students’ academic and practical ability, and also enables coordinators to gain a clearer picture of students’ abilities in these less easily measured skills. Such an approach improves the likelihood of obtaining a suitable match.

It is possible that the employers’ needs may change over time and the research has indicated there is a perception amongst the employers that coordinators need to be flexible, for example, in the timing of initial approach to an organization, that is, operating on a time-frame that is attuned to the employers’ needs rather than those of placement coordinators. Clearly this requires good knowledge of individual employers’ needs and circumstances, especially in relation to the timing for budgetary estimates.

Suggestions for Future Research

An interesting outcome of the research was the difference in perceptions of service quality between the employers and placement coordinators. The research design employed provided a clearer picture of inadequate performance and highlighted priority areas for improvement. As discussed above, some mechanisms have already been put in place in order to address the issues raised by the employers. It is important that these initiatives are followed up in the future, to assess their value in improving service quality. As Hurd and Hendy (1997) point out, it is important to monitor employers’ needs and perceptions regularly. Thus a further study will be conducted, after allowing sufficient time to see if the changes made have had a positive impact.

The research findings have revealed a need to obtain a clear understanding of employers’ needs, and in particular, to provide strong support for students on placement. It is interesting that the coordinators’ views were different from those of the employers in some key areas, and it is possible that this is also the case for other practitioners. Consequently, it may be prudent for other placement coordinators to consider an investigation of the type reported here. In doing so they will likely obtain different results, but no doubt will discover issues of importance that require attention.

References


**APPENDIX**

**University of Waikato - School of Science & Technology**

**BSc (Technology) Student Placement Program**

**Introduction**

*The purpose of this questionnaire is to assist in the continual improvement of service quality and customer satisfaction.*

**Section One**

The purpose of this section is to find out what you perceive are the defining characteristics of excellent BSc (Technology) placement coordination. Please rate the following statements on a scale of 1-5. 

[Where 1 is strongly agree, and 5 is strongly disagree]

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neither</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

**Communication**

1. On taking a BSc (Technology) student into our organization, we had a clear and accurate view of the program and what it entailed.  
2. On taking a BSc (Technology) student into our organization, we had a clear and accurate interpretation of the role of the university and the coordinators. 
3. The coordinators are accessible when I wish to contact them. 
4. The coordinators inform me about all issues relevant to our organisation. 
5. I am given the opportunity to comment on issues related to the program.  

**Placement Organization**

6. The coordinators contact our organization at a time in our year when student projects can be put in place. 
7. The coordinators contact our organization at a time in our financial year when budgeting for student placement/s is possible.  

**Student Selection**

8. The coordinators understand the type of personality that suits our organization. 
9. The students suggested by the coordinators have matched the practical requirements of our organization. 
10. The students hired by our organization have been motivated and interested in the work. 
11. The students hired by our organization have had a good level of technical skills.
Student Selection, continued

12. The students hired by our organization have had good written communication skills.

13. The students hired by our organization have had good oral communication skills.

Placement Support

14. The coordinators provide adequate support to students in our organization.

15. The support provided by the coordinators is at a time when students are most likely to need it.

16. Our organization provides support assisting BSc (Technology) students in the writing of their industry report.

17. The university supervisors provide adequate support for students writing their industry report.

General

18. The BSc (Technology) program provides our organization with a flexible way to manage labour costs.

19. Using the BSc (Technology) program is a more convenient way for our organization to organise short-term employment.

20. The current timing and duration of placements meet the requirements of our organization.

Section Two

This section estimates which of the groups of attributes mentioned in the previous section are most important to you. Please rank them in order of importance on a scale of 1-5.

[With 1 being most important and 5 being least important]

Example Your Ranking

2 Communication

1 Placement Organization

4 Student Selection

5 Placement Support

3 General
Section Three

This section is to gauge your satisfaction with the service provided by the BSc (Technology) placement coordinators, and to give you the opportunity to express any issues you may have.

1. Consider this assertion:

   *I am satisfied with the service provided by the BSc (Technology) placement coordinators.*

   Please, indicate your level of agreement with the above statement.

   | Strongly Agree | Agree | Neither Agree or Disagree | Disagree | Strongly Disagree |

   2. What in your opinion is the best aspect of the service provided by the BSc (Technology) placement coordinators?

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________

   __________________________________________________________
Section Four (optional)

Information gathered in this section will be kept strictly confidential. The information will be used for statistical purposes, to help provide better service in the future.

1. Name of your organization: ____________________________

2. Number of years involved with the BSc (Technology) program:

3. The ideal month of the year for a coordinator to approach you regarding student placement is? ____________________________

4. What is the most preferable length of a student placement for your organization?

   - Three Months  Comment: ____________________________
   - Six Months    ____________________________
   - Nine Months   ____________________________
   - Twelve Months ____________________________

5. Which of the following months is the most preferable time for a student placement to start in your organization?

   - March  ____________________________
   - July   ____________________________
   - November  ____________________________

6. Do you believe that there is a cost benefit resulting from your organization hiring a student?

   - Yes  ____________________________
   - No   ____________________________
   - Other  ____________________________

   Comment: ____________________________