Crafted for prosperity: Pointers from Germany regarding the appropriate place and provision of Vocational Education and Training within the Educational Realm, and comparisons with South Africa


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Introduction

This paper argues that vocational education/training, "VET", has immense potential and a crucial rôle towards individuals' prosperity and fulfilment in a modern, developed economy. VET in South Africa largely contrasts, however, with patterns which are relied upon in Germany, to an extent where we see a prospect instead of widespread "graduate unemployment" and disillusionment. The paper sets out measures of this gap.

The paper arises from our concern, in harmony with the White Paper on Education and Training (WP) (RSA 1995: 5), that our country's education/training provision should enhance opportunities for "all our people without exception". This has led us to investigate German education and vocational training arrangements. Resources available to date have not allowed investigation of other countries' arrangements. However, some focus on Germany appears justified:

The significance of Vocational Education and Training (VET) to the individual and to the community, in a successful economy

Fig 1

GERMANY, 1993
Economically active persons classified by level of qualification

Meister- or Technician training, vocational college, 9%
College for Higher Professional Training, 4%
University, 8%
No training, 26%
Apprenticeship/full-time vocational school, 53%
Source: data from M Radant, BiBB, translated by C Inskip.

Germany is successful economically by various measures. The country:
- upholds a high level of public welfare and education provision;
- is successful in international trade, its products and services being highly regarded;
- has a high per capita national income;
- is economically dominant within the European Community.

Does all this rest upon a generally high level of occupational qualifications? On the contrary, as seen in Fig 1, in 1993 only 12% of economically active persons had occupational qualification in the tertiary categories "University" and "College ...", requiring prior Abitur (General, unrestricted tertiary/University entrance qualification in Germany) or other tertiary-entrance qualification. The vocational categories "Apprenticeship .." and "Meister- .." comprised five times that proportion, 62%; their training had not required schooling beyond the 10th year as entrance qualification, three years short of Abitur (Diagram in BMBW 1992: 4/5 and BiBB 1992: 02, also Führ 1989: 125). The foregoing takes entrance qualification as an indicator of high level of occupational qualification; we will set out below an argument for this.

Unemployment amongst persons with such vocational qualification evidently runs lower than amongst those with a tertiary qualification (KdDW 1994:17, 26).

The choice made by young people appears to confirm the value of VET: In Germany well over 60% of young people do not remain in school in order to attain the tertiary entrance qualification, Abitur. Instead they leave school at the permitted age (ca. 16, three years short of Abitur), and enter Berufsausbildung, here translated as vocational education/training, "VET". (BW 1992: 3,5, et alia; BMBW 1992: 58)

This choice presumably has the beneficial effect on public expenditure that provision of places for senior secondary schooling and tertiary level study remains within limits; it has to allow only for those with ability and commitment towards preparing themselves for, and completing, intellectually rigorous tertiary or professional-level work. In relation to South Africa this should not, however, be seen as denying the integration of education and training. As conveyed in a later section, VET nonetheless "open(s) up additional opportunities .. by giving .. access to other educational channels".

We must note that VET and vocations are not confined to manual trades in building, electrical or mechanical areas, and occupations in cosmetic/haircare and secretarial fields. Instead they include all branches of the economy, from agriculture through to legal offices, although amongst males, eg, six of the abovementioned manual trades recently figured amongst the seven most favoured vocations, and totalled 26.1% of all trainees (BMBW 92: 12, 36/7).

We understand that small, medium and micro enterprises (SMME's) represent the only hope of livelihood for the majority of people in present-day economies. German VET appears especially to promote and sustain SMME's; 60% of trainees are in concerns
with fewer than 50 employees, a further 24% in those with between 50 and 500, and "only 1% in major industrial companies" (as of ca. 1991; BW 1992: 14/15)

The enquiry hereunder

Our premise is that the potential importance and value of vocations and VET, for individuals and community, is no less in South Africa than in Germany. Inter alia, in South Africa as in Germany, vocational competence will constitute the basis of livelihood for many more than will find it through tertiary qualification. Studies such as the report of the National Committee on Further Education support this, asserting need to "direct learners into more vocational programmes" (NCFE 1997: viii). A media report notes that sectors of the public in South Africa increasingly feel that Matric is only an expensive ordeal that doesn't lead to livelihood.

Therefore we try, in the following treatment, to contribute to realisation of that potential in South Africa. Specifically, we try to identify and describe:
- significant features of vocations and VET, as apparent in Germany, and, for each such feature,
- the learning-psychological, social or other mechanism(s) through which, in Germany, that feature contributes to realising that potential.

These steps establish a representation with which we try to compare the S African situation, so as to judge whether we are likely to realise that potential in S Africa.

This approach obliges us in some cases to dwell at some length on German arrangements before considering the South African situation.

The distinct character of vocational competence, in contrast with commitment and ability towards tertiary/academic occupations

There are powerful forces in S Africa sustaining the view that we urgently need to propagate a high level of training/qualification, for the welfare and progress of both individuals and community. We were surprised by the statistical refutation as in Fig 1.

However, the German information provides also certain direct and indirect indications as to why and how unpretentious VET can be so effective.

Vocations entered via VET, "Berufe", are perceived as a single category, regardless of which branch of the economy they are in, in that they are covered by a single body of Federal legislation (BMBW 1992: 34). It appears to be seen as a unifying characteristic of these vocations, justifying this common treatment, that their training requires only completion of compulsory school attendance (general education) up to age 16 as entrance qualification, ie at most Hauptschulabschluss, Junior secondary school-leaving certificate, at the end of the 10th year, and 3 years short of tertiary entrance (BW 1992: 4, 10). In fact the entrance requirement is largely, and other than in "large companies", merely some ability in the basic subjects of reading, writing and arithmetic (BW 1992: 22).

This points to a perceived more fundamental unifying characteristic: these vocations contrast with occupations which are qualitatively distinct in that they "call . . for the application of academic knowledge and methods [or] scientific or artistic foundation". It is the latter occupations which require further study at Hochschule (university), or Fachhochschule. The latter is translated as tertiary Technical College (BMBW 1992: 4/5) or College for Higher Professional Training. All these are seen as institutions of higher education providing the basis for such distinct occupations (BW 1992: 6).

It is apparently another facet of the German perception of higher education that the entrance qualification must demonstrate not just more knowledge than Hauptschulabschluss, but greater "Reife", ie maturity/ripeness. In one aspect this is a particular intellectual commitment: "Science consists of knowledge about the world in general, not merely about isolated events [It] seeks explanations of the way the world works and wishes to make predictions of future events" (Richards 1983: 48). To us this means becoming able to construct views of reality which are abstract, and not superficial, and to apply these views alike to outwardly differing phenomena, including those existing only in the imagination, perhaps of the future. This is "the application of academic knowledge and methods [or] scientific foundation".

We infer that the purpose of the three years beyond Hauptschulabschluss, and the concluding Abitur, is largely to sharpen and qualify the minority tertiary aspirants in such commitment and ability. It is the Abitur's certifying these which justifies using entrance qualification as an indicator of high level in the tertiary categories in Fig 1.

In contrast with these, German VET arrangements do not rely on commitment to widely valid, abstract learning: "competence in vocational action requires both skills specific to the occupation and well-founded theory related to the occupation. Theory will contribute, however, to this competence above all if it relates to the concrete work of the young person [in the workplace] (our italics). Otherwise than in, say, a study in Science, trade theory must be such as the trainee can experience" (BMBW 1994: 3).

The first author is himself qualified, and has worked extensively, as and amongst artisans. On this basis, he agrees that, much as he respects and relishes them, insights entering into vocational competence can largely be gained by a person who is not highly literate, nor developed in constructing and applying general, abstract models. See, eg, two Cape Town case reports (Inskip 1997a App 6: 2; 1997b).

The VET area best known to the first author is so-called "engineering", ie building, electrical and mechanical trades; by the example of Germany, these can take up a huge proportion at least of male VET entrants, as mentioned earlier. In S Africa, the public provision of this training, in Technical Colleges, is all that is generally available to the
We infer that the education-psychological rationale is that committed vocational trainees are in general people whose immediate commitment is to what is patently, specifically and concretely in demand at their real workplace, rather than to learning out of sheer curiosity, i.e., learning for the sake of learning, or scholarliness, or accumulation of generally valid insights.

Training at real workplaces is preferred also for other reasons:

- "The vocational training in the company takes place under conditions and using machines and facilities which reflect the state of the art... simply for financial reasons, the equipment in school[college] workshops is in danger of quickly becoming out-of-date. The trained skilled worker is subsequently able to enter a qualified position immediately.

- The instructors in the company are constantly confronted by new technical demands and can integrate these directly into the training."

Some limitation to the potential of real workplaces is nevertheless acknowledged:

"Smaller and medium-sized companies... would not themselves be in a position to offer the complete range and diversity of vocational training as defined in the regulations... [However they] can ensure fully-fledged training by means of supplementary training programmes in inter-company training centres and school workshops or by trainees' completing part of their training in other companies. Small and medium-sized companies - which represent an important part of a market economy - can therefore be fully included in training." (BMBW 92: 7)

Overall, however, "The high calibre of German skilled workers is possible only by reason of the participation of the employers". In fact, sufficient German employers, one in every five, freely choose to train persons to the prescribed standard with a view to employing them after such training (CDG 1991: 17/8; BMBW 1992: 58/9; BW 1992: 10, 12/3).

The concern regarding motivation to learn, and consequent focus on the immediate and concrete, extends also to the abovementioned work at Berufsschule:

"Competence in vocational action requires both skills specific to the occupation and well-founded theory related to the occupation. Theory will contribute, however, to this competence above all if it relates to the concrete work of the young person [in the workplace]. Otherwise than in, say, a study in Science, trade theory must be such as the trainee can experience" (our italics). Arrangements should allow that "the training curricula in workplace and school are aligned to one another in time and with regard to content." (BMBW 1994: 3; BiBB 1994)

We again infer a rationale to the effect that trainees are not generally individuals with commitment to intellectualising; as noted above, motivation to learn is a concern even...
at the real workplace. With such trainees, "Coordination between school and firm is one of the major problems ..": motivation to work at learning theory at school, and at linking it with practice, must also be promoted, by alignment of school with work. It is unfruitful to prescribe "theory" beyond what is patently relevant in the trainee's sight.

In S Africa, formal sector employers have in recent years severely reduced their engagement of apprentices. At the same time large numbers of people have come forward desiring training. The racial restrictions on Technical Colleges' enrolment have ended and in the "Engineering" area, Colleges have taken to enrolling a large proportion of non-apprenticed applicants; apparently they outnumber apprentices by at least 10:1 (RSA 1997a: 22, 33). *They have little or no encounter with real workplaces, and thus little or none of the related motivational and other benefit.*

In fact, students in the Colleges mostly get only classroom "Theory" instruction, allegedly following rulings of the Education authority during the '80s that Colleges' duty extends only to theory; "practical" rests entirely with employers.

Certain front-line engineering teaching staff, including colleagues of the first author, have made strenuous and commendable efforts to supplement this theory with practical activity. This is, however, of the institutional character which Germany questions; teaching staff contend moreover with Principals who have only recently begun to question the rulings of authority. Principals in turn confront limits of funding. Technical Colleges will struggle to implement a vision of practical work to reinforce prescribed theory, let alone the contrasting German approach where the concrete work of the learner is the leading element, and theory relates to that, ie is subordinate.

Various pieces of evidence (Inskip 1994) confirm that it is uncertain how far learning of trade and other theory, in isolation from meaningful practical learning, can result in competence in vocational practice. Haircare is perhaps again a different case.

The DoE confirms that many College trainees get only theoretical training, but still promotes a view of Technical Colleges, rather than employers with real workplaces, as "the main providers of .. vocational education in SA" (RSA 1997a: 20, 4).

### 2 Assurance of competent trainers

Earlier we reported that trainers in Germany are, by design, themselves workers at the trainee's workplace rather than instructors at a training institution. "Most instructors provide training over and above their main job responsibilities ..." Moreover, "[an employer] is only approved as a training [employer]" if inter alia it "has at its disposal .. instructor[s] who meet official requirements" as to suitability, in vocational and teaching terms, namely in general to have completed "Meister training", which we understand to be an enhancement of the initial vocational training, ie apprenticeship.

"In 1988, [there were in Germany] almost 700 000" approved instructors. (BMBW 1992: 22, 23)

As to S Africa, we doubt that a commensurate body of suitable people exists. See, eg, the case reports mentioned earlier (Inskip 1997a (App 6) and 1997b).

### 3 Assurance of possibility of progression to higher study

To S Africans this is especially significant; it relates to our articulation/integration aspirations, as expressed in legislation on the SA Qualifications Authority/National Qualification Framework (SAQA/NQF).

In Germany it is an explicit prescription that *work done during VET "must open up additional opportunities .. for particularly talented young persons by giving them access to other educational channels"* (our italics). "The more options [VET] offers, the more able young persons and their parents will consider [it]." This is seen as important, inter alia towards compensating for a tendency to reject such training as requires only Hauptschulabschluss as entrance qualification, and to try rather to gain Abitur and tertiary qualification (BW 1992: 3, 20/21 & other pp; BMBW 1992: 45, 56).

Mandatory Mathematics/Science content in VET is, nevertheless, modest, and specific to the occupation. For certain industrial metalworking and electrical trades it is more than in VET generally, but still not sufficient as preparation/qualification for tertiary study. A person who has completed VET, and has adequate prior general school attainment, can undertake that preparation/qualification, as one year's full-time work of Senior Secondary character, at Fachoberschule, here translated as senior technical school (BW 1992: 6; BMBW 1992: 4). The adequate prior attainment is Mittlere Reife, here translated "intermediate maturity", a certain level of attainment at Hauptschulabschluss, the same as would qualify for admission to the further three years which lead to Abitur.

Thus VET does not itself qualify for tertiary entrance, but the required work beyond successfully completed VET, to acquire that qualification, is much less than the three years in school beyond Hauptschulabschluss. Tuition for the year's full-time work is free of charge (BW 1992: 6); help is available also with living costs (BiBB 1995a/b and other sources). An aspiration of integration of education and training such as that of the NQF may evoke the assertion that VET should qualify for tertiary entrance. The treatment above has strongly suggested, however, that Germany has not found initial vocational trainees in general to have academic motivation; elaborate arrangements have been found necessary to motivate them to engage even with concrete and specific theory. To try to prepare them for tertiary work would be inconsistent with the explicit intention to accommodate and develop the entire fraction who do not seek to gain Abitur.

We surmise that it would in general not be an effort based on accepted education-psychological theory so as to give prospect of success. The majority of VET participants do not, or anyway do not yet, possess the requisite ability, inclination or commitment for tertiary preparation. They want to leave school and start "real-life". It
is perhaps significant that the prescription regarding opening up opportunities refers to particularly talented young persons, i.e., an anticipated minority.

By accepted education-psychological theory we mean certain widely-accepted modern work in cognitive psychology. We recognise that theory such as Piaget's model of cognitive development remains contentious, moreover we see high cognitive development as not necessarily a matter of inherent endowment, but rather largely one of personal commitment (Inskip and Spargo 1990). But does that make it any less the case that inclusion of work of tertiary preparation character during VET would be futile in all but a minority of cases, demoralising learners rather than accommodating the "entire fraction"?

In sum, our impression regarding German provision for articulation/integration is that:

(a) no attempt is made within VET to involve trainees generally with material, or develop them, beyond the requirement of the vocation, but

(b) successful VET trainees who later develop aspirations of Higher Education are enabled and helped to complete appropriate prior senior secondary work, within a limited time.

In South Africa, accessible additional opportunities are necessary no less than in Germany: here the case is reinforced by local considerations. In S Africa, however, in contrast with Germany, apprentices and non-apprenticed students, attending Technical College for N1/2/3 in the engineering directions, are all automatically enrolled in N1/2/3 Mathematics and Science of tertiary preparation/qualifying nature, besides trade theory and technical drawing. This Mathematics-/Science has recently been marginally upgraded in order explicitly to be recognised as equivalent to Std 10, i.e., a tertiary entrance qualification. The first author confirms from his own study and practice that most of the N1/2/3 Mathematics and Science goes beyond trade need, and is a basis rather for N4/5/6 or Technikon or other tertiary work. As one further example, a student who was a second- or third-year fitting apprentice in a no less high-tech milieu than Koeberg Nuclear Power Station asked "Why must we do all this stuff [Science]? We never talk about these things at work."

After extended contact with N1/2/3 apprentice- and non-apprenticed students, the first author considers that they largely lack a commitment to tertiary preparation, and/or the maturity required to pursue it effectively. This is borne out by the weakness of those who have attained the 40% N3 pass-mark, in the subsequent tertiary work in N4/5/6. Already in N1/2/3, many students struggle and experience only frustration. Is it beneficial thus to distract and perhaps demoralise people whose commitment is to learning a trade? Lecturers resort to rote teaching, in response to both the unreadiness of students and pressure from senior staff to obtain "good results" (Inskip 1994).

If mandatory Mathematics and Science for basic VET trainees is limited to the needs of the respective trades, the teaching and learning resources released can perhaps be used to greater benefit, including ABET, without sacrifice of "open[ing] up additional opportunities .. for particularly talented" or committed trainees. This may also reduce the loss of morale, and the desire for early retirement, in teachers who are aware that their own learning success required mature intellectual work.

In sum, we question the current peculiarily S African situation in which people attending Technical College for Engineering training are all automatically enrolled in tertiary preparation/qualifying work.

Regarding the entrance qualification for VET trainees' work of a tertiary preparation-/entrance qualification nature, the German information strongly suggests that it should give reasonable assurance of candidates' coping rather than failing. S African Technical Colleges admit students to N1 engineering with a Std 7 pass, and also run a pre-N1 engineering course and examination, "NCOR", as an alternative. We question whether either of these gives such assurance, even if rigorously applied. We hope that the NQF's General Education and Training Certificate will represent this assurance.

4 Involvement of interest groups, e.g., the State, employers, especially SMME's, and labour; the Federal Institute for Vocational Education (Bundesinstitut für Berufsbildung, "BiBB")

The success of German arrangements owes much, it seems, to the clear formulation of the general aims of VET, and to consensus upon that vision:

Prescriptions for VET arise from the involvement of the various social and economic roleplayers per the single body of Federal legislation mentioned earlier. This includes employers, trade unions, and Federal and Provincial government, at all levels and stages (BW 1992: 9, 12/13). Prescriptions have thus come to include the explicit aims that:

(i) trainees must become able independently to plan, carry out and evaluate their work in a responsible manner, going beyond the isolated acquisition of specific skills and knowledge (BW 1992: 12; BMBW 1994: 3; CDG 1991: 26; BMBW 1992: 16).

(ii) trainees should have or gain readiness to be able to react flexibly to new occupational requirements, perhaps in part through undergoing further training (BW 1992: 12; BiBB 1994; BMBW 1992: 16, 17, 58).

(iii) trainees should acquire mobility, i.e., recognised ability to practise the learned occupation in various concerns and industries (and even throughout Europe!) (BiBB 1994: 1; BMBW 1992: 17, 58).

A fourth such explicit aim is that dwelt on in the previous section: VET must "open .. up additional opportunities ..".
Pursuit of these aims, including "accept[ance] on the job market", requires continuing "Cooperation of the .. interest groups", including education system/teachers. These aims necessitate "obligations being assumed and integration in the overall policy, partial interests tak[ing] second place" (BMBW 1992: 32 - 34). These call for meetings and jointly-reached solutions, joint responsibility, etc. It has been found necessary to institutionalise this, largely by legislation, at all levels, ie at national-, federal state-, regional- and individual establishment levels.

We have noted above that traineeships are predominantly in SMME's rather than larger establishments; presumably, therefore, the mechanisms of involvement embrace SMME's fully and we should ask "How?", given that this means reaching large numbers of small, individual employers. Our information is that all enterprises are registered with the local Chamber of commerce or industry for their particular branch of economic activity. Such comprehensive registration (cited also by NCFE (RSA 1997c: 54)) would not be easy to ensure in South Africa; presumably it has been instituted in Germany with powerful backing, inter alia of the tax authorities.

The above-mentioned aims are a concern not least of the State, being aims for society as a whole rather than of some faction(s): "In forms of training which are conducted purely by or in an enterprise [with] the State play[ing] no or only marginal rôles .. [the] vocational training .. is shaped exclusively to fit the purposes of the enterprise .. transferability [of] these vocational qualifications .. to other employers is small .. [In order to avoid this,] Through the cooperation of the State and the interest groups the training adopts aims .. such as .. ensuring .. mobility .. or .. the trainee's becoming an independent .. worker" (our italics; CDG 1991: 24).

However, the participation of Federal and Provincial government per se has been considered insufficient: the Federal Institute for Vocational Training, BiBB, was established in 1970 as a purely research establishment. In 1976, however, its responsibilities were expanded to include development, promotion and consultation. BiBB constitutes a valuable instrument of cooperation between employers, trade unions, the Federal Government and Provinces, advises the Federal Government on VET matters, collaborates with interest groups in drawing up training regulations and a catalogue of officially recognised trades and carries out VET research as approved by BiBB’s main committee, which includes representatives of all the interested parties (BW 1992: 12/13; BiBB 1992: 03).

We infer that BiBB is intended as a convenor and body of independent VET expertise, governed so as to be non-partisan, free to uphold sound scholarship and declare the findings of such work, and able to retain the trust of all parties, in a situation where their objectives conflict somewhat. BiBB is partly the State's way of pursuing the aims mentioned above. This indirect approach is perhaps the most effective one, given that the expense (and effort) of training at the workplace is not subsidised, but borne entirely by the employer (although tax deductible as an operating expense, and to some extent recovered in the form of the trainee's improved, saleable productive output).

As regards S Africa, it seems uncertain how far trade unions will take up opportunities of participating, nationally and locally, although the Pittendrigh subcommittee of the "de Lange Commission" reported in its time that trade unions then making submissions insisted on participating.

As regards employers, we do not doubt that larger, established employers, through their well-established employer associations, are being offered and are taking up places on different levels, eg nationally on the NCFE (National Committee on Further Education) and locally in Technical College Councils.

On the other hand, the Manpower Training Amendment Act No 39 of 1990 appears to leave matters more than before to Industry Training Boards established by employers. These boards, once accredited, may "frame conditions of apprenticeship" and "initiate and monitor training programmes" as well as define and control testing for vocational qualifications such as that of tradesman. A Board does not have to include the participation of government. Participation of organised labour in the Boards again seems uncertain, depending on the attitude of union(s).

As regards SMME's, we fear that, in contrast with the German case, they will largely lack well-developed associations, at all levels, for some time; they may also seek to avoid being individually registered.

All in all, the question remains open whether and how far aims such as those in Germany will be pursued by employers in South Africa, notably the SMME's.

As regards the view of Government on involvement of interest groups, it is true that the DoE recommend participation of employers, labour, learners, educators and members of civil society in governance of VET, on national, regional and institutional levels (RSA 1997a: 62 - 65). Moreover, the DoE, and the Minister, will presumably not dispute an assertion from a working group at a recent conference that the obligation to ensure that education and training takes place, ie perhaps to take a lead in such joint governance, lies with them (RSA 1997b: 9). However, as noted earlier, we see no prospect of a vision other than that of VET's giving access to Higher Education, "HE" (RSA 1997b: 3, 4, 9), with the Technical Colleges being the main providers.

In this situation there would perhaps be value in an institution with the VET-scholarly, independent- and neutral-convenor character, involving a particular range of parties, which we have inferred above to be significant in the German BiBB. Unfortunately, however, we see no suggestion of such an institution.
Conclusion and appropriate action

The indications from Germany are that the potential contribution of VET to national and individual prosperity is vast. But, in S Africa, VET provision and options for learners, and the authorities' intentions regarding them, differ strikingly from the German arrangements, in directions which Germany has found unfruitful. Instead of progress, we fear widespread "graduate unemployment" and disillusionment.

The intention of this paper is primarily diagnostic. The findings suggest a scrutiny of activity and expenditure of public resources which hold little promise, on German information, of leading to employment or self-employment. However, we also critically need a positive vision for Further Education and Training (FET, "post-compulsory, pre-tertiary learning" (EIC 1996: 25), ie VET following Junior Secondary/compulsory schooling, and Senior Secondary serving as preparation/qualification for HE). Such was the indication also of the terms of reference of the NCFE (RSA 1997c: App B). The German vision is that of conventional Senior Secondary for people who are committed to occupations which "call .. for the application of academic .. methods etc", and who qualify. Further, it envisages distinct VET with no Senior Secondary pretension for the majority who are not thus committed, but also "integration", ie routes for fulfilling later aspiration to such occupations.

Can we therefore implement VET as:

- a real workplace activity rather than simulating, institutional learning;
- training by people whose own primary commitment is to the exercise of vocational competence, in the real marketplace;
- training of an immediate, concrete, rather than detached, scientific nature?

This suggests a strategy not of expanding institutional VET capacity, but instead of building commitment to and capacity for vocational competence, and therefore also training, in the community, especially SMME's. On German information, the cost of meeting the full need as a state function will in any case be insupportable.

VET personnel in existing State institutions could presumably be valuable as "extension officers". Given, however, inter alia the apparent faith at the DoE in Technical Colleges as the "main providers of technical/vocational education", and vision of VET's giving access to HE, we hesitate to propose sweeping State action. Rather we contemplate promoting this strategy by a small, local demonstration project or projects, aimed at bringing carefully selected individuals towards "competence", and unencumbered by pretension of preparation for tertiary work (Inskip 1997a, App 7). The

Work of a tertiary preparation/entrance qualifying nature (ie senior secondary) should remain accessible to VET trainees, but should be:

- optional, based on individual commitment, not mandatory;
- open only to people with a suitable prior record, ie presumably, the General Education and Training Certificate (GETC) as proposed for the NQF, at Level 1.

We should also promote the definition of NQF levels so that the Further Education and Training Certificate (FETC ) as proposed for the NQF, at Level 4, is indeed an indicator of commitment and capacity for tertiary learning for occupations which "call .. for the application of academic knowledge etc"; and so that GETC indicates readiness for the requisite prior work in the FE band.

Finally, we should perhaps propose a counterpart of BiBB, for its rôle as neutral convener, in combination with its no less necessary "Research in the field of teaching and learning processes" (BiBB 1992: 07). In these ways, we may perhaps begin to close a frightening gap.

We thank Lynette Faragher for her critical review and constructive suggestions.

REFERENCES

Abbreviations not defined elsewhere in this paper

BMBW Bundesministerium fuer Bildung und Wissenschaft (Federal Ministry for Education and Science)

CDG Carl Duisberg Gesellschaft, a German agency for international exchange regarding vocational training.

KdDW Kuratorium der Deutschen Wirtschaft für Berufs bildung (here translated as body representing joint VET interest of German commerce, industry, professions and trades)

NCFE National Committee on Further Education

References


BiBB (1994). Letter dd 19/10/94 from BiBB to C Inskip, BiBB's reference Rad.

BiBB (1995a). Letter dd 31/1/95 from BiBB to C Inskip, BiBB's reference Rad.


Inskip (1997a). German Vocational Training - Crafted for Prosperity? Submission to NCFE.


ENDNOTES

1 Statement to C Inskip by Prof W Traebert, University of Münster, October 1996

2 In the past this need was recognised in that, for example, Joint Matriculation Board regulations allowed Universities to enrol older persons without matriculation or exemption, but with N6, as undergraduates.

3 Note by C Inskip, July 1998: The following have appeared since preparing this paper:
- Report of the NCFE, DoE, August 1997
- Green Paper on Further Education and Training, DoE, April 1998
- a draft dd 20/5/98 of a Further Education and Training Bill.

I have not studied the NCFE report. Of the other two, neither:
- recognises vocations as distinct from occupations requiring tertiary work
- acknowledges the issue of primarily real-workplace, real-work training for vocations as against institutional training
- declares intention to promote will and capacity to train for such vocations in the community, especially SMME's.

In fact they seem to focus on FE as an path to HE, rather than as basis of livelihood in its own right, and on institutional FET. Complete assessment will require also consideration of the initiatives by the Department of Labour (DoL). I acknowledge that it appears that the Bill establishes a possibility of providers' proposing programmes and being funded on the basis of these ideas. But will the State grant funds for programmes that deliberately leave preparation for tertiary aside?

4 Note by C Inskip, July 1998: The aforementioned Green Paper on Further Education and Training proposes establishing the NBFET, National Board for Further Education and Training. I responded upon this that:
"Certain aspects of the vision for VET apparent in the GP do not seem to take into account the psychological factors to which much importance is attached in the German arrangements. Therefore they increase risk of widespread disillusionment, of "graduate unemployment", of frustration and obstruction of learners whose immediate aspiration is to vocational competence (as well as amongst people assigned to "teaching" such learners!), and of expenditure of resources without benefit. These effects are already
somewhat apparent in Technical College circles known to me. The aspects in question (include):

- inappropriate and/or inadequate neutral convenorship- and teaching/learning professional research/advisory provision. The proposed NBFET seems not sufficiently independent, scholarly and resourced to promote the "will and capacity to train at real workplaces". Without assurance of social partners' feeling equally in control of agenda, and without assertion of detached and accepted professional/scientific/academic insight into teaching/learning, the NBFET risks being merely a trading floor where "stakeholders" bargain over their respective share of resources, authority, burdens, etc. Proceedings seem likely to reflect power relations rather than insight into learning. It is, for example, difficult to anticipate meaningful participation of employers if they are supposed to train to international standard, while they do not see that the local market in which they operate will reward them for doing so. Maybe a stronger, more independent and scholarly agency will help in the face of the division of authority between DoE and DoL."