International Journal of Vocational and Technical Education Vol. 4(4), pp. 46-59, November 2012
Available online at http://www.academicjournals.org/IJVTE
DOI: 10.5897/IJVTE11.004

Full Length Research Paper

Further education for unsuccessful grades 9 to 12 school leavers in South Africa

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Accepted 7 June, 2012

Statistics released by the Education Management Information Systems (EMIS), (2002 to 2009) reveal that 60% of learners entering Grade 9 leave school without attaining Grade 12 certificates. These learners do not qualify for employment because employers prefer well-trained experienced employees. A limited number (12 500 annually) of learnership and apprenticeship opportunities are also out of reach because they have to compete with better-qualified candidates. High unemployment rates (25.3%) and very high youth unemployment (48%) signifies their bleak prospects. The poor success rate of these learners, attempting further education at FET colleges, implies inappropriateness of the existing curricula at these colleges to address their educational needs. Their educational foundation, primarily based on language, mathematics and science proficiency, is insufficient for progress in mainstream further education at schools or Further Education and Training colleges. The aim of this study is therefore to investigate the educational situation and propose a curriculum for a specific field, which can serve as an example for further research and establishment of appropriate curricula over the spectrum of learner aptitudes and interests. For this purpose, the field of engineering was selected to reduce the research to manageable size, uniform characteristics and a specific curriculum focus. Addressing their quest for skills and qualifications can be met with transdisciplinary practicum-based education obviating the linguistic-logic-mathematical predilection of mainstream education.

Key words: Educational foundation, constructivism, knowledge integration, transdisciplinary, practicum-based, differentiated development.

INTRODUCTION

Statistics released over the period 2002 to 2009 reveal that an annual average figure of 577 722 (60%) learners leaving high school in South Africa (RSA) did so without obtaining a matric certificate (Department of Basic Education, 2010; Parliamentary Monitoring Group, 2010). Further confirmation of the magnitude of the situation is given by Kruger (2008:2), reporting that 60% of the learners were "pushed" out of the school system before reaching matric. Hoffman (2008) even reports a 77% school dropout from Grade 1 to Grade 12. Van der Berg et al. (2011:4) confirm the dropout rate of 60% by referring to 40% completion rate. It is a cause for concern when more than 50% of a country's learners fail to achieve their school completion certificates. More detail of the South African school dropout rate can be seen in Table 1.

The premise that South Africa's school dropout is excessive is further accentuated by comparing it with the school retention rates of a number of foreign countries (Table 2). Acquaintance and competition of South Africa with the international community are furthermore reiterated by the following statement in the preamble to the Further Education and Training Act, Act 98 of 1998: "Provide optimal opportunities for learning, creation of knowledge and development of intermediate to high level skills in keeping with international standards" (RSA, 1998). Comparing South Africa's school dropout with Sub-Saharan Africa could enhance the picture by providing the necessary balance, but school dropout statistics for the phase Grades 9 to Grade 12 from these

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Table 1. School dropout rate: Grade 9 to Grade 12 (FET college "new" entrants deducted).

Period	Grade 9	Grade 12 successes	FET college new entrants	Dropout grade 9 - grade 12 certificate	Dropout rate (%)
2002 to 2005	1 089 404	347 184	32 000*	710 000	65
2003 to 2006	902 129	351 503	30 000*	520 000	58
2004 to 2007	914 729	368 217	25 073	521 439	57
2005 to 2008	930 797	333 604	41 061†	556 132	60
2006 to 2009	970 946	334 718	55 409†	580 819	60

EMIS, Education Management Information Systems (2009) and Parliamentary Monitoring Group (2010).
*Estimated; † Calculated from information of the Department of Higher Education (2009:17).

Table 2. School completion rates.

Country	Success rates (%)
Japan	93.00
United Kingdom	87.00
United States of America	77.00
European Union	84.80
Thailand	50.00
Ghana	30.00
South Africa	40.00

Department of Basic Education (2010), EMIS (2009) and Van der Berg et al. (2011:4).

countries are not readily available. However, Sub-Saharan Africa is not South Africa's main trading partner and competition in international trade.

High school dropout has dire consequences for South Africa's socioeconomic wellbeing. Gower (2009) calls it a social time bomb. Unemployment of 25% and youth unemployment of 48% are critical issues for the country (FET Round Table, 2010: 23; Statistics South Africa, 2010). Adding the high school dropout to the equation further emphasises the urgency of addressing the problem. This study, however, focuses on the contribution education can make in terms of equipping the unsuccessful school leavers with skills and qualifications. Improving skills and qualifications will enhance employability and prospects of entrepreneurships (self-sufficiency).

In summary of the situation, it can be reiterated that unsuccessful school leavers face a reality of bleak prospects in their educational and employment situation. It is therefore imperative that the skills and qualifications of unsuccessful school leavers be improved to empower them to alleviate their socioeconomic wretchedness. Consequently, the overarching research question must be asked:

> What will constitute a curriculum that will afford unsuccessful school leavers an opportunity to construct an educational foundation upon which they can build further capacity?

This translates into ways and means, which can be established through research to afford significant numbers of these learners knowledge and skills that will enable them to improve their prospects. Encompassing the envisaged aspects of improving the educational situation and socioeconomic prospects of unsuccessful school leavers, the research question needs to be differentiated into a number of subsidiary

questions. The following subsidiary questions distinguish aspects of the process to be followed:

1. What is the international and South African situation with respect to vocational education for unsuccessful school leavers?
2. Which curriculum development and design theories can form a basis of a curriculum for unsuccessful school leavers?
3. Which learning theories and approaches can form a basis for a vocational curriculum for unsuccessful school leavers?
4. What are stakeholders' (senior personnel) and unsuccessful school leavers' perspectives on an appropriate educational approach to be followed in an envisaged vocational curriculum for unsuccessful school leavers?
5. What would be an appropriate structure and format of a vocational curriculum for unsuccessful school leavers?

Creating a second chance for unsuccessful school leavers in education to acquire knowledge, skills and values and build a significant educational foundation could give these learners hope of further education, development and improved prospects. Designing a suitable curriculum could encourage further research and further development of alternative education for unsuccessful school leavers in the educational system of South Africa. "Some key suggestions are to use FET colleges as 'second chance' institutions for preparing students in alternative access programmes as well as bridging courses", but appropriate curricula needs to be designed (Smith, 2011:30).

A noteworthy development in this regard is the European effort to afford not in education, employment or training (NEET) young people a second chance in education. The European Commission initiated actions to reduce school dropout and urged the establishment of second chance schools for 16 to 24 years old in 1995 (Chistolini, 2008:219). Pilot projects ran in various cities in Europe in the period 1997 to 1999: Marseille (France), Halle and Köln (Germany), Leeds (United Kingdom), Bilbao and Barcelona (Spain), Hämeenlinna (Finland), Norrköping (Sweden), Catania (Italy), Athens (Greece), Seixal (Portugal), Heerlen (The Netherlands) and Svendborg (Denmark). Greece, one of the European countries with a high school dropout rate and high rates of youth unemployment, established 48 second chance schools (Chistolini, 2008:221). The second chance schools project, aimed at improving the socioeconomic prospects of these youngsters, includes numeracy, literacy, sports, drama, teamwork and customer service skills in the curriculum. School dropouts typically experience learning difficulties, neglect, low self-esteem and often have a negative attitude. In the education of these people, the Centrum Voor Europese Studies en Opleidingen (CESO) (2000) focuses on key aspects, which are worth considering in this study:

i. "A different teaching and counselling approach focusing on the individual's needs, wishes and abilities, and stimulating his/her active learning."
ii. "Flexible modules allowing the acquisition of basic skills (numeracy, literacy, social skills) to be combined with practical training in and by companies" (European Commission, 2001:6).

These two aspects may be central in the concept of "second chance education" for South Africa:

"From its inception, the school in Catania, Italy was meant to reply to the serious situation of social exclusions of residents of the area, that is, lack of services, economic and social hardship, and scholastic dispersion. One could say that, after about ten years, the school has done a lot to prevent the phenomenon and almost totally eliminate it" (Chistolini, 2008:223).

"The school in Catania is currently offering training, structured as follows:

i. Basic education (Italian, history, geography, English, mathematics, physics, social studies, multimedia, psychology)
ii. Professional training (workshops)
iii. On the job training (in a company)
iv. Common activities (cultural, athletic, recreational)" (Chistolini, 2008:223).

The Peristeri School in Greece offers skills training and qualifications required for employment. They adopted the "theory of *Literacy studies"* and the "concept of multi-literacy, understood as the acquisition of basic scientific competency in:

i. Linguistics (literacy) in Modern Greek and English;
ii. Arithmetic (numeracy) for mathematics;
iii. Computer science (information technology, computer literacy) for new technologies" (Chistolini, 2008:224).

Physical sciences and multimedia social communications were added to the programme at the school. The curricula at these two schools constitute the basic educational requirements of school dropouts: improve ability to learn, mathematical skills, scientific skills and linguistic skills. These skills lay the foundation for further education and development. Preparing learners for employment is not confined to lower level occupations.
Their second chance education has a vocational focus which suits their situations well. The South African unsuccessful school leaver situation necessitates orientation and preparation for further education with emphasis on re-entry into further education, lower-level skills employment and entrepreneurship.

The second chance school in Catania, Italy

Table 3. National examination results of the Engineering N and NC(V) subjects and NC(V) certificates, 2005 – 2009.

Exam results	2005 (%)		2006 (%)		2007 (%)		2008 (%)		2009 (%)	
	W/P	E/P	W/P	E/P	W/P	E/P	W/P	E/P	W/P	E/P
Engineering N1	48.88	42.52	44.82	39.01	--	--	--	--		
Engineering N2	47.53	42.74	48.62	44.84	31.76	26.43	37.7	29.3		
Engineering N3	49.29	44.65	51.21	46.65	41.68	36.50	40.6	35.19		
Subjects NC(V) 2					54.05	42.00	48.3	35.58	†36.98	†24.61
Subjects NC(V) 3							48.2	36.18	†48.58	†34.80
Subjects NC(V) 4									†73.05	†52.27
NC(V) 2 (Cert.)						23.00				9.63
NC(V) 3 (Cert.)										3.13
NC(V) 4 (Cert.)										**

Department of Education, FET College Examinations: Results (2006 – 2009); Department of Higher Education (2009:57 - 64).
† Excluding fundamentals; **Umalusi issues the certificates for NC(V) 4.
W/P = Wrote/Pass; E/P = Enter/Pass (including dropout as educational failure).

emphasises youth employment in their remedial function and they are successful. Peristeri school in Greece adopted a "philosophy of *learn to learn"* which is more concerned with personal development (Chistolini, 2008:225). Personal development is a more "proactive" premise considering capacity to learn fundamental to improvement of the situation.

From the European experience, it is evident that education for these learners will be a long-term enterprise. "There will always be the 30% who cannot associate classroom instruction with the real world" (Webb, 2000:1). This conclusion is confirmed by the United Nations Educational, Scientific and Cultural Organization's (UNESCO) international norm of 21% school dropout (Hoffman, 2008).

The situation of unsuccessful school leavers in South Africa is considered to be the result of low-quality education starting with informal education at home (Van der Berg et al., 2011:1). Inappropriate educational foundation leaves the majority of learners poorly prepared for further education in the national curricula, apprenticeships or learnerships. Contributing to their dismal situation is the absence of appropriate second chance education and the misconception that FET colleges can accommodate them in programmes uncompromising to their educational foundation – National Education (NATED) and National Certificate (Vocational).

The National Education (NATED) programmes were designed as academic components of apprenticeships resulting in serious limitations as education for unsuccessful school leavers. Deprived of languages, the very basic requirement for effective learning in further education, these programmes fail the criteria for alternative or "second chance" education for unsuccessful school leavers (Department of Education, 1988; RSA, 1996:7). The limited scope of the subjects included in the syllabi, mathematics, engineering science ("trade" science), engineering drawing ("trade" drawing), and a trade theory, cannot meet the requirements of the South African Qualifications Authority. Unindentured learners also do not have access to practical training, the foundation of the NATED programmes.

The intention behind the National Certificate (Vocational) programmes was to afford successful Grade 9 learners, with an interest in and a propensity for specific occupations, an opportunity to enrol in the National Certificate (Vocational) programmes the following year. Designed for this specific purpose, the standards are equivalent to mainstream school programmes on the National Qualifications Framework (NQF) levels 10 to 12 (RSA, 2008:19). Compulsory mathematics and natural science, being the major obstacles in mainstream school education, put it further out of reach of the unsuccessful school leavers. The low success rate, revealed in Table 3, confirms the inappropriateness of National Certificate (Vocational) programmes as "second chance" education for unsuccessful school leavers.

Contrary to the comments of the Department of Education (2007b:13) that orientation and bridging courses are redundant because "National Certificate (Vocational) programmes eliminate the need for National Certificate Orientation programmes", the National Certificate (Vocational) 2 curricula do not make adequate provision for learners who have difficulty in coping in the further education and training environment (Department of Education, 2007; 2007a). They have either to succeed or finally drop out of education without any kind of qualification. Exclusion of these "bridging" courses from FET colleges' programme scope has a detrimental consequence for unsuccessful school leavers, leaving them virtually unprepared for vocationally orientated National Certificate (Vocational) and vocational education (learnerships or apprenticeships). It is furthermore evident that lower level skills development does not feature in the public educational system of South Africa. Learners who do not respond well to the education on offer – school academic, vocationally orientated or

vocational (Sector Education and Training Authorities) education are not catered for. Accommodating such learners in mainstream education does not engender the desired development and progress. Schools' and FET colleges' throughput statistics prove this point (Department of Higher Education and Training, 2009:26, 37 to 41). Education to suit their needs can put many of these unsuccessful school leavers back on track or improve their prospects, socially and economically.

The overview of vocational education confirms the need for second chance education in South Africa similar to the second chance education in Europe and Great Britain for learners who do not respond well to mainstream education. This kind of education is not necessarily established on demand of trade and/or industry in their quest for skilled manpower. It should be regarded as developmental education, unrelated to the needs of trade and industry, for the sake of social wellbeing.

The South African situation differs in terms of the ratio, school dropout/school success involved (Table 1) and economic status – first world vs. third world. Unlike the situation in Europe and Great Britain where cities took responsibility for second chance education, greater government involvement would be necessary in South Africa due to the magnitude of school dropout and financial considerations. Provision must be made for special (second chance) education for unsuccessful school leavers, over the spectrum of learner aptitudes and interests, within the educational system of South Africa. Designing of such curriculum, necessitates the establishment of a knowledge foundation and construction of capacity that is, proficiency for the curriculation process.

Curriculation plan

Establishment of a curriculum and a curriculum design theory precedes the process of curriculum design. Curriculum theory is the all-encompassing account of the domain, aspects and facets of a curriculum and their relationships, including the design theory (Collins and O'Brien, 2003:355). "Curricula must be relevant and developed on an accountable basis in order to comply with the demands and needs of the country and the community" (Carl, 2010:22). The domain of this envisaged curriculum is mechanical skills within engineering studies utilising an approach derived from an evaluation of competency-based approaches and the research results.

This curriculum design theory concerns the flow of events in a typical procedure that is, a curriculum design cycle meant for designing a relevant curriculum for unsuccessful school leavers. The process of the design is initiated with the curriculum design cycle incorporating underlying principles (Nicholls and Nicholls, 1978:21). Each facet of a curriculum design cycle incorporates objectives, criteria, interpretation, evaluation and decision/selection in processes of establishing a curriculum. Although the curriculum cycle is divided into facets "starting" with the situation analysis, the development of the curriculum entails interaction between the facets and contribution to the development of one another (Carl, 2010:64). A seven-facet cycle based on the Nicholls and Nicholls model seems appropriate for this endeavour:

i. What is the purpose of unsuccessful school leavers' education? - Situation analysis
ii. What is worth doing? - Formulation of outcomes
iii. What do we teach to accomplish the outcomes? - Learning content
iv. How do learners learn best? - Learning theory and methodology
v. How can learning be accomplished? - Learning opportunities
vi. How do we know that the learners have achieved Proficiency? - Assessment of competence
vi. How do we know that the education is aligned with curriculum standards and learning principles? - Curriculum benchmarking.

This conclusion is similar to the Nicholls and Nicholls (1978) model with the exception of the inclusion of a fundamental learning theory and curriculum evaluation as a separate facet. The fundamental learning theory emphasises the very essence of education and supports methodology, learning opportunities and education strategies.

Continuous benchmarking of the curriculum during development, against the set criteria derived from the research question, curriculum focus questions and principles, is part of the procedure. A cyclical process is an acknowledgement of the integrated continuous nature of curriculum design. The different facets are developed virtually simultaneously. It is accepted that the chosen cycle is appropriate as guide for the design of the curriculum to provide second chance education for unsuccessful school leavers.

From a study of education approaches, transdisciplinary and project-based education provide the foundation for the envisaged curriculum and concomitant education resulting in a transdisciplinary practicum-based curriculum. The structure of South Africa's version of unit standards-based outcome-based education has attributes required for the construction of the curriculum framework and unit standards. Focussing on these education approaches implies selection of approaches regarded as more significant for the study and not refutation of others.

A transdisciplinary approach to education is concerned with understanding the world through the unitary nature of knowledge. The environment is a dynamic complex unity of parts – entities and events continuously influencing and being influenced by one another. Studying the world or for that matter, reality, through

separate subjects for the sake of subject knowledge is depriving learning of the richness offered by reality. It is breaking up the gestalt into isolated portions of information, which can at best only be unnaturally related to reality by some application or reference (Nicolescu, 2005:2). Transdisciplinary curriculum integration is assembling and incorporating knowledge from several subjects and fields into proficiency to accomplish the assignments and outcomes of the curriculum. It utilises a framework of strategies for compiling knowledge from several subjects and fields into problem solving or execution of assignments beyond integration of subjects (Drake, 1998:92; Ertas, 2000:15). The approach is not confined by subject or field boundaries as they only serve as sources of information. “Environmental problems and their solutions seldom respect faculty lines” (Carson, 2007:1 of 3).

A transdisciplinary curriculum-integration approach facilitates learner participation in educational activities; stimulate innovation and makes learning a pleasant experience. Learning content becomes more relevant and significant to learners when they can experience interconnections between knowledge from different subjects and applications in various ways (Drake, 1998:2-10). Educational integration for this study is derived from two continua by Drake (1998:20) and Nordahl and Kofoed (2008:3-7).

Transdisciplinary integration features in the project method, story-model, problem-based learning, hands-on approach (project education). There is no clear distinction between the application of problem-based learning and transdisciplinary education. Problem-based learning features significantly in project-based education. Killen (2010: 249) and Woolfolk (2010:318) give explanations of problem-based learning that is directly applicable to transdisciplinary education.

Project-based education is practical hands-on education focusing on integrated perceptual-motor and cognitive development – integrated declarative and procedural knowledge construction. The opportunities it provides enhance balanced edification towards independence, responsibility, innovation and cooperation. Integrating theory and practice or knowledge and skills lay the foundation for holistic competency-oriented programmes. Individual and group projects are incorporated in educational programmes for accomplishment of the desired outcomes in cognitive, psychomotor and social skills (Fogarty, 2001:78). Emphasising procedures and construction of integrated declarative and procedural knowledge signifies practica, but knowledge acquisition necessitates elaboration on the mental processes involved.

The three major learning theories, Behaviourism, Cognitivism (computer metaphor) and Constructivism were considered. Constructivism and later developments in understanding the psychological processes involved, encapsulate the very essence of learning suggested in the transdisciplinary education approach.

Constructivist learning is the active conscious and unconscious mental involvement of the individual, organising incoming information and finding relationships with existing mental representations in the process of constructing new mental structures (Killen, 2010: 7; Snowman and McCown, 2011:38, 245). Each individual has to construct his/her own mental representations by interpreting information perceived from the learner’s own personal observation of reality (Woolfolk, 2010:341). Nobody else can do it for a perceiver. Learning is an active process: the learner is central in the learning process which is subjective and based on the prior learning experiences of the learner as well as the context or situation where the learning takes place (Snowman and McCown, 2011:322).

The role of instruction is to support knowledge construction (as opposed to teaching already processed information) and the emphasis is on discovery of embedded meaning. Educators should seriously consider their knowledge and experiences to be their own constructions of reality and not necessarily replication thereof or the “truth”. “Reality is relative to the way in which it is observed and there is not just one true reality,” is an underlying principle of constructivism (Jordaan and Jordaan, 2000:63). Mental representations are subjective because they are constructed from incoming stimuli, existing mental structures, notions of relevance and ways in which they are related or assimilated. Much of the processing is unconsciously executed. The closest a human being can get to the truth is through intersubjectivity. This notion disqualifies the differentiation of declarative knowledge into “perceptual” and “factual” knowledge. In constructivist terms “factual” knowledge cannot be mental representations of reality.

Intersubjectivity is a kind of consensus amongst people that determines the criteria of perceptions and behaviour in general. These criteria determine what meaning will be assigned to the information observed (perception). Conciliation is possible because perceptions of reality of different people correspond sufficiently to accommodate communication and consensus about reality. Through communication and interaction, people make sense of the world in ways that make sense to others, developing intersubjectivity and contextualising interpretation (Jordaan and Jordaan, 2000:344). This emphasises the importance of group work, group discussions and educational interaction.

Knowledge representation (mental constructs) involves both declarative/descriptive (knowing that) and procedural/imperative (knowing how) forms of knowledge (Sternberg, 2003:248). This classification is an intention to distinguish between the functions of the two forms of knowledge in human existence and behaviour. Declarative/descriptive knowledge (knowing that), incorporating concepts, propositional networks, images, spatial configuration, relationships and temporal strings/

information (sequencing of actions and events), is knowledge constructed from facts and theories. It is knowledge about reality, describing that things are and what things are – comprehensive information, even *about* procedures, but excluding the *how* thereof (Rosenbaum, 2010:117). Declarative knowledge incorporates higher order mental representations.

Procedural knowledge (knowing how) is the mental representation of the dynamics of mental constructs, most often on the preconscious level, but available for cognitive processes and even conscious mental activity (Jordaan and Jordaan, 2000:470; Rosenbaum, 2010: 117). It is the knowledge utilised when executing a task – the mental processes enabling psychomotor activity. It comprises mental scripts; preconditions *(if)*; rules; conditions and procedure: routines, subroutines and techniques *(then)* – the production system (Sternberg, 2003:270). What is often referred to as intellectual skills – knowing how to accomplish the motor activities accompanying cognitive tasks – is procedural knowledge mostly on the preconscious level and applied automatically, for example, artists, sportsmen, musicians, gymnasts, motorcar driving and writing (Jordaan and Jordaan, 2000:474, 478).

Knowledge representation of procedural skills occurs in three stages: the cognitive, associative and autonomous (Woolfolk, 2010:258). The cognitive stage entails thinking about explicit rules and actions for implementing the procedure. Execution of the procedure according to the rules and actions is the associative stage. Knowledge is associated with the motor activities involved. Experience in the execution of the procedure develops into implicit implementation of the rules and actions with a high degree of integration and coordination in the autonomous stage. Everything is integrated into a single, coordinated series of actions executed automatically without consciously thinking about each action and sequence. Composition of a range of processes into a procedure is done by combining single actions into groups and the groups into an integrated procedural network. Procedural knowledge cannot be acquired effectively by observation. Observation of execution of procedures is merely declarative knowledge (knowing that/what). To progress to procedural knowledge active execution of the processes involved should be accomplished (Sternberg, 2003: 68).

The curriculum design, education approach and learning theory discussed, underlie and motivate the research and eventual design of the curriculum for unsuccessful school leavers with interest in and aptitude for mechanical skills. The fundamental learning theory and education approach are perfectly matching the intentions with the envisaged curriculum and concomitant education for unsuccessful school leavers in South Africa.

Operating on the meso- and micro-levels of curriculum design and development in this study, the concern is the design of a vocational education curriculum for unsuccessful school leavers. As proposal, the final curriculum may be submitted to the authorities who could consider it on a macro-level – completing the process of development: dissemination, implementation and operational evaluation (Carl, 2010:80).

RESEARCH METHOD

Endeavouring to attend to an educational situation categorises the study as applied research (Lategan et al., 2003:1-3; Myers, 2007). Within the basic type of applied research it further differentiates into a subcategory, problem solving. According to a notion of Phillips and Pugh (2008:52), this study can be typified as problem-solving research because the aim is to propose a specific curriculum as an attempt to alleviate the unfavourable educational situation of unsuccessful school leavers. It is applied, problem-solving, mixed-methods research.

Quantitative and qualitative research data are required to ascertain the unsuccessful school leavers' situation and elucidate information from reports and official statistics. Complementing each other, these two types of research impart a richer, deeper meaning to the investigation, combining quantitative evidence and qualitative interpretation to enhance understanding and establish context, thus providing a more holistic picture (Neuman, 2000:122; Holland and Campbell, 2005:3-5; Maree, 2010:258, 259).

Triangulation is described by Davies (2007:34) as "… based on the idea of using two or three different methods to explore the same subject". Du Plooy (2005:39) confirms the concept by stating that utilising "two or more data-collecting methods and reference to multiple sources of data, are referred to as triangulation". Maree (2010:39) considers triangulation "critical in facilitating interpretive validity and establishing trustworthiness". Positive correlation of data from different methods should correlate positively to meet the criteria of validity and trustworthiness – and for that matter, reliability of quantitative data in terms of measuring repeatedly what it's supposed to measure.

In this study it is not a situation of just "exploring", but a great deal of explaining. Magnitude, frequencies, opinions, possibilities and prospects are characteristic features of the information required, reiterating the necessity for a mixed-method approach. The prime concern is justification for the conclusions made and development of a curriculum that can provide education for a specific group of unsuccessful school leavers and serve as a guide to offer the kind of education suggested by the research question. Personnel and learner questionnaires were used to gather the quantitative data and interviews, telephone and "Skype" interviews provided perspective and improvement of the interpretation of the educational situation of unsuccessful school leavers.

The confines for this research are a manageable cohort of unsuccessful school leavers, faculty heads and senior personnel with a manageable range in the field of study resulting in the selection of a specific group of learners in a specific educational field at FET colleges. Directed by this rationale, purposeful sampling was conducted.

Narrowing down the number of unsuccessful school leavers to those who have demonstrated some desire to improve their skills and qualifications, will led to the selection of FET college enrolments. Focussing the study on a specific curriculum necessitates selection of a specific field within the broader context of FET college programme offerings. Amongst the assortment of FET college programme offerings the field of engineering was chosen because it can cover a spectrum of related basic knowledge and skills required as educational foundation for vocations in the engineering field.

Purposeful sampling, in view of the notion of Creswell (2008:214),

in the selection of participants and sites for the research was done in anticipation of information richness and relevance to the situation of unsuccessful school leavers. Features of this primarily qualitative method of sampling suits the combined method sampling of this study in terms of sample identity and definable characteristics (Creswell, 2008:152). Du Plooy (2005:100) posits that the parameters of the sample should "share several common characteristics", which would be represented by educational attributes the unsuccessful learners share and the programmes offered at the faculties of the education institutions selected.

In stratum selection in the South African society, all 50 FET colleges were invited to participate in the research, but the samples comprise only learners, faculty heads and senior personnel at the engineering faculties because they match the selected education field of the study (Creswell, 2008:154). The engineering faculties were targeted because they are regarded as some of the "last resorts" for unsuccessful school leavers by the Department of Education (2007b:5; RSA, 2008:19). Colleges were requested to randomly select 30 learners matching the profile of unsuccessful school leavers. According to Creswell (2008:154) selecting a specific stratum in a population based on specific characteristics ensures inclusion of the desired features for the research. It can be further focussed on the characteristics by selecting a specific sample matching the requirements. Each college received 30 copies of the learner questionnaire and one copy of the personnel questionnaire.

Personnel and learner responses from 16 colleges were returned. Representativeness within the population stratum of FET college faculty heads, senior personnel and learners was achieved by the location of the participating colleges across the country. All nine provinces were represented by colleges ranging in learner numbers from small to large. The college responses represent 16% of the colleges and 409 learner responses represent 85% of the questionnaires issued to the 16 colleges, 27.3% of the questionnaires issued to all the colleges and 3.12% of the total population matching the profile of unsuccessful school leavers amongst the FET College engineering studies learners. In the 16 FET colleges, 25 open-ended interviews were conducted. Communication was open, friendly and honest. Genuine concern and dedication of the participants were evident. All the information was recorded, transcribed, processed and analysed.

RESULTS

The situation encompasses the learners, education and prospects in the scope of this study with the prime concern being their ability to learn effectively. Without negating psychological, personal and socioeconomical circumstances, the focus is on the educational aspects common to the majority of unsuccessful school leavers. These aspects can be addressed in group-context by establishing the basic attributes to their poor record of learning and providing the means, mode and manner for effective learning. The reality of unsuccessful school leavers was established, but detail was needed to analyse, interpret and comprehend the full extent of their educational situation. Covering the different aspects by integrating data from the different facets of the research was an attempt to provide credible comprehensive information for the curriculum design and applying triangulation.

Educational profile of unsuccessful school leavers

Being the principal constituent in the equation a fair educational profile of the learners is essential in understanding the educational situation of unsuccessful school leavers. Determining the age and highest school grade of these learners provides a measure of confirmation of their status and initiation of the "profile" inquiry essential to the process.

The average age of the learners is 17 years according to the personnel respondents' data, which correlates with the learner responses and school levels of unsuccessful school leavers reported by the interviewees: Grades 9 to 12. It also corresponds with the major school dropout period.

The school qualifications of new entrants in engineering studies reported by the learner respondents and interviewees, Grades 9 to 12, confirm the status of the learners in engineering at FET colleges participating in this research as unsuccessful school leavers. Correlation of the learner responses and reasons given by interviewees are significant in the following aspects:

i. Poor academic performance at school
ii. "Last Resort (nowhere to go)"
iii. Financial considerations
iv. Interested in engineering fields and entrepreneurships
v. Practical training

Confirming poor academic performance at school as reason for enrolment at FET colleges, Interviewees D, I and U, blame school career-guidance personnel for referring learners, encountering problems in mathematics and science, to FET colleges to enrol in the National Certificate (Vocational) engineering programmes oblivious of the fact that these two subjects are compulsory and the standard of National Certificate (Vocational) mathematics is equivalent to school mathematics. It can be concluded that learners who cannot cope in the linguistic-logic-mathematical predilection of schools are referred to Further Education and Training colleges regardless of learner aptitudes, programme content, standard, range and the consequences for learners.

Lenient grade progression adds low quality education in the lower grades to the reasons for poor academic performances. Interviewee R confirms the situation: "The majority of the learners have Grade 10 and Grade 11 certificates that are worthless. The policy in the school grades is 'pass one pass all'." School grades do not vindicate the educational levels they are expected to represent (Interviewees P and N).

The ability of unsuccessful school leavers to learn effectively is questionable. Dropping out of school before achieving a Grade 12 (school completion) certificate and their poor examination results in engineering at FET colleges suggest inadequate learning. This is sub-stantiated by the 62.6% of the personnel respondents who classify the learners as being below average performers and 31.3% classify them as average. Interviewees C, O and R ascribe the inadequate learning

Table 4. Subjects fundamental to engineering education and occupations.

Year	NATED						NC(V)			
	2005 (%)		2006 (%)		2007 (%)		2008 (%)		2009 (%)	
	W/P	E/P	W/P	E/P	W/P	E/P	W/P	E/P	W/P	E/P
Mathematics NQF 2	44.33	38.42	28.61	24.84	25.14	19.85	24.03	18.04	32.84	24.02
Phys./Eng. Science NQF 2	44.09	38.60	28.61	24.84	46.25	32.41	34.07	17.51	37.50	23.43
Mathematics NQF 3	57.56	52.31	54.71	50.29			34.76	28.94	38.99	29.62
Phys./Eng. Science. NQF 3	51.19	46.87	54.17	50.27					32.99	22.80
Mathematics NQF 4	60.04	54.65	58.06	52.26					52.13	39.62
Phys./Eng. Science. NQF 4	44.86	40.65	45.18	40.94					50.00	33.33

Department of Higher Education, Report (2009:57-64).

of the unsuccessful school leavers' to low quality preceding education resulting in poor linguistic ability, poor comprehension and lack of learning strategies. Low level of self-discipline, low self-esteem due to poor educational achievements and consequential lack of confidence in educational environments can also be attributed to low-quality prior education (Interviewees O and R).

Contradicting the perceptions of the personnel are the learner responses. In terms of educational performance, 51.3% of the learner respondents regard themselves as being above average and 42.5% as average, but only 10% of the above average group give appropriate reasons for their choices. However, the school and college examination results support the personnel respondents' and interviewees' evaluation of the learners' educational performance.

The learner respondents' evaluation of their language proficiency is very high. Rating their reading capacity as good are 35.6% of the learner respondents while 42.5% are under the impression that their reading proficiency is excellent. Their writing skills are regarded by 38.3% as good and 39% rate it as excellent. Contradicting this, are the personnel responses and interview comments. Interviewees C, D, F, G, H, I and N confirmed the poor performance of learners portrayed in the college questionnaire responses with additions to areas of weakness. This notion is substantiated by poor examination results (Tables 3 and 4). Psychometric tests, mentioned in interviews, reveal "*illiterate and innumerate*" Grade 11 learners (Interviewees G and U). Poor language proficiency (literacy) is regarded by all the interviewees as one of the major obstacles in the progress of learners. Overall linguistic inability in terms of communication, reading and writing contributes to poor comprehension, learning and verbal and written expression (reflection).

Interviewees G, F, K, N, O, P and U are of the opinion that the learners lack numeracy, mathematic ability and math foundation. They are incapable of doing basic arithmetic (Interviewee G). The examination results in maths and science (engineering/physical science) at FET colleges in National Certificate (Vocational) and National Education programmes confirms the unfavourable situation for educational foundation construction for engineering education (Table 4). The subject completion rates reiterate the unfavourable situation.

Without a sound foundation of linguistic-logic-mathematic capacity, learners are cognitively not competent to progress in the current engineering programmes. With learners lacking the fundamental abilities, it is not appropriate to enrol them in National Certificate (Vocational) or National Education programmes regardless the aspirations of authorities, parents and learners themselves. Unsuccessful school leavers do not have the educational foundation for further education on the National Qualifications Framework 2 level.

Personnel and learner respondents agree that the education for unsuccessful learners should be based on workshop practice. Better performance in the workshops is reported by 75% of the personnel respondents and 69.6% of the learner respondents. Only 12.5% of the personnel and 10.4 % of the learner respondents disagree. The opinion that workshop practice enhances academic performance is supported by 80% of the personnel and 78.6% of the learner respondents. The interviewees support unsuccessful school leavers education based on workshop practice (Interviewees A, B, E, F, H, I, J, K, N, O, P, Q, R and U).

College respondents suggest welding, basic mechanical work, basic automotive repairs and component fitting as possible mechanical skills divisions for unsuccessful school leavers' education. All of these have the potential to be entrepreneurial, lower level skills, orientation and bridging programmes offering the option of progressing to higher levels of education: learnerships, apprenticeships and National Certificate (Vocational).

Entrepreneurial development is regarded as an option to obviate the current poor employment prospects. College respondents (43.8%) have their reservations about the prospects of unsuccessful school leavers becoming entrepreneurs, but 62.6% of them belief that entrepreneurial attributes can be developed and 37.4%

did not comment. Some of the personnel respondents (37.5%) give the learners a fair chance of succeeding in entrepreneurships considering their attributes.

Interviewees have a more realistic view regarding entrepreneurships as only one of the educational options for unsuccessful school leavers. Not all of the unsuccessful school leavers can succeed in entrepreneurships (Interviewees E, G and O). Innovation and problem solving should feature strongly in unsuccessful school leavers' education to give them the skills and sensitivity to spot opportunity. Equipped with entrepreneurial skills and knowledge, learners have another option if they cannot find employment.

DISCUSSION

Education was identified as viable practicable option to address the educational situation of unsuccessful school leavers and thereby affording those opportunities to escape their precarious socioeconomic circumstances. Public education in South Africa, however, does not provide education to vouch for such an obligation. It was therefore concluded that a specific type of curriculum should be designed to circumnavigate their poor educational predilection and afford them opportunities to educational foundation construction and capacity building. Designing a curriculum necessitates careful deliberation on the topic and meticulous planning.

Curriculum theory

The curriculum theory, formulated in the foundation construction stages of the study, constitutes the domain, curriculation aspects, facets and learner needs. The latter was accomplished within the framework of the curriculum design theory. Establishing the domain, second chance education for unsuccessful school leavers in the context of South Africa's education system, was accomplished with data from the study. Literature information, official statistics and evaluation of national and international vocational/vocationally orientated education, aiming at or specifically designed to address equivalent situations, provide the perspective required.

Education for unsuccessful school leavers should be accommodated within the South African education system. Their numbers and the country's socioeconomic reality, designate responsibility to the South African education authorities. Further Education and Training colleges are identified as the institutions most suitable to accommodate unsuccessful school leavers. The expansion of Further Education and Training colleges and increase of learner numbers to one million by 2014 should include unsuccessful school leavers' education (Department of Education, 2007b:5).

The curriculum is structured on practical hands-on activities, creation of learning-by-doing education initiated on a level below apprenticeships and learnerships as recommended by the stakeholders and supported by the literature. Structuring the curriculum according to unit standards-based OBE enabled distinct differentiation on Bloom's revised taxonomy of learning allowing differentiated development and achievement of qualifications (Forehand, 2005:3). The units, modules, divisions and levels of the curriculum were therefore structured accordingly. This transdisciplinary practicum-based mechanical skills curriculum makes provision for progression into vocational education - learnerships, apprenticeships and even National Certificate (Vocational) - lower level skills and entrepreneurships.

The curriculation aspects, research, curriculum design, dissemination, implementation and operational evaluation should be a responsibility of the education authorities, employing educationists and curriculum experts. Operating within the confines of research and design, this study can merely be a proposal in an effort to encourage further research and eventual curriculation.

Curriculum design theory

Incorporated in the curriculum theory is the curriculum design theory with its seven-facet cycle. The data from the research are allocated to and processed in these facets of the design culminating in the envisaged curriculum structure. Although the facets are reported sequentially, starting with aspects of the situation analysis, the design is a cyclical recurring process.

Summary of the situation analysis

Concluded from the research, the learners' academic level and abilities are not conducive to development and progress in the current educational programmes at their disposal. There are a number of shortcomings, confirmed by the research, which serve as guidelines in the design process:

i. Lack of aptitude and propensity for linguistic-logic education
ii. Poor abilities in comprehension and insight in academic learning content
iii. Poor mathematics proficiency
iv. Poor science proficiency
v. Poor language proficiency

Addressing these shortcomings with a hands-on approach would require emphasis on the fundamental attributes needed for effective learning. These shortcomings are addressed in the relevant facets of the design.

Formulation of the outcomes

From the educational needs of the learners the curriculum outcomes are derived. Unsuccessful school leavers lack the ability to learn effectively. This fundamental ability is incorporated in the curriculum outcomes covering ability to learn, learning strategies and techniques to improve learning capacity. It appears in every unit standard and should be a premise in learning opportunity design. Learning opportunities should accommodate learning methods and techniques and demonstrate effective learning.

Unsuccessful school leavers have poor communication ability. In the curriculum outcomes communication competences are specified in the communication outcome. The competences essential for learners to learn effectively incorporated in the outcome are reading, oral and written communication complemented by comprehension and rhetoric. Learners need to comprehend what they are reading and hearing to be able to use language effectively. They further need the ability to express themselves in verbal conversation and in writing to convey their messages effectively. Comprehension is covered extensively in the curriculum outcomes in terms of logic, deliberation, integrated declarative and procedural knowledge, transfer of knowledge, critical thinking, diagnoses and solutions. These competences are differentiated and assessed according to Bloom's revised taxonomy of learning to determine levels of accomplishment.

In the curriculum outcomes, mathematics is incorporated in the mathematical and scientific procedures relating these proficiencies to practica and expanding the knowledge bases beyond comprehension of the mathematics, science and mechanics involved in the procedures. Mathematics and science are differentiated into the absolute necessities for practica (and projects), higher level cognitive ability to understand features of science and mechanics, and more complex procedures leading to further education, for example, National Certificate (Vocational). Curriculum outcomes must be adjusted, guided by the unit standards, to the level and category of education of the learners. Four categories of education for unsuccessful school leavers are identified: orientation, bridging to further education, lower level skills and entrepreneurships. Development, acquisition of unit standards and extended knowledge levels will eventually be the determinants of category, further development and future educational route for unsuccessful school leavers. Unit standard outcomes define the specific competences needed in the execution of practica. They contribute to achievement of curriculum and national outcome competences and all three outcome-levels accumulate towards a level qualification.

Learning content

Learning content is the information required to attain the declarative and procedural knowledge, signifying the knowledge, skills and values, for accomplishment of the competences specified in the outcomes. Learning material with the potential to reveal the required information and facilitate construction of declarative and procedural knowledge must meet specific criteria. The unsuccessful school leavers' learning content encompasses the following characteristics:

i. Be practicum-based
ii. Linked to prior knowledge – built on a foundation of existing mental representations
iii. Represents integrated declarative and procedural knowledge
iv. Distinctly identifies the declarative and procedural knowledge represented
v. Be comprehensive enough to satisfy the requirements of breadth and depth enabling accomplishment of the different levels according to Bloom's revised taxonomy of learning outcomes.

The criteria for individual learning opportunity material will not necessarily incorporate all the criteria in a single opportunity, but they will be covered in the course of the programme.

Learning content will be determined by the projects constituting the framework of possibilities derived from a list of viable subfields provided by the personnel respondents above. Each project will incorporate knowledge that can develop language, maths, drawing, chemistry, materials, physics, mechanics and "life orientation" (safety, social attributes, working in a team, values and attitude). More complex projects will obviously encompass more knowledge.

Learning must be real integrated experiences of declarative and procedural knowledge construction. Learners should construct relevant declarative knowledge while they are executing the task, thus constructing procedural knowledge and mobilising declarative knowledge.

Fundamental learning theory

Educators create learning opportunities, but cannot put knowledge into the brains of the learners like putting matter into a container. The "mental structures" the learners possess enable them to assimilate external events and transform them to fit their internalised knowledge – building knowledge structures through progressive internalisation of actions on a foundation of existing mental representations (Bhattacharya and Han, 2009:1 of 7).

Acquisition of declarative and procedural knowledge resides in practica. Circumnavigating subject focus diminishes the deterring effect of weaknesses in mathematics, physical science and language and permits steady building of knowledge structures, competence and

confidence. Integrated acquisition of declarative and procedural knowledge forges links, relationships, applications and frames of reference. Significance and purpose of knowledge are established, enhancing utilisation – "what learners can actually do with what they know and have learned" (Spady, 2004:2).

Integrated acquisition of declarative and procedural knowledge can be accomplished with calculated execution of practica incorporating the procedures and simultaneously declarative knowledge. Mobilisation of declarative knowledge in practica, elaborating on the extent of information contained in methods, techniques and tactics enhances understanding of the execution, adding substance and significance to the procedure and knowledge. Utilising the mathematics, science and mechanics involved in the procedures during execution replicates the unitary nature of knowledge. Carefully planned oral and written communication, complying with the "rules" of the language, adds a fundamental aspect of learning. The dynamics of integrated declarative and procedural knowledge culminate into effective learning in well-executed practica.

Methodology is the art and science of education guiding the praxis. It manifests in the classroom activities predetermined in the strategies, which in turn constitute methods, techniques and tactics. Methods and techniques utilised for learning opportunities differ on account of the underlying learning theory and their differences in educational approach. The fundamental learning theory provides the principles, premises and guidelines for establishment of an appropriate approach and educational strategies. Methodology cannot be detached from the fundamental learning theory.

Practicum-based education dictates selection of practicum method and projects, which complements group work, cooperative learning or problem solving as methods depending on the desired outcomes. A variety of techniques can be added to support the selected method. The key aspect in the selection of methods and techniques is practicability. Execution and results should replicate efficiency.

Learning opportunities

Education is about effective learning facilitated and scaffold by educators in learning opportunities. Effective learning is guided by educational principles and premises derived from the fundamental learning theory and the research data. These principles and premises manifest in the approach, methods and techniques utilised in the learning opportunity.

Learning opportunity design replicates the design cycle of the curriculum, but differs in scope. Utilising a learning opportunity design cycle proforma enables purposeful planning, presentation of meaningful education and effective learning.

The basic method for this curriculum is founded on a constructivist fundamental learning theory, embedded in transdisciplinary integrated education and practicum-based presentation strategy. Application is through practicum-based learning opportunities utilising projects in the practica to initiate and generate opportunities for acquisition of integrated declarative and procedural knowledge. The quest for knowledge resides in the practicum. Developing the practicum necessitates learner acquisition of integrated knowledge – perceptual-motor and cognitive development. Focussing on procedure rather than the project and knowledge construction, through the procedures distinguish unsuccessful school leavers' education as practicum-based. Learners achieve competence through active execution of the procedures and should be able to demonstrate competence through correctly repeating the procedures.

Learning through the experiences encountered in the practica focuses on the calculated execution of procedures for accomplishment of the outcomes. How the integrated knowledge was constructed will reflect in the demonstration of competences accomplished signifying the importance of correctly applied methods and techniques in the practicum.

Assessment of competence

The importance of accomplishment of outcomes through development of the associated competences must be validated with recorded evidence. The evidence substantiates demonstration of these competences by the learners including the validity of procedures followed. By emphasising performance, it is evident that the procedures leading to accomplishment of competence (declarative and procedural knowledge construction) are equally important and therefore should be assessed on an equal basis as outcomes. Without appropriate execution of these procedures competences would be incomplete incomprehensive end-results. These criteria must be followed in summative and formative assessment.

The final product, completed project or assignment, does not represent the outcome. In outcomes the demonstration of competence, actively demonstrating the procedures, constitutes the competences defined. A forgotten locking device in an engine cannot be detected form the outside, but it will have dire consequences later. A 90% effective assembly can be a total failure.

Bloom's revised taxonomy of cognitive development, adapted to the criteria of this study, is a valuable guideline in distinguishing the level of development of learners. Psychomotor activity, being cognition-based and signified by the unitary nature of knowledge, can be classified according to this taxonomy. Learning is differentiated into psychomotor capacity and Level Assessment Criteria (LAC 1, 2, 3, 4, 5 or 6) derived from Bloom's revised taxonomy, distinguishing between the different levels of accomplishment of a specific curriculum

level. The following summary of levels, derived from Bloom's taxonomy of learning outcomes, is labelled to enhance classification of competences:

LAC 1: Remembering refers to the ability to reproduce.
LAC 2: Understanding refers to construction of meaning and the ability of mental manipulation.
LAC 3: Applying refers to carrying out procedures and application of theories and rules.
LAC 4: Analysing refers to dismantling content into elements, determining relationships, recognition of structure(s) and determining principles and function(s).
LAC 5: Synthesising refers to assembling elements into new patterns, structures, systems or ideas.
LAC 6: Evaluating refers to making judgements for approval of concepts, theories, procedures, methods and techniques.

These LAC evaluations apply to all the curriculum levels distinguishing the cognitive level of accomplishment. According to the LAC levels, qualifications can be issued meeting the criteria for specific further development or occupations, for example, Mechanical Skills 2, LAC 3 refers to potential in further education in learnerships or apprenticeships; Mechanical Skills 2, LAC 4 or higher refers to potential in further education like the National Certificate (Vocational) 2.

Successful completion of a curriculum level according to these criteria renders learners competent to progress to the next applicable level. Improving prospects can be accomplished with higher levels of development. These criteria complicate assessment of competence in unsuccessful school leavers' education, but their educational situation necessitates differentiation to enable accommodation of learner diversity.

Practica in transdisciplinary education make this differentiation possible because some learners can "do the job", others are capable of calculated execution of assignments and transfer the competences to other situations, while others are capable of involving more cognitive capacity in their performances venturing into diagnostics, critical thinking and problem solving. Although oversimplified, this notion is the attribute of differentiation of accomplishments.

Curriculum benchmarking

External curriculum appraisal was arranged with senior educators/training facilitators in the motor and mechanical engineering industry. Three educators/training experts from industry accepted the invitation to participated in the panel benchmarking of the curriculum. An experienced training facilitator from the Metal and Engineering Industries gave full cooperation and valuable feedback. A Training Advisor from the Retail Motor Industry provided the balance in the focus of the curriculum with inputs from the motor repairs perspective. From a training provider's perspective a service provider to the SETA's enhanced perspective on the feasibility and credibility of the curriculum. His academic background, a PhD degree qualifies him as a valued assessor of curricula. They all cooperated in a professional manner and provided essential inputs.

The process was organised according to the Delphi method. Copies of the completed curriculum, together with assessment criteria, were sent to the panel for anonymous comments, opinions and judgments. When the evaluations were returned, the scores were compared, the comments assessed and changes considered. In the following round the evaluations of other participants and new evaluation forms were sent to each member of the panel for re-evaluation. The panel expressed their opinions on the comments returned and reassessed the curriculum, based on other members' judgements. The process was repeated until consensus was reached (Edgren, 2006:410). The outcome of the process is incorporated in the final curriculum. A comment "Congratulations, Great work done!" was added to the last round of adjudication.

Conclusion

The curriculum designed for unsuccessful school leavers provides the answer to the research question in realising the attributes that constitute a curriculum that can afford learners opportunities to construct appropriate educational foundations and build capacity. Considering the situation of unsuccessful school leavers and educational programmes currently available, it is recommended that "second chance education" be established as an additional component to provide education for the learners who find it difficult to cope in the linguistic-logic predilection of mainstream education. Improving the educational situation of unsuccessful school leavers requires education to accommodate them on their level of education. They need education with a different approach and presentation strategies based on sound educational fundamentals. The policy of unitary, all-inclusive education is failing the children of South Africa. However, school dropout is not uniquely South African. It is a universal problem varying only in magnitude.

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