This paper examines and reviews research techniques used to support business and strategic planning at a large metropolitan technical and further education (TAFE) college. Section 1 is an outline of the structure of Chisholm Institute's planning and research processes. It discusses the management structure, strategic plan, and departments within the strategy. Section 2 describes these four areas of research undertaken by staff in the Quality and Planning Department: analysis of internal and external databases, evaluation of program and services, market research/investigative activities, and trend monitoring and environmental scanning. Section 3 addresses benefits and shortcomings of the research techniques. It finds the internal database analysis enables analysis of primary data, but it is static and can only provide an analysis of previously captured information; external databases provide a wider picture of the student population, but may be difficult to drill down to a local level; evaluations of programs and services provide a measure of success of targets, but are dependent on their focus and extent; market/investigative research can provide answers on an issue, but can be costly in time and resources; and trend/environmental scanning allows access to a range of information sources, but the information obtained may not be applicable to local conditions. (YLB)
Using research to inform business and strategic decisions

Graeme Young
Chisholm Institute of TAFE, Victoria

The paper will outline the use of research techniques in the planning processes of a large metropolitan technical and further education (TAFE) college. It is written on the theme of Practitioners as Researchers and will discuss how applied research is used to support strategic and business planning. It is divided into four sections:

- an outline of the structure of Chisholm Institute's planning and research processes
- the types of research undertaken
- how the research is used to support decision-making
- the benefits and shortcomings of the different types of research.

The Institute

Chisholm Institute is a large multi-campus, multi-disciplinary TAFE institute. It has over 65,000 student enrolments and employs over 2,000 staff. Chisholm has seven metropolitan campuses and two regional campuses throughout the south-east region of Melbourne.

The Institute has five Divisions: three teaching and two service Divisions (see Figure 1). The Strategy Division is responsible for strategic planning and major research functions.

As Figure 2 shows, Chisholm uses a top-down planning process. Senior management sets the aims, objectives and targets. They are framed in a structured and well-defined Institute Strategic Plan.
Figure 1: Management structure
The Institute Strategic Plan outlines the opportunities and challenges that the future presents as well as strategic goals and targets to achieve the Institute vision. The Institute Strategic Plan has four strategic goals and identifies a number of Institute strategies underpinning the achievement of the strategic goals and Institute vision. The Strategic Plan is reviewed annually to monitor the level of achievement against targets. Institute targets have been identified for each of the four strategic goals. An annual self-evaluation of these targets is used to verify that the operational activities and data collection processes are aligned with the Institute's strategic priorities.

The Strategic Plan outlines:

- the vision - the desired long term achievements or where it wants to be
• the values - the beliefs that are fundamentally important or what it believes in and promotes

• strategic goals - four broad statements describing the preferred outcomes for it

• strategic targets - statements describing the preferred future directions or outcomes for it

• business plans - a detailed and researched planning document looking forward three years, which includes the outcomes and strategies to support the achievement of key priorities

• operational plans - developed for every area, which identify annual outcomes, measures and strategies and are used to guide operations, measure performance and inform individual achievement plans.

Three departments within the Strategy are involved in research in various capacities.

• Educational Support Department
• Marketing and Development Department
• Quality and Planning Department

The Educational Support Department is responsible for curriculum design, national curriculum projects and the campus library network. The Marketing and Development Department is responsible for market research, feasibility studies and business development projects. The Quality and Planning Department is responsible for the quality system and strategic planning.

The Quality and Planning Department is the focus of the discussion. It consists of a group of nine people who are responsible for strategic planning, the quality system and applied research functions. As with many organisations with a similar structure, the three functions complement each other. Although the three groups within the Quality and Planning Department work on distinct functions, they are interrelated and have a strong emphasis on continuous improvement. The Chisholm Institute Management Framework, the quality system, sets out the framework for the quality management and operational processes and procedures. The Business Plan process sets out the medium-term (three years) strategic and business planning processes for operational areas, and the short-term outcomes are outlined in the annual operational plan. The monitoring and evaluation of targets is managed by the applied research functions.

**Types of research**

There are four areas of research undertaken by staff in the Quality and Planning Department. These are:

• Analysis of internal and external databases
• Evaluation of program and services
• Market research/investigative activities
• Trend monitoring and environmental scanning.
Analysis of internal and external databases

The key source of information for planning and review functions is through the retrieval and analysis of existing databases. These databases of information include data about student enrolments, demographic movements and changes, industry trends, employment rates, economics and sociology. The information is sourced in two ways.

Internal databases

Internal databases are those which Chisholm collects and maintains. They include the current student enrolment database, previous year's student enrolment data, the results from previously conducted internal customer satisfaction surveys, previous program and service evaluation surveys and student recruitment and employment survey data.

External databases

External databases are those sources of information which are collected by external agencies. These include student enrolment data collected by the State authority, the Office of Post Compulsory Education, Training and Employment (OPETE), National student enrolment data collated by the National Centre for Vocational Education and Research (NCVER) and national student destination data such as the Student Outcomes Survey. Other sources include the Victorian Department of Infrastructure (which examines population trends), the Australian Bureau of Statistics, Industry Training Boards and annual planning data collated by OPETE.

For example, the business planning process at Chisholm Institute requires the collection and analysis of current data available. This can include data contained within the Institute or available from external sources.

This data examines the following at the level of sector and industry and across the Institute:

- the characteristics of the students enrolled in a set of courses
- whether the courses met their target
- how much of the market they control
- how big the industry or sector is within Australia; and
- future developments of that industry.
Table 1: Database sources

<table>
<thead>
<tr>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student enrolment data</td>
<td>PETE Statewide enrolment data</td>
</tr>
<tr>
<td>Results of previous customer surveys</td>
<td>NCVER national enrolment data and graduate destination data</td>
</tr>
<tr>
<td>Program and services evaluations</td>
<td>Australian Bureau of Statistics:</td>
</tr>
<tr>
<td></td>
<td>- Census</td>
</tr>
<tr>
<td></td>
<td>- Labour Market Data</td>
</tr>
<tr>
<td></td>
<td>- Business Register</td>
</tr>
<tr>
<td></td>
<td>Industry Training Board Plans</td>
</tr>
<tr>
<td></td>
<td>Department of Infrastructure population statistics and projections</td>
</tr>
</tbody>
</table>

Evaluation of program and services

An important function of the Quality and Planning Department is to evaluate the major programs and services provided by Chisholm to its students and clients, services to staff and to industry and the community.

The primary function of evaluation is to measure the targets outlined in the strategic goals and focus on continuous improvement activities. Figure 3 shows the four strategic goals articulated in the Institute Strategic Plan. An example of the targets is shown in Figure 4. This indicates the expected outcomes that all operational areas are intended to achieve and the particular method used to capture the information.

The targets in the strategic goals are monitored and reported to the Institute Council by the Quality and Planning Department. A number of measures refer to other operational areas, such as Finance, and are reported by those particular areas. The major survey cycle overseen by the Department annually tests and evaluates customer satisfaction measures for the Institute and compares the results with the defined targets.
Figure 3: Strategic goals

<table>
<thead>
<tr>
<th>Strategic goal 1 - Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chisholm Institute will surpass expectations in the delivery of Applied Educational Solutions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic goal 2 - Learning organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chisholm Institute will provide an environment which continually encourages commitment, involvement and development of its people.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic goal 3 - Financial</th>
</tr>
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<tbody>
<tr>
<td>Chisholm Institute will be financially strong.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategic goal 4 - Structures and systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chisholm Institute will create structures and systems which are a catalyst for innovation, measurement and competitive advantage.</td>
</tr>
</tbody>
</table>

Figure 4: Example of targets and method of measurement

<table>
<thead>
<tr>
<th>Strategic goal 1</th>
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<tbody>
<tr>
<td>Chisholm Institute will surpass expectations in the delivery of applied educational solutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Targets</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% of customers are satisfied that the programs and services meet their expectations</td>
<td>Student Survey</td>
</tr>
<tr>
<td>100% of graduates gain the job of their choice within three months of seeking post-course employment</td>
<td>Graduate Destination Survey</td>
</tr>
<tr>
<td>100% of customers would recommend Chisholm Institute</td>
<td>Student Survey, Graduate Survey</td>
</tr>
<tr>
<td>75% of withdrawals from courses are due to positive outcomes for the student</td>
<td>Discontinuing Student survey</td>
</tr>
</tbody>
</table>
A number of major surveys are undertaken to measure the strategic targets. They are:

- The Course Evaluation Survey
- The Discontinued Students Survey
- The Staff Survey
- The Employer Survey.

The Course Evaluation Survey is a stratified survey of the current student population attending a campus of Chisholm and enrolled in publicly funded programs. The survey covers student perception of the course structure and organisation, teacher experience and skills and the service provided by support areas such as Library and Student Services. The survey is conducted by getting Cluster Managers to nominate at least two courses for evaluation. The survey is administered in the classroom by administrative staff and not the teacher.

The Discontinued Student Survey is a sample survey of students who have discontinued their course of study within the year. The survey examines the reason why a student leaves and attempts to discover what present activity they are engaged in - whether it is employment, further study or something else.

The Staff Survey is a census survey of all teaching and support staff. It is distributed internally and defined by information from the payroll database. The survey looks at staff perception of working conditions, reward and recognition, leadership and decision-making, workplace culture and communication.

The Employer Survey is a random survey of employers of Chisholm-enrolled apprentices and trainees. The survey covers employer perception of course relevance and service level to employers. It consists of a mail survey to relevant employers.

**Internal evaluations**

As well as monitoring and measuring selected strategic targets, the Quality and Planning Department provides a consultancy service to Sectors and Departments. This service enables an area to conduct an evaluation of their programs and services.

For example, the Library wanted to find out what services students, staff and the general public use at a campus library of Chisholm Institute and what they think of these services. A Library Users Survey was designed in conjunction with Library personnel and conducted on a quarterly basis. The mail survey was sent to a randomly selected group of students.

Another example is the Traineeship Survey. This survey was designed for workplace students and the aim is to assess their perceptions of the program, the workplace assessor and any support services of Chisholm provided to them.
Market research/investigative activities

Market research and investigative activities such as market testing are carried out by the Quality and Planning Department. Some of these activities are joint projects with the Marketing and Development Department or the Education Development Services Department.

A community survey was conducted in 2000 that looked at community perceptions of TAFE in regional communities, centred on the regional campuses of Chisholm. A Community Survey was designed in conjunction with Marketing and Development personnel to elicit the views of the general community to their attitudes to TAFE and the services that it offers to the broader community.

Another example is a review of the operation of an open-learning centre. The survey was designed in conjunction with a working group of staff and students enrolled at the campus. The review looked at staff and student attitudes to the operation of the centre, including preference for opening hours and an evaluation of current resources available. The results were used to redesign the staffing and resources of the centre.

Trend monitoring/environmental scanning

To monitor major social and economic trends at a state, national and international level, a number of media and other sources are monitored on a regular basis. The focus of the media scan is to identify significant events or reports of research that may have a long-term effect on the operations of Chisholm. The scan looks at the various news sources, including reviewing the main daily newspapers for information about reports that have been released for public distribution. Other sources include public research institutes and private consultancies that release reports about social and economic trends in Australia.

The sources include:

- The daily newspapers (*The Age, The Australian*)
- Public research institutes (OPETE, ANTA, NCVER, ABS, NATSEM)
- Private research consultancies (Access Economics, Morgan and Banks, IBIS)
- Regular social and economic periodicals (ABS - Social Trends document, Dept of Infrastructure - Population Forecast Report)
- Internet news websites (CNN, BBC).

Benefits and shortcomings of techniques

The focus of the paper is to examine and review the research techniques used to support business and strategic planning at a large TAFE institute. As Table 2 shows, each technique has its advantages and disadvantages.
Internal databases/external databases

The internal database analysis provides an extremely useful and rich form of research information. It enables the analysis of primary data, such as student enrolment information, which is collected at the time the student completes an enrolment form. This one source can provide a wide range of information on the characteristics of the student population and the types of programs that students enrol in. A set of standard reports can be produced, ranging from a global level of the Institute and 'drill down' through the various levels to a teaching unit or industry sub-group. It is flexible and can look at particular aspects of students in a program, due to the detailed nature of the basic information.

The disadvantage of an internal database is that it is static and can only provide an analysis of the information previously captured. It is limited to the information that is held and is not dynamic or able to examine other issues outside the data that has been captured. It only provides an inside view and will not reveal any information about the general population or people outside of the students enrolled in programs at the Institute. It provides a local view only.

External databases have the advantage of providing a wider picture of the student population at a state or national level and allow comparisons with the local population. This is valuable for benchmarking activities and a market share analysis.

The disadvantage of external databases is that due to the format of the data it may be difficult to drill down to a local level, which can make comparison or benchmarking activities impossible to conduct. A second problem is access to data. Due to confidentiality issues, whether personal or commercial, it may not be possible to gain access to detailed data, such as unit level data (individual records of information). Without detailed data it is not possible to conduct discrete analysis for local analysis or comparison.

Evaluation of programs and services

Evaluations of programs and services provide a measure of success of targets, such as those set out in the Institute Strategic Plan. They are focused and can review a particular issue. Similarly, they can be customised for local use and be conducted at the teaching unit or support unit level.

A disadvantage of evaluations is dependent on their focus and extent, in particular at the Institute level; they may look at surface only and not allow for a deeper investigation of the issue under consideration. This is particularly evident when attempting to sample the entire student population on an issue. A second disadvantage is that the investigation may be limited by time or resource constraints.

Market/investigative research

An advantage of market research and investigative research is the ability to provide answers to an important issue or question. Like internal evaluations, it can be focused and directed to provide information for a particular purpose, although the research may be examining a regional or wider issue.
A disadvantage is related to the resourcing of the activity. It can be costly in time and resources.

**Trend/environmental scanning**

The advantage of environmental scanning is that it allows access to a range of information sources that can provide a wider view of social and economic issues. Such sources can be used to track national or international trends in education in general and VET in particular.

The disadvantage of scanning is the information obtained may not be applicable to local conditions or may impact on the region or institute.

**A final note**

A final observation concerns the accessibility and comprehension of the results of the research. As outlined above, applied research at Chisholm is flexible and can be customised for individual projects. It can be commissioned by all levels of the organisation, from senior management down to the manager of a teaching or support unit. It appears that some recipients of the research have difficulty comprehending the outcome of research. It is not certain if this is the fault of the researchers, who may aim the reports at a higher level of comprehension than that of some of the audience. A need to assess the level at which to aim the report of research is one for further investigation and will be followed through with focus group discussions of the major recipients of the reports.

**Table 2: Comparison of benefits and shortcomings**

<table>
<thead>
<tr>
<th></th>
<th>Benefits</th>
<th>Shortcomings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal databases</td>
<td>Access to local data</td>
<td>Only looking inside, no outside view</td>
</tr>
<tr>
<td></td>
<td>Able to drill down to detailed level, flexible reporting ability</td>
<td></td>
</tr>
<tr>
<td>External databases</td>
<td>Rich source of information at state and national level</td>
<td>Hard to drill down to local level</td>
</tr>
<tr>
<td></td>
<td>Access to wider range of data to enable benchmarking and market share analysis</td>
<td>Limited access to data with some portions not available due to privacy considerations</td>
</tr>
<tr>
<td>Evaluations</td>
<td>Provide a performance measure in comparison to set targets</td>
<td>Can only looking at issues on a limited level</td>
</tr>
<tr>
<td></td>
<td>Can be customised for local use</td>
<td>Resources may limit the level and extent of evaluation</td>
</tr>
<tr>
<td>Investigative research</td>
<td>Can provide the answer to specific questions of inquiry with some accuracy</td>
<td>Costly and time consuming activity</td>
</tr>
<tr>
<td>Scanning</td>
<td>Keep track of trends at regional, national and international level</td>
<td>Gives a picture of the outside world only</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
</tbody>
</table>
| General  | Flexible and customised service to Chisholm personnel, not just senior management | Level of comprehension and understanding of reports
|          |                                                               | Uncertain if reports are too complicated or aimed at too high a level |
Conclusion

As stated in the introductory paragraph, the aim of this paper was to discuss the four major techniques of research used to inform the business and strategic planning process. The techniques have been discussed in the context of a structured and well-defined planning process. Research, in this instance, is not conducted in isolation but is applied to the information needs of a large and widely dispersed TAFE institute. It provides relevant and focused research and analysis and the monitoring of performance of all operational units.

As stated earlier, there is a team of nine people who work in the Quality and Planning Department. Their functions are interrelated, as each group works closely to achieve the aims and outcomes as described in the Institute Strategic Plan. The application of research as discussed is a major contributor to this successful working team and forms an integral part of the functions of the Department.

References


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