



A CASE STUDY OF LINKAGES BETWEEN INDUSTRY AND TECHNIKONS IN THE WESTERN CAPE

A RESEARCH REPORT

SKILLS DEVELOPMENT PLANNING UNIT

DEPARTMENT OF LABOUR

FEBRUARY 2003



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A Skills Development Planning Unit Research Report
Commissioned by the Department of Labour

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FOREWORD

The origin of this research report lies in the new skills development policy environment that came into effect with the passage of the Skills Development Act (no 97 of 1998). The establishment of Sector Education and Training Authorities (SETAs), the introduction of planning for skills development and the introduction of the learnership, all pointed in different ways to the importance of linkages between the world of work and the world of education and training.

The SETAs clearly have an important intermediary role to play between employers and the providers of education and training. They also play an important role in the flow of information from enterprises regarding skills needs and they are responsible for ensuring the implementation of learnerships. Learnerships, in particular, are important in that they directly involve enterprises (through the workplace experience component) and education providers (through institutional learning).

At the time that this research was initiated, there were still many questions about this intermediary role of SETAs. Their relationships with education and training institutions were, in most cases, in an early stage of development. Despite this, the first Sector Skills Plans, submitted by the SETAs in September 2000, questioned the relevance of many formal courses offered by higher education institutions and pointed to a lack of responsiveness by these institutions to employers' education and training needs. This provided a part of the context for the study contained in this publication.

The other point of origin for the research lay in the technikon sector. As the paper points out, these institutions have historically been much closer to the needs of industry in their orientation and course offerings than other tertiary institutions, such as universities. Yet there appeared to have been little critical reflection on this role in the context of a new policy environment for higher education and skills development. Indeed, there was little documentation explaining how technikons operate to remain relevant to industry.

Early in 2002, the Skills Development Planning Unit of the Department of Labour commissioned the research that is reported in the following pages. It did so in collaboration with the Cape Technikon and the Peninsula Technikon. The aims of the research were:

- to explore the arrangements for consultation between the two technikons and industry in the Western Cape;
- to evaluate the functioning and effectiveness of linkages between industry and educational institutions for consultation about course offerings and the needs of industry;
- to recommend policy guidelines for technikons to implement effective industry-education links, including the role of SETAs in such arrangements; and
- to make recommendations as to how skills planning should address the interface between industry and education with regard to improving the responsiveness of technikons to the needs of industry.

The research was intended to be a relatively limited and exploratory exercise. As often happens, it turned out to be a far more demanding exercise that extended well beyond the scheduled time. An important reason for the delay was the collaborative and action oriented nature of the research. A series of reference group meetings were held during the course of 2002 that brought together staff of the two technikons, staff of the Department of Labour, the researchers and, at times, representatives of certain SETAs. Some of these meetings evolved into lively and valuable discussions

about and nature and rationale for industry-education links, different issues in the debate about responsiveness and many practical issues to do with the operation of the technikons.

Given the rapid state of change and development in the skills development arena, much has happened since this research was initiated. A number of SETAs have entered into structured relationships with technikons and universities for provision of education and training relevant to their sector constituencies. The higher education sector is being faced with a major restructuring exercise and there has been far more debate and discussion about responsiveness, including a Council for Higher Education colloquium on the subject in July 2002. Nevertheless, the case study contains valuable information and insights and it is hoped that it may contribute to an improved understanding of industry-education links in South Africa. It is also hoped that it may inform the practical requirements of the parties that have an important stake in effective relationships between the education sector, industry and the SETAs.

AUTHOR'S ACKNOWLEDGEMENTS

This research would not have taken place had it not been for Judy Favish of the Cape Technikon and Ian Macun of the Department of Labour who negotiated the space for it to be conducted as a project.

During the research process a reference group, comprising Ian Macun, Kweku Appiah (Department of Labour), Marcus Powell (Department of Labour), Judy Favish (Cape Technikon), Brian Forbes (Cape Technikon), Adrian Strydom (Peninsula Technikon) and James Garraway (Peninsula Technikon), provided constant feedback and convened regular meetings to refine the content and elaborate on strategic research issues.

Further assistance on fieldwork was obtained from Morné Oosthuisen at the Development Policy Research Unit who arranged some interviews and undertook a background scan of some information sources.

In addition, Charlton Koen conducted a wide range of interviews with staff members and students from the Cape and Peninsula Technikons.

Finally, Wendy Lessing provided useful editing of the final document.

INTRODUCTION

The relationship between education and the labour market has been attracting interest in South Africa since major educational policy reforms were introduced with the onset of democracy in 1994. These reforms were first implemented within the schooling system and, thereafter, in the areas of further and higher education.

The labour market has also experienced reforms that have proceeded more or less in tandem with educational reforms. Public policy interest is, however, beginning to shift to the point where appropriate articulation between educational and labour market policy has become critical. This is because the benchmark for successful and winning nations is measured by the degree to which learning and knowledge contributes to a more robust economy. Such an economy contributes to wealth while simultaneously being able to fully deploy and develop the human resources that are available in the country.

These significant policy advances have led to the reconfiguration of established institutions. They have also necessitated the emergence and establishment of new institutions designed to facilitate the effective execution of the policies that have been adopted throughout the country. Institutions have also acquired multiple roles and, in order to perform the functions associated with these roles, the policy frameworks have generally emphasised the need for greater collaboration and the formation of partnerships between institutions.

In commissioning the study, the Department of Labour's Skills Development Planning Unit expressed a desire to understand the operational conditions of the two technikons in the Western Cape. The Department also wanted to gain insight into how these two technikons developed and strengthened their linkages with industrial communities.

These linkages could be viewed, in the one instance, in terms of providing industry with direct sources of skilled labour. Viewed from another angle, they could be seen to present students and graduates with an opportunity for experiential learning through work placements. Either way, graduates were given the opportunity to be absorbed successfully into the labour market by obtaining full-time permanent employment.

The study sought to understand the facilitative qualities of the many institutions that were rising to this challenge. It was also concerned about understanding the conditions that contributed to tensions and contradictory outcomes.¹

¹ The evidence to substantiate our understanding of the process of building and sustaining collaborative linkages and partnerships between the technikons and employers, on the one hand, and between technikons and institutions such as SETAs, on the other, was generated from field interviews. Interviews were conducted with technikon staff members, technikon students, representatives of industry, representatives of SETAs and other key informants. Respondents' names are listed in the appendix.

POLICY CONTEXT FOR LINKAGES

The evolution and contemporary location of technikons in South Africa has given rise to unique imperatives influencing policymaking.

The policies that have been framed specifically for the higher education sector since 1997, when the Higher Education White Paper was issued, have been important for technikons, but are not the only influencing factor. The historical role accorded to technikons has not disappeared altogether and has had an indirect, though seldom acknowledged, bearing on policymaking. Throughout this time, their role has been reconfigured with new expectations and functions. This role has implied a renewal and expansion of technikons' relationship with traditional stakeholders and, unlike the universities, their relationship with the labour market has more overt pedagogic and vocational linkages.

There is a third factor influencing the policy context in which linkages between technikons and industry in particular have developed. As a component of the higher education sector, coupled with their heritage from a policy perspective, technikons have been closer than other higher education institutions to the terrain within which skills development policies and interventions associated with skills development have been framed.

Finally, the provincial policy context – particularly as embodied in the quest to prepare the Western Cape for the knowledge economy – affects the development of industry-education linkages. A similar effect can be expected within technikons in concentrated economic zones such as the Gauteng triangle and the Pietermaritzburg-Durban corridor in KwaZulu-Natal.

A discussion of the policy terrain in which linkages between technikons and their principal stakeholders are nurtured needs to reflect on the context and issues sketched above. Cryptic as they may be, they indicate the possibilities and orientation of the existing and emerging linkages that have developed or are in the process of being developed.

THE HIGHER EDUCATION SYSTEM

The Education White Paper 3 encouraged co-operation and partnership between higher education institutions and all sectors of society whereby human resource development was to be supported through lifelong learning. High-level skills training was to be conducted for the purpose of strengthening the country's enterprises, services and infrastructure.

The White Paper considered the production, acquisition and application of knowledge to be central to national growth, competitiveness and innovation. The paper argued that new programmes were required at an institutional level to carry out this mandate. Institutions were further encouraged to increase their responsiveness to regional and national needs by developing appropriate academic, research and community service programmes. Finally, the White Paper on Higher Education repealed previous higher education legislation, including the Technikons Act of 1993, replacing them with the Higher Education Act (No.101) of 1997, which gave legislative expression to the policy agenda that had been set out in the White Paper.

The central themes elaborated in the White Paper were reiterated in the National Plan for Higher Education as the central challenges facing higher education, which the Minister of Education released at the beginning of 2001. An important caveat was added: it is necessary to enhance the cognitive skills of graduates so that they are equipped with 'the skills and qualities required for participation as citizens in a

democratic society and as workers and professionals in the economy' (section 2.7). The caveat was made on the premise of general coherence to the multiple education and training interventions that were spearheaded in the first decade of democracy in South Africa.

The National Plan for Higher Education also requires higher education institutions, in their three-year institutional rolling out plans, to demonstrate sensitivity to government's human resource development strategy, especially in relation to institutional location, vision, mission and capacity (section 2.8.2.2). The need for institutional diversity requires too that the technikons play an important role in providing career-orientated programmes in science, engineering and technology. The plan is based on the understanding that these policies will be implemented principally through planning and funding mechanisms.

The relative dearth of policy pronouncements linking the higher education landscape with the skills development strategy does not imply that the missions and mandates of higher education institutions and the arenas within which skills development takes place is flawed. The policy terrain shaping higher education from the White Paper to the National Plan for Higher Education has consistently encouraged experimentation with new relationships that will deepen and strengthen the diversity of institutions and the system as a whole. Anything different would be tantamount to nullifying the historical experiences and contemporary practices of the entire spectrum of technikons.

HISTORY AND THE CONDITIONS OF GOVERNANCE

This report presupposes a discussion of the historical role of technikons. The principal function of this role is to maintain the relevance of the technikons' curriculum to the pedagogical and vocational requirements of the working environment. Essentially, this has required the technikon system to mediate a relationship between students and graduates, who are recipients of instruction and knowledge transmitted by academic staff at technikons, on one side, and address high-level labour demand needs of employers, on the other.

This mediation led to an intervention concerned with eliciting employer views about the appropriateness of the curriculum offered by the institution. This was measured by the work performance and value that the institution's graduates represented to the employers who had hired them. The relevance and quality of outputs was an important gauge of the alignment of the curriculum to the needs of the workplace and the labour market.

COMMUNICATION MECHANISMS

Ensuring relevance of technikon education to the work environment required the required the establishment of an advisory committee, which exists for each programme or subject for which instruction is provided at a technikon. There is usually an advisory committee for each academic subject or programme specialisation at every single technikon in the country. Advisory committees have representation from employers and employer bodies as well as trade and professional bodies. Members of the education advisory committee may be drawn from those who serve on the statutory professional councils, e.g. nursing, engineering, architecture etc. (See Department of Education, 1988: 110, section 6.3.4.1)

The advisory committees are not decision making bodies and therefore channel their recommendations to the appropriate decision-making body within the technikons. These departmental boards, in turn, communicate concerns to the academic boards/senates. Beyond this point, the recommendations that stem from the

academic boards are regulated through the governance procedures that apply to the entire network of technikons in South Africa. The Committee of Technikon Principals (CTP) is the highest decision making authority through which the collective interests of the technikon community are articulated by way of recommendations to the Council for Higher Education and the Minister of Education. If the advice dispensed through advisory committees were not arbitrated upon earlier within intermediate structures, it would ultimately be settled on the recommendations of the CTP. The CTP, therefore, facilitates a governance system within the technikon structure that makes provision for workgroups to deliberate on the academic content and the vocational and career focus of the curriculum.

Not every technikon offers the same programme – some programmes are generic to all technikons, while some fill a niche that does not necessarily fall within the mission and programme focus of other technikons. A certain degree of homogeneity in the content of specific programmes offered by different technikons is required. The working groups are therefore tasked to maintain consistency in depth, breadth and quality of these programmes through the presence of the representative experts from each technikon that offers or intends to participate in the curriculum process of such programmes.

A convening technikon is required to take full responsibility for the development, introduction and maintenance of programmes, or groups of programmes, so that it conforms to existing policies and procedures. An additional function of a convening technikon is to serve as the chair of the working group and to expedite matters affecting the introduction or amendment of courses. The function of chairperson is vested in the Vice-Rector (academic) for the particular convening technikon. Decisions are reached through sufficient consensus.

The Committee for Tutorial Matters and, thereafter, the Executive Directorate of the CTP, are tasked with facilitating consensus and co-ordination between the technikons. In terms of the Higher Education Act, the final arbiter of quality assurance in higher education is vested in the Higher Education Quality Committee. At present, the amendment of an existing programme, or the introduction of a new programme, must take into consideration policy relating to SAQA and the NQF. In addition, the Department of Education must approve the programme. The advisory committees of a convening technikon have a greater chance of drawing attention to their recommendations than if the authority of convening is held elsewhere (i.e. at another technikon).

An elaborate set of criteria and regulations empowers the convening technikon to chair and convene workgroups. The Cape and Peninsula Technikons are currently responsible for convening 28 programmes (listed in *Table 1* below).

This requires a support apparatus at the institution that is in line with the conditions specified above and within the performance of the appropriate protocol and function of each convenor group. The entire process is based on the premise of upholding collegial practices that, in turn, are sustained through consensus.

Table 1: Workgroups convened by Technikon in the Western Cape

Name of Programme	Qualifications Level	Convenor Technikon
Cartography	NC, NHC, ND, B Tech, M Tech, D Tech	Cape Technikon
Dental Assisting	NC	Peninsula Technikon
Dental Technology	ND, B Tech, M Tech, D Tech	Peninsula Technikon
Design	M Tech, D Tech	Cape Technikon
Adult Basic Education & Training	NHC, HD, NHD, B Tech	Peninsula Technikon
General Education & Training (Foundation & Intermediate Phases)	NPDE, B Ed (GET)	Cape Technikon
Engineering: Electrical	ND, B Tech, M Tech, D Tech	Cape Technikon
Engineering: Mechanical	NHC, ND, B Tech, M Tech, D Tech	Peninsula Technikon
Financial Information Systems	NC, NHC, ND, B Tech	Cape Technikon
Fisheries Resource Management	ND	Cape Technikon
Food and Consumer Services	NC, NHC, ND, B Tech, M Tech, D Tech	Cape Technikon (from 2002)
Horticulture	ND, B Tech, M Tech, D Tech	Cape Technikon
Interior Design	NC, NHC, B Tech, M Tech, D Tech	Cape Technikon
Internal Auditing	NC, NHC, ND, B Tech, M Tech, D Tech	Cape Technikon
Landscape Technology	ND, B Tech	Cape Technikon
Oceanography	ND, B Tech, M Tech, D Tech	Cape Technikon
Open Space and Recreation Management	ND, B Tech, M Tech, D Tech	Cape Technikon
Optical Dispensing	ND	Cape Technikon
Packaging and Printing Technology	NC, NHC, ND	Cape Technikon
Plastics Design Technology	NHD, M Dip Tech	Cape Technikon
Printing Management	NC, NHC, ND	Cape Technikon
Radiography (Diagnostic & Ultrasound)	NC, NHC, ND	Peninsula Technikon
Radiography (Nuclear Medicine & Therapy)	ND	Peninsula Technikon
Retail Business Management	ND, B Tech	Cape Technikon
Surveying	NC, NHC, ND, M Dip Tech, B Tech, M Tech, D Tech	Cape Technikon
Tourism Management	NC, NHC, ND, B Tech	Cape Technikon
Tourism and Hospitality Management	M Tech, D Tech	Cape Technikon
Town and Regional Planning	ND, B Tech, M Tech, D Tech	Cape Technikon

This process illustrates the lines of communication and decision-making between stakeholders. Their views are articulated through advisory committees and the mechanisms whereby these views are accounted for and given concrete expression in the governance structures of the technikon sector.

A highly complex governance structure regulates co-operation between technikons. Therefore, stakeholder recommendations and sentiments about aligning the career focus and curriculum orientation of the programmes offered have to be mediated creatively. There is a greater propensity for the recommendations from an advisory committee being followed through at technikons that have the responsibility of convening working groups. At an institution such as the Peninsula Technikon, the advisory groups in Dental Technology, Adult Basic Education and Training (ABET), Mechanical Engineering and Radiography are likely to move the decision making process on curriculum issues more significantly than advisory committees in the same programmes at other technikons. Organised and large constituencies have a greater capacity than smaller groups to orchestrate a co-ordinated campaign that would be reflected in the positions taken by the advisory committees. Professional associations and bodies have the capacity to wield similar powers to shape new programmes. Large stakeholder interests such as a national company or statutory professional councils can consistently raise the same issue no matter where the advisory groups are and they would represent the general viewpoint.

The ability to convey valid concerns is important for stakeholders who are based in sectoral or geographical niche areas such as the information and technology sector or the wine industry. Advisory groups that are outside the convening technikon's communications loop would need to render competing claims to an audience that is displaced from where the issues arise. In such instances, it is more difficult for claims to be made by an advisory committee, particularly one that draws upon the unique experiences of provincial or local development.

An understanding of this important dimension of the policy process is essential, especially when information has to be transmitted rapidly through the system so that the strategic adjustments in the planning cycle of organisations can be made. For example, the Cape Technikon is the convening institution for the following programmes: Fisheries Resource Management, Oceanography, Packaging and Printing Technology, and Tourism Management. The Western Cape economy has a comparative advantage and is a niche economic segment for each of these programmes. Assuming that these programmes are offered by some of the inland technikons as well, what consideration would be given to the feedback and recommendations from the advisory committees at each of these institutions? It would be different if parallel programmes were offered at the Peninsula Technikon, because feedback from stakeholders on the advisory committees would have greater validity, and are more likely to be geographically consistent. Nonetheless, there will be difficulties in conveying these insights into tangible measures that are discernible to the initial instigators.

This is just one dimension of the manner in which governance procedures function to provide technikons with stakeholder feedback. These governance procedures appear to distinguish the technikons from the universities, but they are also consistent with the philosophy of education that technikons have consistently embraced. This philosophy aims to educate and train learners in the applied sciences, with the object of contributing directly to practical concerns in the economy and society. Within the technikon sector, this is referred to as a process of *experiential learning*. It implies instilling in students a sense of duty to community service and translating theory into practice by various means including a transfer of knowledge. In addition, it implies providing students and staff with the opportunity to be engaged in applied and practically oriented research and development. The practical expression of this particular educational philosophy is cultivated through a system of experiential learning embodied in the form of job experience placements. These have a wide variety of forms that have reconfigured traditional apprenticeship modes into dynamic education-production formats. Internships and job placements over a specified period

involve the connection between classroom instruction and experience in the workplace. They present an opportunity to learners who have not yet graduated from full-time tertiary education to advance through vocational involvement.

Mirroring similar progress elsewhere in the country, initiatives towards systemic regional collaboration between the public higher education institutions in the Western Cape are being spearheaded by the Cape Higher Education Consortium (CHEC). These initiatives have been taking place for some time. Systemic regional collaboration is generally voluntary and co-operative and proposes to introduce a radical reorientation of the governance mechanisms between institutions. This is considered necessary to establish the legitimacy of the process even though such systems of regional governance do not evoke statutory authority. To a large extent authority will be aligned to the governance systems of institutions that participate in and have a stake in the process. As with governance systems that facilitate programme co-ordination among technikons more generally, the Higher Education Act sets the ultimate conditions of governance between institutions. Nonetheless, it encourages the exploration of facilitative relations between institutions, especially when undertaken at a regional level. Cognisant of the importance of playing a key role in broader types of partnerships with other relevant stakeholders in the higher education system, CHEC has articulated six core principles for embracing co-operation. One principle reaffirms CHEC's commitment to co-operating with government and business in the Western Cape:

'We accept that it is incumbent upon us to give leadership in establishing government/business/higher education 'round tables' where our respective roles and policies can be co-ordinated and advanced in the interests of regional and social development.' (CHEC, nd).

This gives a clear signal of the consortium's intention to become involved in future collaborative initiatives with a broader constituency of stakeholders. It anticipates much of the discussion to form a broader forum that was articulated in several of the interviews conducted during this research process. Perhaps this is why postulates of appropriate governance have been treated so comprehensively in a later document (CHEC, 2002).

THE NATIONAL SKILLS DEVELOPMENT STRATEGY

The final policy imperative, which has a more overt bearing on the technikons as a branch of higher education, is the National Skills Development Strategy. A greater emphasis on vocational and career concerns has meant that technikons have gravitated more strongly towards issues of skills development, training and experiential learning. Where the pedagogy of the workplace and work-related issues have not been adequately theorised, the closer affinity of technikons to these concerns had inadvertently given them an inferior status vis-à-vis the universities.

At a systemic level, the National Skills Development Strategy has proceeded to remove the artificial boundaries that existed between education and training under apartheid. Apart from bearing the effects of severe racial skewing, training was accorded a low status and, compared to the general education streams, was allocated limited public financial resources. Removing these obstacles to the growth and development of learning has also implied a reversal of the low status that had been accorded to the practice of training. Fundamental changes have taken place to dispel this assessment, starting with shifts in policy.

The first has been the development of a national skills development policy in South Africa. The second revolves around the establishment of a regulatory framework. In both instances the incorporation of technikons into the policy and regulatory

framework of skills development in South Africa has been subsumed under broader higher education concerns. It has been subsumed, too, under the concerns that govern the institutions, regulate the qualifications structure and quality assurance programmes. The main difficulty in this area is translating policy into practice. The challenge is to translate the plethora of opportunities that stem from these concrete needs to a situation whereby a larger number of new entrants to the labour market can be placed in positions that give them employment experience. The purpose of the national skills development policy, therefore, is to direct the public higher education institutions – including the technikons – to become centrally involved in the development of human resource capacity in South Africa. The most relevant tool for this is the development of learnerships.

The Green Paper on Skills Development defined learnerships as a mechanism to facilitate linkages between a structured learning environment and the place of work, so that graduates who obtain a qualification, are ready to enter the world of work. While it was argued in the Green Paper that the establishment of learnerships had to be demand driven, there was nothing to prevent the creation of incentives to set the process into motion. The paper specified that structured learning was to take place through fundamental learning, core learning and specialisation. It was anticipated that the specialisation component would take place at an institution such as a technical college or through other accredited training providers.

At the time that the Green Paper was formulated (1997), the technical colleges were perceived as the central public funded labour supply institutions that would provide the specialisation component to the structured learning. In the subsequent five years, the context of the global economic environment and the conditions that have enabled South African enterprises to gradually penetrate markets in technologically value-adding sectors, means that a wider spectrum of education and labour supply institutions can be used appropriately for the objectives set out earlier. The objectives are still absolutely valid but the means of tackling them may have broadened to include many more programmes offered within the current configuration of technikons and universities. It also implies that the new institutions that have been established can serve as vehicles to meet skills development objectives.

The Green Paper on Skills Development attributes a central role to job placements because, without the experience of employment, learnerships would cease to exist. Provided that learning outcomes are achieved, the form of work experience does not matter; it is possible to derive experience from single workplaces or from a cluster of workplaces. Pending further investigation, group training schemes may also be encouraged.

The Skills Development Act (No. 97 of 1998) aims to promote the implementation of policies outlined in the Green Paper. Pivotal to this process is the facilitation of learning through the promotion of learnerships. As was indicated in the Green Paper, the Act reaffirms the need to incorporate structured learning with practical work experience.

The key vehicles identified to drive the process are the Sector Education and Training Authorities (SETAs). The Act, by implication is a licence for SETAs to initiate learnership agreements with accredited training providers that add the highest value to the various elements that make up the learning process, i.e. structured learning and learning derived from practical work experience. For a host of reasons, initiation of this particular aspect of policy implementation has been relatively slow, but it is starting to gain momentum. From the available evidence, there are definite indications that learnerships will develop much further. To demonstrate the potential of learnerships, the paper provides an understanding of experiential learning that is conducted through work experience activities. At the same time, it explains the

assortment of linkages that have been nurtured between a variety of institutions and institutional types, including the technikons.

PROVINCIAL CONTEXT TO PREPARE FOR KNOWLEDGE ECONOMY

In 2001, the Provincial Government of the Western Cape released a White Paper on 'Preparing the Western Cape for the Knowledge Economy of the 21st Century'. The White Paper was developed through a range of stakeholder inputs. Its key objective was to develop the means to channel the forces of globalisation to eliminate poverty and empower the people of the region to lead fuller lives. An important feature of the strategy outlined in the White Paper is the development of the province as a learning region that is capable of competing effectively in the global knowledge economy, by serving as a leading centre for entrepreneurship and innovation.

The task that the White Paper sets out for the universities, technikons and other tertiary institutions in the province, is the promotion of industry-linked teaching and research initiatives. A concern was raised about restructuring the institutional landscape for provincial growth and development to obtain greater integration, co-ordination and partnership between the implementing agencies. It includes national and provincial statutory bodies that operate within the province as well as metropolitan and local government structures, the SETAs and tertiary education institutions. It also includes business chambers and associations, union federations and NGOs.

The paper recognised the fact that higher education is a national competence. It also insisted, however, that an important component of its policy objective was 'To bring together universities, technikons, and other research bodies in the Western Cape, and firms and industry associations to promote a world-class approach to industry-linked teaching and research.' (WP: section 6.4.1)

Furthermore, the paper promoted the development of new, longer and more innovative forms of work placements and internships for people in the process of entering the labour force. This was considered to be essential because it enabled students to gain relevant practical experience, improving their transition from education to work and increasing their prospects of entering employment on a more permanent basis.

Each of aforementioned policy factors or influences are designed to support existing conditions in the formation of industry-education linkages and, as such, have a facilitative dimension.

TYPE OF LINKAGES²

BACKGROUND

Internationally, co-operation between universities, technikons, corporations (businesses) and industries is a longstanding practice. These co-operative and collaborative linkages are strengthened through philanthropic gestures. However, the labour supply chain represents a more concrete manifestation of the symbiosis between the higher education system and the corporate, business and industrial environment.

In the applied sciences in particular (engineering, chemistry etc.), innovative business practices have evolved from breakthroughs that have taken place in academic research laboratories. A host of historical examples can be quoted to illustrate the application of scientific ideas to industrial practice that have extended to innovative exchanges between scientific institutions and industrial organisations.

At present, the interface between academia and industry continues to revolve around information dissemination and innovation, which are identified increasingly as key elements in economic growth and skills development. Co-operation is also increasingly recognised for its role in stimulating flows of knowledge between academia and industry, which impacts positively on the operation of each sector.

Indeed, industry-education links have acquired a prominence on the international higher education policy agenda. Martin (2000) indicate that these linkages may:

- Be considered a strategy to improve the relevance of teaching and research activities in higher education institutions. In this sense, linkages may relate to partnerships around research and development in which useful spin-offs are enjoyed by each of the partners.
- Involve collaborative activities to provide technical assistance to companies or to upgrade existing low-level technology and management techniques. Similarly, higher educational institutions can benefit from useful donations of specialised machines and equipment from enterprises which, under normal circumstances, would either be traded in or scrapped.
- Provide staff and students with opportunities to become familiar with state-of-the-art industrial science and technology and management systems and an understanding of the pressures confronting industry. Many case studies formulated at the Harvard Business School stemmed from linkages and opportunities that were presented to provide credible solutions to specific industrial or business problems.
- Lead to improved interaction of higher education departments and employers, resulting in changes to specific degree programmes so that they more closely resemble the technologies and practices that are employed in the workplace.
- Produce improved training and employment prospects for students.
- Enhance the image that higher education institutions have within the broader community about their contribution to the economy as a whole. These considerations are important, since they allow the higher education institutions to build capacity to continue making the contributions deemed necessary by the broader community.

Linkages that incorporate the above features can be developed along a wide front of activities, particularly within technikons, as well as institutions that are gravitating

² The sections on 'Background', 'Institutional Profiles' and 'Existing Technikon-Industry Linkages' were drawn from a preliminary report written by Charlton Koen.

towards becoming more developed institutes of technology. In all cases, linkages embodying elements of research and development activities, technological innovation, organisational learning and consultancy work, as well as teaching and curriculum development activities, can evolve.

Less structured linkages are also possible. They can include generic interactions that involve industrial support to students, mutual visits, jointly organised meetings, conferences and seminars, and industry representation on governing boards of higher education institutions.

INSTITUTIONAL PROFILES

The following institutional profiles of the two technikons provide a brief insight into their internal configurations and the institutional context for the formation of broader linkage and placement issues.

CAPE TECHNIKON

The Cape Technikon has indicated clearly its intention to expand its research and post-graduate outputs. During the period 1990 to 2000, there was a steady increase in the number of graduates. By embracing the notion of lifelong learning, the Cape Technikon aims to eventually become a University of Technology. In 2001, 12 517 students were enrolled at the institution.

The effort to create niche areas in six distinct faculties of teaching and learning has resulted in a positive attitude towards the standing of the institution and its capacity to confront the challenges of change. The institution has also emphasised the use of interactive learning mediums to support learning in various ways, particularly electronic, or e-learning, which was used by 7 457 students in 2002. This has a direct bearing on the development and growth of the Western Cape.

Through its strategic planning and evaluation processes, the Cape Technikon has identified the following six challenges to meet its strategic objectives:

- Reviewing and revising the institution's programmes to ensure that they are responsive to the economic and development needs of a changing society;
- Establishing a quality management system and improving learner performance;
- Increasing the volume of problem based research;
- Establishing and nurturing partnerships and community service;
- Creating and nurturing an institutional culture for equity of opportunity for all students and staff; and
- Promoting lifelong learning by increasing and broadening access.

Successfully meeting these challenges will require some radical adjustments within the institution.

Between 1990 and 2001, the overall number of qualifications awarded to graduates increased by 44%. The award of B Tech qualifications witnessed a more rapid increase (86%) during this period. In order to expand its internal capacity to offer programmes that are in line with its mission and objectives, the Cape Technikon plans to increase the proportion of staff holding Masters and Doctoral degrees from its 2001 levels of 38.28% and 7.26% respectively.

Since 1994 – following trends at other historically white institutions, especially technikons – the proportion of black and women students has been increasing steadily at the Cape Technikon. In 1995, 31% of student enrolments were blacks and women, but by 2001 this had increased to 57%. These changes were reflected in the

shifting gender profile of the institution: in 2001, female students made up 48% of the student body. However, the relatively low proportion of black staff in academic positions, combined with the relatively low proportion of black and women staff in managerial positions, remains a challenge that has to be overcome as the institution strives to create an environment that is more representative of the community it serves.

PENINSULA TECHNIKON

The Peninsula Technikon has several strengths: stable management, a financial surplus and a steady flow of students. In addition, it is in the process of improving its academic programmes, infrastructure and research capacity. The Peninsula Technikon aims, in particular, to focus its institutional efforts on increasing student enrolments in the faculties of Engineering and Sciences, but not in the Faculty of Business. Based on institutional planning projections, enrolments in the Faculty of Business should decrease in favour of increases in the other two faculties. Conversely, infrastructure provision in Business and other faculties should improve in the short-to-medium term in order to stabilise and provide for controlled growth in student enrolments, while improving the resources at the disposal of staff and students.

The institution is developing benchmarks for improving institutional efficiency. It has targeted co-operation with industry and other institutions as the most important mechanism for improving opportunities for students and staff. Staff training, upgrading of staff qualifications and staff development activities have been targeted to further improve the institution's performance. To enhance institutional efficiency the technikon has identified a need to improve quality assurance measures and to provide opportunities to widen staff access to resources and capacity development.

Approximately 8 400 students are enrolled at the Peninsula Technikon. The largest proportion of students are in Science and Technology programmes (48%). In 1999, 27% were in Business programmes and a further 25% in Humanities programmes. Interestingly, in 1999, most students were female (54%) and African (62%). What is of concern regarding student profiles, is their academic performance, which affects throughput and retention rates. The retention rates at the Peninsula Technikon are relatively poor: 20-25% drop out annually. For undergraduates this average is sometimes 25-30%. For the institution as a whole, roughly 17-20% of registered students graduate each year. About 70% pass courses each year. Clearly, academic performance and learner outcomes require significant improvement.

EXISTING LINKAGES – PENINSULA AND CAPE TECHNIKON

The inclusion of industry representatives on the councils at both institutions represents the central formal link between technikons and industry. Both technikons made an earnest commitment to promote, expand and strengthen links with industry through their co-operative education units. This commitment also extends to providing for the participation of co-operative education representatives at a senate level.

The organisation of technikon-industry links occurs at several levels. At the most basic level, co-operative education units and academic departments are involved in experiential learning programmes. This involves canvassing placement offers from sources in industry and linking placement officers and staff members to companies of different sizes. This process largely excludes companies in the informal sector and small business organisations. Peninsula Technikon (2002) describes these activities as follows:

During the period that the students are with their employers, they work as regular employees or employees-in-training. Academic staff visit them to monitor their progress and to assess whether work and studies are complementing each other. Students are given a logbook for the purpose of recording progress achieved and work done. Their supervisor at the workplace monitors the regular reports written by the students and the employer. These reports form part of the students' academic record.

A further key link between departments and industry centres around the activities of advisory bodies. Advisory structures are viewed and may be described as evaluation bodies that comment on programme design, student performance, industry needs and the match between training requirements and labour demand and supply.

Other structured links include those between the technikons' academic departments and professional bodies (which include industry representatives). These linkages play a role in programme accreditation and quality assurance. Essentially this involves monitoring staff performance, and establishing the degree to which technikons conform to external expectations, by determining the quality of institutional outputs required to comply with these expectations.

These linkages largely structure the processes and content that shape student learning within technikons. The type of learning and way in which linkages with industry are organised is determined by internal and external policy orientations. For example, the present emphasis on learning outcomes is inter-linked with national policies in the labour and education arenas. The decentralised manner in which these linkages are organised within technikons involves a combination of bottom-up and top-down strategies but includes efforts to devolve responsibilities to lower public administration support levels.

External links also exist with representatives from industry and are often structured to obtain research products and elicit the benefit of research, technological or managerial innovation. However, it appears that, at both technikons, research acquisition and exchange are given less emphasis in the links that have been developed. Both need to devote considerable future energy to improving research capacity and strengthening research ties with industry and the community.

Each technikon has constructed important further education and training (FET) linkages with community organisations. They appear intent on investing heavily in lifelong learning and adult learning activities. Two motives support this stance:

- To increase the total student enrolment, and
- To promote the image of technikons as institutions that contribute to community development.

While on average, technikons have performed admirably on both counts, linkages with the broader community technically still focus on placement opportunities. There is insufficient emphasis on the importance of exchange of programmes related to educational and service delivery. Nonetheless, investment in the growth of student enrolments and community development at each institution forms a key component of efforts to contribute to the Western Cape regional economy. This has involved establishing linkages with NGOs, community organisations and offering training programmes that improve work performance, job knowledge and individual skills.

One way this can be promoted is through skills development and upgrading, and by establishing delivery sites and programmes for SETAs, particularly those that have regional bases in the Western Cape. This has the potential to include many different types of training: on-the-job training, as well as training for career advancement, pay increases, mobility, improved productivity, multi-tasking, job transfers, etc. According to our evidence, the Textile SETA and the Peninsula Technikon, as well as the Metal

and Engineering SETA and both technikons, have developed linkages along these lines.

Both technikons have established, or are in the process of establishing, linkages with SETAs. The aim is to support enterprises with the delivery of education and training programmes when required, thus contributing to the Skills Development Strategy. SETAs, of course, provide grant disbursements to companies where training has been conducted (either in-house or by other means where companies have experienced difficulties in training in house).

Existing linkages with industry are varied and range from personal, informal and non-statutory, to structured and statutory. Some appear to be long lasting, others less permanent. Mechanisms include advisory committees, liaison committees, NGOs, community organisations and professional associations. There is also the cultivation of linkages with SETAs, particularly those that have become operational and active provincially. A range of associations has evolved from these initiatives, some with small and medium sized enterprises, and others with large and established companies. Some involve formal and traditional learners, others embrace non-traditional learners, and others focus on quality assurance and accreditation oversight. These bodies include professional associations and structures such as standards generating bodies (SGBs), quality assurance panels (QAPs) and education training quality assurance bodies (ETQAs).

- **Need to reflect on changed environment especially SETAs.**
- **Need regional annual forums to manage the existing policies and multiple practices and serve as vehicle to strategise and manage a longer-term human resource development trajectory.**
- **Investigate use of existing statutory bodies**
- **Role of Dept of Labour in facilitating greater alignment between SETAs and higher education?**
- **Need regional labour market information system**

- **Need multi-lateral dialogue between HE and various government departments.**
- **Potential role of NEDLAC especially Labour Market and trade and industry chambers.**

LINKAGE ISSUES AFFECTING TECHNIKONS

The following section of the report explores the organisational levels at which linkages have been established successfully between technikons and various stakeholders, but principally between technikons and the segment referred to as 'industry'. The first of these are the advisory committees, but the analysis provides reflections on linkages that have acquired a distinct operational format. These linkages take two forms:

- informal linkages which have been cultivated at the behest of individual effort and interest, and
- linkages which are being propagated as a result of changing policy affecting education and training in South Africa.

SETAs are at the cutting edge of this new policy, while higher education institutions such as technikons and universities are only beginning to come to terms with it. The technikons, however, are exhibiting a greater capacity to engage constructively with SETAs. The report attempts to document the unfolding process as accurately as possible and, by doing so, to outline the conditions that may retard or advance industry-education linkages.

ADVISORY/LIAISON COMMITTEES

As indicated earlier, advisory committees are not vested with decision-making authority. Advisory committees merely provide recommendations to the authorities within the governing structure of the technikons about issues concerning the external environment, specifically the labour market. Ultimately, this has a bearing on the curriculum and graduate outputs that emanate from the technikons.

STAFF VIEWS OF ADVISORY COMMITTEES

Many of the staff members who were interviewed (17 out of 19) identified problems with the way advisory committees functioned. The most important of these was the infrequency of meetings and difficulties with obtaining effective feedback from the advisory committees.

Scheduling of meetings to conform to the timetables of participants also presented some difficulties. The impression given by some staff members was that advisory committee meetings were merely routine. Other interviews with staff members indicated that advisory committees represented an important vehicle for facilitating student placements on job experience programmes, feeding into curriculum issues, and providing a mechanism for strategic planning issues. The issue of linkages that extended into other institutional forums did not necessarily emerge from participating on the advisory committees, but appeared to be mediated by a wider set of relationships.

All the staff members interviewed at the two institutions maintained that feedback from the advisory committees to the institutions was vital and had to be undertaken with greater regularity. They suggested, too, that information had to be exchanged between all members of the advisory committees. Included in the suggestions by staff for reform were requests for stronger co-ordinating structures and perhaps the establishment of regional forums. Such suggestions, however, were based on greater involvement and representation by senior institutional staff, including strategic management, at such forums, rather than participation from lower level officials. Some staff members even raised concerns about the difficulties of obtaining adequate representation from industry, questioning whether the general needs of

industry were not being overtaken by the needs of specific firms and companies within a sector. It often appeared to be difficult to distinguish between the many interests presented to advisory committees and the overall interests of the sector for which graduates were being trained.

Notwithstanding the above, the participation of representatives from industry on the advisory committees was generally skewed. It appeared that a small number of representatives, mainly with connections to professional associations and boards, had a greater strategic inclination to learner-centred activities and also exerted greater authority. Overall, it appears that the advisory committees are perceived to embody different functions. Some staff view them as essential for addressing general issues. There was consensus that their focus should be refined so that they become more closely integrated with institutional activities. Finally, some staff even suggested the possibility of creating other types of feedback mechanisms to fill existing gaps, thereby increasing student awareness of the issues that are central to an enterprise economy.

The significant changes that have occurred more recently with respect to the changing composition of the student profile presents many challenges to technikons and their staff members, as communicated in the following transcript from an interview:

'Firstly, you must remember that the profile of the student has changed so much over the years. The students who come here now have never been in touch with industry or engineering as mechanical engineering, and therefore we run in our daily programme a slot for life skills. We prepare them for industry. We prepare them for interviews, CV writing skills, how to conduct themselves, ethics and things like that. Also, I personally have sessions with them, with the students to prepare them ... I also talk to them and tell them what it's like, what is expected of them, what is expected of the company what their responsibilities are, and so on. Sometimes I even have students at my lectures, who have been in industry, to talk to the class and let them share their experiences. What I also do at the end of every semester, I get all the students who must do oral presentations and I have it here at the Technikon for two days and invite the other students to come along and hear about the experiences of the students'.

The interviews with staff members highlighted the fact that the main benefit of their engagement with the advisory committees was the maintenance of informal and formal networks. The committees were not perceived as effective vehicles for signalling changes in the curriculum requirements of the labour market. Staff members did not feel that they were able to use advisory committees as a strategic instrument; instead, the imperative of supporting the placement of students overrides any strategic obligation. Given that presently the advisory committees are the predominant mechanisms for communicating with industry, the limitations identified by staff pose challenges to enhancing the responsiveness of technikons to changing curriculum requirements.

EMPLOYER VIEWS OF ADVISORY COMMITTEES³

A national training officer in a large national retail chain indicated that the advisory committees generally functioned as a vetting mechanism for forthcoming courses

³ Five interviews were conducted with representatives of private business firms. The firms were located in the retail, chemical, textile and services sectors. The interviews were selected on the basis of participation by representatives from these firms, most of whom were linked to the personnel divisions of the companies that participated on advisory committees at either the Cape Technikon or the Peninsula Technikon.

that were being presented by the institution. Business was represented in order to signal organisational changes and needs that companies were facing that would impact on student training at the technikons. The interviews emphasised the fact that the committees did not have the power to influence curricular changes of specific subject offerings. It appears that impending changes to the curriculum were merely presented as outlines to the advisory committee. Employers did not appear to have a comprehensive idea about what technikons sought from the curriculum. They did however exhibit certainty about their own requirements.

Curricular changes from the experience of employer representatives on advisory committees appeared to take place at a relatively slow pace, particularly in certain programme fields. It was further indicated that student involvement on such liaison committees has an important role to play in introducing new ideas, thus ensuring participation from the direct beneficiaries to these initiatives. Another point raised was that the infrequency of committee meetings made it cumbersome to keep abreast of changes and follow through with implementation. At the Cape Technikon, for instance, advisory committees for some subjects convened twice a year, whereas others convened only once a year. Despite irregular attendance at these meetings, the advisory committees were regarded as no more than symbolic gestures for processes that were complicated to understand. Certainly, most members who participated on the advisory committees were of the opinion that they were able to make a contribution, whereas those who did not participate regularly criticised the follow-through and periodic changes to the membership of the advisory committees. This, in itself, limited effective follow-through. In any event, lecturers were the ones who usually introduced motions for a change of content and these were often motivated by an attempt to incorporate global developments into the prevailing content of a course. One example of this was an attempt to incorporate practical cases relating to globalisation and Africanisation into the Business Management course. The course lecturers provided the motivation for this need, which they requested the advisory committee to vet.

At least two of the training officers interviewed suggested a problem regarding feedback to the advisory committees' recommendations. The lack of representation and the effectiveness at which report-back procedures on advisory committees takes place were viewed as important considerations for strengthening these bodies in the future. It was essential for all advisory committee members to be kept up to speed. One respondent even suggested that it might be opportune to consider some degree of student representation on the advisory committees, to broaden the scope of influence by confronting members with the predicament facing students making the transition from education to employment.

But even when changes to the curriculum are approved and the advisory committees have been instrumental in promoting the changes, these revisions are limited by the conditions of registration of the technikon as well as the quality assurance legislation governing these institutions, particularly through the Committee of Technikons Principals (CTP). These conditions predate the present higher education policy framework but are likely to be incorporated within its operational activities. Therefore, any curriculum changes have to be made to suit industry but also have to fall within the parameters set by the Higher Education Quality Committee (HEQC). Recognition also has to be given to the fact that the employers who are party to the advisory committees represent a wide spectrum of industries. These can include government departments, local government departments, parastatals such as Eskom and Telkom, as well as a more diverse representation from the private business sector. Each of these constituents, in turn, have unique regulatory criteria and notions of what core and essential standards are, even in fields that are marginal to their core operations.

It is essential that consensus is reached for an advisory committee to arrive at an opinion and put forward its recommendations. One training manager praised the fact that advisory committees had been successfully constituted as forums at which representatives from the business community were able to meet each other to discuss issues of broader mutual concern, particularly among firms that were competing in the same industry. Previously, such employers would be reluctant to reveal their activities and specific problems to competitors. Problems with workforce training, labour supply and quality were kept out of sight of competitors. The advisory or liaison committees served as a starting point for broader forms of collaboration, even among competing business interests because societal and global issues affected them equally.

SOME CONCLUDING REMARKS

A number of issues were raised in the interviews conducted with industry representatives. These issues are relevant for strengthening the existing linkages that have been established between the two technikons and industry in the Western Cape. An assortment of objections has been levelled against the effectiveness of advisory committees. Apart from the shortcomings regarding frequency of meetings and continuity, our overview suggests that their deliberations on curriculum matters are unable to meet the needs of industry.

Advisory committee membership is drawn largely from representatives who are centrally involved with issues of labour demand within business, labour and civil society. Labour and civil society organisations have first-hand experience with the direct impact of excess demand and excess supply of labour. It is no irony that institutions of labour supply (particularly the technikons and the universities) are often accused of not linking up adequately and incorporating these interests within institutional forums. The problem that confronts the present situation is that because the advisory committees are emphasising operational issues, strategic issues being ignored.

OTHER FORMS OF INDUSTRY-TECHNIKON LINKAGES

LINKAGES BETWEEN TECHNIKON STAFF AND INDUSTRY

Staff at both institutions indicated that the links they had with industry were growing constantly. Some staff members indicated, however, that the level at which these links were forged within the institution was often problematic. The reason for this was that the stronger links tended to be forged between individual academic staff and people in relatively junior positions within firms, many of which tended to be small to medium-sized companies. Large companies were, however, beginning to recognise the advantages associated with co-operative forms of education. A possible remedy would be to include senior academic staff and senior corporate management in structured relationships around areas of common concern.

Many of the academic staff expressed a concern that technikons were not able to respond as rapidly to changing labour market needs as they should be. The major factors attributed to this shortcoming were the delays in implementing curriculum innovation and the relatively slow pace in affecting changes to national qualifications. While recognising the necessity to respond flexibly to the demands of industry on a systemic scale, they were constrained by degrees of inflexibility at an institutional level, particularly in terms of interpreting policies. For most staff, institutional inflexibility was out of tune with an external environment characterised by competitive practices and rapid change. A contributing factor was the laborious and resource-intensive process of managing curriculum change.

Further confirmation of curriculum linkages with industry was the close resemblance between the content of courses and programmes at both technikons and the core focuses in professional associations and bodies. Similarly, the professional bodies had played a key role in quality assurance obligations, which compelled them to remain alert to the labour market requirements of students and the labour demand needs of employers.

LABOUR DEMAND AND SUPPLY PROBLEMS

The training manager in the retail sector suggested that firms in the sector continually had to identify new sources of labour due to the rapid turnover of staff in particular occupational categories. The particular retail company had devised a systematic training programme, which spanned the occupational spectrum and included elementary as well as more highly skilled workers. But even the existence of training programmes for cashiers and the prospect of further training for those willing to develop a career at the company was not entirely successful at inducing staff to remain within the employ of the company. Neither was it sufficient for it to have a reputation as a nationally based company at which employment tenure was more secure and employment conditions were generally better than at local general dealers. It was not uncommon for staff losses to be recorded after costs on training had been incurred, and this was a source of serious concern to the company. The company indicated that most staff had an 'employee mentality' and the challenge was to identify staff who exhibited greater loyalty and intention to stay. The sentiments expressed tended to fuse training issues with labour relations issues.

The interviews also demonstrated the existence of labour oversupplies elsewhere. The labour supply problem featured prominently in the chemical industry, with the oversupply corresponding to high-level technical and professional occupational positions.

For the chemical industry, the interview was conducted with the head of the analytical chemistry division of the company. The company itself is a major supplier to the pharmaceutical industry and its major clients are based in South Africa as well as in North America and Europe. In order to service the overseas market, the company is subject to rigorous regulatory guidelines, tailored to conform to the supplier guidelines of the US Drug Administration. According to the respondent, roughly 950 standard operating procedures have to be followed in the manufacture of various chemical compounds and raw materials. The particular division, therefore, employs mainly analytical chemists and analytical technicians. The qualifications of the analytical chemists and other scientists employed at the plant range from MSc's to PhDs.

Most of the analytical technicians who are employed at the company were trained at the firm to undertake specific laboratory work under strict supervision. Not all the technical staff had acquired a technical qualification before being employed, but there are opportunities to do so through a generous study scheme. Consequently, most of the technicians who had not yet acquired a national diploma or comparative qualification had commenced studying either through the Peninsula Technikon or through the Cape Technikon. The company has a contractual arrangement with all staff members who are beneficiaries of the company-subsidised study programme (the company finances all tuition and study material fees and grants study leave to employees sitting for examinations). According to this arrangement, two years of service have to be rendered for each year that the firm subsidises the academic qualification. This process had been established to improve the qualifications of laboratory technicians, but there was, and is, a relative oversupply of analytical chemists. The interviewee indicated that the firm does not experience problems hiring high-level skilled staff because there was intense competition to secure a

position at the company and therefore only those with the best qualifications and an appropriate match in experience were able to secure a post.

It is important to recognise that the matching of demand and supply of skills has to be considered in relation to the specific department or division of the particular firms being analysed. In the context of high demand in certain fields of the employment spectrum, why is there a persistence of over-supply elsewhere? Are the employers not transmitting information to the education providers or is the labour market not doing so effectively? Who is not listening to whom?

In terms of inter-firm competition for skilled labour, firms that do not invest sufficiently in employee training are likely to poach staff directly from enterprises that do. This example of market failure is a cogent reason for the introduction of general training levies on all firms. However, on their own, levies and training programmes do not guarantee a stable workforce. A combination of factors, including improved working conditions, is necessary for stability.

BUSINESS SECTOR STAFF INVOLVEMENT ON TECHNIKON PROGRAMMES

Some departments appear to have cultivated an ongoing relationship with past students and alumni. These links appear to have revolved around the content of the course, but in some instances have been extended to include broader issues of professional practice. They are particularly prevalent in the fields around which these past students have become associated as practitioners themselves. Sometimes they are deployed as lobbyists within the professional body with which they are associated and tasked with promoting specific innovative ideas when necessary. They are also sometimes tasked with testing innovations that are being considered for a particular course offering at the technikon. It is not uncommon for them to be invited to present occasional lecturing duties at the technikon, either as occasional speakers or as part-time lecturers. In this respect, the training manager interviewed indicated that he had often been involved in making presentations on topics such as developing and presenting curriculum vitae.

SOCIAL INVESTMENT ACTIVITIES

Direct work experience programmes and initiatives are designed to enable participants to sharpen their requisite skills and to understand expectations within the world of work. In addition, educational institutions occasionally approach private sector enterprises for philanthropic support, in the form of subsidies for particular functions held by the educational institutions, such as graduation ceremonies. In many instances employers have been willing to oblige. For example, at one of the technikons, a retail company agreed to donate a prize and a shield for the most promising final year student in Retail and Marketing.

EVOLUTION OF BUSINESS ENTERPRISES AND TRAINING NEEDS

Most of the respondents conceded that the advisory committees had presented employers with a forum that had not been available to them previously. And while it appeared that the technikons had put great effort into establishing these forums, industry would have been comfortable with a summarised version of the concerns they were encountering. One of the respondents from industry stated that, in the past, employers were extremely guarded and secretive about disclosing information to each other. However, the opportunity to participate in advisory committees exposed them to a situation in which their particular problems were not unique to a specific industry or sector and enabled the exchange of ideas for resolving them – something that was not available in the past. It was regarded by a few of the employer representatives as an institutional arrangement that should be maintained.

While industry education forums can contribute to new initiatives through which mutually beneficial linkages can be developed, weak or non-existent linkages can induce private sector organisations to start their own internal training programmes. The urge to do so can become more pressing when the traditional institutions of labour supply cannot provide resources in specific fields despite the demands for such human resource requirements being registered within the labour market. This feature is not as generalised within the South African context as elsewhere. Private training providers often attempt to fill gaps by providing training in niche areas which cannot be undertaken adequately by public educational institutions. A similar situation has been observed in the United States:

‘Since 1970, the Rand Corporation has offered a PhD in policy analysis. The Wang Institute of Graduate Studies, established in 1979 by the Wang Corporation, offers a master’s degree in software engineering. The College of Insurance, established in 1947 by the Insurance Society of New York, offers an MBA and a BBA with a major in insurance, a BS in actuarial science, and an associate of arts degree in occupational studies. The Arthur D. Little Management Education Institute, established in 1964, offers an MS in administration and management. At least eighteen organizations have established accredited degree programs, which they offer to employees as well as to the public at large.’ (Powers, et al, 1988: 245)

The radically diverse and incessantly mutating character of enterprise structure and organisation definitely sets a challenge for higher education to keep abreast of these developments by mirroring their content and orientation. This requires much more than merely a response, because responsiveness is often a reaction to a process over which there is relatively little control. The real challenge for the technikon is to devise a proactive strategy that embodies planning, co-ordination and a clear time frame in which to attain strategic objectives.

SOCIETY-WIDE LINKAGES INVOLVING TECHNIKONS

The establishment of SETAs with powers greater than those accorded to previous institutions of intermediation of labour supply and demand functions has meant that policy has been broadened to incorporate a host of converging concerns. These concerns, as outlined at the beginning of the report, encompass the broader spectrum of higher education institutions becoming more responsive to the environment beyond them. In recognising the importance of the communities that it supports, the educational institutions have, in the final instance, had to demonstrate responsiveness to critical labour market considerations.

The technikon sector has, for a longer period, cultivated this linkage with the labour market and in a more overt manner too. The existence of SETAs has, however, demanded new initiatives from higher education institutions, including technikon. Shifts in labour market demand trends can no longer be extracted directly from concerned employers interspersed within a sector and sharing a common interest with the outputs of educational providers. SETAs are beginning to provide these inputs and beginning to systematise broad sectoral trends on the basis of systematic planning, effective co-ordination, and scrutiny and evaluation. While these factors present major challenges for educational institutions to establish stronger working relationships with institutions of training intermediation, they open up new opportunities and possibilities to contribute to the skills and training development process that has begun in South Africa since the introduction of new government policies and strategies.

SETAS' VIEWS OF LINKAGES WITH TECHNIKONS⁴

The interviews with staff members at the five SETAs highlighted a wide variation in each of the sectors in which the SETAs were located. This variation is evident through the structure of the industries within the ambit of each particular SETA as well as through the immediate focus areas that have been adopted by each specific SETA.

SETA ORGANISATION

Four of the five SETAs appear to have had the historical advantage of starting on the foundations of industrial training board structures and capacities. They are the Chemical SETA (CHIETA), the Textile SETA, the Manufacturing and Engineering SETA (MERSETA) and the Media, Advertising, Publishing, Printing and Packaging SETA (MAPPP). In the case of MERSETA, five former industrial training boards were consolidated to form the SETA. While the organisational and resource inheritance did not directly match the industrial and sector boundaries that were included within the confines of particular SETAs, the resources that were transferred from the industrial training boards mattered a great deal. The assets and obligations transferred involved a change in legal ownership and a subsequent shift in functions. All the assets and obligations of the industrial training boards were, therefore, incorporated into the new SETAs and could be used at the discretion of the SETA.

SETAs that were not preceded by the existence of industrial training boards had to start afresh. However, SETAs that were established in relatively highly skilled, high technology and capital intensive sectors with relatively large enterprise structures were not constrained or disadvantaged to any great degree. It appears that SETAs that could not be launched from the base of a dissolving industrial training board and were located in sectors that exhibited structural attributes such as an amorphous workforce profile, lower technology and relatively lower capital intensity, with a wide dispersion in enterprise sizes, were placed at a significant disadvantage. Strong leadership is manifest as an additional factor that has contributed to the relative strength and success of SETAs to carry out their functions in relation to skills development. The elements of good leadership appear to be vested in staff with a record of experience in enterprise organisations, in parastatal institutions, in the organised labour movement and in some public sector institutions.

There is no available recipe to dictate the chances of success or failure of the leadership embodied within the SETAs. It appears, though, that where both the employer and trade union constituency have intervened to provide support and direction to the SETAs in addressing the challenges around skills development, clear objectives have been placed swiftly on the agenda. While all of these initiatives may appear to conform to legislative prescriptions, there is plenty of room for each of these institutions to develop new strategic initiatives and postulate manoeuvres that have not yet been contemplated but which will respond to peculiar needs. The skills development legislative framework has certainly been the guide, but each of the interviews depicted a situation where similar imperatives were leading to a diverse set of responses. Some of these were tailored in collaboration with particular educational institutions and technikons in particular. Some had done so with greater involvement from enterprises in the sector. It appears from one of the interviews, that

⁴ Interviews were conducted with individuals from five different SETAs. Four were face-to-face-interviews (Textiles, Chemicals, Metal and Media, Advertising and Publishing) and one was a telephonic interview (Insurance). In addition to these, an interview was conducted with the assistant general secretary of a national trade union who is the chairman of the board of one of the five SETAs, the Clothing and Textile SETA.

the SETA itself would steer the process – with or without the involvement of public higher educational institutions.

ENTERPRISE STRUCTURE

A critical issue concerns claims on the skills levy which are reserved for enterprises that have undertaken skills training. Enterprises from a particular industry or sector within which a SETA operates, that contribute to the skills levy but make no claims, would have their potential claims set aside by that SETA for discretionary purposes. This provides the SETAs with an opportunity to explore linkages that have a particular training outcome with specific higher education institutions and training providers. This can even take place for large companies that undertake training, particularly where their own training costs can never be recouped from returns on claims to the SETA, since the level of their own allocation to training is substantially higher than the skills levy paid. These companies would be placed in a position where the SETA can be bypassed. Where enterprises have decided to adopt such a posture, unclaimed levies can accumulate to a sizeable amount. Therefore the Skills Development Levies Act by nature provides the SETA concerned with a significantly higher degree of resources than is actually allowed because unclaimed amounts find their way into discretionary funds which the SETAs can spend for specific purposes.

The Textile SETA, in particular, has followed this route and makes greater use of its control over discretionary funds to establish relationships with educational and training institutions. It also uses its discretionary controls to actively support small-scale enterprises, particularly in the clothing sector, not all of whom would be contributors to the skills levy. In contrast, other SETAs have proceeded independently from the educational institutions as is the case of the Insurance SETA (INSETA). There may also be SETAs which exhibit the divergence that appears to characterise the MAPPP SETA (refer to section on Independence and Divergence).

CLOSER COLLABORATION AND PARTNERSHIPS: CONVERGING SETA/TECHNIKON INTERESTS

The view emanating from key informants and participants in the Textile SETA is that technikons are regarded as vehicles for significant skills development activity. Consequently the Textile SETA has been active in developing Centres of Excellence at selected technikons in particular provincial regions. The SETA subsequently transferred the entire assets dedicated to training that it inherited from the Clothing Industrial Training Board to an envisaged Centre for Excellence in Clothing Technology and Design at the Peninsula Technikon. This transfer involved machinery, equipment, computers and stock. Through its discretionary funding, the Textile SETA provides a grant or subsidy of R3 million per annum to the Centre for Excellence at the Peninsula Technikon⁵. This is complemented by a government grant of R9 million to the Centre for Excellence. Similar arrangements have been organised by the Textile SETA with technikons elsewhere in the country, and in particular with the Natal Technikon and the Wits Technikon. The technikons where these partnership linkages are being developed are being conceived as a training and education hub, since the training, quality assurance and accreditation is being centralised and conducted from one venue in the province⁶. In addition to these, the SETA provides bursary support for students to attend courses over a three-year programme that qualifies them as technologists. The qualifications obtained are meant to be applicable to the high-level labour demand needs of firms in the sector.

⁵ Interview – Mr André Kriel

⁶ Interview – Ms Priscilla Davids

Apart from its links with the technikons, which appear to be stronger than for those with the universities, the Textile SETA has nurtured linkages with both the universities of Cape Town and Natal to train members from the sector to be skills trainers at enterprises in the sector. Students on these programmes also receive bursaries from the SETA. Furthermore the lack of quality assessors in the sector has encouraged the SETA to start an initiative with Rand Afrikaans University (RAU), to develop an assessor-training programme that is delivered through distance learning. In 2002, 45 assessors from factories throughout the sector were enrolled on the programme. RAU has assembled a broader suite of qualifications to which the assessor-training module can be appended and will constitute a module in an ETDP diploma, which the university will eventually award on completion of prescribed modules.

Previous research by Bhorat and Lundall (2002) showed that the textile industry had the lowest skills co-efficient within the manufacturing sector. (The skills coefficient provides a measure of the ratio between the total workforce and the number of skilled employees.) The occupational categories taken to represent skilled employees include managerial, professional and technical staff. On the basis of these findings it is not surprising that the Textile SETA has emphasised increasing the skills composition of the SETA by making an additional effort to command discretionary funds for this purpose. From the interviews we conducted we were left with the impression that initiatives to accelerate the skills profile of the sector have come largely at the behest of the actors in the industry and the Textile SETA. The interview with a representative from a large textile manufacturing company confirmed that the training budgets for some companies are significantly higher – often by several factors – than the amounts they are likely to be reimbursed by the SETA when rendering claims. But even for big companies, where the amount spent by the company exceeds the amount that will be reimbursed through the SETA, it still makes good business sense to submit claims, because the reimbursements can be used to finance important training needs at the enterprise such as adult basic education.

Certain concerns were registered across a range of departments within an enterprise. The general sentiment expressed by both employer and SETA representative was that their industry was concerned about the type of graduate that was emerging from the technikons. They raised concerns about graduates having insufficient practical experience and lacking a holistic understanding of the way factories function.

The large incidence of small enterprises, particularly in the clothing sector, has prompted the Textile SETA to make advances into the SMME sector where unregistered sub-contracting operations are just as pervasive as formal sector operations⁷. Many of the SMMEs are located in the cut, make and trim sector where they operate as sub-contractors to large retail enterprises and clothing chain stores. The intervention to support training in the SMME sector is to address the fact that training is heavily skewed in the favour of formal sector enterprises.

The Textile SETA has begun running pilot programmes around the development of supervisors, management development and machinist maintenance programmes. The training instructors deployed on the programme are paid by the SETA and the programme costs employers nothing. An increasing number of small-scale employers are beginning to recognise the value that is being added to their operations through the pilot programme. An example of this is the machinist maintenance programme. Many small-scale employers were faced with continuous production losses and had to attend to repairs on machines virtually every week. Using the SETA trainers,

⁷ Interview – Ms Priscilla Davids

machinists at factories on the pilot programme were taught how to replace broken needles and conduct regular maintenance checks on sewing machines. This led to a dramatic turnaround in idle time and significant improvements in productivity. The success of the programme has encouraged the SETA to start undertaking training around work study methods and techniques.

Clearly, the Textile SETA can perform initiatives such as these in conjunction with students at a technikon. This is particularly relevant for students who have difficulty securing job placement opportunities. It does not necessarily have to be in response to the above scenario, but the opportunity to devise creative interventions, which fit well into specific labour demand requirements, has to be explored further. Such interventions are always useful when started along relatively informal boundaries. Over time, such seamless boundaries will begin to resonate around more enduring relationships, linkages and partnerships.

Similar initiatives appear to be associated with the Manufacturing and Engineering SETA (MERSETA) and, although the skills base is significantly different from the textile sector, discretionary funding is used to provide bursaries for learner technicians to attend technikon programmes. Because MERSETA is the largest SETA in the country, and caters for over 6 000 employers, it has significant regional concentrations of activity. In fact, 90 engineering students are supported in this way in the Western Cape. These students generally span the FET band and, to some extent, are found in the HET band. Training and qualifications are generally in the fields of information technology, management and engineering.

However, the major issue for the SETA is to provide support to employees in the sector regarding recognition of prior learning (RPL) and providing programmes in adult basic education and training⁸. The activity around RPL is considered essential to provide previously qualified artisans with a platform to upgrade their qualification towards higher craft and technician skills, such as skills required by millwrights. RPL has elicited a rapid response from artisans to have their skills upgraded and to be retrained in the particular field, as well as in new fields characterised by upward trends in labour demand.

Despite the Manufacturing and Engineering SETA embodying, in South African terms, some comparatively high skilled manufacturing sectors, such as electrical machinery and vehicle and automotive components (in contrast to textiles) (See Borat and Lundall, 2002), employers tend to misunderstand the concept of ABET. Therefore, employers have not used ABET effectively to upgrade the lower echelons of the occupational ladder. Consequently, only about 7% of firms within the SETA's ambit are engaged in providing ABET training.

Technikons, too, have been proactive in exploring to what extent relations with SETAs can be forged. Two examples that have involved the Cape Technikon can be used to illustrate this point. The first involves an agreement between the Graduate Centre for Management (GCM) at the Cape Technikon to provide training and educational support to learners from the Tourism, Hospitality and Sport Education and Training Authority (THETA) for a minimum period of five years. The GCM at the Cape Technikon is required to formulate curricula for programmes that meet the requirements of the relevant registered unit standards and that match industry needs. The programmes cover all the sectors that are covered by the THETA SETA. These include travel, tourism and hospitality, sport, recreation and leisure, gambling and lotteries, conservation, environment, and heritage. The collaboration requires the technikon and its staff to develop learning material to cover all the above requirements. In addition, the technikon is required to provide the means for

⁸ Interview – Ms Janet Lopez

adequate delivery and assessment interventions. The relationship requires the institution to liaise with industry in establishing learnerships. Successful graduates are to be supported with the required certificates and credentials at the end of each learning process.

Secondly, the Cape Technikon is gearing itself to serve as a registered training provider to support learnerships in the retail and wholesale industry. Steady progress has been made to secure agreements with specific employers in the retail and wholesale sector.

INDEPENDENT GROWTH AND DEVELOPMENT: AUTONOMY WITH PERIODIC LINKAGES

While the Textile SETA and the Manufacturing and Metal SETA can be used as models of SETA-driven collaboration and partnerships with technikons and other education and training providers, the Insurance SETA can be used as a model of relatively independent skills development. This is because the skills development initiatives within INSETA, do not currently include close collaboration or partnership with any of the major public higher education institutions in South Africa, including technikons. INSETA has developed a specific learning strategy for the sector.

This does not mean that the SETAs that take a similar approach are loath to forge partnerships with outside educational and training institutions such as technikons. It merely signifies how specific sectoral imperatives have intervened to create a condition where other players, predominantly corporate training providers, coupled with a developed internal capacity in the insurance industry, are largely responsible for reproducing the skills needs of the sector. This perhaps is the major factor contributing to this particular configuration, but it can change as the needs of the sector change. This may be accelerated as firms in the insurance sector, such as Francophone Africa, cater for niche markets outside South Africa. Here the sales and marketing orientation of new client bases would have to incorporate approaches that are sensitive to new needs. The interview with INSETA indicated that the consulting firm, PriceWaterhouseCoopers is an important education and training service provider to the insurance industry.

Unlike other sectors in which SETAs have been established, the insurance industry, as a result of the occupational structure of the workforce, contains relatively few trade unions, with the Banking Union being the main trade union in the sector. Therefore, the initiative to develop a learning strategy within the sector was generally undertaken at the behest of the employers. These activities were concentrated in two areas: intermediate levels of the occupational hierarchy and customised programmes for specific segments of management, including top management. Particular courses that may be open to tendering from public training providers could include project management.

Relationships with other technikons in the country had not yet been established. While the industry has the internal capacity to offer training for many such courses there may be a need for intermediate level courses that can be designed by technikons for incumbents who do not meet the minimum requirements set by the industry. Without having a definitive policy, the interviewee indicated that INSETA was nonetheless open to using public higher education institutions such as technikons to undertake specific training for staff in the insurance industry⁹.

SETAs that choose to adopt a similar orientation towards linkages with technikons in the public sector are only likely to do so when confronted with training issues that are of secondary importance. Examples would be the provision of training to intermediate

⁹ Interview – Dr Leatt

level employees or where there are constraints within the internal capacity of the sector (such as insurance) to provide training in niche areas.

Some SETAs are located on a path of autonomous development because their core operational staff are drawn either from the highly skilled professional spectrum as in the case of actuaries, ICT specialists and managers, or from a clerical and sales stratum. This means that the training offered by technikons can be bypassed. The existence of qualifications that can be awarded through established professional bodies such as the Society of Bankers and ancillary guild organisations for accountants, company secretaries and valuers implies that the sector is not confronted with the historical legacy of an under-qualified workforce. Where skills are lacking, the provision of training and certification represents a significant milestone in opening access routes to those in the sector who are not adequately qualified. A sector such as insurance, therefore, is not confronted with a major problem of low skills within its workforce: its problem is one of equity in demographic representation.

INDEPENDENCE AND DIVERGENCE

From all the interviews that were conducted with the SETAs, the Media, Advertising, Publishing, Printing and Packaging SETA (MAPPP) appears to have chartered a course that is not dependent on support that can potentially emanate from both universities and technikons. On the basis of sentiments expressed in the interview, this independent route could prompt the SETA to establish divergent relationships with institutions of educational delivery, including the technikons. There may be other SETAs in a similar situation.

The starting point of the position held by the MAPPP SETA is based on what has been described as an economic learning model. In the interview, which was conducted with the SETA's CEO, emphasis was placed on the need for institutional planners within universities and technikons to review their philosophical stance with respect to the creation and production of knowledge. Higher educational institutions no longer have the same monopoly over knowledge and training as they did in the past. A range of ancillary institutions such as SETAs were beginning to be equipped to perform this role by supporting learning at workplaces that had the dynamic to contribute to new forms of knowledge. Despite this fact, the universities and technikons still perceive facilitative institutions such as SETAs as being unequal partners in the production of knowledge. A line of thinking that emerged from the interviews – and one towards which the MAPPP SETA is gravitating – suggests that SETAs ought to challenge the system and its prevailing conceptions with new ideas, debates and proposals so as to form partnerships with higher education institutions on a mutually beneficial basis.

The higher education institutions lagged behind with respect to the recognition and reproduction of emerging fields of knowledge and still subscribed to an outmoded model whereby learners obtained qualifications for predetermined positions on the labour market. This conception was labelled as viewing qualifications for 'position' and is not necessarily meeting the needs of the labour market. Consequently, learning in this more conventional sense raised a huge concern about placing learners into structured places or 'silos', which made it difficult to engineer new, creative learning environments.

In contrast, the changing dynamics of the labour market had led to learning being conceived in a radically different manner – the acquisition of qualifications was seen in relation to the 'purpose' for which they equipped learners for labour market requirements. The latter conception was postulated as being essential because it would integrate learning with professional practice. This would be achieved through creating seamless linkages between learning and creativity by means of the practice

of work. In this way, new types of partnerships could be engineered and strengthened.

The apparent exclusion of institutions, such as SETAs, from the development and regulation of qualifications beyond levels 5 and 6 of the NQF band was further viewed as an artificial barrier to SETAs such as MAPPP, which cover a relatively high proportion of highly skilled employees. This segmentation appeared to secure the higher NQF level bands as the sole preserve of the higher educational institutions. But it was difficult to comprehend what semblance these institutions bore with respect to the higher-level workplace training that was being entrusted to them. The argument was that these higher educational institutions were, in some instances, removed from a large part of the practices that were associated with these high-level applications.

The relatively limited role that universities and technikons have had on the activities and concerns that the MAPPP SETA in particular has had to grapple with – such as research, generating unit standards and devising appropriate mechanisms of assessment – has encouraged it to cultivate linkages elsewhere. The readily available funding that was open to it meant that the MAPPP SETA could proceed with its own skills development training programme. Some of its linkages had been developed historically with overseas institutions. A dual certificate with the Massachusetts Institute of Technology (MIT) in the United States had the potential of becoming a full degree programme. Through the mechanism of the Printing Industry Training Board, an established linkage with the City and Guilds Institute of London goes back to 1991. These linkages were being explored further because some of the higher educational institutions in South Africa had appeared reluctant to become involved in the development of learnerships.

It is disturbing that MAPPP has been successful in cultivating relationships with higher education institutions overseas and with only some in South Africa. It suggests that relationships and linkages between SETAs and higher education institutions in South Africa, including technikons, is not a forgone conclusion. Reluctance on the part of educational institutions to forge such linkages with SETAs amounts to forgoing potential sources of income and funding that SETAs have at their disposal and which these institutions so desperately need. Perhaps bolder leadership is required to strengthen relationships at a senior management level and build stronger linkages to mobilise resources and carry out the development work for skills renewal.

The SETA has also been experimenting with new modes and methods of instruction delivery, including distance learning supported by live content presentations.

SOME CONCLUDING REMARKS

From the evidence that has been assembled, it is clear that linkages between technikons and industry span a range of functional and operational activities. These activities generally run parallel with institutions but include concerns from other bodies. Despite depending on the support of dedicated champions to build and maintain these linkages, the choices to do so are often mediated by specific institutional imperatives. The imperatives that are exerted upon technikons, in particular, are sustainable growth of the student population and the sustainable generation and flow of financial and teaching resources. By highlighting benchmarks of best practice, the policy conditions and context often add additional elements for consideration but do not necessarily diverge from existing imperatives that already dictate the strategy and responses from technikons.

New institutions such as SETAs, which are of fundamental importance to the skills development process, do not necessarily constitute a divergence from the above. The imperatives for linkages are often dictated by the functional responsibilities and

regulatory conditions that institutions are required to uphold. What is lacking are mechanisms whereby these imperatives can be systematised as a co-ordinated intervention and plan, whether the conditions are routine, cyclical or unpredictable. The policy frameworks cannot do so alone.

Many of the interviews highlighted the importance of holding annual regional forums to perform this function. It amounts to a quest to manage the existing policies and multiple practices that occur simultaneously across institutions, and serve as the vehicle to strategise and manage a longer-term human resource development plan. Such a forum cannot be expected to perform this role merely on the basis of voluntarism or patriotism. It has to have statutory powers, be broadly stakeholder-driven and be capable of mobilising resources for this purpose.

THE PRACTICE OF EXPERIENTIAL LEARNING

The concept of co-operative education is an important part of the learning philosophy associated with technikons in South Africa. In a nutshell, co-operative education refers to a symbiotic relationship between academics, students and industry. The relationship is maintained by combining the principles of theoretical knowledge with the practice of learning and confirming the basis of such theoretical knowledge through the lessons of application. It must be emphasised that a system of work experience placements that is divorced from processes of learning will undermine experiential learning.

STUDENT VIEWS OF EXPERIENTIAL LEARNING

INTRODUCTION

Interviews with students showed that the process of experiential learning led to a range of experiences and learning outcomes, both positive and negative. Many of these sentiments were symptomatic of the complex dynamics associated with the process of student placements, both for the staff responsible for the process and for the students, many of whom had no previous work experience.

A number of factors shape the adequacy of the placement programmes. They include the level of resources that can be mobilised to facilitate the process, staff experience in placements, as well as the relationship between academic staff and placement staff. The success of the process is built too on the activities of companies that participate in accepting and placing students. Finally, students have specific obligations to fulfil for each course, as well as learner outcomes that have to be met while on placement programmes. Certain factors contribute to the ultimate success of the process, such as student interest, the propensity of employer personnel to serve as mentors, the role of individual evaluators and student ability, competence, knowledge, habits and so forth.

ORGANISING PLACEMENTS

The placement of students at both technikons typically happens during the third and final year of academic study. Normally this involves a student being placed on a job with a firm for a period ranging from three months to one year. Several factors determine the length of the job placement period, including the type of skill to be mastered, the industry and sector and course regulations. Therefore, the linkages that the technikons cultivate with specific business sectors and industries are important, because they can be used to assist with identifying appropriate placements. In most cases the process of experiential learning extends over the period of the placement, most of which are arranged for a fixed term. Occasionally, the period of placement is interrupted by organisational intrusions at the firm and course requirements that students have to fulfil at the technikon.

Generally, placements are organised either through academic departments or through co-operative education departments or units. Each has its own advantages. When academic departments undertake the function, they are able to maintain closer contact with students on placement programmes as well as with the personnel responsible for co-ordinating the placement at particular firms. Where the co-operative education department performs the task, greater resources and dedicated staff are available to place students and help prepare them for the experience of work. Where this route is taken, academic departments tend to refer their students to the co-operative education department. Doing so effectively implies that the

placement function is outsourced from an academic department to a specialist department within the institution. The latter option is usually preferred for the placement of large numbers of students on work experience programmes.

Among the skills students require for successful placement are the ability to compile an appropriate curriculum vita and to write letters of application to prospective employers. In addition, they learn life skills to conduct themselves satisfactorily in interview situations and respond appropriately to questions from employers. Employers consider the possession of presentation skills to be a valuable attribute.

The co-operative education departments usually require a substantial infrastructure and organisational capacity to place students. It involves compiling and maintaining lists of suitable placement companies, communicating and advertising this information to the appropriate audience and setting up procedures to recruit willing companies and mentors. Ultimately, the task requires matching a selection of candidates for positions on employment experience placements with those that are being offered by the respective companies. In cases where the departments undertake this task, similar considerations have to be made when considering the interests that students exhibit and their motivation to be on particular placement programmes. Once the task of placements has been accomplished successfully, technician staff associated with the placement programme have to be geared to monitor student progress at placement locations. This requires maintaining regular contact with students and obtaining feedback from employers about the work habits that students exhibit as well as their overall performance at the workplace. Part of this involves keeping logbooks to monitor student activities. Evidence suggests that the co-operative education departments or units are most well equipped to institute the process.

Staff members in academic departments undertake similar evaluations. This evaluation, together with a student report, sometimes forms a key component in the overall assessment of student performance. The evaluation focuses both on work habits and learner outcomes. Practically, learners are expected to acquire a range of standard competencies during placements in order to gain first hand experience of work and be guided by mentors in the companies to which they are assigned. Evaluations are designed to embrace these features. More broadly, some staff also use the evaluation to obtain feedback about the quality of learners. It provides them with an indication of deficiencies among employers as well as an understanding of employers' expectations of technician graduates and learners.

An analysis of student perceptions provides a useful insight into aspects of employment placement that are either functioning effectively or are in need of amendment on some fronts. This applies to both their criticism and endorsement of placement programmes.

CRITICAL RESPONSES FROM STUDENTS

In the interviews some students suggested that students' achievements and employers' needs were inappropriately matched. Some even went so far to suggest that no real matching or student selection had taken place and that students were merely placed at companies that worked in a related field and were offered some opportunities for experiential learning.

In one instance, there was an expectation that, in the absence of a placement, other employment would be found for the student. In another instance, some students who were majoring in accountancy complained about being involved in placements where they were required to do auditing work. The auditing students, however, reported positively on their accountancy work experiences. From the interviews, it appears

that employers expected students to have had at least some work experience and the ability to undertake certain job tasks.

In some instances students indicated that the companies at which they were placed lacked the systems and procedures to provide an adequate learning environment. In very few instances were students assigned to supervisors at the workplace. In fact, several students complained that they were given supervisory functions to perform. Others indicated that multiple tasks were assigned to them. As a result, rather than receive support, students were expected to support subordinate staff in their activities. They found this difficult to accept, more so, because it took the form of menial activities for which no real higher education study was perceived to be relevant. The following points summarise the areas of dissonance raised by large cross-section of students from both technikons about their placement experience:

- the absence of mentors;
- limited firm investment in training and, by implication, limited investment in the training of students on placement programmes;
- the opinion of many employers that training involves on-the-job-learning; and
- the absence of human resource departments in small enterprises.

Ironically, these are some of the elements identified by employers as a disturbing absence among recent graduates emerging from the higher education system in South Africa and corroborate what employers have been saying about the quality of graduates all along. The problem appears to be a lack of the attributes necessary for graduates to enter the world of work and assume the responsibilities expected of them. On-the-job learning is an important feature of the multi-tasked orientation that new graduates ought to possess.

The above sentiments illustrate very starkly that many new graduates have unrealistic expectations about the world of work, such as the reality that small companies do not have the resources to support separate human resource departments. What is disturbing is that many groups of students expressing these sentiments are demonstrating strong preferences for employment activities in large rather than small-scale enterprises. It suggests too that the entrepreneurial flair for new graduates seeking opportunities in small scale and venture enterprises has not been adequately instilled.

There do appear however to be many valid points that students raised about the placement process, which may require greater resources and systematic intervention to overcome. Among these was the fact that many students felt they were inadequately prepared for the work experience process. Some students lacked the skills expected by employers. Others intimated that the curriculum was not adequately synchronised to cover the items that were essential during the placement process – some of the course work was only covered after students had completed their placements and returned to the technikons. Furthermore, a number of students indicated that the duration of their placement period was too short to gain satisfactory exposure to working life or to be able to adjust adequately to the external expectations about learner outcomes. However, it is necessary to contrast the above sentiments with those students who endorsed the employment placement programmes.

POSITIVE EXPERIENCES FROM STUDENTS

One of the outcomes from the placement experience that students appreciated was the introduction and exposure to the regimes of the workplace. Some students indicated that exposure to work detail, work procedures and the support of mentors provided them with useful experience of the workplace. Students responding in this

way generally secured placements at large companies where a structured environment was the norm. Such students were exposed to preliminary discussions about their expectations relative to the expectations of the employers. It was, therefore, a matter of routine to monitor the students' progress. Monitoring was complemented by some evaluation and, where necessary, discussion of whatever obvious shortfalls prevailed, with an indication of how these activities should be undertaken in the future.

A hallmark of the entire process was to challenge the presumptions of students by exposing them to exciting and new environments and enabling them to observe further opportunities for career advancement. Generally accepted workplace practices and particularly practices that are widespread in large dynamic companies – such as job diversity, multitasking, goal achievement (an element of management by objectives) – coexisted and enabled students to appreciate a broadening and deepening of the skills that they already possessed. This unique experience reinforced the connections between the formal education at the technikon and the experience derived from the job placement process.

Some students perceived the placement process as a means to get 'a foot in the door', but it also provided a way to observe how particular professions or vocations appear under closer scrutiny. Ultimately it provided these students with information that they needed to gauge, from a closer range, what specific professions or vocations entailed and whether they had made the correct choices in following a path of study. Some students said it provided an indication about whether to continue with the course selection, study further for an advanced national diploma or a technology degree, or to enter the labour market at the end of the three-year diploma studies. Other students conceded that they had gained a better understanding of the aims and objectives of the course and programme through experiential learning. This reinforced the notion that the employment placement experience had had a positive impact on their subsequent studies.

SOME CONCLUDING REMARKS

The fact that some students generally had negative experiences of the placement process should encourage the staff within the co-operative units to institute steps to remedy and/or improve upon the process. Negative experiences may arise either because the students have not been adequately prepared for the process, or because the enterprises at which the job experience placements are to take place have an incorrect understanding of the objectives. In both instances, shortcomings in the preparation and organisation of the job placement programme have to be linked internally to the broader skills development initiative that is already underway nationally. In establishing industry-education links and the placement potential that flows from this, it is problematic when some parties to the process – either students or employers – do not fully understand the objectives of the process.

Addressing these concerns is more easily said than done. The main reason for this is that the agents within the technikon may not be adequately resourced to conduct the process. Linkages of the sort that are being discussed require an investment in human and information resources on the part of those that are spearheading them.

STAFF VIEWS OF EXPERIENTIAL LEARNING

Technikon staff generally recognise the wide variations in student recruitment patterns across sectors and within firms. The Cape Technikon staff indicate that strong linkages between the co-operative education unit and specific academic departments contribute to a rapid intake of students within these sectors. The levels

of recruitment on work experience placement programmes at the Peninsula Technikon are not as high and were estimated to be around 60%. These lower recruitment figures mean that some students are not able to secure placements within companies. It was, therefore, of extreme importance for students from the Peninsula Technikon to be given further preparation in courses on life skills and entrepreneurial development so that they would be confident when engaging with the labour market. Some staff members from the Cape Technikon acknowledge that life skills are an important facet of managerial advancement at the workplace and that the unevenness of these skills among students is receiving attention within the institution.

PERFORMANCE OF STUDENTS ON JOB PLACEMENT PROGRAMMES

It was generally conceded that the issue of quality among students was a problem at both institutions and was likely to impact on quality as well as the performance of students in the future. The Cape Technikon staff suggested that the expansion in student enrolment at the institution increased the need for greater student support. A key setback was lack of language proficiency and comprehension, which hampered the assessment of student learning. A definitive shift in the attitude, outlook and commitment to complete the academic component of their studies is discernible once students return from work placement programmes. A technikon staff member made the following observation:

'When they come back I can see they've matured quite a bit. They then realise the importance of completing their studies. They need to have a diploma or B Tech degree. They also learn about the difficulties that workers experience at the workplace and from an academic point of view. It assures them or it sort of verifies their theoretical knowledge. It gives them a chance to measure ... their theoretical knowledge compared to how to apply it in practice.'

According to the staff members interviewed, some students experienced their employment placements as 'unappealing', 'boring', 'not challenging' and 'menial'. Many staff members at both institutions tend to evaluate the placement process in terms of their own involvement with it. Inevitably, as well as being time consuming, this involved considerable effort from staff members. For some, it also involved an additional administrative burden as the following statement illustrates:

'Promoting linkages requires a lot of organisation if you want to be relevant and if you want to try and meet the needs of that particular group of people you are working with. It requires commitment, from the institution and from staff members to go beyond the normal hours of work, normal required input into a programme, and it really requires a passion for developing people. Without that you know, it can really become a very difficult concept to organise, but we've seen some huge successes of people who would normally not be able to study especially in rural communities.'

It appears, though, that a range of ancillary attributes such as language, writing and attitudes are requisites to a successful placement experience. These factors are often intangible and, because they are hard to define, run the risk of being dismissed as too obscure. Nonetheless, they are critical human attributes, which are essential for graduates who are on the verge of entering a career in full-time employment.

EMPLOYER VIEWS OF EXPERIENTIAL LEARNING

PLACEMENTS OF STUDENTS

It appears that the practice whereby companies are given an opportunity to interact with students preparing to take up an assignment tends to favour companies that are scheduled to meet students the earliest. This is referred to as an open day for companies.

The training officer at one company claimed that 'the best students are taken by companies who come first' to the open day event. Naturally, this is not a desirable situation, but very little can be done about it. This particular respondent went on to suggest that the technikons had succumbed to a rhythm in which students would automatically be placed with particular employers because this was an established tradition. The individual lamented the fact that there was no guarantee of continuity should there be personnel changes within the firm. This was a shortcoming which could only be eliminated through a wider institutional arrangement and not merely through committed individuals who were dedicated to promoting student placements in industry and therefore held the responsibility of sustaining the relationship with the technikon while they were around.

It was suggested that technikons be more proactive about moving beyond the current arrangements. One way of doing so would be to build a closer relationship with a large cohort of personnel managers from firms that operated in the sectors in which the fields of study were more prevalent. This appears to be a useful suggestion that ought to be pursued through technikon co-operative education units. In this way, the technikons would 'keep us interested in placing their students'. However this was merely one option among several and was likely to generate intermittent engagements by employers as the demand for longer-term requirements changed.

Technikons were implored to encourage their students to become active with part-time and vacation employment. In such instances a group of students from each technikon could be linked to particular firms with the obligation of reciprocating through periodic casual work assignments on weekends and perhaps even daily after lectures have been taken. It could also be extended into the vacation periods, but more so at the end of the academic year, when many firms begin to gear down for a partial slowdown over the Christmas/New Year Period. This period would also be conducive to the temporary deployment of higher education students because many permanent employees in firms take their annual leave during this period. Such an initiative was seen as ideal for the longer term and was an important aspect of the thinking within firms about securing potential management staff in the future. However, it did not appear to the particular respondent that technikons were keen about pursuing such a path, nor did technikon students with whom the particular manager was in contact provide convincing reasons why they did not pursue it further. The particular firm was unambiguous in the emphasis given to having a long-term relationship both with the technikons and with its students. It was viewed as being highly desired, but it required initiative and collaboration from the student and staff constituency within technikons to become a reality.

One training officer was scathing about the network of communication that existed between the technikons and some of the departments responsible for establishing the platforms for student placements with employers, particularly with regard to the degree of follow up. She indicated that contacts for placements were submitted in a lackadaisical manner. An example of this was the late submission of curriculum vitae of the students that were earmarked for the placement. She recommended more emphasis on effective communication and the substantial involvement of all role-players before the process even started.

A training officer at another enterprise indicated that the feedback loop between the employer and the technikon, concerning the student who was on a job placement programme, functioned on a fairly regularised schedule. Evaluation forms from the department where the student was placed were submitted to the co-operative advisor at the technikon. It appeared that, in this instance, the placement occurred in the last few months of the second year of the three-year diploma programme and again in the first few months of the third year.

The number of students selected for placement in the personnel/training division varied from year to year, but since 1999, eight students had been selected by the company to serve in this particular section. In 2001, a total of 89 students from all higher educational institutions, but predominantly from institutions in the Western Cape, were placed at the concern. Of these, 32 were from the Cape Technikon and 41 from the Peninsula Technikon. A small number of students were also drawn from overseas institutions, namely the University of Fort Worth (Texas), University of Dordrecht (Germany), the University of Hamburg (Germany) and the University of Sydney (Australia). Compared to the 2001 intake, the overall intake in 2002 had been radically diminished to only 11 students. This was attributed to economic factors brought about by the uncertainty of restructuring towards which the company was gearing itself.

PERFORMANCE ON JOB PLACEMENTS

The placement programme required the training managers and supervisors of the students to provide the relevant educational institutions with an assessment report. Some firms keep very precise records of students on these placement programmes. The national training manager at the retail company was able to provide me with a synopsis of each student from a collection of passport photographs that were appended to a chart on the wall. He had a broad picture of the strengths and weaknesses of virtually every student and graduate. Not all were employment experience placements; some were graduates from institutions in the Western Cape and elsewhere in the country who had been selected as prospective candidates for management and staff development occupational categories in a wide spectrum of fields, including marketing, accounting, retailing, etc. It does appear, however, that the cohort comprising graduate placements was drawn from throughout the country, whereas the cohort of students on the employment experience placement came mainly from the Western Cape.

The manager observed that students on the work experience programme were usually given assignments by the respective technikons to complete as a credit while on the programme. On completion of the work experience placement, the students were required to submit the assignment to the course or subject convenor at the technikon for assessment and evaluation. Together with the assessment report submitted by the firm or company, the two assessments contribute to the overall course evaluation of the student. The training manager suggested that students be given more projects by their course convenors at the technikon while on the placement programme. In this way, rigorous targets would be set and the placement programme itself would be viewed as a credible test, which instils the notion of learning through employment and represents it as a serious endeavour.

The above sentiment was borne out by a recently qualified graduate from the Cape Technikon who is employed in the personnel division of a performing arts company. Using her own experience, she indicated that students on work experience programmes often lacked the skills that were taken for granted in a business environment. A possible remedy was greater exposure to the conditions that students would ultimately confront at the workplace. For this to occur it was necessary to strengthen the preparation that students required for completion of courses. Guides

about what was to be expected were also perceived as being important. All of the above would have to be supported with follow-ups, which represented an important grounding technique about what to expect within the world of work. The particular respondent argued that there were facets of the curriculum that were out of sync with the demands of the workplace. For example, the respondent maintained that the curriculum and syllabus for the subject of personnel management required revision and possibly the elimination of certain components. It was believed that, in certain instances, the generality of the curriculum may have led to this situation.

However, since most of the placement programmes were no longer than three months and functioned strictly on the principle that graduates could not expect to be absorbed into the enterprise or firm at which the training was being undertaken, there were often limits to what students could logically do during this period. The departmental structure of firms was a further limitation because it isolated monitoring from central co-ordination within the firm. This scenario appeared to be quite pervasive and was shown to exist in three different enterprises. In the service enterprises and the chemical firm, it appears that the predominance of departmental autonomy in each limited the scope to dictate the precise skills that those on placement programmes were meant to obtain.

A similar sentiment to the one above was repeated in an interview that was conducted with the training manager at the second services company. It was noted that the 1998/1999 students' cohort exhibited excellent qualities; but when a comparison was made with the 2000/2001 cohort, a definite decline in standards was observable. The particular features that were seen to be in need of improvement concerned the drive, determination, commitment, professionalism and ability to fit into the working world. Lacking too were basic skills of writing and communication. From the interview, it was apparent that the students being referred to were from historically disadvantaged backgrounds. Within this context, the particular training manager suggested that an extension in the length of the placement period be considered. Where the placement period in the second and third years normally lasted for three months, their limitations could be minimised by extending the obligatory job placement programme from three to six months. It was suggested that half of this could be performed in the second year of study and the remainder in the final year.

For students on work placement programmes, placement is used as a basis for selecting future potential employees. Thus, where an incumbent is unable to complete a course or successfully achieve the requirements of the practical training, the process of targeting the appropriate match in the labour supply chain has to be initiated from the start. However, candidates who demonstrate a disposition to proceed further are those whom the firm is likely to entice by eliciting an application for employment. It is particularly apt for those who qualify for internal career track programmes designated for the development of the management body. In fact, such selection processes provide an opportunity for internal candidates who have followed different learning pathways to compete for posts against graduates from either of the technikons as well as other outsiders.

However, in most cases – and the sentiments were rather emphatic in both the retail, textile and chemical firms where interviews were conducted – graduates from either of the technikons in the province have a decided advantage over those candidates who were not able to obtain an opportunity to study full-time after leaving school. Of course, external candidates are selected from a spectrum of higher and further education institutions and technikon graduates are required to compete with university graduates. Internal candidates tend to possess a different set of characteristics which are valued by employers, such as work experience and maturity. In some instances, particularly in the chemical firm, internal candidates

have resorted to studying part-time for national technical diplomas and Bachelor of Technology degrees at both the Cape Technikon and the Peninsula Technikon.

INNOVATIVE CASES OF PLACEMENT PROGRAMMES

CASE 1

The Cape Town City Council, is an model of a large company in the services sector that has devised an exchange programme which identifies lecturing staff from the technikon to undertake a retraining placement within a specific departmental unit at the Cape Town City Council. This was first developed at the request of lecturing staff from the Cape Technikon and started in 1999.

It enables lecturing staff to work on a voluntary basis at the City Council after teaching obligations have been carried out. In 2001 this process of enabling technikon lecturing staff to reacquaint themselves with contemporary human management resource practice at the workplace was one week in duration. The plan was to extend this period of practical hands-on-exposure to three weeks in 2002. However, the interviews which were conducted with staff members at the two technikons did not reveal specific beneficiaries of the staff development process with the Cape Town City Council. This would have compromised the privacy of the individuals and the integrity of the informant to seek this information from the records of the City Council.

CASE 2

The Shoprite-Checkers group is a large national retail company that has diversified its operations into countries within the Southern African Development Community (SADC) region. The group has devised an extensive internal work experience programme for its staff members, which largely mirrors the scale of its business operations. Its entry into the regional retail market has required the company to develop internal expertise in the sphere of standard internal accounting practices, which are characterised by differential pricing mechanisms that exist because of variable exchange rates as well as variable costing and price regimes.

Nationally, between 300 and 350 employees are on a management development programme. Even in specialised fields such as accounting, the company has accreditation as a training provider for the practical component of the training. Through the extensive nature of the operations the company undertakes, 'articleships' in accounting practice are awarded to qualified university graduates who fulfil the minimum academic requirements to write the board examinations of the South African Institute of Auditors and Chartered Accountants. The first chartered account to undertake articles through this specific route graduated from the final qualifying examinations of the Public Accountants' and Auditors' Board in 2001. This success has drawn enquiries from articled clerks at established auditing firms and, in the opinion of one who was successfully employed by Shoprite-Checkers, the training provided by the retail company was significantly broader than that which was given at a large national auditing firm. The reason for this is that the retail company provides experience in the field of retail accounting which is emerging as a distinct area and is growing in sophistication.

Within Shoprite-Checkers, programmes with a focus on providing work experience training exist for a number of occupational and functional categories of the management development programme. Thus, articles are offered for those who will qualify as general accountants as well as for those who are on a career track to become accounting technicians. The diversification that takes place in the training of large companies like this is a reflection of the diversification and inter-penetration of

the operations of the parent company. Such operations within the Shoprite-Checkers Group extend into other business sectors of the economy (e.g. property, rentals and finance).

While the respondent suggested that this was a trend-setting practice in the industry, it does not appear to be outside the grasp of competitor retail enterprises in the country. If this is the case, how pervasive is it within other economic sectors in the Western Cape and nationally? What opportunities does it present to educational institutions to develop structured relationships around similar initiatives? Unfortunately, this research is not able to answer this question because the spectrum of insights from which our analysis was drawn is not wide enough.

SOME CONCLUDING REMARKS

The above section highlights the multiple dimensions through which the technikon and their substructures have become involved with experiential learning initiatives. Among the important pillars that have characterised experiential learning are job placements and internship programmes that have been designed for recipients to acquire and obtain employment experience. It appears that the traditional governing system within the technikon sector, as elaborated in the discussion of the policy context at the beginning to this report, has borne a greater influence on this process. The present policy environment attempts to invest the technikon sector with a wider rationale, especially with respect to the promotion of experiential learning. Its tempo has accelerated, particularly since the notion of 'responsiveness' has acquired a wider prominence.

To some extent, this is a belated vindication of the intellectual philosophy and convictions that have been associated with technikon education. Organisations that have traditionally focused on core strengths, often to the neglect of other aspects of the training and skills repertoire are beginning to embrace the notion of 'learning organisations'. This is a relatively new phenomenon that is set to grow. The same appears to be happening to the society and the concept of a 'learning society' is beginning to be promoted on a wider scale. However what must not be forgotten is that the placement process will lose its justification if the graduates that have passed through the process of placement and experiential learning are not able to break the barriers of high unemployment and secure a job on the labour market. Placements come to nought if the core fields of study of those on placement programmes are in areas where there is a deficient demand in the labour market. There have to be sufficient linking structures and flows of information to ensure that the placements are in fields that justify and benefit from efforts at continuous learning.

CONCLUSION: THE ALIGNMENT OF LINKAGE AND PLACEMENT ISSUES

The paper has sought to demonstrate the close interrelationship between linkage issues affecting specific higher education institutions and the practice of experiential learning. While the historical basis that linkages hold with stakeholders in the labour market have been expressed through maintaining a relevant curriculum supported by ongoing processes of experiential learning, the legislative interventions around skills development and human resource development have instilled the process with a momentum of urgency and purpose.

The paper has highlighted the manner that core education related activities within technikons have coalesced with the specific needs of enterprises and the specific challenges that are presented to both at harnessing and deepening the process. Even though there are unique challenges related to the organisation of placements, they nonetheless provide concrete simulations of potential work related conditions that educational institutions and its graduates are required to embrace in the future. The experience reinforces institutional learning in the domain of labour supply and demand and the interface of the two through the concrete alignment of education, training and work. The notion of 'work' represents a dynamic milieu relating to entry, involvement, opportunity and challenge to the way human resources are creatively deployed. These attributes or singularities of purpose coupled with the experience of institutional partnerships embodied in the process of linkages and placements described throughout, are essential for nurturing the growth of small-scale enterprises into emerging growth sectors of the economy.

NEED FOR BRIDGING MECHANISMS

A critical element in developing and strengthening linkages between institutions of labour demand and institutions of labour supply relates to mechanisms of bridging a wide spectrum of institutions and bringing them to function coherently around a common objective. These bridging mechanisms are important because they dictate access to resources and information and, through these, the parameters around which planning is exercised. The interviews suggested that the processes of establishing bridging mechanisms that would involve the alignment of all public educational institutions to support the human resource needs of the economy, is best achieved by constituting a single dedicated forum to plan, direct and implement the human resource development needs in particular provinces and regions. It will require further consolidation of planning that takes place within public agencies, relevant stakeholder bodies such as chambers of commerce and employer representatives, bodies for workers, professional and educator bodies, SETAs, educational institutions and, indeed, agencies within government departments given the task of upholding the legislative and policy framework.

ROLE OF SETAS

A cryptic analysis of the institutions that have already been established in this sphere reveals that, from the supply side, both at an institutional level and at the level at which individuals are active, SETAs have begun to hold a prominent position. Accessing funds for education and training purposes at the workplace is already being met through SETAs. It has, therefore, become imperative for public educational institutions involved in workplace training provision to strengthen the linkages with the SETAs and to draw upon resources that are available to the SETAs. A comprehensive process has been established to ensure that these programmes are

evaluated for relevance and quality. Failure to reach the quality of delivery that is required can therefore retard collaborative relationships and partnerships between the SETAs and educational institutions¹⁰. If the above issues are significant for the Gauteng area, they are even more severe for other provincial and regional labour markets. Despite the necessity for strong linkages to be maintained by institutions of labour supply, the capacities embodied in SETAs would be severely dispersed and depleted within this context. In the absence of steering taking place through industry-education partnerships, a different type of mechanism may be required to give the process momentum.

While conceding that SETAs have built-in sources of income, one respondent¹¹ signalled the importance of devising strategies that would link the technikons and universities with the needs of SETAs and employers. A seamless strategy is required for this to occur, one through which boundaries are traversed and eliminated, but it has to take place by deploying collective resources. Technikons can be conceived generally as performing the role of labour supplier and the SETAs as providing the intermediation between the technikons and the firms in the economy or the institutions of labour demand. The ultimate purpose of these relationships is to advance the learning process across the national system and to prepare it for the challenges of a global knowledge environment, particularly an environment that is regulated by a complex set of imperatives such as efficiency, quality and fitness for purpose. A suggested starting point was an annual forum or think tank in which the leading players of education and training supply and demand would be drawn together. There may even be a need to replicate these collaborative forums on a regional basis.

ALIGNING INTERVENTIONS

Universities and technikons face the difficult task of bridging the divide of the powers, competencies and responsibilities of national authorities from provincial authorities. In terms of broader systems of planning, these institutions are oriented to national protocols and conditions, yet the labour markets they serve stretch to varying degrees from the national to the provincial level. In terms of human resource development initiatives, provincial growth and development strategies have to be constantly incorporated and given recognition within institutional plans.

It was suggested¹² that the expectation for interventions around providing greater alignment, particularly between the educational and training institutions and the SETAs, be steered by the Department of Labour. One example of the several activities with which it is involved concerns the provincial labour centres that are perceived as an organ critical for the collection of labour market information. The intention is to use these as an instrument for career or vocational counselling functions so that labour market participants can be directed to resources that would enable them to expand their human capital acquisition.

While information can be useful at a provincial level, inflows from certain quarters have not filtered into the overall information system. This is glaringly evident in the low priority given to the tertiary education sector in the provincial skills plan developed by the Western Cape provincial office of the Department of Labour (Department of Labour, 2001). A more comprehensive information gathering system under the auspices of a human resources development forum alluded to above would provide for the sharing of unavailable labour market information between all the

¹⁰ Interview – Pundy Pillay

¹¹ Interview – Dr Leatt

¹² Interview – Pundy Pillay

sectoral divisions that make up such a forum. Such a facility would serve as a foundation to a labour market information system, although it would require drawing upon capacities that link functions and responsibilities located in other government departments such as Education and Trade and Industry (or Economic Affairs within the provinces). The present system of bilateral dialogue involving either the government (Department of Education) and higher education institutions, or the government (Department of Labour) and the SETAs, or the higher education institutions with the SETAs, has to be upgraded to a system of multi-lateral dialogue. Ultimately, the process of establishing a common point around which information retrieval takes place will provide the basis for more accurate and less costly instruments of planning and implementation of developmental objectives.

A host of respondents, including the Cape Higher Education Consortium (CHEC) has signalled the need to institute such a process or forum. The type of institutional arrangement would require performing the function of networking but, more importantly, linking an array of labour demand, labour supply and intermediary institutions (e.g. SETAs and NGOs) to a common, non-partisan objective. NEDLAC, to some degree, can serve as an example of the type of institution that is being envisaged. Even the provincial government departments and ministries have representation at NEDLAC (e.g. Department of Labour, Department of Education and Department of Trade and Industry), so it does provide an important concrete example of the kinds of dialogue that can be instituted feasibly.

In the Western Cape, the Centre for Extended Learning, in an attempt to reconfigure specific provincial responsibilities of the South African Qualifications Authority (SAQA), is investigating the establishment of a brokering service. This service would enable public higher and further education institutions to become more responsive to the education and training needs of the economy. The intention is to be able to respond to the training needs of firms directly on an individual basis or through professional bodies and associations, as well as through the SETAs.

Several critical issues are embodied within the suggestions that have been made in the interview process. The first concerns aligning institutions so that they are configured to carry out the policy mandates and broad plans. This may require the establishment of institutional planning forums, comprising appropriate external stakeholders to address mission specific requirements and needs.

The second concerns providing an instrument that would support and strengthen the planning process. This applies particularly to the organisation and collection of information. It is meant to complement and support the insights generated through the public participation process using forecasts about the present skills shortages, future labour requirements and job-related needs. When information indicates that traditional artisan-type occupations have experienced a decline on the labour market, curricula that continue to emphasise training in such fields requires some amendment and revision. The other extreme of completely jettisoning such programmes needs to be approached with caution. A system of planning that can draw on legitimate conditions for planning in terms of the social partners and agents, technical proficiency as depicted in the organisation and co-ordination of information, has a higher likelihood of achieving success.

Through a regional forum, education institutions, such as the two technikons, would be in a position to consider strategies around economic planning, development planning, human resource planning and social planning to advance the linkages and information flows for the technikon sector. It would provide both technikons with a more dynamic forum and barometer of development planning initiatives in the province. This has pertinence for the linkage as well as the experiential learning initiatives that have been discussed throughout the present report. The linkage itself

could potentially provide concrete evidence of a model that, thus far, has merely been signalled as a postulation. Through the regional forum, it would be possible to begin to theorise the desired linkages and facilitative mechanisms that are likely to emerge by means of a continuing process of social dialogue.

The third issue concerns the review of the role and composition of advisory committees. If regional and institutional forums were to be established, technikons would still require mechanisms for engaging with stakeholders around particular programmes and operational issues related to placements. Given the involvement of SETAs in curriculum and quality assurance matters, there appears to be a need to review the existence of advisory committees and consider the establishment of new structures with clear linkages to the SETAs, whilst retaining the strengths of the advisory committee networks. The scope and functions of these mechanisms would need to be reviewed in the light of the changed policy environment.

CLOSING REMARKS

A significant feature of this case study is that it can be replicated in every province within the country. More importantly, it provides a provincial organ in which national and provincial policies can be implemented through stakeholder-driven participation that is not constrained by difficulties with its decentralisation into smaller and smaller substructures (e.g. regional districts and municipalities). This is because governance and representation in the forum would take place through stakeholder institutions. As a starting point, if the forum includes all public higher and further institutions within a forum or brokering network, it will enable these institutions to develop a more varied response to the signals obtained from labour demand. Again, it is necessary to reiterate the concerns with issues of linkages and experiential learning to comprehend and take advantage of the vast array of opportunities that exist.

The engagement requires relatively insignificant resources. The benefits will be infinite.

APPENDIX OF INTERVIEWS

TECHNIKON STAFF MEMBERS

Professor S. Bayat (Dean, Management, Cape Technikon)
Mr Chris Botha (Deputy Dean, Clothing Management and Fashion, Cape Technikon)
Ms Sharon Crafford (HOD Food and Consumer Science, Cape Technikon) – 25 April 2002
Mr Hannes Esterhuysen (Mechanical Engineering, Cape Technikon)
Ms Judy Favish (Director Institutional Planning and Transformation, Cape Technikon)
Mr Brian Forbes (Director Co-operative Education, Cape Technikon)
Ms Suna Fullard (HOD Graphic Design, Cape Technikon)
Mr Mel Hagen (Dean Built Environment and Design, Cape Technikon)
Professor Kok (Senior Vice Rector (Academic) Cape Technikon) – 21 June 2002
Mr William Lotter (Deputy Dean, Business Informatics, Cape Technikon)
Mr Joe Scalabrino (Building and Quantity Surveying, Cape Technikon) – 18 March 2002
Dr Harry Ballard (HOD Public Management and Law, Peninsula Technikon) – 14 March 2002
Ms Marianne Bester (HOD Clothing and Textile Technology, Peninsula Technikon) – 14 March 2002
Mr John Cloete (Liaison Officer Mechanical Engineering, Peninsula Technikon)
Mr Keith Jacobs (HOD Engineering, Peninsula Technikon) – 24 March 2002
Mr Greg Kakara (HOD Accounting, Peninsula Technikon)
Mr Jacques Petersen (HOD Chemical Engineering, Peninsula Technikon) – 18 March 2002
Mr Adrian Strydom (HOD SETA Unit, Peninsula Technikon) – 11 March 2002
Mr Ivan van de Heever (HOD Marketing and Retail Business Management) – 23 March 2002

TECHNIKON STUDENTS

Focus Group Interview (B Tech, Management Accounting, Cape Technikon)
Focus Group Interview (B Tech, Mechanical Engineering, Cape Technikon)
Focus Group Interview (B Tech, Public Management, Peninsula Technikon)
Focus Group Interview (B Tech, Marketing Management, Peninsula Technikon)
Focus Group Interview (B Tech, Chemical Engineering, Peninsula Technikon)

INDUSTRY REPRESENTATIVES

Ms Lucille Bougaardt (Artscape)
Mr John Haines (Shoprite Checkers) – 14 May 2002
Mr Fritz Le Roes (Cape Metropolitan Council)
Ms Elizabeth Wunsch (Fine Chemicals Corporation) – 15 May 2002
Mr Alan Taylor (South African Nylon Spinners) – 17 May 2002

SETA REPRESENTATIVES

Ms Priscilla Davids (Textile SETA) – 17 May 2002

Mr Andre Kriel (Chair of the Board, Textile SETA and Assistant General Secretary South African Clothing and Textile Workers Union) – 22 June 2002

Dr Leatt (Insurance SETA / INSETA) – 24 June 2002 (Telephonic interview)

Ms Janet Lopez (Manufacturing and Engineering SETA) – 22 May 2002

Ms Cheryl Pierce (Chemical SETA) – 20 March 2002 (Conducted with Mr Ian Macun)

Dr Dave Thomas (MAPPP SETA) – 25 June 2002

OTHER KEY INFORMANTS

Dr Laurine Platzky and Mr Nigel Gwynne-Evans (Department of Economic Affairs, Agriculture and Tourism Western Cape) – 25 July 2002

Dr Pundy Pillay (Resident Representative and Senior Economist, RTI South Africa) – 27 June 2002 (Telephonic Interview)

Mr Adrian Sayers (Provincial Development Council of the Western Cape)

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