

**PAPER TITLE: The need for curriculum change and leadership**

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## **ABSTRACT**

The aim of this paper is to reflect on the need for curriculum change and leadership based on curriculum leadership challenges faced by Technical and Vocational Education and Training (TVET) colleges in South Africa.

This paper is based on a recent study that identified a knowledge gap indicating the need to investigate possible strategies for leading changes faced by TVET colleges, with focal attention on sustainable curriculum change. The need for TVET curriculum reform is urgently needed as confirmed by the study findings. The ultimate outcome of the study was to develop a framework for leading curriculum change in the South African TVET college sector that can assist with training and capacity building of TVET college leaders to bring about curriculum change.

**KEYWORDS: Technical and Vocational Education and Training (TVET), Curriculum challenges; Curriculum change; Curriculum leadership**

## **INTRODUCTION**

It seems imperative that the TVET college curriculum, which is at the heart of the South African vocational education and training system, be restructured to enhance responsiveness to industry needs and requirements and to improve (TVET) standards.

## **THEORETICAL AND CONTEXTUAL TVET CURRICULUM OVERVIEW**

According to the Department of Higher Education and Training (DHET), colleges have become increasingly de-linked from the world of skills development and occupational training, and created a cul-de-sac for students hoping to progress into higher education (DHET, 2010:1-2). In addition, the National Certificate Vocational (NCV) levels 2 to 4 qualifications currently on offer at TVET colleges are not achieving the curriculum objectives as envisaged by the FET Act of 2006 (DoE, 2006a) and the National Plan for Further Education and Training (DoE, 2008b). In tandem, some authors like (Stumph, Papier, Needham & Nel, 2009:7-9) contend that one of the key problems identified in the post-DHET establishment period is a lack of further learning opportunities at levels 2 to 5 on the National Qualifications Framework (NQF) for youth who leave school, either with a General Education and Training (GET) certificate, or with a National Senior Certificate (NSC) (Lolwana, 2010; DHET, 2012:9; DHET, 2013:14-15).

In 2005 it was already postulated by McGrath (2005:139) that some vocational education and training (VET) curricula are outdated and in some cases became obsolete, while some infrastructure is even older and more worn-out. He also states that VET provision is costly, yet many graduates do not get formal employment. The range of programmes often appears to have little to do with existing and potential labour market opportunities. Similarly, Badroodien & Kraak (2006:20) echoes that there is a powerful sense of failure within the system with regard to the quality and relevance of TVET programmes, resulting in inadequate preparation for higher levels of education. The TVET sector has also failed to link many young learners to real employment prospects in the world of work and to provide a meaningful learning pathway for employed adult workers to return to formal study so as to improve their overall skills and competencies (also see Gewer, 2010, DHET, 2012:9-10).

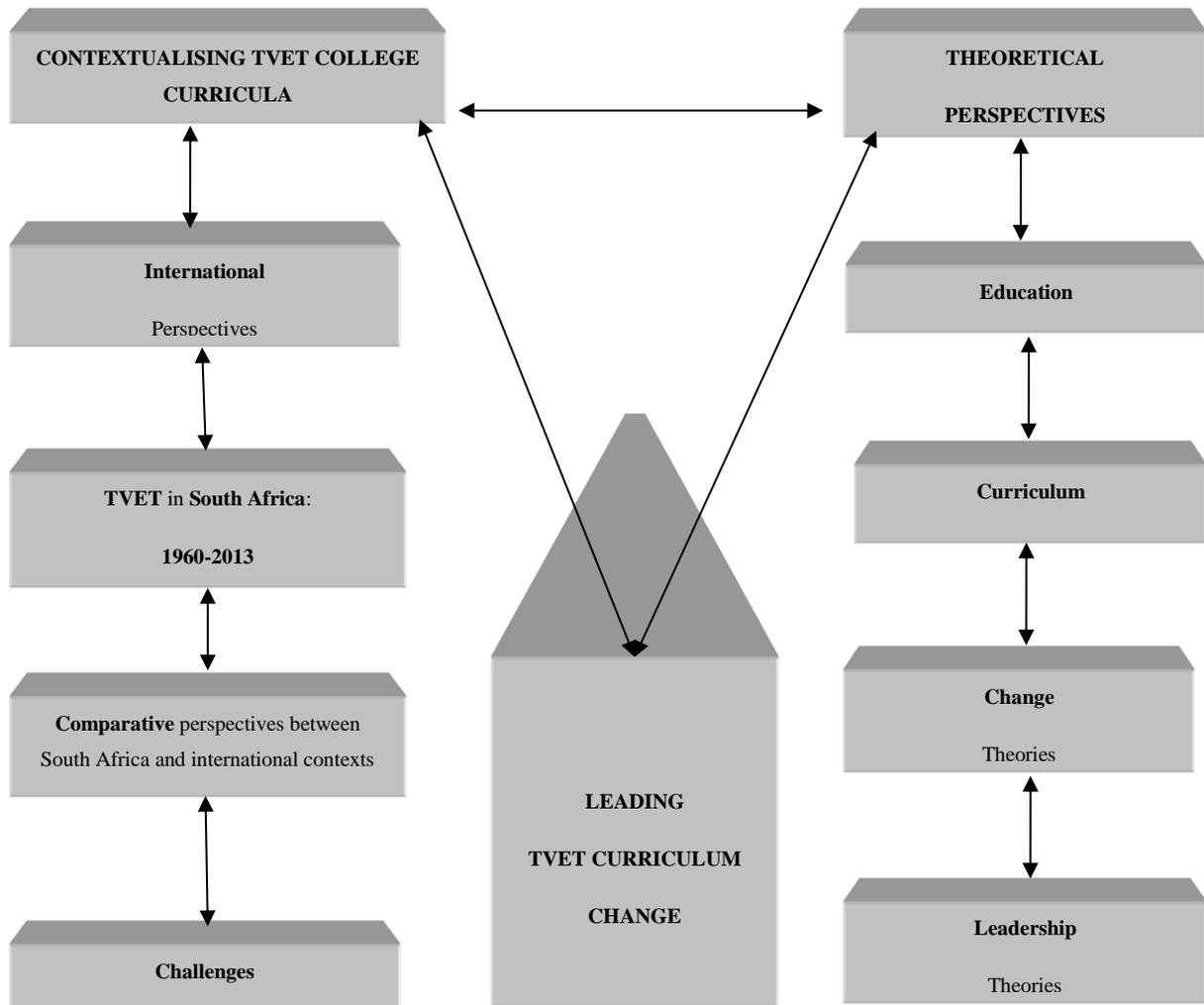
Furthermore, Badroodien and Kraak (2006:181) states that curriculum development for vocational education is a national competency, allowing minimal room for institutional innovation and curriculum customisation by TVET colleges. TVET colleges are restricted by the rigidly structured programme qualification mix consisting of (NCV) and National Technical Accredited Education (NATED) programmes which are mandatory DHET funded through the TVET funding norms and standards (DHET, 2015:14-20). Most of the colleges cannot accommodate more students or implement new modern industry related programmes, due to severe infrastructure limitations and lack of dedicated funding for infrastructure development (DHET, 2012:9-10). College leadership, therefore, have to strengthen their role through increased pressure and influence on the DHET for curriculum change to be prioritised. The curriculum change required is twofold, firstly for programmes to address the needs of industry, which would lead to improved student employability, and secondly programmes that may lead to improved articulation to higher education institutions. The Department of Education (DoE, 2007) endorses the previous authors' statements by declaring some of the negative features of the then technical colleges included programmes that were outdated and unresponsive to an emerging economy. It also included low throughput rates and negligible industry take-up of students, since those teaching in TVET colleges had mostly lost contact with industry and had little knowledge of new trends, new technology and the new shape of business in South Africa and beyond. The provision of post-school education through higher education, TVET and other training providers are fragmented and little integration exists across different types and sites of provision (DHET, 2012:13-14; RSA, 2013:324). An effective TVET curriculum should prepare students for low, intermediate, medium and high level skills that are linked to students' school level preparedness to meet admission

requirements. Furthermore, the TVET curriculum has to allow for articulation between the different levels of an occupation and at the same time allow for access to further studies (Duncan, 2009; DHET, 2013).

South Africa has seen “unprecedented reform across all sectors and institutions of society” (Kraak, Paterson & Boka, 2016:viii, xi). Accordingly, the TVET college sector has experienced extensive change, which has become a constant feature since the dawn of democracy in South Africa. Lachiver and Tardif (2002) postulate the need for effective change factors such as strong leadership accepted by the academic staff, sharing and accepting the need for change, engaging in curricular change, as well as the degree of flexibility demonstrated by departmental staff in educational institutions. According to the DHET (2012), the college principal needs a suite of comprehensive leadership competencies, such as strategic capability and leadership, financial management, people management and empowerment, client orientation and customer focus, change management, honesty and integrity to effectively lead the college.

Legislation on TVET colleges as espoused by (DoE, 1998; Kraak *et al.*, 2016:32-34) indicate that the NCV levels 2 to 4 qualifications were to be put into place to solve the problems of poor quality programmes, the lack of relevance to the economy, as well as the low technical and cognitive skills of TVET graduates. Unfortunately such legislation did not meet the all needs of vocational programmes and did not enjoy the universal support of industry, especially the support for artisan training. The Department of Education (DoE, 2006b) promulgated some measures in (Government Gazette number 28677) on 29 March 2006 to repeal policy in terms of a number of documents. This included the Norms and Standards for Instructional Programmes and the examination and certification thereof in technical education (Report 190 [92/04]), as well as formal technical college instructional programmes (RSA, Report 191 [97/07]). The promulgation of Government Gazette number 31711 (12 December 2008) followed suit where the Department (DoE, 2008a) also announced the phasing out of the National N Certificates N4 to N6 and the National N Diploma qualifications offered at TVET colleges (see Report 191 [97/07] and Report 190 [92/04] respectively). Unfortunately, due to the lack of replacement programmes and pressures from various stakeholders, the Minister of Higher Education and Training ultimately decided to reverse the decision that was taken between 2006 and 2008 to phase out the national N certificates (N1 to N3 Engineering Studies) and (N4 to N6 Engineering, Business and General Study) qualifications until further notice. Regrettably, almost eight years later, the TVET sector is still awaiting the new replacement programmes for the (NATED) programmes that should be implemented with dedicated subsidised DHET programme funding. With these theoretical and contextual

perspectives intact, it seems a good point to move on to reporting the empirical investigation which drew on my conceptual understanding of the phenomenon of curriculum leadership - especially within the South African TVET college environment. The literature review of the study concluded by suggesting a preliminary conceptual framework (see below Figure 1.1) as it emerged from considering a number of relevant theoretical and contextual factors.



**Figure 1.1 A preliminary conceptual framework for leading curriculum change**  
*(Source: Terblanche, 2017)*

## METHODOLOGY

A document review, a questionnaire survey and interviews were used for data collection in four phases to analyse the trends, attitudes and beliefs of college employees located within five TVET colleges in the Western Cape. The other eight provinces were excluded due to limitations of geographical challenges, time constraints and costs involved for the researcher.

Phase one comprised a review of documents such as policies, theses, government publications, books, journals, and reports related to the research problem. In phase two a survey was conducted among 116 TVET college respondents. This was followed by fourteen focus group interviews conducted among 90 TVET college respondents during phase three.

Finally, phase four of the study incorporated the findings from the previous three phases of the study into a conceptual framework that aims to potentially assist in leading curriculum change in the TVET college sector.

## **FINDINGS**

The findings from the study indicate that TVET college curriculum reform is eminent. Such reform has the potential to contribute in various ways to improved employability, productivity and success rates of TVET college graduates. The findings emphasise the crucial need for change in management strategies to prepare for current and future TVET curriculum challenges. What also emerged is the need for stronger industry involvement in the TVET curriculum review process to enhance responsiveness to industry needs and requirements. Furthermore, the findings on leadership capacity in the TVET institutions represented in this study indicate that the TVET college sector needs leadership programmes to assist leaders in bringing about curriculum change. In addition, the findings show various cognitive and social competencies required by curriculum leaders to effectively lead curriculum change and its accompanying challenges.

Different views emerged during the empirical part of the study regarding the concepts of vocational, occupational and academic types of education. Respondents indicated a need for specific knowledge and skills required for the development of a responsive vocational and occupational curriculum, such as research on and knowledge of the academic abilities and preparedness of students, social background of students, knowledge and experience of industry, curriculum writing skills, and advanced cognitive and analytical skills. In particular, students' social background and prior academic knowledge might be a priority when considering the development of new curricula in order to contribute to the success rates of TVET college students.

Another important finding points to ongoing professional development of college staff, which seems crucial if TVET staff are to gain the relevant knowledge and skills required to plan and deliver a responsive vocational and occupational curriculum. Widening of student participation and access was also found to be crucial to be considered at the inception stages of curriculum development. Furthermore, industry knowledge and experience were pointed out as being a critical criteria for curriculum developers and it is envisaged that once the curriculum becomes industry

aligned, the employability of students and industry partnerships with TVET colleges may improve. Finally, the revision of the type and amount of funding awarded to colleges by DHET seems critical in order to achieve the mandate of student expansion, meet the need for adequate resources, and for quality delivery of teaching to promote the skills workforce of South Africa. Based on the results of the study, as well as the success of TVET in Germany, a parallel- or two-stream curriculum is suggested to better address current and future TVET training needs. xxx

## **CURRICULUM CHALLENGES**

Respondents listed a number of curriculum challenges, which include a lack of industry partners, incoherent and fragmented curricula, and the short duration of Report 191 engineering programmes. Poor articulation of vocational and occupational programmes to higher education programmes and the workplace remain of serious concern as per the views of the respondents. Respondents also believe that the tarnished poor public image of TVET college programmes persists within the broader community and industry. Other challenges that were cited by respondents include the lack of updating and adequate resource materials, as well as poor practical integration with theory components (Terblanche, 2017).

### **Results from closed-question section of questionnaire survey**

The need to revise the design of the National Certificate Vocational (NCV) L2-L4 was supported by most (84%) respondents in the closed-question section. Respondents who disagreed with the statement that DHET ensures adequate industry involvement in the development of college curriculum equated 70%. A large majority of respondents (88%) indicated that Report 191 (N4-N6) business and general study programmes need revision. The need to revise the content of the National Certificate Vocational (NC (V) L2-L4) was also supported by a large majority (80%). The need to revise the design of the National Certificate Vocational (NCV) L2-L4 was supported by most (84%) respondents. Most respondents (80%) disagreed with the statement that vocational programmes articulate seamlessly into higher education programmes. The majority (70%) of respondents disagreed that occupational programmes offer articulation routes into higher education.

A marginal majority of (59%) of the survey respondents perceive the curriculum content of Report 191 (N1-N3) engineering programmes as relevant to artisan development in South Africa, while a slight majority of (57%) of the survey respondents perceive the curriculum design of Report 191 (N1-N3) engineering programmes as relevant to artisan development in South Africa. However, the same respondents contradicted themselves when they answered a similar question

in the open-ended section of the survey, by indicating that the curriculum content, design and textbooks are outdated. Another reason for the contradiction of the respondents' responses in the closed-question section of the survey could also be that they misunderstood the closed-questions related to the specific question or due to lack of knowledge and exposure to the engineering field of study. This contradiction could also be ascribed to the variable in the biographical data regarding the number of work experience years of the survey respondents that was less than the experience of those who participated in the group interviews where respondents expressed strong views that the engineering programmes are outdated and the curriculum design and content needs urgent reformed. Respondents in the group interviews supported most of the views expressed in the open-ended question section which interestingly, comprised of the same respondents who completed the closed-questions. The N1 to N3 engineering curriculum, in particular the N2 programme, is one of many other programme options, a prerequisite to become a qualified artisan (Terblanche, 2017).

### **Results from open-ended question section of questionnaire survey-“verbatim quotations”:**

#### **N1-N3 Engineering Studies Programmes**

*“short duration of twelve weeks, the lack of practical components and technology, outdated curriculum content, design, equipment and textbooks”.*

*“poor quality of the national examinations”.*

#### **N4-N6 Business and General Studies Programmes**

*“outdated curriculum and design and textbooks”.*

*“lack of practical applications to current work scenarios”.*

*“only theory knowledge”.*

*“no demands – students don't get work with their qualifications”.*

#### **National Certification Vocational (NCV) Programmes**

*“specific subject content levels which are pitched too high for the education entry level of the students as well as the pass requirement of subjects which are also too high”.*

*“curriculum is not responsive to industry and market needs and are tainted with a poor public image”.*

#### **Occupational Programmes**

*“lack of partnerships with industry for work placement opportunities for students”.*

*“some of the unit standards are outdated”.*

*“theory-based learnerships;*

*“too much paperwork and inadequate actual learning time”.*

*“coherence and articulation is difficult”.*

“students don’t find jobs”

“people do not trust the curriculum”.

“lack of knowledge content of occupational programmes”.

## Results from group interviews - direct quotations:

### N1-N3 Engineering Studies Programmes

“The syllabus that come from the archive – not being used anymore in industry. Site visits is futile because they won’t be able to relate the theory to what they see in the workplace. Quality of students that we receive from schools is not up to standard. Mathematics is a timeless subject and well-suited with Electrical trade but not with the other trades. Engineering Science is the same – not-well suited with other trades as in Electrical. 25% of marks are favoured to Electrical students. Maths and Science should be applied to the specific trade”. (FG4M1)

*\*Key: Focus Group 4, Male respondent 1)*

“Programme originally designed for Apprentices, now we get voluntary students. Industry must come on board and be part of change the curriculum and then they will accept the curriculum...”. (FG4M1)

### N4-N6 Business and General Studies Programmes

“Outdated curricula”. (FG1F1)

“Materials for Report 191 are outdated. Some syllabi’s were revised. Some subjects are still being followed but outdated. We teach new materials but students are examined on old curriculum – they must learn old materials”. (FG12F3)

### National Certification Vocational (NCV) Programmes

“Not the right learners for the NC(V). The curriculum was intended: 60% theory and 40% practical. The focus is now on mostly theory for exams and not enough practicals. NC(V) was not researched and piloted properly before implementation. Some subjects are confusing and contain high level of conceptual knowledge”. (FG1M1)

### Occupational programmes

“Students are here for the monetary stipend linked to course. Low entry levels of students lead to poor understanding of theory and even practical. Time management is also problematic. Community from where Grade 9s come determine their attitude and academic entry level”. (FG3M1)

“Industry does not know the qualification and learners don’t get work”. (FG1M1)

## **CURRICULUM CHANGE CHALLENGES**

Curriculum change highlighted factors such as the need for proper research before reviewing or developing a new curriculum, stronger industry involvement in curriculum development processes, proper systems for student screening, and the use of technology to improve curriculum standards. The majority (92%) of respondents in the closed question section of the questionnaire survey indicated that student employability could be enhanced through curriculum change and almost the same number (90%) of respondents believe that productivity in the workplace could be improved (Terblanche, 2017).

From the findings it emerged that curriculum change can potentially contribute in several ways to bring about improved employability, productivity and success rates of TVET college graduates. The findings also point towards a mismatch between the cognitive demands posed by (NCV) programmes and the low levels of academically preparedness of school leavers, which negatively influence the success rates of TVET students (also see Papier, 2009; RSA, 2013:316 and Gewer, 2010:29). What further stands out is a need for change management strategies, crucial to prepare for and combat current and future TVET curriculum challenges. The central challenge underpinning much of the feedback regarding TVET colleges is the confusing state of its purpose and scope (Terblanche, 2017).

## **CURRICULUM LEADERSHIP CHALLENGES**

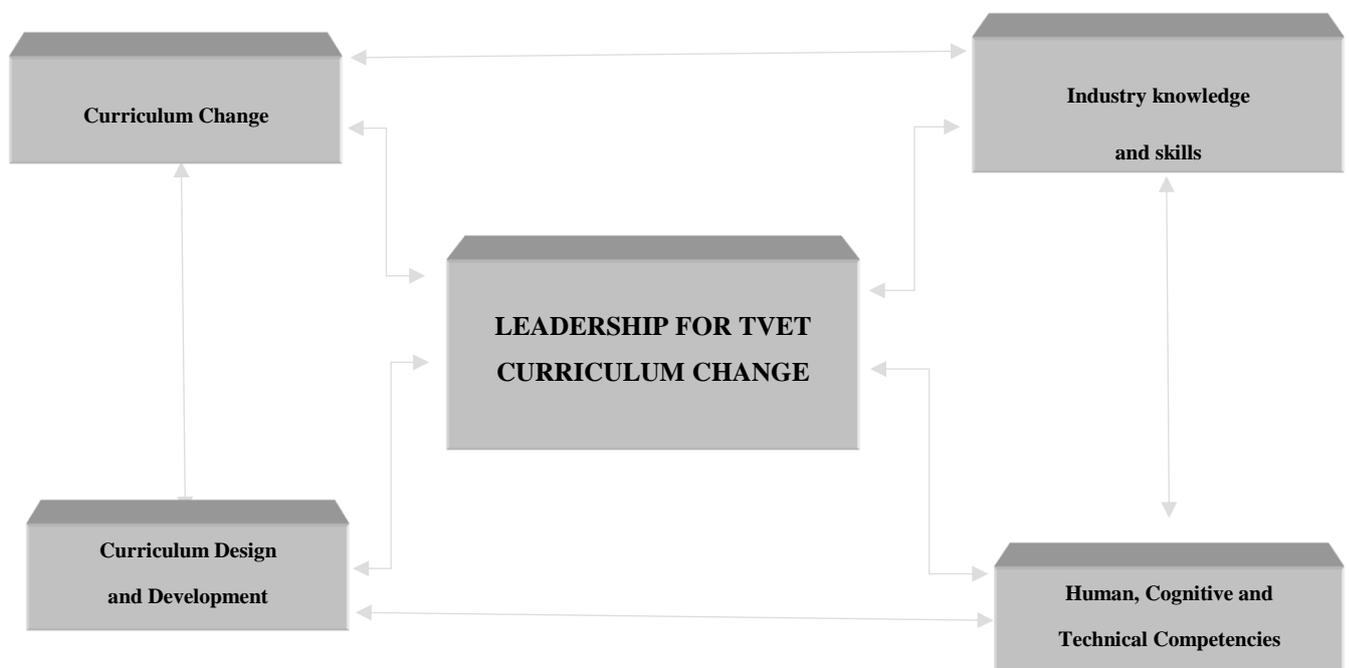
From the data on curriculum leadership it seems that challenges such as lack of industry knowledge and experience, curriculum knowledge, a lack of strategic thinking, a lack of the will to change are observed, as well as the lack of vision and acquiring the necessary resources. Leadership features viewed as important for enhancing curriculum change comprise of participative, charismatic, situational and servant leadership approaches, as well as business acumen and change management strategies. Furthermore, key competencies which appear to be important for TVET leaders to manage the required curriculum change include research skills, knowledge of the sector, and networking skills. Innovation, creativity, and subject expertise were also indicated as crucial competencies. The majority (76%) of respondents disagreed in the closed question section of the questionnaire survey that leadership programmes exist that could capacitate and enable TVET college leaders to lead curriculum change (Terblanche, 2017).

These elements of college leadership currently seem too wide and complex and need to be streamlined to create a unique identity, such as in the case of schools and universities. Another important finding is that the influence of new legislation on the TVET college sector, which was

meant to be substantial since the dawn of democracy in South Africa, was met with little successes, and that some policy imperatives have not been implemented. The empirical part of the study also indicate a lack of skills training capacity, which seems to be crucial in enhancing college leadership to address the magnitude of changes in and challenges to the TVET college sector. Equally important is the need for staff development in curriculum matters, as well the development of curriculum leadership capacity (Terblanche, 2017).

Finally, leaders are perceived to be in comfort zones and lack the will to change, thus the respondents proposed training of leaders in various leadership styles, such as situational, servant and consultative leadership. It is also suggested that TVET leaders need curriculum and industry training to gain insight. Other suggested capacity training needs include quality assurance, change management, planning, organising and quality monitoring skills (Terblanche, 2017)

Against these theoretical perspectives, contextual factors, findings and challenges as discussed and pointed out in this paper, it seems that the need for curriculum change and leadership exist within the South African TVET sector, therefore the study suggests a framework for leading curriculum change (see Figure 1.2).



**Figure 1.2: A simplified framework for facilitating curriculum leadership**  
 (Source: Terblanche, 2017)

The framework supports a socio-constructivist approach to learning and acknowledges that students' needs are central to the learning component. Constructivist learning theory has emerged as a prominent approach that underpins teaching. This paradigm is derived from the field of cognitive psychology and is based on the work of (Vygotsky, 1981). According to Hendry and King (1994:223) and Peterman (1997:157), the main assumption in constructivism is that knowledge is actively constructed from within and from interaction with environments.

Grundy (1987) refers to the 'curriculum as praxis' or the 'curriculum as social construct' when the curriculum is constructed by those involved. The framework for the development of curriculum leadership that can bring about curriculum change in the TVET college sector is supported by Grundy's definition, since the modules and elements are based on the social context of the respondents as emerged from the empirical data. Hence, the further development of this framework will remain contextually shaped by the experiences and knowledge of those related to the TVET college sector.

The suggested leadership framework is based on four modules which are derived from the elements as they have emerged from the empirical data. These elements are grouped under the four modules which can guide the further development of the curriculum design and content, determine learning outcomes and assessment criteria, and suggest teaching and learning strategies. The two way arrows indicate articulation, integration and flexibility between the four sections of the framework (see Figure 1.2). The emphasis is on key elements towards the composition of the curriculum leadership framework, which might contribute to equip college leaders to bring about curriculum change in the South African TVET college sector (Terblanche, 2017:240-244).

The framework differs from my initial conceptual understanding (see Figure 1.1) in that it represents a more coherent view of how curriculum change could be led. In the first framework two main strains involved theoretical and contextual perspectives, which mainly focused on key concepts and key challenges for leading curriculum change. In the present framework the focus is primarily on incorporating the conceptual understanding into a more practical orientation in terms of what could be potentially helpful in the development of leaders that need capacity building and training in TVET colleges to lead curriculum change (Terblanche, 2017).

## **FUTURE RESEARCH**

Studies in TVET colleges within the other eight provinces of South Africa should be considered for future research. This could add value to the verification, credibility, and expansion of modules and key elements, as well as to the need of a framework for facilitating curriculum change. The extension of the research to other provinces could ensure general support and acceptance of the need for such a framework and can strengthen the approval process for such a curriculum to be developed by the relevant authorities (Terblanche, 2007).

## **CONCLUSION**

The recent study from which this paper emanates was to develop and suggest a curriculum leadership framework for curriculum change in the TVET college sector. In this sense the study has substantially contributed to the extension of a conceptual understanding of the key factors and leadership features needed for TVET college leaders to lead curriculum change. This paper aimed to reflect on the need for curriculum change and leadership based on curriculum leadership challenges faced by (TVET) colleges. The researcher hope that through the discussions in this paper that a meaningful contribution in a modest way were made to further research TVET in South Africa.

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