

LEARNING ON THE JOB: There is limited capacity to develop young graduates into professionals, so we must reinstitute structured training along with mentoring and coaching, to develop a new cadre of professionals.



ALLYSON LAWLESS

BUILT Environment Professionals, including civil engineering, construction project management and quantity surveying professionals, are the backbone of South Africa's modern infrastructure.

For our economy to create the many opportunities that citizens demand, infrastructure must be nurtured and expanded.

But currently the country faces a skills challenge that is holding back service delivery efforts.

Attention needs to be paid to the development of the built environment pipeline to ensure that the country produces a steady stream of professionals who can take responsibility for important and complex projects, confident that they have the necessary qualifications and experience.

The Learning Pathway

The need for professionals refers not to graduates who have recently completed the theoretical phase of the education, but rather experienced professionals capable of solving complex engineering problems and making decisions on the implementation of engineering projects.

This requires development

ACCEPTING CANDIDACY AS A LEARNING PATHWAY

"Candidacy" means the practical and work experience training that is an occupational qualification as determined by the relevant professional body and follows the completion of an academic qualification required for access to the assessment for the issuing of a professional designation. This learning must lead to the issuing of a designation registered on the National Qualifications Framework (NQF).

— Government Gazette, 2012

Candidate programmes for professionals receive **GROWING SUPPORT**

through a structured training process in the workplace, from graduation to professional registration with the range of statutory councils covering engineering, science and the built environment.

The development pipeline commences with good maths and science results at school and continues to the lifelong need for experts to continue their professional development, referred to as Continuing Professional Development (CPD).

Substantial research has shown that there is an increasing gap between registered and experienced professionals and the young group graduating through universities and universities of technology.

In the past, when there was a normal age distribution of professionals from the most senior down to graduate level, the hierarchy was such that each age group supported the development of those immediately junior to them.

Currently the model does not represent a regular distribution. Large numbers of young people require training but there is limited capacity to develop young graduates into professionals.

There is, therefore, a need to reinstitute structured training of the past, along with mentoring and coaching, to develop a new cadre of built environment professionals.

In carrying out research for the Strategic Integrated Projects (SIPs), civil engineering, construction project management and quantity surveying have been affirmed as scarce skills.

The development of built environment graduates to the point of registration has been identified as a national priority which requires targets, policy and funding.

Defining the candidate phase

The SIPs skills team, together with professional bodies, have campaigned for recognition of the

candidacy phase on the learning pathway, to be supported by the SETAs and other funding and training initiatives.

In 2012 candidacy was finally adopted as a learning pathway and gazetted in the draft Learning Programme Regulations. (See sidebar, "Accepting candidacy as a learning pathway", for the definition adopted.)

SETA support for the candidate phase

The SETAs were encouraged to set targets not only for funding built environment bursaries and internships but to make discretionary funds available for the candidate phase to support companies in their efforts to provide structured workplace experience to graduates.

Calls for expressions of interest from SETAs are increasingly reflecting support for graduate internships or candidate programmes.

The Construction SETA (CETA) was the trailblazer, and has been offering funding since 2013.

Several other SETAs have followed suit, including the Local Government SETA (LGSETA), the Chemical Industries Education and Training Authority Seta (Chieta) and more recently, the FoodBev SETA (for the food and beverages manufacturing industry).

To date somewhere between 2 500 and 3 000 built environment graduates have been offered support on candidacy programmes.

Elements of a candidate programme include ongoing mentoring, supervision, coaching and support for the achievement of outcomes, which are either assessed through a peer review process or a professional exam.

In implementing such programmes, the mentor would generally determine the type of projects or work the candidates should be involved in, identify supplementary training needs,

develop a training plan, monitor progress towards professional registration on a regular basis and adjust training as necessary.

Candidates are expected to apply themselves diligently, take increasing responsibility, complete logbooks, diaries or portfolios of evidence, and write reports, which form the basis of their ongoing assessments towards registration.

Annual statistics from the Engineering Council of South Africa (ECSA) show an increasing number of registrations, reflecting the results of the pioneering efforts that ECSA contributed in the recognition of candidacy as a formal learning phase.

Recognition of the candidate phase nationally

The growing realisation that structured workplace-based learning is critical for the development of professions and occupations has meant that this element of the learning pathway has been adopted far more widely than envisaged under the learning regulations. (See sidebar, "Structured workplace learning", for the requirements of this learning)

The new SETA landscape also emphasises workplace experience as being critical for development and calls on the restructured SETAs to ensure workplaces for all learners.

Construction Industry Development Board (CIDB) support

The Construction Industry Development Board has included the various definitions relating to candidacy in their training standard, which was gazetted on 23 August 2013.

The standard encourages service providers delivering infrastructure to train graduates through a candidate programme as part of the delivery of public

sector infrastructure.

Recognition by the DTI

The Department of Trade and Industry's Amended Codes of Good Practice calls on companies to offer "recognized or registered structured experiential learning in the workplace – this is required after the achievement of a qualification which must be formally assessed by a statutory occupations or professional body".

Conclusion

The concept of candidate phase development has now been well established and it is hoped that this will result in an increasing number of graduates finally reaching professional status and being able to take their places as independent decision-makers, able to contribute to the delivery, operations, management and maintenance of infrastructure, while ensuring the highest level of quality and safety.

In support of this drive, companies are encouraged to respond to calls for expressions of interest from, or to submit proposals directly to, the SETAs for candidacy support.

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STRUCTURED WORKPLACE LEARNING

"Structured workplace learning" means the component of learning in an occupational qualification, an internship, or work placement for professional designation whereby a learner is mentored by a qualified, and where required, a registered mentor in the application and integration of the knowledge and practical learnt, under supervision, in the actual context of a workplace in accordance with the prescripts set by the relevant qualifying authority, professional body statutory council.

— CIDB Training Standard, Gazette 36760



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