Learner-Centred Education in the Namibian Context

A Conceptual Framework

Discussion Document

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P.O. Box 8016
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Namibia

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PREFACE

The need for this conceptual framework has been identified through monitoring and research, and feedback from the regions and curriculum panels on the understanding and implementation of learner-centred education in Namibia. Needs were expressed for clarification of the rationale of learner-centred education, a better understanding of what it involves, and a more consistent application throughout the system.

This framework is a contribution to a shared understanding of learner-centred education within the education sector, for policy development, planning and implementation, to improve the quality of education. The starting point is the curriculum, and it points to implications for textbooks and materials development, assessment and examinations, and teacher education and professional development.

This document was developed during 2002 through a consultative process in the National Institute for Educational Development (NIED), facilitated by Dr Roger Avenstrup. The development and publication was made possible by the gtz-supported *Upgrading African Languages Project* (AfriLa).

It has been positively received by the Executive Management Team of the Ministry of Basic Education, Sport and Culture (MBESC) for further elaboration and development, and in its present form is a consultative discussion document for all stakeholders in education. NIED welcomes comments and feedback on this version.

This document will be followed up by concrete guidelines for curriculum developers in NIED and on curriculum panels, teacher educators, advisory teachers and inspectors, and for schools.

The aim of this document is ultimately to benefit the learner so that s/he can receive the best quality education for their optimal learning and lifelong development.

Dr Patti Swarts
Director, NIED, MBESC
Okahandja
November 2002

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INTRODUCTION

What is the purpose of this conceptual framework?

The purpose of this conceptual framework is to improve the quality of learning in the classroom through a more considered and consistent approach to learner-centred education. Based on the policy framework *Toward Education for All: A Development Brief for Education, Culture and Training* (1993) and the existing broad curricula, it provides a common basis in policy and pedagogy for the development and evaluation of curricula, syllabuses, materials, textbooks, assessment and examinations, for teacher education and professional development, and for school management.

This is a concept paper – the didactic "why", or rationale, of learner-centred education, not a manual or guide which gives the "how". It does not provide a blueprint for curriculum development, assessment and examination, teaching methods and school management in practical terms, but it does point out some main implications of the concept of learner-centred education for curricula, materials, assessment and teaching.

Who is it for?

This conceptual framework has been developed so that all education professionals can have a shared reference point for reflection on their work. The target group of this paper are all immediate stakeholders in the education system:

- teachers
- school principals and heads of department
- advisory teachers and school inspectors
- teacher educators in the colleges, university, and in-service teacher education
- school management trainers
- curriculum developers, including curriculum panel and syllabus working group members
- examination setters, markers and moderators
- textbook writers and editors
- educational planners, administrators, decision makers and other stakeholders in education
- school board members

Why is it needed?

Since learner-centred education was introduced in 1991 as a foundation policy for the new educational system of Namibia, there have been different understandings of what is meant by learner-centred education and how to put it into practice. A growing body of research in Namibia has shown that the curricula and syllabuses, textbooks and materials, assessment and examinations developed during the 1990s

are not consistently based on learner-centred principles. Consequently, it is not surprising that teaching in the classrooms, and teacher education in the colleges and university and through in-service programmes and professional development, are not consistent either. Part of the problem has been identified as a lack of clarity about what the underlying principles and theory of learner-centred education are. With a better and shared understanding of the background for learner-centred education, greater consistency can be achieved throughout the system, resulting in improved learning in the classroom, provided that implementation issues are also addressed.

Inconsistency is not the only factor which has been identified as a constraint in the implementation of learner-centred education in Namibia. Other factors identified in research and reports during the 1990s have to be addressed in other ways. These include the fact that so far only a minority of teachers have the initial teacher education which prepares them for learner-centred education (the Basic Education Teacher Diploma, BETD). In-service courses for teachers have not always been effective enough in relation to changing understanding and classroom practice: they are short, seldom organised in a sequence with increasing progression, and have not always been consistently learner-centred in their approach. The changes of attitude and re-skilling of formally qualified or partly qualified teachers have not been as widespread as intended. Also, too few schools are organising Upper Primary and Junior Secondary teachers in teaching teams as stipulated in the broad curriculum for basic education: teachers are moved from subject to subject or phase to phase, hindering their professional development in mastering one area of learning well and being able to teach it in a learner-centred way. Another constraint which has been identified is the over-emphasis many schools give to written formal testing and preparation for examinations: such testing can only assess a narrow range of skills and learning and teachers tend to over-focus on these, reverting to teacher-centred teaching. Further, overlarge classes, a non-conducive physical learning environment, and/or insufficient teaching and learning materials, limit how far a learner-centred approach can be used, although they do not prevent it entirely. Finally, learner-centred education involves a more democratic pedagogy and a more democratic school, a change which many teachers and principals find difficult. All these issues also need to be addressed if improved learning through greater consistency is to be sustained.

How was this concept paper developed?

First, an analysis was made of the way learner-centred education is presented in educational policy documents, in curricula and syllabuses, teaching materials and textbooks, and assessment and examinations. Secondly, the monitoring and research carried out from 1991 to 2001 in Namibia into how learner-centred education has been understood and how it has been implemented in classrooms, was

studied. This process helped track the relationships and changes between policy, curriculum intentions and reality in the classrooms in order to identify what key concepts needed clarification. Thirdly, a few main themes in international research relevant to the Namibian situation were identified and summarised, both from longer-standing debate and from newer issues, which will have to be taken into account in years to come. These three areas were then brought together in the conceptual framework in order to contribute towards a clearer understanding and more consistent implementation of learner-centred education in the Namibian context.

The descriptions of learner-centred education in the following documents of the Ministry of Basic Education, Sport and Cultre and the Ministry of Higher Education, Training and Employment Creation have provided a basis for this paper:

- *Toward Education for All: A Development Brief for Education, Culture, and Training* (1993)
- *Pilot Curriculum Guide for Formal Basic Education* (1996)
- *Supplement to the Pilot Curriculum Guide for Formal Basic Education on Special Education* (1998)
- *Pilot Curriculum Guide for Formal Senior Secondary Education* (1998)
- *Broad Curriculum for the Pre-service Basic Education Teacher Diploma* (1998)
- *Broad Curriculum for the In-service Basic Education Teacher Diploma* (1998)

On the basis of the above, the following were scrutinised carefully:

- School and teacher education syllabuses, textbooks, teacher's manuals and guides at all levels
- Guidelines for curriculum panels
- Assessment and examination policy guides, instruments and manuals
- Modules describing learner-centred education in the INSET BETD and in the Instructional Skills Certificate programmes.

The research on the concept, perceptions and practice of learner-centred education in Namibia used for reference in this paper is listed in the bibliography. There is an enormous body of international theoretical research and discussion of learner-centred education. A few selected key texts which are especially relevant to the Namibian context are also listed in the bibliography. However, this paper has deliberately not been drawn up as an academic paper, but for more immediate practical use. It is a descriptive rather than a discursive paper within the Namibian framework, building on substantial but very highly compressed theory as well as the experience of the first decade of education reform.

NIED curriculum developers reviewed the first draft of this paper during a workshop in January 2002. The draft paper was revised and after a second round of feedback and further evaluation, reached its current form.

Does everything have to change now?

The Namibian policy for reform in education is one of ***change in continuity***. There must always be change and not stagnation if learning is to improve. Continuity must be ensured by moving forward on what has been achieved and not by a reversion to practices which are no longer consistent with a learner-centred approach. The first decade of educational reform in Namibia was a transitional period from the former to the new system of education. The aim of this conceptual framework is to help education professionals identify what has been achieved in learner-centred education in the first decade, to ensure continuity by building on that, and to move the system forward by achieving greater consistency and better quality learning in this decade.

As curricula and syllabuses for schools and teacher education are revised on the basis of this conceptual framework in the normal ongoing curriculum development process, they will become more consistent. As a result, materials and textbooks, assessment and examinations will also become more consistent as they are brought into line with the revised curricula and syllabuses. Teachers will have a clearer idea of how to teach well in a learner-centred way, and they will be better prepared, advised and supported in doing so. The process is one of gradual change and growth, building on what has been achieved before using the broad parameters of this framework as a conceptual tool for education professionals to reflect over and improve their practice, and to critique this conceptual framework as their practice and reflection develops further.

1. THE POLICY: LEARNER-CENTRED EDUCATION

Learner-centred education in Namibia is stated as a policy in the development brief *Toward Education for All,* expressed in the four major goals for education:

- Access
- Equity
- Quality
- Democracy

Since the publication of the development brief, lifelong learning as a policy has been developed and now has the same status as the four original goals.

Access means not only getting all children to school, but also making knowledge and understanding accessible to them. This means that what they will learn, and how, has to be approached in such a way that all learners can develop as fully as possible, and achieve to the best of their ability:

> ... schools themselves can be barriers to learning. Rote memorisation and repetition can stifle curiosity. Punitive discipline can discourage innovation, experimentation and critique. Unchallenged learners can become bored and bored learners lose motivation to follow and join in class activities. When teachers disrespect learners, the learners come to have little respect for themselves ...
>
> If we are to expand access to education that is meaningful to our people and our country, we must be clear that our focus is on learning and not simply schooling. Schooling without learning may lead to diplomas and certificates, but for many students it leads to frustration and self doubt. Learning, in school or out, leads not only to individual achievement, but also to self reliance, self confidence, and empowerment. (*Toward Education for All,* p. 34)

Equity means that learners are not only treated equally, but that where there is inequity, measures are taken to redress it. Particularly in terms of race, gender and social class there can be overt or covert prejudice, or bias, or assumptions. It is not only a question of the teacher treating the learners equitably, but also bringing up the learners to treat each other in the same way.

> Indeed, we cannot be sure that all learners have equal opportunities unless we have looked carefully at the outputs. For example, do girls stop their schooling more than boys? Are completion rates systematically and consistently higher in some regions than in others? Are race and ethnicity visible in the examination results? *Achieving equity in results is far more complex and difficult than achieving equality of access. But we shall have failed if we aim at anything else.* (*Toward Education for All,* p. 37)

Quality means that the relevance, meaningfulness and reasonableness of challenge in education are in the foreground. The curriculum, the teacher, materials and the learning environment should all be of a high standard. Those standards need to be defined so that the quality of education can be monitored and improved where necessary.

> Our challenge ... is to develop instructional strategies that make it possible for learners from varying backgrounds and with differing abilities all to progress. Indeed, it is precisely for

> this reason that a learner-centred approach is so central to the new education system we are creating ...
>
> More than anything else, it is the teachers who structure the learning environment ... to the needs, interests, and abilities of the students in their classes ... (*Toward Education for All*, pp. 39-40)

Democracy means that education should be democratically structured, democracy should be taught and experienced, and the aim should be to promote a democratic society:

> Democracy must therefore not be simply a set of lessons in our schools but rather a central purpose of our education at all levels…To teach about democracy, our teachers – and our education system as a whole – must practice democracy ... teachers must be active creators and managers of the learning environment and not its masters or caretakers ... (*Toward Education for All,* pp. 41-42)

Lifelong Learning is a concept which has come to the foreground during the 1990s. Schooling is not seen as an end in itself, nor as the commencement of learning. Learning starts before school and continues throughout life. Formal schooling is only one form and one stage of lifelong learning, and if it is to be relevant, it must prepare for learning both outside of school and after schooling. The concept of lifelong learning also means that the divisions between formal and non-formal education, and learning in, outside and after school need to be minimised. Therefore, school has to become preparation for life in a far more direct way than it has been, and all opportunities for learning have to be recognised as such: society itself has to become a learning society.

2. PEDAGOGY: THE LEARNER

At the very beginning of the reform, the term *the learner* was chosen very deliberately for the Namibian context. In the educational setting, it conceptualises something other than *the child* (with overtones from the era of Romanticism); *the pupil* (with its history of conventions about teaching and learning); or *the student* (which brings to mind the image of an academic scholar). The term *the learner* sets a direction and discourse[1] about what education in school should be. The child and young person is present in a role, the role of a learner, and everything in school is there for that role to be fulfilled to the utmost.

The relationship of the child to the role of the learner is described briefly in the curriculum guides for Basic Education, Special Education and Senior Secondary education. This includes a view that the learner has –

> ... natural curiosity and eagerness to learn to investigate and make sense of a widening world…children learn best when they are actively involved in the learning process ... [they] respond best when they are interested in the things which they are learning ... (*Pilot Curriculum Guide for Basic Education*, pp. 23-24).
>
> The learner brings to the school a wealth of knowledge and social experience gained from the family, the community and interaction with the environment ... the learner ... is an individual with his/her own needs, pace of learning, experiences and abilities. (*Curriculum Guide for Senior Secondary Education*, p. 7)

The concept of the learner points beyond school only:

> In the process of rethinking our philosophy it is important to recognise that we are all learners. Learning is a lifelong activity – a process not an event. (*Toward Education for All*, p. 11)

Being a learner in school is thus clearly meant to be a preparation for continuing as a learner throughout life.

The view of the learner implies a complementary role for the teacher. The *Broad Curriculum for the BETD* outlines what is expected of teachers in terms of learner-centred education:

> Learner-centred education presupposes that teachers have a holistic view of the learner, valuing the learner's life experience as the starting point for their studies. Teachers should be able to select content and methods on the basis of a shared analysis of the learner's needs, use local and natural resources as an alternative or supplement to ready-made study materials, and thus develop their own and the learner's creativity ... A learner-centred approach demands a high degree of learner participation, contribution and production ... [it] is based on a democratic pedagogy, a methodology which promotes learning through understanding, and practice directed towards empowerment to shape the conditions of one's own life. (*The Broad Curriculum for the BETD*, pp. 1-2)

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[1] In this paper, the term "discourse" is used to mean the way language is used to discuss and describe things and all the layers of meaning, implications, attitudes and values embedded in that particular use of language.

Learning is seen as an interactive, shared and productive process, where teaching creates learning opportunities which will enable learners to explore different ways of knowing and develop the whole range of their thinking abilities both within and across subject areas of the whole curriculum. This includes identifying and selecting basic knowledge content for learners, and organising and sequencing content and learning experiences appropriately. (*The Broad Curriculum for the BETD*, *passim*)

The view of the learner and learning described as above in the development brief and curricula is within broad parameters of constructivism, tending towards social constructivism.[2] Social constructivism is a paradigm for understanding knowledge, intelligence and learning, which developed during the course of the last century and is now beginning to cohere.

[2] Three central theoretical terms used in this paper can be described in the following (obviously simplified) way. *Behaviourism* is a school of thought which claims that learning is behavioural change determined through stimulus-response (S-R) mechanisms between our environment (S) and ourselves (R). Much behaviourist thinking and practice in education is ultimately derived from the ideas of Skinner. *Individual Constructivism* (also called *Radical Constructivism*), while recognising that certain types of external behaviour can be modified through response to external stimuli, rejects the idea that learning is mere response to external stimuli. It has mostly focused on trying to explain learning in terms of how we actively construct understanding through inner mental processes. Piaget has been central in this school of thought. *Social Constructivism* goes further and explores the implications of learning as a dialectic interaction between ourselves and our community, socio-cultural and material environment, through which we internalise our experiences and actively construct our knowledge and understanding, thereby changing our community and environment in turn. Dewey is considered to be the "founding father" of social constructivism, and researchers such as Vygotsky, Bruner, Gardner and Gilligan, amongst others, have made seminal contributions to developing a social constructivist understanding of learning (see bibliography).

3. THEORETICAL PERSPECTIVES

3.1 Learning: experience and reflection

A child is always exploring his/her social and material environment. Through communication with others, playing, experimenting, experiencing things, and by reflecting on them, the child learns. If there is no reflection, there is no human learning, merely activity or instinctive or habitual response. It is by reflecting on what we have experienced that we internalise the outer world and activity into inner understanding. That understanding will then be added to and modify previous experience and understanding, and the new understanding, which we construct ourselves, leads us into further activities and explorations of the world around us. We get a feeling or idea of trying out something new, or doing it again in a different or better way, or just doing it again, and we act on that feeling or idea. We are continually growing and continually trying out things so that we can learn from what we are doing, from experiencing. *Doing* also includes mental activity. We might be sitting still, thinking through something, or imagining something. That is also part of our experience, and we reflect over that and learn from it. We learn how to learn.

We do not create our own understanding in isolation. We are situated in a natural and cultural context with which we interact, which affects us and which we draw upon to construct understanding. Learning is an individual and collaborative experience at the same time: in school, for example, whatever is done, or whatever is presented or how, will be a common field of experience from which each learner will select what to learn (appropriation). In addition to this, each learner will learn about learning. If they are taught by rote memorisation, some will remember what they have repeated many times, most will forget it sooner or later, but they will all have learnt that memorisation for its own sake is meaningless. If they are taught in a way which builds on what they already know and have experienced, and relates new knowledge to the reality around them, they will learn that learning in school can be meaningful.

The learner does not come to school like an empty bucket to be filled with information. S/he has many experiences and is already learning. Teaching which ignores and does not build on that experience and learning will limit the learner's thinking, and the learner will not see the connection between the world outside school and what is taught and learnt in school. School is only part of the total learning context of the learner. That is why teaching should always begin with helping the learners realise what they might already know about something, or what ideas or questions they might have about it even if they do not know, and by relating to the environment within and around the school. Learners' guesses, assumptions, hypotheses and interpretations do not have to be correct at the out-

set, even in those few situations where there might be one right answer: they can all be the start of an enquiry, and they can be reviewed later as one reaches a suitable point to reflect on what has been learnt in the interim, or at the end of a teaching unit, and some of them might give fresh insights and new answers. Knowledge will only become fully meaningful if it is the knowledge a learner is genuinely seeking at that time, what s/he is ready to learn, and what s/he needs to know from their own point of view.

As we encounter new knowledge and experiences, we develop new ways of understanding and shaping the world around us. Many attempts have been made to categorise the growth of our ways of understanding into stages according to the age of the child, and then to organise curriculum and teaching rigidly according to those stages. Several problems have been identified with this sort of approach. One is that stage theories of cognitive development have largely been based on the study of individual or only a few children, especially in laboratory-type situations. The applicability of such theories to the social setting of the school and classroom, or to ordinary life situations, is questionable. Another is the issue of cultural applicability. Many of these theories, or the way in which they have been used, claim to be universally true whichever culture, context or gender they might apply to. Closer analysis of the value sets which underlie some of the theories that make claim to universality, show that they are situated in a specific cultural context. Thirdly, what a person can learn and how, depends very much on their existing frame of reference and experience of that particular issue or skill, and not on age alone. Recent research has shown that stage theories of cognitive, social or moral development need to be modified. It has been shown, for example, that when children are asked to solve problems in a context which makes "human sense" to them, or in an area where they have previous experience, they do much better than pure stage theories would suggest. It has also been shown that males and females have significant differences in their ways of thinking, especially, but not only, when it comes to communication and social and moral issues.

On the other hand, there do seem to be some general stages through which children progress depending on how much more complex tasks, relationships or problems, or wider perspectives, they encounter. All cultures recognise general stages of development from childhood to adulthood through gradually broadening experience, increasing understanding and the ability to take on more responsibility. The image which better illustrates cognitive and personal development is that of a tree, where at any point in time a learner might have reached far up into some of the branches within an overall stage, but be further down on others, depending on what they have encountered in their own context, and what makes sense to them in school. Some can even be well beyond what one would expect within a particular stage in some things, but not in others. This has wide implica-

tions for our thinking about curriculum, teaching and assessment, which is based on conventions that assume that all children progress by learning the same content in similar ways at the same pace.

We only learn through and together with other people, interacting with our parents, our peers and our community, including school. It is by playing, discussing and working together in co-operation that we can share experiences, ideas and reflections with others, learn from them and they from us. We become a person through other people: *umuntu umuntu babantu.*

How children learn and develop is dependent on the social relationships around them: at school, the relationships between the learners, between the learners and the teacher, and between the parents and the school. Better learning takes place in classes with a teacher who shows that s/he cares for the learners, is both enthusiastic about and confident in the subject matter, who has created good relationships between the learners, and who has a good relationship with and involves the parents. Learners do not learn well if, for example, they are threatened with corporal punishment, or are embarrassed by remaining standing up if they give a wrong answer, are cut down by a teacher's sarcasm, or are sexually harassed or victimised by teachers or other learners.

3.2 Knowledge

Knowledge changes: some of it more slowly, some of it faster. The content of knowledge changes over time (today we need to know things totally unheard of two decades ago, and much knowledge from then is already redundant), and our ways of knowing change as well. Psychology and sociology, for example, are relatively new disciplines with new ways of knowing about people and society. The boundaries between older disciplines are disappearing, and it is being realised that even areas of knowledge long believed to be separate such as physics, chemistry and biology are in fact interdependent: more and more universities are offering "Earth Sciences" and "Life Sciences"; genetic engineering has wide-reaching implications; and our very concepts of reality are being changed. The crucial importance of sustaining our environment is leading to completely new ways of understanding the interaction of living and non-living things, and ecology is emerging as a new way of knowing which cannot be compartmentalised into separate disciplines or subjects. Such changes are reflected in Life Science at Junior Secondary level, which is an integrated subject. The necessity of understanding the interdependence of environmental sustainability and political, social and economic demands is reflected in Natural Economy (Ecology) at Senior Secondary level. These are two examples of how not only new knowledge, but also new ways of knowing are being introduced in the Namibian curriculum.

There is a similar challenge with HIV/AIDS. It is poorly understood if approached from the way of knowing which subject compartmentalisation promotes. It can only be understood if the biological, medical, social and moral issues are seen together and as a whole. At the same time, each conventional discipline provides certain specific tools to help understand the whole.

New understandings of how society changes, and of how we need to prepare ourselves for citizenship, are reflected in Development Studies at Senior Secondary level, and in Human Rights and Democracy Education across the curriculum, respectively. New technologies, especially information technology, are generating not only new knowledge but also ways of knowing that are completely new to humans, and we cannot see all the implications of artificial intelligence as yet. The point here is that because knowledge and ways of knowing change, we know that they are themselves constructed from the way we reflect on what we experience and what we do as a result.

Society, and so knowledge, is changing faster now than previously, and it is increasingly difficult for schools to keep up with new knowledge or changes in society. Formerly, when knowledge was believed to be more permanent and static, education was very much a matter of imparting factual information, and curricula, syllabuses and textbooks were encyclopaedic, packed with information. It was believed that one had to learn as much information as possible, leaving hardly any time for developing practical, social or thinking skills. Memorisation and repetition were the only cognitive skills developed. It is no longer meaningful to continue in that way, and the new awareness of knowledge and of how we learn and develop means that rather than trying to remember as much as possible, we have to learn as well as possible: learning with understanding.

In addition, because the way in which we construct our understanding affects our actions and thus society, it is important to deliberately direct our knowledge and understanding towards improving society. The development brief and the broad curricula all emphasise the need to look at our local and national society, to understand and be able to critique what is going on, and to direct our activities to helping reconstruct society in a better way.

3.3 Intelligence

Our ability to think, feel and act is our intelligence. We do not have only one type of intelligence, but multiple intelligences. The following have been identified by combining neurological, cultural and epistemological research: linguistic intelligence, logical-mathematical intelligence, musical intelligence, spatial intelligence, body-kinaesthetic intelligence, interpersonal (social) intelligence, intrapersonal (self-) intelligence, emotional intelligence, and operatic (doing/acting) intelligence. Further research is identifying others, e.g. aesthetic intelligence and natural intel-

ligence, although no specific neural paths have been identified for the latter as yet. We do not yet know how artificial intelligence will affect our own intelligences, or what intelligence will be like in years to come. Although each of the multiple intelligences has its own flow through our lives, our intelligences are not separated from each other: our minds and bodies register everything we experience, think and feel holistically, and under normal circumstances what we experience in one field will spill over into others like a wave.

Dividing up reality into many separate subjects in a curriculum does not necessarily mean that we are catering for our multiple intelligences. Our intelligence develops as we see the interrelatedness between things, and we only develop in an all-round way if all our intelligences are developed together. We might learn about HIV/AIDS, or environmental conservation, using our logical intelligence, but if we do not also use our emotional intelligence, we will not act on what we know, and thus not use our operatic intelligence either. A person might learn to be a brilliant musician but may also be a racist, thus showing a lack of emotional, interpersonal and intrapersonal intelligence. In such cases, we have not developed fully as a person.

The theory of multiple intelligences gives rise to major implications for curriculum design and discourse, teaching and learning practices in schools, and for assessment and examination. We develop our multiple intelligences in school only if we have a wide variety of learning experiences, which means varied teaching methods, materials and assessment situations.

3.4 Language

Language is the most important key to learning.[3] Human language constructs and is constructed by the social context between people. Right from birth, language is our most important means of communication. Children play and experiment with language, demonstrating and enjoying their ability to acquire language and even to "turn it upside down" for fun. Children come to school still in a stage of acquiring their mother tongue, which needs continued learning for at least another six years if it is to be functional, and beyond that if it is to be more than just functional. Hence the language policy in education, which stipulates that the mother tongue (or local familiar language where mother-tongue instruction is not possible) should be taught throughout basic education.

Learning and developing in one's mother tongue is crucial to establishing a positive self-image, an affirmation of one's own culture without being chauvinistic,

[3] "Language" here is used in the sense of verbal and written language and all adaptations of it for those who are visually, speaking or hearing challenged. In a wider sense, the term can refer also to all non-verbal visual, audial and kinaesthetic (movement) symbolic communication within a community and society.

and to the primary understanding of the world. Learning a second or foreign language widens one's way of experiencing and interpreting the world, and enables wider communication. However, if learning the mother tongue stops at an early stage of schooling, it makes it more difficult for concept formation, and to relate what is learnt through another language to one's personal experience and culture as one grows up. It also has a strong signal effect that the mother tongue is inferior to the second or foreign language. Therefore, both in terms of improving learning, strengthening identity and for language ecology, the mother tongue should be taught all the way through school.

Through language we internalise our experience and construct our own understanding of it: we try and make sense of our experience. We communicate with each other and in so doing are constantly negotiating meaning, explicitly and implicitly. Through language we share our different understandings of the world and find out what understandings we share with others and what differences we can all accept. In this way we construct and change our culture in an ongoing collaborative process. At the same time, our culture forms us.

Since our cognitive, emotional and social development is so dependent on language, it is essential to develop language in all learning situations. Listening skills are the essential prerequisite for communication, and emphasis needs to be put on ensuring that learners listen to each other as well as the teacher to explore and share knowledge, and that the teacher genuinely listens to the learners. It also means giving learners opportunities to think aloud (e.g. talking through a problem to themselves and with each other), to ask questions, to hypothesise and discuss things in groups (so more learners can be verbally active at a time) and as a whole class. Developing language for learning is not only a question of being able to listen and talk: literacy is the most important skill for learning in school since reading and producing texts is a main means of developing understanding.

The teaching of literacy lays a foundation for many learning skills, and it has been shown that learners develop literacy best when it is approached in a holistic way. This places an emphasis on making meaning, rather than on isolated skills development. In addition, learners should be allowed to take "risks" and try for themselves, where mistakes are not condemned as failure but are used to understand what the learner already knows and how they are thinking. Creating a print-rich environment in the classroom (including charts, posters, newspaper cuttings, the learners' own creative writing) promotes literacy learning.

As writing skills develop, learners must be encouraged to write different types of text and discourse, from short texts, writing down questions they might have or what they have said or heard, sentence answers to close-ended questions, to more descriptive and discursive texts. It means that teachers must also use a wide

language register discussing with the learners, thinking aloud, hypothesising, describing, conveying information, using a variety of questioning techniques, etc. It means that textbooks and materials must demonstrate a wide range of discourse, good quality text, and clear guidance in explanations and tasks.

This is a big challenge for the language policy. Language skills and literacy are intended to be first developed in the mother tongue (or local familiar language), which is the best way, and then transferred to English. This makes three great demands: one is that oral and written language development in the mother tongue has to be very rich and intense both in its own right and as a solid basis for skills transfer to English; the actual process of transfer of language skills from mother tongue to English must be optimal; and particular attention has to be paid to widening and deepening the English language and mother-tongue proficiency of teachers and learners alike to meet the demands of the curriculum. Language is the area of learning which unlocks the whole of the rest of the curriculum. Limited language skills inhibit effective learning and teaching, whereas language proficiency facilitates learning. If learners are to be able to develop their cognitive, social and practical skills in increasingly complex ways through questioning, narrating, discussing, analysing, interpreting, reading and creative writing, their language has to be developed accordingly.

Studies of language and learning have shown that when we are engaged in collaborative learning, those involved negotiate partly explicitly and partly implicitly through their interactions, what they are to do and to what level. In each case, we enter a common zone where the higher level is the full potential we could develop to in working together with the adults or more capable peers in the group, and the lower level is what we could reach individually in problem solving. These two levels are not static, and each time we work collaboratively we come closer to whatever is the higher level at that time. Hence, the common zone is called the zone of proximal development. Zones of proximal development are not fixed stages: they are constructed in each particular occurrence of collaborative action and learning.

This implies several things in the school situation. First, collaborative learning is the most effective form of learning. We also know that information only becomes knowledge through social interaction. Secondly, if learners are brought together for a set task which they do not find meaningful and which they cannot make meaning out of, they will not learn much from it. In other words, tasks for group work must need a group to solve them. Thirdly, studies of learner talk in mixed-ability groups show that when groups comprise so-called weak learners together with quick learners, the weak learners pose questions which prompt the quick learners to solve the problem, whereas the quick learners are not so adept at putting the relevant questions. Only by working together do both gain.[4]

3.5 Gender and cultural discourse

A basic tenet of learner-centred education is that each and every learner should be empowered to learn to the best of her/his ability. However, research into cultural reproduction, power-knowledge relationships, the hidden curriculum,[5] and the back-to-the-basics movement, has opened up the debate on social, cultural and gender bias in education, showing how the female sex in general, and different social groups according to context, are discriminated against deliberately or unconsciously. An understanding of gender issues in education has so far largely addressed issues of equity of access for girls and boys, the problem of stereotyping of subject choices, and of preferential expectations and treatment in the classroom. What is being addressed now are the deeper implications of gender differences in ways of thinking, and how those implications can be translated into practice. The theoretical underpinnings of curriculum and assessment, and the discourse and design of curricula, materials, assessment and examination, have to be revisited if teachers are ultimately to organise learning experiences in a more consistent learner-centred way.

Many theories of child development, learning and knowledge were developed by males in a European or American cultural setting. Their thinking tends to be universalistic (i.e. assuming that it applies anywhere, to any time), hierarchical and categorical. The very term "curriculum" is a masculine construct, defined in terms of competitiveness: the course set out for a race to be run. With the realisation that learning, development and knowledge are socially constructed, not given, and not value-free, new understanding is being brought to bear on limitations to the applicability of some of these theories and can help explain why teaching and learning based on them have not always been equitable or successful.

One aspect is the appreciation of gender difference and the realisation of the equity of the sexes. In all recorded cultures, there are significant differences in the way girls and boys are brought up in the early years, the ways in which they play and socialise through childhood and adolescence, and in the ways in which males and females think and use language, and in what is valued and how. While masculine thinking tends to be more individualistic, rule-dominated and categorical, feminine

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[4] Development work in the mid-1990s by two teachers with large classes in rural northwest Namibia showed that all Grade 10 learners could achieve far better Mathematics results in the JSC examination through collaborative learning in mixed-ability groups, peer coaching ("If you understand, teach a friend"), and varied teaching methods used with enthusiasm.

[5] The hidden curriculum is when the values, attitudes and behaviours of a teacher, and/or the content and approach of teaching and learning, and/or the social atmosphere of the school are contrary to the intended curriculum. Thus, a curriculum might state that there should be gender equity, but textbooks, teacher attitude and behaviour, and examination questions, might not take gender differences sufficiently into account, with negative effects on one of the sexes (usually females).

thinking tends to be other-related, contextual and more holistic. Previous theories of development and learning, and consequently the way curricula have been developed and assessment implemented, have been dominated by masculine thinking. Knowledge has been compartmentalised into insulated subjects, learning organised into hierarchies of objectives believed to correspond to set stages of development, and broken down into smaller units to be assessed. Assessment has been highly rule-bound in examinations irrespective of whether or not examinations bear any relevance to real-life situations. In order to succeed as well as boys, girls have had to develop the masculine aspect of their thinking and relating more than boys have had to (for whom it is "natural"), whereas boys have not had to develop the feminine aspect of their way of thinking and relating in order to succeed in school.

The implications of gender research in education are that if we are to learn and develop as whole persons, learning must be imbued with caring, with the relatedness between people and between humans and the rest of the environment, by continuity, and by seeing things in connection with each other and in context. It means that while general stages of development are recognised, it does not make sense to break them down into small units. If learners are to see the interrelationships between things, knowledge cannot be categorised using rigid subject boundaries but should rather be integrated areas of learning. Assessment should not be artificial quantitative measures of small items, but as far as possible an evaluation of understanding and competence in the same or a comparable context as where the necessary knowledge and skills will be used in real life – authentic assessment.

So far, feminist critique of theories of knowledge, intelligence and learning has been developed mostly in Europe and America. For all the similarities between the position of females on different continents, there are contextual differences. African researchers are doing work on gender issues in education, but African feminist educationists have yet to be generally heard in regional and international debate about the deeper-seated issues on gender and education in the African context. This brings us on to the issue of the African context in general.

3.6 The African context

Learner-centredness in Namibia is in an African context which embraces diversity, but which is emerging from a colonial past where ethnic difference was deliberately perverted and negatively exploited. This makes it an especially difficult area to deal with. There are important differences between the African and the European/American setting, and between African indigenous knowledge systems, which were not sufficiently appreciated previously, and European. African indigenous knowledge systems were seen as inferior. A main principle of learner-centred education is to use the social context of the learner as a resource and to relate

learning to the social context. Attention therefore needs to be given to what that context is in general, and for each learner, and to draw upon the implications for the further development of learner-centred education.

In general terms, African children have a much stronger connection with and identity rooted in their immediate community. You are a person through other people. The African child experiences a stronger adult and older peer network around his/her upbringing (although not necessarily in terms of men and women sharing work in the home), and is carefully brought up to take on an increasingly active role in the community through learning what could be called the "community curriculum". In African society, the growth of children is seen in broad stages (birth to approximately 6/7 years; 6/7 years to approximately 12/14 years; puberty to full adulthood). The child learns by observing tasks and activities and is given tasks to do according to what they are ready to try out and can manage. Learning to work is an important value. As they show increasing competence and maturity, they are given accordingly more responsibility in the home and community. African children are brought up with a sense of continuity in life. They are usually named after someone from an earlier generation, which in some cultures signals that they have inherited that person's spirit and status. During upbringing, the children are guided towards and frequently reminded of their future role as a full-grown adult. Learning is contextual and a continuum through life.

Secondly, African thinking sees things much more interrelated than conventional European thinking. The foundation of an African view of life is affirmation of life in the interconnectedness of all things. Nature is not seen as separate from humankind, but part of our bondedness. Spirituality is not an own compartment amongst others but imbues and binds together all aspects of life. Similarly, the word "arts" presupposes separated disciplines in European thinking, but the Bantu language term "ngoma" literally meaning drum or dance (and equivalents in other African language families) comprises a wholeness of music-song-dance-story-visual expression. Social learning is very important in the African context, including appropriate behaviour and respect for elders. Knowledge is constructed in a holistic way.

The Africanisation of curricula is not only a question of including African languages, *ngoma*, history, geography and social knowledge, but also the highly sophisticated content of indigenous knowledge systems. Nature knowledge and skills are essential: of plants for food, healing, materials or dyes; of agriculture and/or fishing; of weather, etc. Indigenous technologies also include metallurgy, architecture, medicine, complex calendar systems and others. Only now are they being rediscovered on a larger scale.

The Africanisation of curricula from a learner-centred point of view also means looking to a deeper level of connection with African upbringing and discovering

how and in what ways African upbringing and learner-centred education overlap. In African languages, we find some very rich metaphors used when parents are praising or scolding their children. In Oshiwambo, for example, the metaphor of "building" is used in phrases such as "I am building you" for teaching or guidance in tasks, duties or behaviour, or "S/he is building her/himself" as a comment made to a friend or relative within the child's hearing when praising her/him for trying to accomplish something difficult. One of the reasons why learner-centred education has been perceived as a foreign element in Namibia is possibly because it was not couched in appropriate African metaphors for the upbringing of children. The discourse of learner-centred education as a whole has not been anchored in the language of African upbringing and transformed into an African paradigm.

There is equally a need to clarify what differences there are between European and African learner-centredness, and why, especially in terms of value systems. There are significant differences between principles of learner-centred education and conventional African child-centredness, not least in the issue of questioning given authority. For example, some trends in social constructivism emphasise explicit socially critical theory and practice, whereas criticism in African contexts is an area of life which is carefully regulated according to who is bestowed with the right to be critical, how, and in what situations. Constructivism can be a symptom of the globalisation of European ideas, but at the same time can be a powerful tool to construct communal and individual identity as a counterweight to globalisation, depending on what values it is founded on. A new understanding of the ideas behind self-reliance could be an important contribution to a value stance in the African context.

In most African countries, including Namibia, cultural diversity is a main feature of the social context. This is why *unity in diversity* has been a key policy in Namibian educational and cultural development. Once unity becomes the focus, each can see the value of one's own culture and context in contributing to that. A balance has to be achieved in reinstating African culture and heritage to redress the former domination by Eurocentric culture, without losing the positive contributions which European culture can make.

Cultural diversity as social context in Namibia is of two kinds. One is the cultural diversity between different areas which are relatively homogenous each in their own way. These are mostly rural areas. The other is the diversity in urban areas, where many different cultures are represented in the same classroom. The challenge for mother-tongue teaching and literacy is particularly critical in the towns, where children need to be grouped according to their mother tongue and have appropriate teaching if they are to have mother tongue medium at Lower Primary level, and as a subject later on. Subjects such as Religious and Moral Education, and Arts in Culture, have been developed in Namibia specifically based on the policy

of unity in diversity, and curricula and materials for all subjects have to be developed to consider contextual diversity.

Paradoxically, the discourse of learner-centred education itself so far has belonged to globalisation and modernisation, although it promotes strong local contextualisation. The challenge is to develop a Namibian discourse of, and approach to, learner-centred education in order to contextualise a system which is itself geared towards modernisation. This challenge has to be met if learners are to develop a strong sense of Namibian identity as members of the global village.

4. IMPLICATIONS

The total body of documents that outline intended learning and teaching include broad curricula and subject syllabuses, assessment/examination manuals, regulations, guidelines and instruments, and modules used in the INSET BETD and ISC. Research into and analysis of these documents show very clearly how they reflect a transitional phase in a paradigm shift. Many of these documents do not resolve contradictions between behaviourist, individual constructivist and social constructivist approaches. The broad curricula lean more towards constructivism, but not entirely consistently. Others, such as the guidelines for curriculum panels, or the measurement of objectives, tend very strongly towards behaviourism. Most subject syllabuses waver between behaviourism and individual constructivism, with a general tendency towards the former. The International General Certificate of Secondary Education (IGCSE) and Higher IGCSE (HIGCSE) syllabuses are individual constructivist in approach, but can also be taught partly within a social constructivist paradigm, depending on the teacher, especially where course work is included in assessment. The most consistent curriculum and assessment system in the educational system of Namibia is the BETD, which is explicitly founded on the social constructivist principles in the development brief (*Toward Education for All*), and attempts to put them into practice. Even so, the BETD subject syllabuses and INSET modules are not entirely consistent.

When we move to the level of classroom practice, the picture becomes even more complicated. Research and monitoring done on teachers' and teacher educators' perceptions and practice of learner-centred education reveal that although many teachers are familiar with the term, only a few of them have a deeper understanding of the concept and its implications. Classroom practice is beginning to change, but in most cases in a superficial way, mostly simply by the inclusion of group work as a method. The research also shows, however, that where the concept of learner-centred education is properly understood and put into practice, there is what Dewey called "substantial learning"[6] going on.

The analyses done of textbooks and materials show that similar contradictions run throughout, which is understandable given the fact that subject syllabuses are themselves not consistent in communicating learner-centred education. The guidelines and manual for textbook approval are both based mostly on behaviourist/instrumentalist and individual constructivist thinking. Consequently, many textbooks and teacher's guides take either an approach of reinforcement of taught information

[6] Dewey was concerned that the progressivist movement in America had adopted new teaching methods in his name without ensuring that true learning was happening in terms of cognitive skills development. Substantial learning for Dewey is not an either/or between skills and content, but the development of skills and content inseparable from skills development.

(very conventional pedagogically speaking, but often in an attractive presentation), or an activities-based approach (mostly where activities are the application and reinforcement of taught theory). Life Science is one of the more consistent subjects in terms of learner-centred approaches, but even here conflicting trends can be found. A detailed analysis of the Life Science textbooks from a constructivist perspective showed that there were many good features, more so than in most other subjects, but even here there were noticeable inconsistencies. Despite a more integrated approach, the textbooks still tended to be organised more according to information rather than goals of learning, concepts and skills, and the exercises for the learners did not consistently guide teachers to using a constructivist approach. The teachers' manual, on the other hand, did give more consistent guidance.

4.1 Implications for curriculum

Greater consistency can be achieved as broad curricula and subject syllabuses are revised in the normal processes of ongoing curriculum development. If the broad curricula and syllabuses are more consistent, teacher's guides and textbooks will also become so and ease teachers into a more consistent approach in implementing learner-centred education. The following main features of curriculum documents will need to be considered:

- Does the structure and discourse of the curriculum reflect an awareness of knowledge, intelligence, learning, gender, culture and context, which strengthens a learner-centred approach?
- Do the curriculum documents describe what is to be learnt in terms of intended learning experiences, what aims they are to serve, and what selection of content can support them, rather than listing information to be transmitted?
- Is it shown clearly how content is to be used to develop a wide range of skills in each unit of teaching?
- Is it shown clearly how the teacher can use learners' experiences and existing knowledge, and how given information can be related to the learners' context?
- Are learning outcomes described in such a way that teachers can identify what learning is taking place and how well the learners are achieving?
- Do the curriculum documents guide teachers and school principals towards organising learning content more holistically, both in terms of themes, subjects and learning objectives, and in use of time?

A balance needs to be found between the prescribed knowledge (needed as building blocks or cognitive tools to go further, and knowledge which all must share as part of national needs and identity), and knowledge brought into the classroom by the learner and teacher, from their own experience and the local community.

Although the general tenor of the curriculum guide for Basic Education is constructivist, the overall description of the curriculum in the guide, guidelines for curriculum panels and subject syllabuses to a greater degree reflects the transitional nature of the time when they were produced. The curriculum guide breaks down the curriculum into objectives and competencies, but the tendency has been to go into great detail at the syllabus level. This has locked the curriculum into a closed system more like a programmed instructional system, rather than fulfilling the intention to build on learners' existing knowledge and leaving space for constructing understanding in their interaction with their environment and each other.

Given the theoretical approach sketched in Section 3, which reinforces the policy and broad curriculum intentions, the curriculum (broad curriculum and subject syllabuses) should describe the construction of knowledge for learning with understanding, and the framework for the learning process, in a consistent way. Some of the practical implications for curriculum development and design (especially at syllabus level) would include the following:

- The concept of content must shift from an overemphasis on factual information to balanced content including knowledge, cognitive skills and personal and social skills.
- The thinking behind the selection of content so far has been to expose learners to as much information as possible at the expense of developing skills. Skills are not an automatic result of exposure to, and repetition of, information, but are ways of working with information to internalise it and to share and construct understanding.
- The cognitive skills will include the ability to hypothesise, interpret, analyse and synthesise at all levels, for which good communication skills are crucial. The content of what is to be learnt must be enough to ensure substantial learning. In order to develop skills, the learners will need to use their prior knowledge and experience from both outside and within school together with new knowledge which they acquire through different sources of information: each other, parents and community members, the teacher, textbooks and other materials.
- This means that the curriculum and syllabuses will have less detailed descriptions of what information is to be learnt but greater clarity on what knowledge is needed from textbooks and materials, the environment and the community.
- The curriculum must give time and space not only for eliciting and building on the learner's prior knowledge, but also for learners to explore their immediate environment for information and to try out new knowledge.
- The criteria for selecting knowledge to be learnt have to be clear, and link knowledge to the skills to be developed. If skills and understanding are to be

developed in a learner-centred way, the classification of knowledge must be done in such a way as to recognise and include indigenous knowledge systems, both the content and the ways of knowing.

- The way in which knowledge is classified will be based on what values, attitudes and skills are to be developed, i.e. arranged according to the competencies which it is agreed should be the outcomes of basic education, instead of competencies being tagged on to predefined content.

One of the problems which the current transitional form of curriculum documents has caused, is overlapping between subjects and the need for more and more crosscurricular themes. This shows how the existing classification of knowledge is not entirely adequate to changes in society and in knowledge, and the curriculum is getting "overcrowded". A more consistent learner-centred curriculum and syllabus will as far as possible show how themes and topics can from time to time, and gradually more and more, integrate subjects into areas of learning (e.g. Language, Environment, Society, Arts, Technology, etc.), but using the cognitive tools and skills which different subject disciplines provide. The language area of the curriculum would then be described in terms of the receptive and communicative skills to be developed in order to reach the outcomes, irrespective of which language one is learning. Language learning is an area of learning both in its own right and in terms of how those skills will develop understanding, analysis, critical thinking, creativity, etc. The level of skills will differ from first, second and foreign language even though the same skills are being developed. The area of Environment would include the study of the living and non-living environment and their interrelationship, leading to scientific understanding and skills (the skills including personal and social skills), and how those feed into the development of generic skills. The area of Society would look at the physical, material and social foundation for human life and how society works and has developed.

The curriculum can suggest perspectives from which the knowledge could be framed in order for it to make sense to the learner in terms of themes or open-ended questions. Overall questions to give direction to the exploration of knowledge could provide guidance. For example, following an open-ended question such as "How did we come to live here?", and – importantly – others which the learners and teacher together derive from it, could lead to looking at the natural environment, communications, asking parents and grandparents, and going back through oral and written history, linking across the areas of learning and using the disciplines and approaches of each to provide a holistic understanding.

The curriculum and syllabus design would then be more explicit on how skills are to be developed, what outcomes would be expected and how knowledge is to be organised, with less emphasis on describing information to be conveyed.

The organisation of time would also be different. Since knowledge is not broken down into discrete elements through increasingly detailed classification, learning will be organised in larger themes and therefore larger units of time. Since cognitive development cannot reasonably be prescribed into detailed incremental objectives set per year (learners do not develop uniformly or at exactly the same pace), one would be looking at expected development over a whole phase such as Lower Primary, Upper Primary, Junior Secondary and Senior Secondary, but also indicating what learning experiences will promote that development and what outcomes are expected each year within, and at the end of each stage. The curriculum and syllabuses could still indicate approximately how much time would be expected to spend on a theme or topic, but allow for local variations.

The concept of sequence in the curriculum would have to be rethought. Fixed sequence is also based on detailed discreet objectives and content in a rigid hierarchy. In some areas of learning, such as Mathematics, there is a core structure of skills which has to be followed, from counting to adding, then subtracting, multiplying and dividing in increasing abstraction. Most areas of learning have some parts where there is a necessary sequencing of the core structure of skills. Beyond this, however, decisions about what other skills to include, and how to sequence the learning experiences within the framework for a phase, should be based on the context of each school and class.

The discourse of the curriculum and syllabuses encodes and signalises what assumptions underlie the curriculum and how it is intended to be understood. A discourse signalling the basis of and parameters for learner-centred education in Namibia (involving the concept of the learner, knowledge, intelligence, learning, the community, the teacher) needs to be carefully drafted to be clear, understandable and consistent from the broad curriculum, through syllabuses and assessment materials.

4.2 Implications for learning support materials

A major implication of a learner-centred approach is the reconsideration of the role of materials in order for substantial learning to happen. One can visualise this in the well-known triangle with the learner, the teacher and the materials as the three corners. Previously, the teacher has been reduced to the role of repeating textbook content by writing on the board and by reciting it, and then expecting learners to repeat it and re-recite it when asked close-ended questions – pure stimulus-response, with no opportunity for the teacher or learners to contextualise or examine the information and construct knowledge or understanding. Another approach has been to use the instructional materials as a closed system based on syllabus objectives, detailed content and sequence, tasks for mastery learning, activities to engage the learners, and assessment. The materials steer the programme,

and the teacher is reduced to a manager of ready-made materials rather than an organiser and facilitator of learning experiences.

In a learner-centred approach, all materials, be they for the teacher or learner, are to support the learning process, not to dominate it. The three elements – learner, teacher and materials – can be seen as constituting the zone of proximal development, where learning support materials are in the role of the higher range of the zone, together with the teacher. At the same level is the knowledge of the community around the school. In learner-centred education the aim of ready-produced learning support materials is not to reduce the teacher to a reinforcer or programme facilitator only, nor to make the learner the passive recipient of reinforcement or the active recipient of an instructional programme. It is to provide a basis and support where necessary, for learning to happen.

The first implication is that the learning support materials contain reliable, up-to-date information not otherwise available to the learner and teacher, for the learning which is intended to take place. In the Namibian context where many teachers still have a backlog of knowledge, no reference materials easily available, and a generally weak culture of reading, the textbooks and teaching guides are their main sources of subject information. It is thus likely that second-generation Namibian textbooks and teacher's guides will still need to cover all syllabus content and provide some enrichment.

Secondly, given the continued importance of textbooks, information needs to be presented in such a way that learners do not meta-learn that knowledge is always given and unchangeable. The compartmentalisation of knowledge works against the integrated and holistic approach which will promote learning with understanding. It is customary in the current textbooks to introduce topics in terms of content rather than goals of learning, and content is thus what drives the chapters, activities and assessment onwards. Textbooks themselves can be guides to learning for the learners, rather than only carriers of information.

Further, textbooks still overemphasise activities to put theory into practice (deductive learning, e.g. applied science) at the expense of including the learner's previous experience and learning, and opportunities for exploration and problem-solving (inductive learning). The issue is to achieve a better balance between the two. Also, few of the tasks which textbooks suggest for group work actually need a group to solve them, and this might help account for why many teachers are not convinced that group work is worthwhile. Group tasks should be devised so that they need a group to solve them, if they are to promote cooperative learning in a way that makes sense to the learner and teacher. Finally, existing materials seldom use a "scaffolding" approach to developing learners' thinking, where questions stimulate reflection, comparison and exploration, continually building on the know-

ledge acquired. The scaffolding approach helps the learner construct his/her own understanding.

The shortcoming of centrally produced learning support materials in learner-centred education is the impossibility of their being able to contextualise knowledge beyond a general level, hence the importance of the teacher in ensuring that given knowledge is related to the immediate and local context of the learners. The importance of developing locally based learning support materials cannot be underestimated, and the flashy presentation of textbooks often hides the fact that equally good learning support materials can be produced locally by teachers in a cluster, circuit or region, given the training. It is also important that learners produce their own learning support materials, and there is ample evidence that when learners do so, the level is often much higher than any single learner could attain, provided they have appropriate challenge and support.

Given the fact that as yet only a minority of teachers have been thoroughly grounded in learner-centred education, it will be necessary for learning support materials to guide the teachers in learner-centred methodology. Lesson-by-lesson teachers' guides for textbooks can lead the teacher into more consistent learner-centred teaching, using a modelling approach to start with, but developing reflective practice so that the teacher can eventually be free of the guide and teach autonomously and authentically in a learner-centred way.

4.3 Implications for teachers

The teacher is the key to learner-centred education. A competent teacher can take a strong behaviourist curriculum and syllabus, and the resulting materials, teach it in a social constructivist mode and produce improved outcomes. Similarly, the teacher can twist a well-wrought learner-centred curriculum and syllabus, with materials, into a behaviourist mode. To a very large extent, it depends on whether the teacher understands the curriculum (has curriculum knowledge, not just syllabus knowledge), is able and willing to put learner-centred principles into practice, i.e. how the teacher appropriates the curriculum, and if assessment and examination are consistent with a constructivist approach.

Much of the research on educational reform in Namibia after Independence is on the perceptions and practice of learner-centred education in schools and in teacher education (see Section 5 in the Bibliography). A large number of interviews and classroom observations have been carried out. One common theme which seems to be emerging from them all is that teachers are familiar with the term "learner-centred", but tend to understand it rather superficially in terms of classroom methodology such as group work. Lessons are being observed where group work is used, but these tend to be scarce amongst lessons that are more conventional.

Analyses of teacher and learner talk in lessons tend to reveal that the discourse of learning has not changed widely, although some teachers are changing noticeably.

Discrepancies between teachers' perceptions and practice of learner-centred education are accounted for in different ways in the research. Some teachers say it is force of circumstance where classes are over-large, or they are put to teach subjects or in a phase for which they have not been prepared to teach, or they have not had sufficient professional modelling to follow. Much of the data does bear out the fact that many school principals are not following the *Pilot Curriculum Guide for Basic Education*, which states that teachers should be kept within the same areas of learning and the same teaching team for the same classes through Upper Primary or Junior Secondary. By not doing so, for whatever reasons, school principals are limiting possibilities for professional growth, and for the teacher to develop the relational context needed for learner-centred education. It also means that a large number of good in-service courses have little or no impact because teachers are constantly having to shift subject or phase. Other reasons for discrepancies deduced from the research materials include that teachers have insufficient depth of understanding of learner-centred education to be able to implement it; that not all teacher educators, advisory teachers and inspectors understand and practice it themselves (and some are sceptical of its value); or that the phenomenon of merely reproducing the pedagogical culture that one was accustomed to, in itself slows down change.

As yet, no research has focussed on comparing different professional certificates in pre- and in-service teacher education and the corresponding understanding and classroom practice of teachers (and teacher educators and advisory teachers). Taken as a whole, the research shows that above a certain minimum, the level of teacher qualification is not in itself a necessary condition for being able to teach in a learner-centred way. Attitudinal factors such as readiness to absorb new ideas and learn new skills seem to play an important role.

Some of the research shows that the lack of deeper understanding and taking only superficial changes in methodology, e.g. group work, as being evidence of learner-centredness, is because a lot of in-service training has focussed on classroom methods or checklists, without sufficient theoretical underpinning enabling teachers to reflect on, critique and situate their own practice.

In a workshop situation, one study showed that teachers who had received consistent in-service training in learner-centred approaches were able to work directly from curriculum goals instead of syllabus content when asked to plan lessons. This suggests that when teachers who have received regular and intensive in-service training in learner-centred education are put in a situation where they have to reflect on their practice and construct knowledge, they are able to do so. The

problem to be addressed is thus why many teachers are less able to do so in the school setting.

The implications of the theoretical framework sketched in the first part of this paper for the teacher can be summarised in the following terms:

First, the teacher must establish a relationship of care with the learners: learner-centred education presupposes a different quality of relationship between the teacher and learner. If that does not exist, learning will be inhibited. Also, if the teacher cares about the learners and their learning, s/he will be committed, will be in school for all working hours, and teaching fully. Secondly, the teacher must have a good grounding in subject matter and understand why and how to teach in a learner-centred way: only a very few grasp it intuitively. This means that the teacher must be able to sense the needs of the learners, the nature of the learning to be done, and how to shape learning experiences accordingly.

The teacher must learn and be able to decide when it is best to convey content directly (in a conventional way); when it is best to let learners discover or explore information for themselves without any teacher intervention; when they need directed learning; when they need reinforcement of learning; when the focus should be on skills more than content; when there are particular building blocks that are necessarily sequenced (phonics, mathematical operations); or when the learners can be allowed to find their own way through a topic or area of content. The teacher must have knowledge of, and a good relationship with, the community to be aware of what sort of knowledge and experience the learners bring with them into the classroom; where learners can gather information or go to learn in the community; and who in the community can share their knowledge and skills with the learners in school. The teacher must possess curriculum knowledge and be able to work towards goals and aims for learning rather than staying at the content and objectives level, and be able to integrate community knowledge and what is required in the curriculum. The teacher must be able to use existing and produce new learning support materials. Finally, the teacher must be able to recognise what learning happens and how, and be able to construct as authentic situations as possible to assess and record achievement, and to give feedback into the teaching/learning process.

What is required of teacher educators, advisory teachers and materials used for teacher education and development, is that they give the teachers the deeper understanding of learner-centred education which is needed, as well as the skills to put it into practice. Teacher educators and advisory teachers must themselves be able to structure the same type of learning experiences as will be expected of the teachers in the classroom. Developing reflective practice is one of the keys to increased awareness of learner-centred education and improved classroom prac-

tice. From some of the monitoring, research and evaluation findings, it is clear that some teacher educators and advisory teachers also need training in learner-centred education, as do many teachers.

4.4 Implications for learners

Democracy is a main goal and the intended ethos of the Namibian educational system. Also, because the approach of learner-centred education is to develop each learner's ability to construct her/his own understanding, the question of the autonomy of the learner comes into focus. It has been problematic in the first decade of educational reform. Learner autonomy implies the ability to think and act independently and considerately, on an informed basis. This is a gradual process, as all other learning, whereby learners are guided to participate more and more in decision making about their learning, according to what they are able to take responsibility for. At the same time, it is the teacher who is accountable to the school and community for ensuring that they do learn what is needed. Also, within the organisation of a school, limits do exist as to what learners can be given responsibility for. Growing to autonomy depends very much on the development of intrapersonal, social and emotional intelligences, both in the teacher and the learners.

4.5 Implications for assessment and examinations

One of the greatest controversies in the transformation of an education system, and in changing mind-sets, is in assessment and examinations. Centralised examinations in any country are directly linked to access to power (you have to get a certain mark to go to the next level, which admits you into a narrower and narrower elite).

Assessment and examinations are part of the real curriculum: the backwash effect of assessment and examinations on teaching methods and on what is taught has been thoroughly documented. In examination-dominated systems, teachers teach for the examination and not for learning. In Namibia, much formal testing in schools is modelled on the national examination papers at Grade 10. Many schools use several weeks per year only for revision for formal testing and examinations, and for the tests and examinations themselves. The examination system has not freed itself entirely from the former concept of the encyclopaedic curriculum and a narrower range of skills than the curriculum as a whole, because of the dependency on the written examination.

The most artificial and therefore least valid form of examination is the one most widely used because it is the simplest to administer and least costly: the written examination, based on memory recall. The most realistic (contextual) and therefore most valid form of examination is to observe and enquire of a learner using

his/her knowledge and skills in a normal or simulated real-life situation where they would normally be needed: authentic assessment.

A learner-centred curriculum and learner-centred teaching use a far broader and more relevant range of knowledge, intelligences, contexts and skills than any other. In order to capture the full range and levels of competence, a variety of assessment situations is needed in a continuous feedback into the teaching and learning process. If the end of a school year marks the resting point of a cycle of learning, some form of retrospective statement of progress and achievement is useful. Recognising the importance of continuous assessment is an important step forward towards a constructivist approach. However, there is little consistency between curriculum intentions and examination. At the epistemological level, teachers are confronted with completely diametrical systems: constructivism in the curriculum, and strong behaviourism in assessment and examinations. Professional discussions about what learning should take place and how one can assess and give recognition for it, are replaced by reductionist discussions of mathematical computations of marks and weighting between components.

In the Namibian context, where many teachers have an inadequate foundation in learner-centred education, assessment must be clear, simple and manageable and anchored firmly in learner-centred principles and practice. The issue is not just that assessment be continuous and feed back into the teaching/learning process, but that the teacher can actually identify what type of learning takes place and is able to assess it. There is a need to develop what is called "assessment literacy" in teachers. They must be able to elicit reliable and valid information of the learner's performance, to interpret the information, to communicate what it means back to the learners and parents, and to know what to do to improve performance. Developing assessment literacy amongst teachers is an important contribution to reducing dependency on formal testing and examination.

Assessment in learner-centred education must take stock of the breadth and depth of what the learner has learnt in school as far as possible in authentic assessment. What the learner has learnt in school will build on and relate to what the learner has learnt from experience in the community. If learning is to be assessed in depth, formalised assessments should be few and far between, but thorough in terms of assessing skills, knowledge and competence. The current tendency in Namibia to over-elaborate objectives and competencies and to demand continuous formative assessment from inadequately prepared teachers covering several often unrelated subjects, is clearly counter to a learner-centred approach. It does not provide sufficient opportunities for learners to construct knowledge in a holistic way, and results in inconsistent and unreliable assessment because teachers cannot go in depth with a field of learning, and are "stretched thin" conceptually and practically. One reaction to such inconsistency is to revert to former practices of

frequent testing based on measuring easily testable behaviourist objectives, instead of rather developing assessment literacy and going into how more authentic assessment can be made manageable in the Namibian context.

The way ahead would be to relate assessment more to curriculum goals and aims and not so much to discrete syllabus objectives. Authentic assessments would then be less frequent but in the form of real, or more adequately designed, assessment situations where discrete skills are demonstrated as part of the larger task. It would also involve much more self-assessment and peer assessment, and making time available for each learner to look at assessments and to use them as feedback into her/his own learning process (educative assessment) and, similarly, for teachers to use them for feedback into the teaching process.

The increasing emphasis on formal testing and examination in Namibia is moving teaching and learning back into more behaviourist modes of teaching instead of forward into authentic teaching and learning. The question *What is a social constructivist examination?* needs to be asked and explored, for all its apparent surface contradictions. The answer is likely to imply fewer examinations, fewer questions, and more time for discursive, analytical and synthetic thinking. Open-ended questions will be much more the norm. They will take more time to mark, because the examiner must also think. Question setting will be much more related to the immediate environment, which is a challenge because of the diversity of environments in Namibia. It is a much more difficult form of examination to set and mark. Some subjects in the examinations at Grade 10 and 12 do try to describe or provide information or contexts for learners to demonstrate their understanding and ability to analyse, synthesise, interpret, etc. However, greater consistency is needed.

In order to be more consistent within a learner-centred approach, greater weight needs to be given to classroom-based continuous assessment, but that assessment must also be valid and reliable. The challenge is for curricula to define and limit assessment and examination, for teachers to be well trained in understanding what learning is intended to take place and to be able to assess that consistently and authentically, and to have a high level of assessment literacy.

4.6 Implications for resources

During the first decade of reform, schools and teachers were concerned that learner-centred education would be more demanding on resources than the former system. In a learner-centred approach, there is a greater acknowledgement of human resources for teaching and learning than otherwise. The knowledge and experience of the community, the learners themselves and the teachers are recognised and used as learning resources. In one sense, this is more demanding personally than in a conventional approach, which disregards these resources and depends on

one-way instruction based on a textbook. In another sense, using these resources is far less costly even though it provides greater richness of learning.

The immediate environment of the school and community is seen as a resource for teaching and learning, but in addition to this come the resources for learning support materials produced by the learners and the teachers, commercial text-books and materials, and other equipment needed for the teaching and learning process. Because a learner-centred approach involves ongoing reflection on the teaching and learning process, it promotes not only a wider awareness of what resources are available, but also a more efficient and critical use of resources.

4.7 The learner-centred school

It is well known that the school represents the hidden curriculum, and that is a powerful arena of learning. Any discrepancy between the intended and hidden curriculum weakens the learner's trust and confidence in the intended curriculum and the school as a learning organisation. Learner-centred education will not be consistently implemented unless each school has a supportive environment for learner-centred education. A learner-centred school will be democratic in its ethos and organisation culture. This means that learners will be trained for and given responsibility gradually, as they are able to take it on. If learners are being taught well in a learner-centred way, they will be working hard, discipline problems will be minimal because learning will be meaningful, relevant and challenging for them, and they will be developing personal and social skills.

The community will be closely involved in the life of the school, both through the use of community expertise in teaching (e.g. language, local history, environmental and social studies, cultural and craft skills), as a context for learning (e.g. in local exemplification, projects and work experience), and as participants in school management and development. The physical and mental boundaries between school and community which cause a divide in the minds and behaviour of the learner will diminish, giving way to a more integrated site of learning with many forms of interaction and learning experiences.

Change at the school level will need both internal leadership and support from the school principal, and regular external support from advisory teachers and inspectors. There are considerable implications for the training of school boards and the professional development of school principals, professional support staff and administrative personnel in the concept and practice of learner-centred education and the learner-centred school, if the quality of learning is to be improved and sustained in the second decade of educational reform in Namibia.

CONCLUSION

If the quality of education is to be improved through greater understanding and consistency of approach, there is a need to –

- Ensure that all involved in curriculum research, development and evaluation have a thorough understanding of learner-centred education and curriculum concepts
- Make the conceptual foundation for teaching and learning clearer in curricula and syllabuses
- Redesign the format of curricula and syllabuses in order to facilitate a learner-centred approach
- Apply learner-centred approaches consistently in textbooks, teachers' guides, and teaching materials
- Revise textbook evaluation criteria accordingly
- Develop assessment and examinations which promote learner-centred education
- Evaluate and develop pre- and in-service teacher education for basic education and for senior secondary education in terms of consistency with the learner-centred paradigm
- Retrain advisory teachers and inspectors to be able to evaluate and support teachers and schools in implementing learner-centred education
- Orientate school boards on what can be expected of learners, teachers, the school and the community in adopting a learner-centred approach consistently in order to improve the quality of learning.

These changes are not a curriculum reform, but will make the curricular system more consistent. It will take time, and be a process which has to unfold step by step. It involves many stakeholders, and building shared understanding will be a key to the improvement of learning. In the first decade after Independence, universal access has been achieved; in the next decade it must be ensured that all children receive the best quality education possible. Consistent understanding and implementation of learner-centred education is a prerequisite for the improvement of quality throughout the system.

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