THE NEED FOR CONSTRUCTIVIST THINKING AND PRACTICES IN THE INFORMAL SETTLEMENT SECONDARY SCHOOLS OF DAVEYTON

by

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DEDICATION

This study is dedicated to all the educators who strive for the betterment of the noble profession of teaching.
ACKNOWLEDGEMENTS

My sincerest gratitude to the following people cannot be adequately expressed:

- God Almighty, from whom I receive wisdom, strength and countless blessings.

- Dr MC Van Loggerenberg, my supervisor, without whose support, guidance, inspiration and humility this project would never have been accomplished.

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- My dear friend and study partner, Bro. M Mkhombo, I am indebted to your guidance in research essay writing.

- Staff members and learners of both schools who contributed to the success of this study.
ABSTRACT

This research is part of the basics for many of the current reforms in education. It is therefore important that such developments are encouraged at all centres of learning in order to sustain Curriculum 2005. Curriculum 2005 advocates for a shift from the content-oriented approach to the one based on outcomes. This outcomes-based education (OBE) aims at empowering the learners with knowledge, competence and orientation necessary for life after completing school.

The introduction of the approach based on outcomes further opens up new vistas of research for educationists. In this research, an attempt is made to alert the educational stakeholders to the need of constructivist thinking and practices for quality secondary school education. The study is explored through the combination of individual interviews, focus group interviews and participant observation.

The study sought to empower the participants of a learning community who are interdependent and connected in their learning and work to sustain the outcomes-based education (OBE) through constructivism. The setting of the study is in the informal settlement with its highly congested homes that make it impossible for the learners to study. Lack of parental involvement in educational matters leaves the educator solely responsible for the education of the learners. Each educator, being aware of the sociological factors that impact in a negative manner on the schooling, is expected to put his/her shoulder to the wheel and empower each learner with the opportunity to be a constructor of knowledge through:

- Active participation,
- Sharing knowledge,
- Experiences,
- Asking questions.
Hierdie navorsing maak deel uit van die basis van baie van die huidige hervormings in die onderwys. Dit is belangrik dat sodanige ontwikkeling aangemoedig word by alle instellings waar onderrig en leer plaasvind, ten einde Kurrikulum 2005 te verwesenlik. Kurrikulum 2005 poog om 'n verskuwing van 'n inhoudgeoriënteerde benadering na een van uitkomsgebaseerde onderwys te bewerkstellig. Hierdie uitkomsgebaseerde benadering (UGO) het ten doel om die leerders toe te rus met kennis, vaardighede en ingesteldheid wat nodig is vir die lewe na skool.

Die instelling van uitkomsgebaseerde onderwys open verder ook nuwe horisonne vir navorsing deur opvoeders. In hierdie navorsing word 'n poging aangewend om alle opvoedkundige betrokkenes bewus te maak van die behoeftes aan konstruktiewe denke en praktyk om die kwaliteit van sekondêre skoolonderwys te verhoog. Die studie word onderneem deur 'n kombinasie van individuele onderhoude, fokusgroeponderhoude en deelnemende waarneming deur die navorser.

Die navorser streef na die bemagtiging van alle deelnemers van 'n leerdersgemeenskap wat interafhanklik en tesame leer en werk om uitkomsgebaseerde onderwys deur konstruktivistiese te verwesenlik. Die studie is gedoen in 'n informele behuisingsarea met oorvol huise, wat dit feitlik onmoontlik maak vir leerders om te studeer. Die afwesigheid van ouerbetrokkenheid in die onderwys van hulle kinders laat die opvoeder/onderwyser alleen verantwoordelik vir die opvoeding van die leerders.

Elke opvoeder/onderwyser wat bewus is van die sosiologiese faktore wat die onderwys negatief beinvloed, word aangemoedig om skouer aan die wiel te sit om elke leerder toe te rus en te bemagtig met die geleentheid om 'n aktiewe skepper van kennis te word deur aktiewe deelname, mededeling van kennis, benutting van ervaring en die vra van konstruktiewe vrae.
EPIGRAPH

The content-oriented approach is the jug and mug theory of education. Teachers are the jugs pouring their contents into the students, the empty mugs.

Carl Rogers.
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SECTION ONE: OVERVIEW

1.1 INTRODUCTION

Each centre of learning is expected to adequately prepare its learners for the future. The tempo at which new knowledge is disseminated, undoubtedly demands of the centre of learning to equip its learners with “analytical and critical thinking skills” as suggested by Smith (1995:3). An analytical and critical thinker solves problems more effectively because one is then fairly free from any form of prejudice and as a result one cannot be manipulated. Therefore educators are expected to make an important educational paradigm shift from the talk and chalk approach to a practice that there is always something the learners are called on to construct. The mimetic approach to learning has no room in the outcomes-based approach. The outcomes-based approach is learner-centred, contrary to the classical or mimetic approach which is content-centred. The content-based approach displays much rote learning and passivity on the part of the learners.

This research is prompted by an assumed difference in the traditional approach to teaching with its transmission model and constructivist approach to teaching that promotes lifelong learning. The traditional approach to teaching does not at all promote any interaction between prior and new knowledge as expounded by Richardson (1997). Therefore if ever there is any knowledge gained through the transmission model, it is not well integrated with the existing knowledge and consequently cannot be regarded as lifelong learning for the future.

Through this study it is hoped that there shall be a contribution to shift the blame from the learners for their poor performance by equipping the educators with the necessary skills to provide a learning environment that makes it possible for the former to search for meaning. This research essay further intends to discourage the “inappropriateness and ineffectiveness of this teacher-dominated teaching method in an age where torrents and explosions of information require that students learn how to find, select, organise, interpret and use that information” as asserted by Marlowe and Page (1998:26).
1.2 BACKGROUND TO THE STUDY

I intend to explore teaching strategies for the promotion of a theory of how to learn. These teaching strategies shall emphasise the promotion of thinking and analysing in contrast to accumulating and memorising information. I intend to do an inquiry so that its findings can throw light on and help address the social problems experienced by the population of the informal settlement of Daveyton's Etwatwa section. Etwatwa informal settlement was established in 1981 to circumvent the problem of housing shortage in Daveyton yet it created the educational difficulty. There are only five secondary schools to serve an estimated population of more than 130 000 people.

The secondary school acts as an exit point for the poverty-stricken people who have no alternative but to look for employment. Therefore secondary school education should be very effective. There is a dire need to address the dearth of secondary schools, given the fact that there should be a provision of one such school per 250 square metres as stated by Jacklin (1991). I believe that the education methods used in these schools are not conducive to problem solving and general cognitive development. The assumption might be that learners leave centres of learning without the expertise of reading and writing. They further demonstrate a lack of sufficient knowledge of how to numerate at a job situation. Therefore I assume this will jeopardise their chances of being marketable in the workplace.

The secondary schools at Etwatwa informal settlement are overpopulated by learners and as a result, the schools are bound to under-perform. Furthermore the informal settlement’s lack of infrastructure and services impact negatively on education. This unplanned growth leads to a lack of recreational amenities for the learners and it is imperative that the activity and context in which learning takes place are thus regarded as a primary concern of the centres of learning (Brown et al, 1989:32).
1.3 THE NEED TO CONDUCT THE RESEARCH

There is much rote learning and passivity on the part of learners. The transmission model of teaching offers very little opportunity for learners to express themselves or to think for themselves. I concur with Evans (1995:5) who puts forth the claim of Rogers (1985) that our school system continues to produce educators who are “locked into a traditional and conventional approach which makes significant learning improbable if not impossible.” Therefore educators need to be exposed to the expectations of making important educational paradigm shifts. It is essential that educators are empowered by literature that shall make them realise how important it is for learners to experience a gradual shift from learning what others have thought to thinking on their own.

The findings of this inquiry shall hopefully contribute to the literature that strives to address the social problems of the centres of learning and to stop to produce unemployable products. It is essential that learners be actively engaged in their own learning. Furthermore the inquiry is intended to contribute to the literature that facilitates a paradigm shift for the educators to be able to sustain the outcomes-based education through a pedagogy that is learner-centred and educator controlled. It is this learner-centredness that develops autonomous thinking abilities in all the learners and encourage them to construct meaning for themselves.

1.4 THE RESEARCH QUESTION

The following research questions originate from the research problem:

- What are the learners’ problems in coping with the tempo and scope of knowledge dissemination in the informal settlement schools of Daveyton’s Etwatwa section?
- Where does the content-oriented approach of the “jug and mug theory” of education lead the learners in this age of rapid information?
- What impact does the environment have on the education of learners?
1.5 THE FORMULATION OF A CLAIM

In this research essay my main claim is that only the educator becomes active as one rushes through the content whilst one “covers” the syllabus in the content-oriented approach. The learners in the content-oriented approach I also claim, are rendered passive by the educator who manages, controls and dispenses information. Furthermore I claim that Outcomes-Based Education (OBE) cannot be a success when the educators focus on teaching that expects learners to concentrate on regurgitating and repeating what has been thought by others. Therefore I go further and claim that the cognitive teaching style affords the learners the opportunity to demonstrate the ability to facilitate critical and creative thinking as expected by the Cotep document (1997:88).

1.6 THEORETICAL EVIDENCE FOR THE VALIDITY OF THE PROBLEM

The content-oriented approach is not relevant for lifelong education which the new OBE approach advocates. Therefore the form of education that uses the content-oriented approach with its transmissional method, leads to the “jug and mug” theory of education of Carl Rogers as expounded by Holdstock (1987:27). The educators become the jugs that pour their contents into the learners, the empty mugs. The constructivist theory, which is about constructing knowledge and not receiving it, rejects the educator-as-knowledge-dispenser model of traditional education as suggested by Marlowe and Page (1998:15), quoting Bruner.

In a constructivist classroom, as Marlowe and Page (1998) indicate, learners validate their learning and understanding through diverse means. They might summarise key ideas in their own words, they might develop new critical questions or solve problems. The constructivist theory of education as proved by the tenets of Piaget, Vygotsky, Dewey and Freire amongst others, assert that learners receive more when they are actively engaged in their own learning. Furthermore the constructivist theory promotes learners’ creativity, independence and independent thinking and as a result sustains the OBE. Because knowledge is not “transferred” but constructed and appropriated by the individual with the help of people and artefacts, therefore the environment plays a vital

1.7 DEFINITION OF CONCEPTS

Centres of learning: These are places where learning takes place. These include Early Child Development (ECD) centres, schools, ABET centres, universities, etc.

Constructive partnership: These are partnerships entered into by governance structures at centres of learning and outside bodies in order to enhance the development of the centre of learning.

Constructivist theory: It is the promotion of learning through learner activity such as questioning, investigating and problem solving.

Content-oriented theory: The form of education where the educator transmits all the information.

Educator: A person whose work involves educating at all levels of education, in any type of education or training context, including formal and informal such as the teacher, lecturer, parent or youth counsellor amongst others.

Learner: This term refers to all learners ranging from childhood education through to adulthood education. It replaces the terms “pupils” and “students”.

Outcomes-Based Education (OBE): Refers to the design for education which is learner-centred and oriented towards results or outcomes.

Population: It is a large group of individuals.

Sample: It is a smaller group drawn from a population.

Target population: It is larger group of individuals from which we would like to generalise the findings of our study.
1.8 RESEARCH STRATEGY AND METHODS

A study of the relevant literature will be undertaken in order to include the necessary information related to constructivist theory of education. This will serve as a theoretical framework of the research.

According to Miles and Huberman (1994) the data collection activities in a research study can be carried out in close proximity to a local setting for a specific period of time. Therefore I will choose two of the five secondary schools for the inquiry. Because Le Compte and Preissle (1993) refer to selection as a more general process of focusing and choosing what to study, the participants in this research study shall be chosen through random sampling for both the educators and learners. I will conduct in-depth interviews with two educators as well as two learners from each of the two selected secondary schools. As I conduct the in-depth interview, I shall follow the suggestions of Patton (1987) of open-ended questions, listen to and record the answers. A follow up with additional relevant questions shall be applied where necessary.

Qualitative interviewing, according to Patton (1987) is classified into different approaches. This research essay shall follow the standardised open-ended interviews and the general interview approach. The former approach as suggested by Patton (1987) consists of a set of questions carefully worded and arranged for the purpose of involving each respondent through the same sequence and asking the same questions. Depending on time, both the individual and group interviews shall be done by me. For clarity, probing shall be used. Probing, according to Dane (1990) is a means by which an interviewer prompts the respondent to further elaborate on a particular response. Another useful source of data collection shall be my previous experience as an educator not exposed to the constructivist theory of education.
1.9 THE STUDY PLAN

Section two will review the relevant literature on the constructivist theory of education. Section three will concentrate on research methodology and is based on a report of the field study. Section four deals with the discussion of the data. Findings of the research based on the data categories will be presented and discussed, and recommendations will be made on how to empower educators about how to teach for constructivist learning.

1.10 SUMMARY

This section is an introduction to this research. It provides the background to the study, the need to conduct the study, the research questions, claims and theoretical evidence for the validity of the problem. Definitions of concepts as well as the research strategy and methods are provided. The next section will focus on the literature review for the study.
SECTION TWO: REVIEW OF SELECTED LITERATURE

2.1 INTRODUCTION

The focus of this section is to review the selected literature that deals with constructivism in education. Perceptions of educationists with regard to the influence of informal settlements on education shall be of help to demonstrate the need for an active learner for the information to be processed successfully as Julie et al (1993) state the principles of von Glasersfeld. A very brief comparison of the content-based approach to the learner-centred approach shall also be discussed. The brief discussion of the two different teaching and learning approaches will, hopefully, demonstrate the contrasts experienced in teaching as the case is with the content-based approach and learning in as far as the constructivist’s learner-centred approach is operated. Furthermore this section shall focus on the roles that the constructivist educator and the constructivist learner may play in the development of the latter’s thinking process.

It is vital to collect knowledge from literature and any other relevant material which is selected and implemented in a systematic manner, as Modiba (1998:5) expounds. Therefore for this research essay to be effective, it is imperative to consider vast and relevant literature study. According to Modiba (1998:5), quoting Aldum, a literature study is done for the following reasons:

- to define the borders of the field of study;
- to delimit the size and extent of research;
- to evaluate the meaningfulness of one’s own feelings;
- to be critical against other research attempts.

The successive high failure rate of the learners in the matriculation examinations since 1995 as Swart and Mothibi (1995) espouse, reflects the need to critically examine the effectiveness of the learning programmes. The content-based approach with its much rote learning and passivity on the part of the learners, dominates in our centres of learning. Therefore the need to critically examine the effectiveness of the learning programmes
suggests a need for constructivism as strategy that will fix both the centre of learning and the learner, as Lambert et al (1996) state in the foreword. My main claim that only the educator becomes active as one rushes through the content, suggests that such a teaching technique does not help the learners to learn more effectively. Eggen and Kauchak (1988:1) confirm my idea that effective learning is experienced only when learners are actively involved in organising and finding relationships in the information they encounter rather than being the passive recipients of the educator-delivered bodies of knowledge. Eggen and Kauchak (1988) further concur with my sub-claim that the activity of actively involving the learners results not only in increased learning and retention of content but also in improved thinking skills as expected by the Cotep document (1997:88).

A constructivist classroom, according to Brooks and Brooks (1993) determines the strength of school reform in merging learning and understanding beyond facts and rote memorisation. Therefore through the constructivist approach of learning, the learners cannot be made passive by an educator who regards them as “empty vessels” which the latter should fill with knowledge, as Julie et al (1993:185) suggest. Constructivism is a form of school reform that aims at addressing the wrong of learners who are rendered passive and come out of school not able to read, write and numerate as observed by von Glasersfeld (Steffe and Gale, 1995:3).

2.2 PERCEPTIONS ABOUT THE INFLUENCE OF THE INFORMAL SETTLEMENTS ON EDUCATION

It is very vital to record the views of both the learners and the educators of the secondary school in this particular informal settlement. Both the learners and the educators possess first hand information of the circumstances and they are in a better position to analyse the situation in a practical way as Mkhombo (1999:7) suggests. According to Mkhombo (1999) quoting Platzky and Walker, education in the informal settlements has never taken place under normal conditions. The poverty-stricken parents are obliged by such circumstances to resort to schools outside the informal settlement for better education.
Therefore not all children of school going age from the informal settlement, are offered the opportunity to have access to proper schooling with the benefit of the development of one’s thinking process. It is this thinking process, in the long run, at a job situation that contributes to one’s chances of being marketable.

Creating constructivist settings, according to Brooks and Brooks (1993), will offer a constructivist view that focuses on the learning environment that shall benefit the learners. The learning environment at Etwatwa informal settlement as Mkhombo (1999) expounds, prove not to be worthwhile for education. The learners end up having nothing constructive to do but roam around. These are therefore the learners who are susceptible to being unable to read, write and enumerate at a job situation as von Glasersfeld (in Steffe and Gale 1995:3) confirms. Any environment that results in learners having nothing constructive to perform but to roam about and idle, is an educational hazard for its society. Such an environment, as Etwatwa informal settlement is, is devoid of opportunities for adequate cognitive development as seen by Mkhombo (1999:9). Therefore there exists a dire need to introduce constructivism in and around the Etwatwa informal settlement. Piaget’s theory states that “the cognitive advances of the individual involve adaptations to the environment (including the social environment).

2.3 THE CONTENT-BASED APPROACH VERSUS THE LEARNER-CENTRED APPROACH

Marlowe and Page (1998:13) describe the content-based approach as the “traditional teacher-dominated classroom in which the teacher manages, controls and dispenses the information.” Such form of education, as I claim, renders the learners passive. Learning on the contrary is a pro-active activity. It is something a learner DOES and not something which is DONE TO a learner. Piaget, according to Husen and Postlethwaite (1994), subscribes to the belief that learning is an active process where the individual plays an active role to acquire knowledge. Therefore the learner who is rendered inactive or
passive by the traditional content-based approach is susceptible to indoctrination. Centres of learning can easily become powerhouses of indoctrination especially if they stifle learners’ “creativity, autonomy, independent thinking, competence, confidence and self-esteem” as Marlowe and Page (1998:13) confirm.

The outcomes-based education (OBE) approach as my claim indicates, cannot be a success when the educators focus on the teaching style that expects learners to be treated as empty mugs. Educators are expected to make a shift and apply the cognitive teaching style in order to sustain OBE. OBE, as my sub-claim confirms, affords the learners the opportunity to demonstrate the ability to facilitate critical and creative thinking. Husen and Postlethwaite (1991:4481) advocate the constructivist viewpoint with its learning methods that provide “more place to the child’s action.” The more place provided to the learner is not in isolation. Brown et al (1989:40) confirm that group work is not only an appropriate way to accumulate the individual knowledge of their members. They give rise synergistically to insights and solutions that would not come about without them.

The foundation plays a very vital role in any form of construction. Therefore, one can only learn according to what one already knows. If there is no foundation or some existing structure to support the new building or new knowledge respectively, the chances are that the real building or constructing or learning shall not take place effectively. Piaget talks about “schema” when he refers to the knowledge which one has already constructed through the years of one’s life. Prior knowledge and learning form the foundations and at times even the cornerstones of the continuous making of new knowledge. Therefore Piaget and many other theorists argued that knowledge is constructed as the learner strives to organise experiences in terms of pre-existing mental structures or schemes (Bodner, 1986:873; Husen and Postlethwaite, 1991:4480; Fensham et al., 1994:5; Lambert et al., 1996:10-11; Spivey, 1997: 11; Richardson, 1997:3; Dillemans et al., 1998:26).

All proponents of constructivism subscribe to active learning methods. They reject the traditional educator-dominated classroom where the teacher, according to Marlowe and
Page (1998:13), “dispenses the information”. The mimetic approach to learning does not invite and encourage learners to think. It regards learners as “empty vessels” that need to be filled with knowledge as Julie et al (1993:185) confirm. Holdstock (1987:27) also discourages the educators’ teaching strategy that regards educators as jugs that fill the learners, the empty mugs. Such a teaching strategy does not consider the learners’ involvement. Learners’ involvement, as Mokone (1998:3) espouses, “is pivotal to ensure meaningful learning towards significant educational outcomes.” In constructivism, unlike in the traditional educator-dominated classroom, knowledge is mentally constructed and is related to the action and experiences of the learner according to Edley (1998). Therefore, knowledge cannot be transferred from one person to another (ibid).

Husen and Postlethwaite (1994:2881) expound that “a person learns something by doing, by action.” Construction of meaning is a concept advocated by the learning theories of Piaget and Vygotsky. Construction of meaning must be actively carried out by the learner (Bodner, 1998:873; Spivey, 1997:11; Glatthorn, 1997:103; Edley, 1998:15). Therefore there is a definite need to address the situation that uses the inappropriate teaching methods as revealed by the research conducted by Flanders (Mokone, 1998). According to the findings of that research, about two-thirds of the classroom time is spent by the educators talking. The educators spend the said time to criticise the learners and or expressing facts of their own opinion. Clark and Star (1995) also confirm that traditional educators utilise inappropriate methods that do not make use of the learner-involvement in the learning process. Wigginton and Sharan (Marlowe and Page, 1995:15) aptly describe the destruction caused by the traditional classroom setting. The former describes the learners “as bored receivers who are glued to lectures, textbooks and memorizing.” The educator, according to Wigginton, is the boss and has all the knowledge. The educator-dominated teaching approach contrasts the constructivists practices that offer the learner the opportunity to actively select and organise the information. The traditional educator-dominated teaching model, as Sharan (Marlowe and Page, 1998) suggests, transmits knowledge and the learner becomes passive. This model does not lead to any learning or understanding but regurgitating and repeating back. Learning in constructivist terms according to Marlowe and Page (1998:10-11) is about:
Active learner involvement in inquiring-based learning and problem solving.
Both the process and the result of questioning, interpreting, and analysing information.
Using the information and thinking process to develop, build and alter our meaning and understanding of concepts and ideas.
Integrating current experiences with the past experiences and what is already known about a given subject.

Table 2.2.1 below aptly displays the different roles played by the learners in the classical (traditional) approach as compared to the roles by the learner in the cognitive (constructive) teaching style. The relationship between the educator and the learner is also reflected in Table 2.2.2

Table 2.2.1   LEARNERS’ ROLES IN THE CLASSICAL AND COGNITIVE TEACHING STYLES

<table>
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<tr>
<th>CLASSICAL TEACHING STYLE</th>
<th>COGNITIVE TEACHING STYLE</th>
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<tbody>
<tr>
<td>• Learner is passive</td>
<td>• Learner is active</td>
</tr>
<tr>
<td>• Looks and listens</td>
<td>• Participates</td>
</tr>
<tr>
<td>• Follows instructions</td>
<td>• Experiences</td>
</tr>
<tr>
<td>• Receiver of knowledge</td>
<td>• Constructor of knowledge</td>
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</tbody>
</table>

Table 2.2.2   THE RELATIONSHIP BETWEEN EDUCATOR AND LEARNER

<table>
<thead>
<tr>
<th>CLASSICAL TEACHING STYLE</th>
<th>COGNITIVE TEACHING STYLE</th>
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<tbody>
<tr>
<td>• Teacher-centred</td>
<td>• Learner-centred</td>
</tr>
<tr>
<td>• Authoritarian</td>
<td>• Shared power</td>
</tr>
<tr>
<td>• Learner disempowered</td>
<td>• Learner empowered</td>
</tr>
</tbody>
</table>
2.4 THE CALL FOR CONSTRUCTIVISM

A basic premise to educational reform starts with the view of studying learner learning and understanding. Brooks and Brooks (1993) offer a constructivist view that focuses on the learning environment. They consider the activities and approaches between the educator and the learner interaction. It is important to value the learners’ responses even when they differ from the educator’s perspective. Because learning is an active and not an absorptive process, it is important that educators should value each learner’s construction of meaning. Educators who undoubtedly value learners’ individual construction of meaning will benefit from allowing learners to explore endless possibilities in the way learners understand concepts. Concepts are then compared with existing knowledge and are adapted or modified (Driver, 1995:399; von Glasersfeld, 1995:372).

Knowledge, according to Edley (1998:24), is mentally constructed and closely related to the action and experience of a learner, and as such cannot be transferred from one person to another. Therefore educators are expected to redress the situation of using the teaching methods that are inappropriate and ineffective. Educator-dominated teaching methods are inappropriate and ineffective during a period when torrents and explosions of information require the learner to be actively involved in seeking understanding of new experiences by ensuring that the learner makes use of reflective and metacognitive skills (Edley, 1998).

“A metacognitive guide” as suggested by Dillemans et al (1997), shall always be a model that performs the task so that the learners may observe and build a conceptual model for the processes. The coach-educator facilitates learning as he observes learners as they carry out a task and offer hints, feedback and modeling. The learners as observed by Glatthorn (1997) seem to function best when they use the educator-provided cues, specific explanation and organising strategies to make sense of the problem and engage in its solutions. As the educator “fades” and turns over the whole process to the learner that becomes self-regulating, learning is experienced. The self-regulating learner is offered the opportunity to reflect about the process and compare with those of the peers.
Metacognitive abilities, as Thorpe (1995) espouses, help each learner to gauge his/her progress. A learner that is able to gauge and monitor his/her progress has gained autonomy and is able to be involved in a dialogue with the educator. The autonomous learner makes use of more dialogue with the tutor or educator (Thorpe, 1995), and as a result the learner is provided with the opportunities to learn ways of thinking (Mitchell nd: 21). The autonomous learner, according to Edley (1998:24), needs interaction with others in the learning process: “Autonomy learning is interdependent, that is, autonomy learners on their own initiative, learn both from themselves and from others.” Mitchell (nd: 19) refers to this constructive approach as co-operative learning based upon the theory that learners discover and understand difficult concepts when they talk to one another about the problems experienced as they learn. Julie et al (1993:186) also support the constructivist approach that suggests learners’ involvement. They advocate for a teaching theory where learners communicate to others of what they think about the problem. This is the form of education that replaces the teacher-centred approach by the one which encourages creativity and learners involvement in the teaching-learning process as Mokone (1998:11) expounds.

Mokone (1998:3) regards learners’ involvement as pivotal to ensure meaningful learning towards significant educational outcomes. Constructivism, as part of the reorganisation of the South African education system, should be practised in every classroom. Constructivism, contrary to the classical teaching style, posits basic tenets of social context for learning. It advocates for the effective use of cooperative learning and learner interaction as Glatthorn (1997) expounds. Lifelong learning for the future, which is underpinned by OBE, is developed at best for interaction with others as perceptions are shared, information is exchanged and problems are solved collaboratively. Constructivism equips the learners with knowledge, competence and orientation needed for success after they leave school or have completed their training (Mokone, 1998). Therefore all educators must be exposed to a pedagogy that is learner-centred and educator controlled. An educator-controlled situation is a result of one becoming a critical and analytical thinker, that is corollary free as Smith (1995) suggests.
2.5 THE ROLE OF THE EDUCATOR IN SUSTAINING CONSTRUCTIVISM

The educator amongst all partners in education plays a more significant role. Constructivists' form of teaching, according to Fensham et al (1994) is helpful in drawing the educators' attention to the need to consider changes in their pedagogy. All learning, whether the knowledge is discovered or received by direct transmission, involves construction according to Fensham et al (1994:6). Therefore all educators need to be exposed to a pedagogy that is learner-centred and educator-controlled. A pedagogy that is learner-centred and educator-controlled is the one Pitout (Mokone, 1998:1) refers to as where learners are encouraged to "venture" forth on their intellectual wings without fear of reprisal". Brooks and Brooks (1993) stress the importance of valuing the learners' responses even when the response differs from the educator's perspective. Educators who value learners' individual construction of meaning, as Brooks and Brooks (1993) suggest, will benefit from allowing the latter to explore endless possibilities in the way to understand concepts.

An educator-controlled situation depends on the initiatives of the constructivist educator for its success. The constructivist educator nurtures learners' natural curiosity and inspires them by converting a normal class to an efficient and excellent one. In a normal class, the educator selects the content and decides on the framework of one's lesson before it is delivered. During the lesson, the educator only covers what one has prepared. The remaining parts of the lesson: the mnemonic, memorisation, the practice and usage are left to the learner to struggle with after the educator has delivered the lesson.

In an efficient or excellent class, the constructivist educator-facilitator re-arranges the structure of his/her lesson. Before the actual lesson is delivered, the educator selects and decides on the framework. When the lesson is delivered, learners' involvement is experienced and individuals build meanings and memorise by relating new material to their prior knowledge as Bartlett (Spivey, 1997) expounds. The constructivist educator-facilitator involves his/her judgement about how much and what forms of guidance is best for any topic or group of learners, and when to provide it (Fensham et al. 1994:6).
Learners "parachute in" (Fensham et al 1994) as they make use of mnemonic skills through the guidance of the educator who drops lightly but effectively on an appropriate place at the appropriate time. Rogoff (1990:14) also confirms that learners participate in problem solving with more experienced members. Only after enough practice is experienced in class, the individual learner is assigned work to make use of the learned content.

The efficient or excellent class is learner-oriented and it subscribes to the ideas of the constructivist mode according to Lambert et al (1996). The constructivist mode implies that the educator facilitates learning processes that enable participants to construct meanings. Participants learn together and thus lead to a shared purpose of schooling (Lambert et al 1996). Table 2.4.1 on page nineteen(19), aptly displays what role an educator plays to sustain efficiency in the classroom.

Constructivism requires a change in the educator's role. In the constructivist approach, as Collins et al (Glatthorn, 1997:105-106) note, the educator carries out six essential functions:

The first function is modeling: The educator performs the task so that the learners can observe and be able to build a conceptual model of the process. The second function is coaching: the educator observes the learners when they perform the task and puts forward hints, feedback and modeling. Scaffolding and fading is the next function for the educator. At the initial stages of the learning process the learner functions best as the educator's provided hints and suggestions lead to the solution of the problem. As the learner progresses, the educator slowly fades away and turns the whole learning process to the learner. The fourth educator's role is articulation: The learners receive the help of the educator as they articulate their knowledge and reasoning process to make the cognitive process visible. Reflection as the next function of the educator plays a pivotal role. The educator helps the learners reflect about their processes and compare them with those of the more knowledgeable others amongst one's peers and use of the artefacts. Forman et al (1993:19) refer to the Zone of proximal development (Zo-ped) as the "guided practice" or "assisted performance". This is the Vygotskian theory that
encourages interaction amongst the learners. The sixth and final function is when the educator uses exploration (Glatthorn, 1997). Fensham et al (1994) refers to it as the stage when educators leave the learners to make whatever sense they like. Learners put their understanding into practice and use their knowledge. They form questions and find answers.
TABLE 2.4.1. : THE CONTENT-ORIENTED CLASS COMPARED TO LEARNER-ORIENTED CLASS

NORMAL CLASS : CONTENT-ORIENTED APPROACH

- BEFORE
  - SELECT CONTENT
  - FRAMEWORK
- DURING
  - COVER
  - PRIORITISE
  - MNEMONISE
  - MEMORISE
- AFTER
  - PRACTICE
  - USE

EFFICIENT/EXCELLENT CLASS : LEARNER-ORIENTED APPROACH

- BEFORE
- DURING
- AFTER
Brooks and Brooks (1993) suggest strategies that shall enable educators to become constructivists:

- Educators encourage and accept learners’ autonomy and initiativeness.
- Educators make use of the mediationary assistance of people and artefacts. They use raw data and primary sources, along with manipulative, interactive, and physical materials.
- Constructivist educators form tasks by using cognitive terminology such as “classify; analyse; predict; and create”.
- Learners’ responses are, through the sanction of the constructivist educator, drive lessons, shift instructional strategies and change the content.
- Educators investigate about the learners’ understanding of concepts before sharing their own understanding of those concepts.
- Learners are encouraged to interact with one another as well as with their educators.
- Educators ask thoughtful and open-ended questions. Learners are also encouraged to ask one another questions.
- Constructivist educators seek elaboration of learners’ initial responses.
- Educators engage the learners in experiences that might engender contradictions to their initial hypotheses and then encourage discussion.
- Educators allow some time after posing questions.
- Educators provide time for learners to form relationships of what they know and what they just learnt.
- Educators nurture learners’ natural curiosity through discovery; concept introduction and concept application.

2.6 THE ROLE OF THE LEARNER IN SUSTAINING A CONSTRUCTIVIST CLASSROOM

Because constructivism emphasises the learner as an active maker or constructor of meaning, it is imperative that learners should be provided with enough artefacts to help them in the process of knowledge making. It is imperative that every constructive educator should be cautious of and not ignore the situated nature of cognition. By
ignoring the situated nature of cognition, education defeats its own goal of providing useable, robust knowledge (Brown et al 1989: 32). The statement by Dillemans et al (1998:23) that no educational innovation can be successful without the co-operation of both partners suggests that the educator, as the more learned partner should be engaged in examining their practice and constructing new strategy that will guide their future work (Lambert et al 1996). The following are the basic tenets that are expected to be performed by a constructivist learner (Glatthorn, 1997:104-105):

1. Once a learner feels that his/her inputs are valued by the educator, he/she feels invited and accepted. It is this invitation according to Glatthorn (1997) that encourages the learner to become active in the use and application of knowledge in solving meaningful problems. Once a learner feels invited, the ability to perform complex cognitive tasks gets boosted and the learner becomes active in class hence learning arises from such a situation.

2. Learning at its best, according to Glatthorn (1997) involves conceptual change. Marlowe and Page (1998:10) confirm that learning is about using information and the thinking process to develop, build and alter our meaning and understanding of concepts and ideas. Therefore a learner begins with a simple or inaccurate concept and develops a deeper or true understanding of concepts.

3. Learning is always subjective and personal (Glatthorn, 1997). The learner internalises what is learned “through questioning, interpreting and analysing information according to Marlowe and Page (1998:10).

4. Learning is also situated and contextualised (Brown, Collins and Duguid, 1989:40; and Glatthorn, 1997:104). Forman, Minick and Addison Stone (1993) espouse the idea of situated cognition. They emphasise that a learner constructs knowledge through the authentic social contexts. The learner, therefore, is expected to form different types of social relationships to succeed in acquiring knowledge according to Forman, Minick and Addison Stone (1993).

5. Learning, according to Glatthorn (1997:104), is social. As my sub-claim indicates(see paragraph 1.4: 4), learners through group work demonstrate the ability to facilitate critical and creative thinking. It is through group work, which is part of social
learning that the individual learner becomes an active participator and shares knowledge and experiences.

6. Any learner who feels he is valuable, able and responsible and is treated accordingly by the educator, as expounded by Purkey and Strahan (1986), is ready for learning. Valuable, able and responsible are affective elements that lead to self-awareness and beliefs about one's abilities, clarity and strength of learning goals, personal expectations, general states of mind and motivation to learn (Glatthorn, 1997).

7. Learners are expected to do and perform their best when learning is at their proximal stage of development (Glatthorn, 1997). Vygotsky refers to this theory as the "Zone of Proximal Development." Rogoff (1990:15) and Forman, Minick and Addison Stone (1993:45) confirm that there is a difference in what one knows today and what one can learn tomorrow through the help of the mediator.

8. Learners are expected to reflect about their learning throughout the entire learning process according to Glatthorn (1997). Mezirow (1998:185-186) refers to the reflection strategy as "a turning back" on experience. It is this strategy that empowers the individual in a learning process. I argue that through this strategy the learner is not rendered passive. There is no regurgitating and repeating but critical and creative thinking is experienced as my claims indicate.

Mitchel (nd: 21-22) believes that a learner can arrange knowledge in a meaningful and logical sequence that Bruner refers to as a spiral curriculum. It starts with what one knows and builds upon by adding more complex categories and codes. When it moves upward, it constantly circles back and build upon previous understandings.

2.7 CONCLUSION

This section discussed the relevant literature that pertains to my research. Constructivist approaches from both the educator and learner is a necessity. It is necessary to afford the learners the opportunity to acquire the critical and creative thinking skills. The findings of this research essay, shall hopefully help the authorities in the Education Department and all stakeholders involved in improving the quality of secondary school education.
The next section will report on the processes of the field study. I will describe the data collection process as well as the presentation of data. I will investigate my research question empirically through the field study.
SECTION THREE: DATA COLLECTION AND ANALYSIS

3.1 INTRODUCTION

This section provides a clear exposition of the processes of the field of study. The research questions I posed earlier on in the opening section (see paragraph 1.3:3) are investigated empirically in this section. This section focuses on the following aspects: the setting of the inquiry, the research plan, sampling procedures, data analysis and processing as well as the final configurations.

3.2 THE SETTING OF THE INQUIRY

The setting of the inquiry of my research essay is at the Etwatwa informal settlement. This informal settlement stands adjacent, on the eastern side, to Daveyton. Daveyton, a formal settlement or township is found in less than 10 kilometres on the eastern borders of Benoni. The Etwatwa informal settlement emerged as a result of a protest against the Daveyton Town Council's slow delivery of houses. Therefore the planning for essential services such as electricity, water supply and sanitation, health centres and education could not take place beforehand, due to the fast and spontaneous emergence of the Etwatwa informal settlement.

The population of the Etwatwa informal settlement demonstrates a very complex demographic composition. Besides the black ethnic groupings from all over South Africa, there are those from the neighbouring countries of Botswana, Lesotho, Swaziland, Mozambique and Malawi who have settled in Etwatwa. The population is estimated at more than 130 000 people in an area of +/- 1 250 000 hectares. There are only five secondary schools in the area. There is an obvious acute shortage of secondary schools in the area, given the fact that there should be one secondary school per 25 square metres as stated in the new formula of school provisioning (Jacklin 1991). The two schools I visited are B.B Myataza Secondary School and Caiphus Nyoka Secondary School. The former secondary school was founded in 1988 in the informal settlement or township of
Daveyton. In its inception, B.B Myataza Secondary School was loaned classrooms by the neighbouring primary schools: Katlego and Siphethu- for a period of six years. Thereafter B.B. Myataza relocated to the Etwatwa informal settlement and was the first secondary school to be built in the area. The learner enrolment at the school is presently 1369. This year’s enrolment, according to the school records, is the lowest ever since establishment. There are 48 members, including the headmaster, on the teaching staff. There is one huge staffroom and seven offices: these include the headmaster’s and heads of departments’ offices as well as the administrative clerk’s offices.

B. B. Myataza caters for grades 8 to 12. There are free standing shacks built out of different types of material such as old corrugated iron and concrete slabs as well as well built dwellings. Although the school is surrounded by a concrete palisade fence, it is often vandalised. The ceilings and light fittings in some classrooms need replacement. The buildings are well structured but in a vandalized condition. There is a railway line that runs on the eastern side of the school. It is so close that the noise of the passing train cannot go unnoticed.

Caiphus Nyoka Secondary School is the other centre I visited. The school was established in 1994. Caiphus Nyoka does not have its own buildings yet, but uses a temporary structure that is built of asbestos material. There is a wire fence that surrounds the school, yet it does not prevent it from being susceptible to vandalism. Some doors at the school are without locking systems. Signs of vandalism are all over the fourteen classrooms. The headmaster and the members of the school management team share a makeshift office which is adjacent to a makeshift staff room. There are 24 members in the teaching staff. The total learner enrolment for this academic year is 839. This centre of learning also caters for grades 8-12. There is a railway line that runs close to this centre of learning on the western side. There are free standing shacks built out of different types of materials in the neighbourhood. Most shacks are too small to accommodate a family that has school going siblings. Noise from the music played in some shacks could be heard on the school premises. Along the school fence, vendors trade all types of items to be consumed by the learners. Caiphus Nyoka Secondary School is amongst the seventy-one centres of
learning in Gauteng that are identified to be in need of the accelerated programme for the matriculants.

Caiphus Nyoka has no sporting facilities. Neither a laboratory nor a home economics centre is available at this centre of learning. There seems to be an increase in the prevalence of the learners’ lackadaisical approach to their studies. I randomly interviewed some of the learners at both centres of learning. They cited, for their late coming, the long distance they foot to and from school daily. It has not yet dawned to their minds that the time they waste daily accumulates to a period that counts negatively for their academic persuasion.

3.3 THE RESEARCH PLAN AND THE MANAGEMENT OF DATA

The research is approached from a constructivist paradigm. Constructivist, inquiry, according to Guba and Lincoln as cited by Ramashala (1999:25), is the humanely devised way to engage constructions about states of affairs that are subject to continuous refinement, revision and if necessary replacement.

The qualitative research approach, according to Edley (1998:66) is studied as it happens in its natural settings. Qualitative design, as Raikane (1996) espouses, demands that the researcher does not attempt to manipulate the research setting because the idea of the qualitative method is to understand naturally occurring circumstances in their naturally occurring state. Qualitative research has among its features the natural setting in which the interviewer is situated as the data source, and the researcher is the key data collection instrument (Modiba, 1998).

I chose to personally deliver the letters of permission and observe both the learners and educators prior to collecting data. Marshall and Rossman (1995) espouse that observation is a systematic noting and recording of events, behaviours and artefacts in the social setting for the study. In the context of my study, observation involves evaluating the
environment within and outside of the visited centres of learning in the Etwatwa informal settlement. The environment contributes to the learning situation.

Because qualitative studies tend to be field focused according to Modiba (1998:68), my research follows the route of the qualitative research method during the process of the field inquiry. According to Leedy (as cited by Modiba, 1998:69) '... the qualitative approach is concerned with human beings, interpersonal relationships, personal values, meanings, beliefs and feelings. It attempts to attain rich, real, deep and valid data and from a rational point of view the approach is inductive.' Through the qualitative research interviews, as many descriptions as possible shall be obtained from different qualitative aspects of the respondents’ life worlds according to Kvale (Modiba, 1998). I have chosen the in-depth interviewing as my research design method to ensure that the results are “deep, detailed, vivid and clear” as espoused by Rubin et al. (as cited by Mkhombo, 1999:25).

3.3.1 METHODS OF SAMPLING

Sampling, according to Strauss and Myburgh (as cited by Mokone, 1998:53) refers to those who will be involved in the investigation. Because the objective is to understand social processes, Mokone (1998) quotes May and Pope that the statistical representative is not a prime requirement. As is expected in a qualitative research, the researcher needs to purposefully select participants who have knowledge relevant to the research topic and who will be able to give answers to the research questions (Creswell, 1994). Participation for this inquiry was made to be voluntary. Each centre of learning was asked to volunteer two educators who regard constructivism theory of learning as a relevant paradigm for their practice. Prohibitive undertakings of time and cost considerations led to the use of the smaller percentage of the population as my sample of learners as De Vos (1998) recommends.
3.3.2 DATA COLLECTION

Data was collected by conducting individual interviews for the educators, and the learners were interviewed through a focus group interview. The latter interview was done jointly to enhance the learners' confidence as well as relaxability. Furthermore I brought the learners together for a purpose of focus group interview. Mokone (1998) in quoting Krueger, describes a focus group session as a discussion of not less than four yet not more than 12 interviewees under the guidance of a moderator, talk about topics regarded as important to investigate. According to Crombie and Davies (as cited by Mokone, 1998:56), the group size is intentionally kept manageable so that the interviewees may express opinions freely and without intimidation. Raikane (1996) views this as a form of an open conversation in which the interviewee may comment or respond to comments made by others.

Furthermore the semi-structured interview format was used during the inquiry. Semi-structured interviews, as cited by Schumacher and McMillan (Mkhombo, 1999), provide interviewees with choices from which the respondents answer. Questions and phrases must be put in such a manner to allow for individual responses. Probing in certain instances was used during the interview. I discovered probing to play a very significant role of assisting in obtaining more information and clarity from the interviewee. Dane (1990) espouses the fact that probing is used by the interviewer to prompt respondents to elaborate on a particular response.

The audio tape-recorder was used as the research instrument. The audio tape-recorder was used to keep all gathered information intact. Because it is impossible and time consuming to scribe everything said during the interview, the audio tape-recorder came in very handy. Patton (1987) confirms that a tape-recorder forms part of the indispensable equipment for researchers using qualitative methods.
3.3.3 DATA ANALYSIS PROCESS

Data analysis according to Patton (as cited by Mkhombo, 1999), is the process of bringing order and organising into patterns and categories. Creswell (1994) confirms that data analysis requires the researcher to develop categories and make comparisons and contrasts. The process of data analysis involved transcribing the interview responses. These responses were grouped together into categories that bring together similar ideas. The process is known as coding (Miles and Huberman, 1994:56; Rubin and Rubin, 1995:238). Because there existed some similarity in the responses, open coding with its several approaches was applied during the data analysis process (Strauss and Corbin, 1990). The coding system that I applied in this research essay was straightforward because of some similarity in the responses. The following categories were identified, and coded. Here is the sample of codes that were used:

- I.S.N: Informal Settlement’s Negative Influence
- S.T.I: Stressfulness of Teaching in Informal Settlement
- P.S.C: Poverty-stricken community
- L.I: Learner Involvement
- E.R: Educators’ role
- P.R: Parental role

Leedy (1993) identifies qualitative research methodologies as dealing with data that are principally verbal.

3.4 SAMPLING PROCEDURE

The participation of this inquiry was voluntary but purposefully selected for the relevant knowledge of the research topic. Volunteer sampling, as Cates (1985) espouses, is not uncommon in educational research. He reveals that volunteers differ from non-volunteers as they express considerable confidence and are more interested in the topic under investigation. He further reveals that volunteers tend to be more sociable than non-volunteers. Two educators as well as four learners from each centre of learning were used.
as a sample that volunteered for this inquiry. Because my research topic was included in both the letters that sought permission from the headmasters, the target population found it easy to volunteer (see the addendum).

Cates (1985:56) refers to demographics of the population to include such variables as: age, sex, race, religion, education, geographic location, employment and social and economic status. Therefore in drawing my sample group for this research, I had to seriously consider the demographics of the population. Considerations of the demographics enabled me to identify an appropriate experimentally accessible population from which to draw my sample as Cates (1985) advises.

The sample for the inquiry was made up by educators who have amassed enough experiences in the teaching profession. They have taught in both the formal and informal settlement schools. Learners were drawn from the grade 11 and the grade 12 groups. The sample group, although they differed in status, were all conversant with what goes on at a centre of learning.

3.5 DATA COLLECTION PROCESS

The data collection process took place during the last week of the schools' third quarter. The date and starting time of the interviews were mutually agreed upon by all parties involved. Each school was assigned a different date for its interviews at their centre of learning. During the inquiry, a combination of methods known as triangulation was in operation. Altrichter, Posch and Somekh (1993:115) refer to triangulation to consist of a combination of observation and interview, whereby data on a particular situation are collected from three perspectives:
- The educator's perspective through an interview.
- The perspective of an individual learner through an interview.
- The perspective of a neutral third party through observation.
Each centre of learning where I had my target population was visited at least on three occasions. Every time I visited the centre of learning, I had the opportunity to observe the proceedings. Marshall and Rossman (1995) refer to observation as a systematic noting and recording of events, behaviours and artefacts in the social setting designated for the inquiry. Following the circumstances of this research, observation necessitated the assessment of the environment that contributes to learning at each school.

During the visits that I made prior to the interviews, I applied covert observation which, according to Paton (as cited by Mkhombo, 1999:21), is an observation which takes place without the people being aware that they are observed. It is during my observation that I discovered that a large percentage of the learners arrive late for their classes in the morning as well as after recess. These late-comers appeared to be content with the situation. They never made any effort to run. At random, I asked from the educators about their efforts to curb such a practice.

A teacher at school A said:
Most of the learners live far from the school and because of poverty, they are forced to go home for meals during break. They spend most of the break hour footing it to and from home.

This opinion was shared by educator A from school B who said:

On average, a family has four school-going siblings with a single parent responsible for the upbringing. The single parent as a result cannot afford to provide lunch money for the siblings and they have to rely on the previous night’s leftovers; yet they stay far from school.

Educator B from the same school B has this to say:

Teachers at times are forced by the situation to donate some money for feeding poor children who have nothing to eat during lunch. Poverty at their homes affect their education. These learners’ performance in class is very bad.

The interview also provides the researcher with information about the behaviour and perceptions of the interviewee which are not directly observable according to Merriam (as cited by Edley, 1998:79). The purpose of the interviews in this research was to elicit responses from the sample regarding learner involvement.

Because the tape recorder serves as the part of the indispensable equipment according to Patton (1987), I transcribed the raw data from the tapes into my journal (see Appendix A,B&C).

3.6 DATA ANALYSIS

Several stages are involved in the qualitative process of data analyses. According to Holloway and Wheeler (as cited by Mokone, 1998) the interviews are recorded and the researcher listens several times to each tape before making transcripts. Therefore a transcript-based analysis was used in this section. Through continuous analysis of the collected data, as Miles and Huberman (1994:49) confirm, gaps are filled and new hypotheses are tested.
A selection of relevant data is considered for description. Selective descriptions, as Walcott (1994) espouses, are not purposefully meant to sway and distort but have an advantage to make the inquiry to be more appropriate and fitting. Selection, according to Merriam (as cited by Edley, 1998:80) means the provision of the rich, thick description of the entity being investigated.

Data analysis involves also the process of coding and categorising. Coding, as Altrichter, Posch and Somekh (1993) expound, is organising data into categories. In this research data is broken down into data bits. Bits of similar ideas or themes are grouped together as the coding process unfolds. Categories or features are formed to be relevant to the research questions (ibid).

The process of breaking down, examining, comparing, conceptualising and categorising data as Mkhombo (1999:32) quotes Strauss and Corbin, was also used in this inquiry to analyse the data. Miles and Huberman (1994:63) refer to this form as “first-level” coding. This is the process where the researcher might ask such a question: What is the major idea brought out in this sentence or paragraph? (Mkhombo, 1999:32).

The similarity that was experienced throughout the responses of the participants made coding in this inquiry to be not complicated. The codes at most referred to units, ideas and concepts. These units, ideas and concepts as they appeared to be connected to similar phenomenon, are compared against one another. This process is referred to as categorising by Strauss and Corbin (1990). Examples of category units appear in Table 3.6.1 on page 34.
TABLE 3.6.1 EXAMPLES OF CATEGORISATION

**EXAMPLE ONE**

<table>
<thead>
<tr>
<th>UNIT/ IDEA/INCIDENTS</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The centre of learning’s programmes are disturbed by the loud music played from the surrounding shacks.</td>
<td>LACK OF CONDUCIVE LEARNING ENVIRONMENT IN AND AROUND ETWATWA</td>
</tr>
<tr>
<td>2. The shabby temporary structures with the makeshift offices are neither user-friendly nor any weather-proof.</td>
<td></td>
</tr>
<tr>
<td>3. The platoon system that make secondary schools share with primary schools affect the former in many aspects: noise from primary school learners, uncomfortable sitting accommodation meant for the latter.</td>
<td>INFORMAL SETTLEMENT SECONDARY SCHOOLS</td>
</tr>
<tr>
<td>4. Vandalism at schools affect learning programmes: sitting accommodation is destabilised as chairs are stolen. School properties that aid learning such as tape-recorders, television sets, computers go missing.</td>
<td></td>
</tr>
</tbody>
</table>
### EXAMPLE TWO

<table>
<thead>
<tr>
<th>UNIT/ IDEAS/ INCIDENTS</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Poor domestic conditions affect the conditions of the learners.</td>
<td>LACK OF PARENTAL INVOLVEMENT IN ASSISTING TO SUSTAIN CONSTRUCTIVISM IN SCHOOLS.</td>
</tr>
<tr>
<td>2. The size of the shacks built by most families cannot be used as dwellings for school-going siblings as there is no room for them to perform school assignments and projects.</td>
<td></td>
</tr>
<tr>
<td>3. Most parents are illiterate and poor. They do not supervise their children in doing school work</td>
<td></td>
</tr>
</tbody>
</table>

### EXAMPLE THREE

<table>
<thead>
<tr>
<th>UNIT/IDEA/INCIDENTS</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learners come to school late and are locked outside the gates and miss lessons.</td>
<td>LEARNER INVOLVEMENT NEEDS TO BE ACCELERATED</td>
</tr>
<tr>
<td>2. Learners have excuses for not doing their home- or classwork.</td>
<td></td>
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<tr>
<td>3. Learners who behave like mugs that need jugs, the educators to fill them up.</td>
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</table>
3.7 FINAL CONFIGURATIONS

The examples cited in Table 3.6.1 labelled each data bit. Edley (1998) refers to the labelling of each data bit as conceptualising. The concepts are then grouped and the new phenomenon represented by the category is given a conceptual name according to Strauss and Corbin (as cited by Edley, 1998:81). As many as possible, these categories were generated in this inquiry. Each with several data bits. By grouping these data bits, as Edley (1998:81) espouses, one is able to form recurring patterns. After the first categories have been formed, they were grouped again by “pattern coding” which identifies themes or patterns and make the number of categories easier to work with according to Miles and Huberman (as cited by Edley, 1998:81).

3.8 DESCRIPTION OF CATEGORIES

In this paragraph a thick description of the categories as they were identified by through the data analysis will be given. Six categories were identified:

3.8.1 INFORMAL SETTLEMENT’S NEGATIVE INFLUENCE (ISN)

The informal settlement has a negative impact on the education of the learners. The schools are overcrowded and as a result constructivist theory of learning cannot be effective. The educators are unable to properly administer the constructivist theory as the interviews’ responses prove that the learners have no chance to study at home. The tiny shacks, according to the interviewed educators, have no proper tables and chairs for the learners to be able to do their homework.

The learners also confirm their experience of informal settlements’ negative influence on their studies. They complain that the tiny shacks have no room for the students to do their homework without being disturbed. According to the learners, they are unable to study when the other family members are asleep because the light disturbs those who are asleep.
3.8.2  STRESSFULNESS OF TEACHING IN INFORMAL SETTLEMENT (STI)

I have noted during my visits at the centres of learning that being late is uncontrollable. This is enough evidence that the poor educators experience stressfulness of teaching in informal settlement. The learners, not out of their choice, live far from the school. They walk to and from school hence the late coming. It further stresses the educator when the learners are not a full complement as others are locked outside for late-coming. These late-coming learners are the ones who arrive half way through the lesson and miss all what has been done earlier as shown by the focus group interview. Furthermore the progress of the class is affected by the students' absenteeism according to the learners' focus group interview.

Both centres of learning that were visited proved beyond any doubt to be victims of vandalism. Learning is not situated and contextualised as expected (Brown, Collins and Duguid (1989:40) and Glatthorn (1997:104). Whatever the school authorities try to put together for the benefit of the learners gets destroyed through vandalism. It is stressful to lose the little you have especially when considering the situation of under-resourced schools as revealed by the interviews.

3.8.3  POVERTY-STRICKEN COMMUNITY[PSC]

Parents are supposed to be active stakeholders in the education of their children. The state of poverty experienced by the informal settlement parents causes the parents to worry more about the “life and death issues of providing food and clothing” as revealed by one of the educators during the interview (see appendix C:61). It is this poverty-stricken community, according to the interview that is unable to afford basics for learning such as textbooks, dictionaries and atlases.

It is this poverty-stricken community that leads to an extra social work problem for the educators to donate some money for feeding poor children who have nothing to eat during lunch (see paragraph 3.5:32). The same poverty-stricken community experiences
problems of reaching school on time as they are forced to go home during recess for food hence late-coming as I observed during my visits to each centre of learning.

3.8.4 LEARNER INVOLVEMENT [LI]

The focus interview with the learners revealed that group work is necessary. Different perspectives, according to the learners, are shared and everyone is empowered through group work. Learners have revealed that even during examinations they easily remember what was said during their discussions. The learners further acknowledge through the focus group interview that “there should be co-operation between student and teacher, between student and other students” for active learning to take place.

Educators agree that involvement of learners in their education, as expected by the constructivist theory, leads to learning taking place. Questions raised by the learners as their fellow students present a lesson lead to learning to take place through interaction is revealed through the focus interview.

3.8.5 EDUCATORS’ ROLE [ER]

The interviews with the educators revealed that dividing learners into groups lead them “to work in groups and be able to interact with each other.” By so doing the learners should master what they discuss in class. Educators further revealed that they value learners’ perspectives even if they differ from theirs. Once a learner feels his/her inputs are valued by the educator, he/she feels invited and accepted. It is this invitation according to Glatthorn (1997) that encourages the learner to become active. Furthermore it is encouraging to note the social work performed by the educators who feed the hungry learners and solve the social problem that is caused by the not so involved parent in the education of their children.
3.8.6 PARENTAL ROLE [PR]

Parental involvement needs to be jerked up for the benefit of learners. The focus interview with the learners revealed that parents should not relegate their responsibilities. They should play a prominent part as the manner in "which the child is brought up at home will have a bearing on the way he views and interacts with teachers."

3.9 CONCLUSION

The usual practice of establishing what qualitative research is and contrast it with quantitative research was proved to be not necessary by this section. Qualitative research, according to Edley (1998:82) has come on its own. It is "seen as a particular appropriate method in educational research. It deals with human behaviour in educational process (ibid). The findings of this inquiry shall be dealt with in the next section.
SECTION FOUR: DISCUSSION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

This section shall use the findings of the inquiry to argue the strength of my initial claim (see paragraph 1.4:4). The findings of this inquiry are expected to address the research questions posed in the initial stages of this research essay (see paragraph 1.3:3). The strengths and weaknesses of the study in this section will serve to indicate how the findings fit into the broader theoretical context of constructivist thinking and practices. The implications of the inquiry shall also be part of this section before a final conclusion is drawn.

4.2 HOW THE FINDINGS ARGUE THE STRENGTH OF THE CLAIMS

The outcomes-based education (OBE) approach is learner-centred contrary to the classical or mimetic approach which is content-centred. All the educators interviewed during the inquiry expressed similar perceptions. They feel that the environment that surrounds learners in formal settlements, in contrast to the one in informal settlements, encourages technical and academic persuasion awareness. The educators' perceptions are confirmed by the learners. Learners at the informal settlements rely on their educators for information. The area lacks basic sources of information that are imperative for dispensing information during this era and age where torrents and explosions of information require that learners be guided to “find, select, organise, interpret and use that information” (Marlowe and Page, 1998:26). Therefore learners, at the secondary schools of Etwatwa informal settlements, as my main claim indicates, are inactive in knowledge making. Only the educator becomes active as one prepares for one's lessons. Furthermore, it is the educator, the jug that delivers the lesson whilst the learners, the mugs get filled with information. It is through such teaching strategies that the learners are rendered inactive, as my sub-claim confirms (see paragraph 1.4:4).
Learners interviewed during the inquiry revealed that knowledge discovered on their own effort lasts longer. They acknowledge that they are disadvantaged in as far as their learning is concerned. They expressed a concern that no single public library exists in such a big and vast area that accommodates an estimated population of more than 130 000 people. Learners’ inactivity is further worsened by the educator that manages, controls and dispenses information. Such learners are denied the opportunity to demonstrate the ability to facilitate critical and creative thinking as my sub-claim espouses (see paragraph 1.4:4).

Furthermore, my sub-claim advocates that the outcomes-based education approach cannot be a success when the educators focus on teaching that expects learners to concentrate on regurgitating and repeating what has been thought by others. Educators that served as the sample for the inquiry revealed that the majority of the learners from the Etwatwa informal settlement, displays lack of co-operation and involvement in group work. Therefore the learners from the Etwatwa informal settlement cannot experience the synergistically rise to insight and solutions that come about through group work.

Educators interviewed during this inquiry expressed fear that learners from the Etwatwa informal settlement are easily susceptible to indoctrination. These learners accept every bit of information from their educators as authentic. Such learners lack analytical and critical thinking skills. Therefore, according to my sub-claim that there is a need for a cognitive teaching style, is a must for the Etwatwa informal settlement secondary schools. Hopefully, through the cognitive teaching strategies, learners shall be afforded the opportunity to demonstrate analytical and critical thinking skills.

4.3 HOW DOES THE FINDINGS OF THE INQUIRY ADDRESS THE RESEARCH QUESTION

Several questions originate from the research problem. These questions are referred to as the research questions. The findings of the inquiry address these questions. The question
that dominates the scholastic discussions pertains to the speed and capacity of knowledge circulation. Each centre of learning is expected to prepare its potential graduates for the real world. The real world experiences torrents and explosions of information. Educators are then expected to make the necessary paradigm shift in order to sustain the outcomes-based education approach. It is this outcomes-based approach that will contribute to learner-centredness that develops autonomous thinking abilities in all the learners and encourages them to construct meaning for themselves.

As soon as the learners are encouraged to construct meaning for themselves, educators provide more room for the former's action. It is these learners that contribute to successful group work. Through successful group work, a learner experiences the synergistically rise to insight and solutions. Therefore it is necessary that educators become constructivists by making the necessary paradigm shift; a paradigm shift from the talk and chalk approach to a practice that benefits the learners as they are called up on to construct something. Constructivist learners, as a result, shall have no problems in coping with the tempo and scope of knowledge dissemination. They shall be skilled to construct own knowledge.

The paradigm shift by the educators shall benefit the constructivist approach of learning. This age of rapid information requires that the learner should be able to construct knowledge in order to cope with the vast circulation of information. The jug and mug theory of the education is part of the content-based approach that displays much rote learning and passivity on the part of the learner. The findings of this inquiry undoubtedly support the promotion of learning through learner activity such as questioning, investigating and problem solving contrary to the jug and mug theory of education that promotes learners' passivity.

The findings of the inquiry confirm that the environment plays a very vital role on the education of the learners. It is the paradigm shift by the educators that shall encourage them to provide a learning environment that makes it possible for the learner to search for meaning.
4.4 STRENGTHS AND WEAKNESSES OF THE STUDY

The standard of education dropped during the late eighties and early nineties in the black communities. A number of the present educators were either learners at a secondary school or students at a tertiary institution. They completed their studies in gaps because of the then continuous disruptions. Such a situation calls for a need for staff development at different centres of learning. Therefore it is a strength that this research inquiry, hopefully, will empower educators to work towards shifting the blame from learners for poor performance. The educators are to be equipped with the necessary skills to provide a learning environment that makes it possible for learners to search for meaning.

The study involves participation by learners in different learning activities. Experience has proved that learning is effective in a situation where learners are actively involved in a learning process. Through group work which is part of learner involvement, learners experience synergistical rise to insight and solutions.

Continuous assessment is part of the changes that contribute to the betterment of our education system. Through constructivist learning, continuous assessment is based on what participants learn and is done frequently. This frequent assessment keeps the learners alert and active most of the time. It is through this learner activity that learning is experienced. The continuous assessment tasks vary from class work, homework, tests and project assignments. These continuous assessments evaluate understanding contrary to the content-based teaching that concentrate on memorization.

Considered as a weakness of the study may be the fact that this study was confined to only two schools from Etwatwa informal settlements secondary schools; yet there are more schools in the area. The findings, as a result, may not be generalised to as large a population as one would have liked to. Although the inquiry is empirically limited, these findings have a great meaning for education.
Further limitations were experienced in this study. Only four educators participated out of a theoretical population close to one hundred and twenty teachers. Eight learners out of almost five thousand learners were interviewed. This impacts on generalising the findings, but still it can be claimed to be representative of the theoretical population from which the participants were drawn.

The inquiry concentrated on learners and educators only. The views of the other educational stakeholders from the broader community, because of time constraints, could not be gathered. More data, I believe, could have been collected had enough time been available. The inquiry's findings cannot be related country-wide since its setting has its own unique character.

Interviews with the subject advisors, who are subject experts, could have contributed their opinions in regard to constructivist thinking and practices. Such an interview would have undoubtedly enhanced the findings of this inquiry.

4.5 IMPLICATIONS OF THE INQUIRY

4.5.1 DRASTIC CHANGES IN TEACHING
The findings of this inquiry have brought the attention to the need that the teaching profession changes drastically. The findings of this inquiry imply that there is so much more social work involved in the teaching profession now than before. There are so many behavioural and social problems that have to be dealt with before the actual learning occurs.

4.5.2 AVAILABILITY OF THE EDUCATOR

Evidence from the research findings suggests that the educator is always available for the parents. Parents experience diminishing contact with their children because of the break-up of traditional communities. It is the duty of the educator, as the most knowledgeable of the partners in education, to realise the importance of bringing about change. The
educators' importance in bringing about change implies that the culture of constructivist learning need to be put in practice.

4.5.3 NEED FOR PARENTAL INVOLVEMENT

Evidence from the research findings also suggests that there exists a need for parental involvement in the learning of their children. Parents need to work co-operatively with the educators for the success of their children. The co-operation implies that parents pay regular visits to school and find out about the progress of their children.

4.5.4 THE VALUE OF EDUCATION

The communities of the informal settlement of Etwatwa need to be conscientised about the value of education. The implication is that centres of learning are expected to attract parents of their learners as well as those in the neighbouring surroundings to get involved in the school matters. Such parents' support is needed for each centre of learning to function properly. These parents shall be of help financially as they shall be prompt in paying fees and will help to maintain the school property.

4.5.5 NEED FOR SECURITY

The inquiry's findings also reveal that security is a problem at the centres of learning. Burglaries and vandalism happen regularly. A well manned security force shall halt the loss of school equipment. Therefore the joint co-operation of the parents, neighbouring community and the school community will curb vandalism and burglaries at centres of learning.

4.5.6 LACK OF TRANSPORT SYSTEM

Evidence of the findings indicates that lack of transport system affects learners who commute to and from school daily. The implication is that the joint co-operation of the
stakeholders and government are expected to see to it that there is a sufficient transport system to help ferry learners to be punctual for their lessons.

4.5.7 NEED FOR MORE SCHOOLS

The findings of the inquiry indicate that the poverty-stricken parents are unemployed. These poverty-stricken parents cannot afford to send their children to schools that are far from their dwellings. Therefore by implication, there is a need for more schools to be built nearer and such schools will provide accommodation for studying in the evenings since the shack-dwellings cannot provide conducive learning situations.

4.6 CONCLUSION

Findings in this inquiry undoubtedly have revealed that there is a need for constructivist thinking and practices in the secondary schools of Etwatwa informal settlements. Through the findings it was revealed that the type of shack-dwellings and the sizes do not encourage learner activity. And as a result, constructivist thinking and practices cannot be experienced if learner activity is not put into practice. The environment at Etwatwa informal settlement does not promote constructivism as learners are exposed to bare surroundings. Absenteeism and late coming by the learners render them inactive from the learning process and as a result the constructivist approach suffers.

Constructivist education, according to Julie et al (1993:168), embodies a powerful vision of the active and epistemological empowered learner. Constructivism encourages the recognition of the learners' capacity for self-directed learning, however, educators
should never fall to the trap of the laissez-faire belief that learners may pursue their own learning without the responsive adult participation (Fensham et al. 1994:11).
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APPENDIX A
A TRANSCRIBED INTERVIEW WITH ONE EDUCATOR AT B. B. MYATAZA SECONDARY SCHOOL

Q: Do the environmental conditions in Etwatwa informal settlement have an effect on education?
R: Yes, it has.
Q: Is it positive or negative?
R: Negative: the schools are overcrowded. Children have no chance to study at home. The settlement in which they live is not conducive for education.[ISN]
Q: Can you elaborate on the negative effect in homes and school not being conducive for learning?
R: The tiny shacks in which the children live have no proper tables and chairs. Therefore these children are unable to do their homework. The majority of the parents are unemployed and have no resources to enhance their children’s education at homes.[ISN]
Q: What about the effect at school?
R: Township schools are badly undersourced. They lack education media and learning facilities are not enough. Classes are overcrowded and as a result not all pupils get involved in individual work. The teacher encounters problems in involving such pupils in group work.[STI]
Q: Do you think learners’ involvement plays a major role in your lessons?
R: If children become involved, they’ll discover knowledge for themselves. If the learner discovers knowledge, it is not easy to be forgotten. It becomes theirs and they master it. If children are not involved they cannot master the subject.
Q: Does the domestic background as well as the social interaction contribute to learning?
R: The way one interacts with people has a bearing on how learners interact with other children as well as the teachers in class. In society the child must contribute towards its upliftment.
Q: Do you imply that the domestic background has a bearing on learners?
R: Yes, very much.
Q: In which manner?

R: The way the child is brought up at home will have a bearing on the way he views and interacts with teachers. The way he responds or respects his parents is representative of the home in school. The way the child behaves at school mirrors the setting at home.[PR]

Q: You suggested earlier on that learners' involvement plays a major role. How do you involve the learners during your lessons?
R: By inviting them to participate. Divide them into groups and give them something to discuss so that they can be able to work in groups and be able to interact with each other. By so doing they should master what they discuss in class.[ER]

Q: So you do believe in peer teaching?
R: Yes.

Q: Does learner involvement come naturally or does it need to be enhanced?
R: It depends on the level of matter. If children are acquainted to the subject or it is at their level they will come naturally budging on the subject. But if the subject matter seems above their level, they will need to be enhanced so that they can be able to participate. They will need to be led, directed, asked prompting questions so that they will come and budge on the subject.

Q: I understand when you say ask questions, but I do not understand when you say they need to be led. Who leads them?
R: The teacher?
Q: How?
R: By ... by giving them clues where they encounter difficulties. I give them some help.
Q: How do you give them help. Do you give them notes, or you teach them or how do you do it?
R: Ja ... I just give them clues by teaching ... teaching them and then afterwards give them a chance to discuss and give them questions to answer.[LI]
Q: What do you think of enhancing their involvement by referring them to a certain source in the library and thereafter if you discover that they experience difficulties, you then come in?

R: That is a wonderful idea as well.

Q: Do you apply such teaching strategies?

R: Yes, I let them first try on their own because what they have discovered on their own lasts longer in their minds ... they do not forget easy. [LI]

Q: What do you do with learners who are passive and do not respond?

R: I try to ask a lot of questions and direct them to those children so that they start to be attentive and stop being absent-minded. If you show that you give attention to them, they’ll start concentrating on the subject and start to participate. [ER]

Q: You talk of absent-minded, what may cause them to be absent-minded?

R: Absent-mindedness can be caused by problems at home. Maybe the child encountered the problem at home before coming to school and now the child sits with the problem that causes absent-mindedness. This is just one problem. [STI]

Q: What are the most common problems you encounter with learners who do not become involved in your class?

R: Most of the problems are caused by lack of conducive conditions because children are requested to come to class having studied and made preparations. Therefore due to lack of resources at home, they come to class unprepared and when the lesson starts, they seem to be absent-minded because they do not understand what’s going on. [STI]

Q: Do you use questions, as a form of teaching to help learners to form own knowledge?

R: Ja I use them and I find them to be effective in the sense that if you ask questions you’ll enable the pupil to measure himself as to whether he understands the matter enough or not. Once you pose a question other children start thinking about the answer to the question and their minds are probed and they get ready. [ER]
Q: Earlier on you spoke about the level of the subject matter being higher than that of the learners. Do you think the part of asking questions can help solve problems of the level of subject matter?

R: Ja it can help ... because if you ask especially prompting and probing questions, the child start approaching the level of the matter and goes slowly until he reaches the higher level.[LI]

Q: Do questions as a form of teaching method, reveal misconceptions that learners harbour?

R: Ja it can, because a child may think he understands something but the moment he is asked a question, then he realizes that he does not understand the subject. Therefore he realizes that he has to gather more knowledge so that he may be able to tackle such questions. It is then when learning takes place.[ER]

Q: What do you consider as your major role as an educator?

R: As an educator, my major role is to be more of a facilitator so that I give the children much to do on their own. so that they will discover for themselves knowledge and master the subject.[ER]

Q: Do you think that existing knowledge in a learner does help to build on new knowledge?

R: Ja it helps because ... to be able to understand a matter, you must have at least a little knowledge on the matter so that you can build on what you already have ... to move toward the unknown you must have something that you know. So as a teacher, you must find out what do they know about the subject matter to be discussed and then take it from there.

Q: Do you accept perspective from learners that differ from yours?

R: I accept them and I respect those perspectives because a teacher can also learn from children. If you as a teacher, you do not respect perspectives of the children, you’ll find difficulties and encounter problems. If you respect those perspectives at least you develop respect and trust from the children and this makes your job easier as an educator.[ER]

Q: How do you encourage your colleagues to involve the learners in their lessons?
R: I encourage them by pointing out to them the advantages of involving the children in class. For example if I had a class where my children were greatly involved, I share that with my colleagues so that they may realize the advantages of involving children.[ER]

Q: Do you think learners' involvement is possible outside the classroom?

R: Ja ... with the development of technology nowadays it is very possible because some of the children's parents own or have access to internet system and other parents have a collection of books and sets of encyclopaedia in their homes. Therefore having such children who are advantaged, one must take advantage and involve them a lot outside the classroom. Let them find knowledge and bring it to class and share it with others who are disadvantaged.[LI]

Q: How will learners' involvement influence their future?

R: By involving learners in class, you give them and build confidence in them. This is a great requirement in life after school. By involving individuals in class you teach them to be creative, to be innovative, which are the great requirements of the modern world.

Q: Are you in support of the outcomes-based education (OBE) approach as a teaching strategy and why?

R: I support the use of the outcomes-based education because it gives the children the required skills for life after school. If we concentrate on certain skills, we will discover that a child is gifted in a certain area and we concentrate on that skill, the child gets empowered to use those skills for future life.
APPENDIX B

A TRANSCRIBED INTERVIEW WITH THE FOCUS GROUP OF THE LEARNERS

Q: Is late coming a problem at your school?
R: It is a problem … a student that arrives half way through the lesson has missed all that was done earlier. In a case of poetry, the late coming student might miss the opening and the second stanza. When these wrong doings accumulate over a period of a year, the damage is done and the learner cannot expect to pass.[STI]

R: Arriving on time at Etwatwa schools is a problem, students travel long distances to come to school. Therefore arriving on time for the students of Etwatwa means a sacrifice- sacrifice your sleep and be earlier in waking up and so on, or sacrifice your money to pay a taxi to school.

R: Shortage of schools in the area contributes to late coming. Students cannot afford taxi fares to and from school because parents are unemployed. Therefore late coming shall always be the order of the day at Etwatwa schools.

Q: Is absenteeism a problem in your class?
R: Absenteeism affects us as students. A person that was absent the previous day delays our progress as she asks questions that were thoroughly handled during the time he was not in class.[STI]

R: To add on what the previous speaker has said, absenteeism does not cause the affected student one lesson but all the subjects of the day and at the end of the year, the gap caused by absenteeism during the year, affects the results hence higher failure rate.

Q: What is your observation, do learners co-operate in doing their class- or homework?
R: There is no co-operation at all. Students do not do their work and they are aware that no punishment shall be meted to them.
R: To add another side from the previous speaker’s ideas, students think they do a favour for the teacher if they do homework. When the teacher sends them out for not doing work, they think the teacher is affected yet they as students lose.

Q: Do you think punishment is necessary before learning can take place?
R: Punishment is necessary because it builds discipline and good working relationship. But because students know that nothing will be done to them, they do not attempt to do any work.

Q: Does domestic background as well as social interaction contribute to learning?
R: Yes it does. If a person was never taught proper respect at home, there’s no way that the person may show respect at school and as a result he becomes a problem for the school.

R: Parents despite of their educational status are supposed to give advice to their children. The school shall then build on the good foundation put by the home.

R: Parents should not relegate their responsibilities to the teachers. They must find out from the school about the students’ behaviour especially in today’s world where peer pressure has a part to play.

Q: Does the size of the shack in which the family lives have an impact on the learners’ progress at school?
R: Shacks are tiny and students have no room to do their homework without being disturbed.

R: When the family sleeps, nobody is expected to put on light for studies as the light disturbs those who are asleep.

R: Visitors come and go and because the children who are students cannot complain of being disturbed whilst doing their schoolwork, then no proper work is performed hence high failure rate.

Q: Do you think group work is necessary for learners?
R: Yes it is necessary. Different perspectives are shared and everyone is empowered through group work. Even during exams you easily remember what was said during the discussion.
Furthermore if you work as a group, you shall never be bored and sometimes sleep because of boredom. As a group you always complete whatever task you have. One gets motivated by members of the group and work on.

As learner, we gather information from different sources and through group work we share the information.

Complaints of learners being left unattended, do you think could be solved by the activeness of the constructivist learner?

Eh! ... probably ... because if students are in class, learning should take place. Student on his own should do the work and then when he faces problems, consults the teacher.

Why should teachers be paid if we, the students can do our work on our own? Why should we come to school if teachers do not attend? We do not mean that the teacher should come and lecture us but should be present in case we experience problems. If we are informed about the absence of the teacher we can do our own work.

Does existing information or knowledge play a role in processing the new one?

Yes as we learn we compare. Obvious when you compare the old thing with the new then you learn.

The jug and mug theory where the educator pours all the knowledge to the learner is what our education needs?

No, if we do not think and talk there’s no learning.

We have to contribute something and think.

Anything that you get easily, disappears easily. But if you struggle on and look for information that knowledge lasts longer.

Do you mean the learner must be actively involved in looking for knowledge?

Yes.

What role do you think you can play as a learner in ensuring appropriate learning takes place?

Be involved- there should be co-operation between student and teacher, between students and other students.

We should share knowledge as students.
We should divide work amongst ourselves as students. We play our role by presenting lessons and encourage group work because pupils easily associate with peers than with the teachers. Therefore this shall open more communication channels for the students.

How will learner involvement influence their future?

It plays a very big role. Learner involvement is challenging. When I look for information I become creative. Even in future I shall be able to solve problems on my own and face challenges.

Because at workplace you need to be active and creative, you start experiencing those challenges here at school that you become used to them in future.
Do the environmental conditions in Etwatwa informal settlement have an effect on education?

Yes it has ... I think the poverty-stricken parents worry more about the life and death issues of providing food, clothing and security presently than education. Therefore they are not involved and do not attend their children’s problems at school.[PSC]

Does domestic background as well as the social interaction contributes to learning?

Definitely the domestic background plays a vital role in the learning process. Any family that possesses resources for learning helps its members to get relevant information for learning. Obviously the people of this informal settlement are poor and do not afford basics for learning such as textbooks and reference works - atlas, dictionary- therefore they cannot afford sets of encyclopaedia, Internet system.[PSC]

Do you think learners’ involvement plays a major role in your lessons?

Ja it does because whatever comes from a learner is not easily forgotten as is something told to them. Therefore involving the learners will encourage them to look for knowledge that will last longer in their minds.

How do you involve learners in the teaching and learning of your subject?

If I teach a poem, every group is expected to prepare a certain part which they are to present in class. Therefore there is interaction as the class questions the presenting group. Therefore I facilitate group work and help where they, as a class, get stuck. I facilitate through questioning.[LI]

Does learner involvement come natural or needs to be enhanced?

Ja it does not come naturally. You as a teacher must have a way that will be interesting or will arouse interest in the learners. Once learners are interested, they shall participate in the lesson.

What do you do with learners who are passive and do not respond in class?
R: There are many reasons that may lead to passiveness of the learners in class. Therefore as a teacher I try to find out the problems. I use as many examples as possible to lead to understanding.

Q: Do you believe in peer teaching?

R: Yes I do, it is another method of involving learners as they ask questions and they, themselves answer these questions. Obviously the other learners, who are slower in understanding, get an opportunity to learn from their peers.

Q: Do questions, as a form of teaching, help learners to form knowledge?

R: Questions are necessary in the learning process because they access whether learners have understood. Questions help also to push the child who does not participate in class to realize that he should be involved.

Q: Do questions, as a form of teaching, help learners’ misconceptions?

R: As I have indicated earlier on, questions should not be only from the teacher but the learners should be given the chance to ask one another questions and answer those questions.

Q: Do you value learners’ response even if it differs from your perspective?

R: Yes I do. Even if the child answers wrongly, I do not say openly the answer is wrong, but I try to lead the child through more questions that will help to get the right or correct response.[ER]

Q: What do you consider as your major role as an educator?

R: Umm I think it is to build self-confidence of my learners so that they can be able to involve themselves in class for learning to take place.

Q: Do you encourage your colleagues to involve learners in their lessons?

R: Our situation does not allow free conversation. Sharing does not come that easily amongst us. Naturally people are not free to discuss their problems, though given a chance I shall like to preach the gospel of learner involvement.[STI]

Q: Do you think learner involvement is possible outside the classroom?

R: Not at the environment which is so barren as Etwatwa but as teachers we do not have to lose hope, we should keep on trying to encourage it.

Q: How will learners’ involvement influence their future?
R: The talent that is developed from school level will definitely blossom in the future. Therefore it is important to start involving learners to realize their potential.

Q: Do you support the use of outcomes-based education (OBE) approach and why?

R: Yes I do, the OBE brings practicality in our teaching. Although a lot of teachers do not understand it. The more workshops are conducted for teachers the better.
TO WHOM IT MAY CONCERN

REQUEST TO CONDUCT RESEARCH IN INSTITUTIONS/OFFICES OF THE EDUCATION DEPARTMENT

I declare that:

- The applicant/student mentioned here-under is enrolled at the RAND AFRIKAANS UNIVERSITY, the institution to which the undersigned is attached for the degree M ED-Teacher Education;

- The questionnaires/structured interviews/tests meet the criteria of:
  * educational accountability
  * proper research design
  * sensitivity towards participants
  * correct content and terminology
  * acceptable grammar
  * absence of non-essential/superfluous items

Please be so kind as to accommodate our student in the M ED-Teacher Education Programme to conduct research in your school/institution/offices:

Name: ZWELITHINI ARCHIBALD CENENDA

Student number: 9503063

Research topic: THE NEED FOR CONSTRUCTIVIST THINKING AND PRACTICES IN THE INFORMAL SETTLEMENTS SECONDARY SCHOOLS OF DAVEYTON

Thanking you in anticipation

Yours faithfully

Dr MC van Loggerenberg
Faculty of Education
RAND AFRIKAANS UNIVERSITY
30 September 1999
Dear Sir/Madam

Request For Permission To Conduct Educational Research On Constructivist Theory Of Education In Etwatwa Secondary Schools

I hereby humbly request permission to conduct the above-mentioned educational research. I intend to use a sample of two educators as well as two learners from your centre of learning.

Presently I am a Finalist student in Med degree at RAU. The title of my research essay is: THE NEED FOR CONSTRUCTIVIST THINKING AND PRACTICES IN THE INFORMAL SETTLEMENT SECONDARY SCHOOLS OF DAVEYTON’S ETWATWA SECTION.

The research, I humbly request, should be conducted before the end of the month – September 1999.

Looking forward to your prompt and positive response

Yours faithfully,

[Signature]

Z.A. Tenenda.
14 September 1999

Dear Sir

RE: PERMISSION TO CONDUCT RESEARCH

The school appreciates your modesty of seeking permission to conduct your research. Permission is granted for this particular research.

It would also be appreciated if the said educators and learners could be engaged outside their working hours or during periods when they are free. This would minimise any disruption in the school programme.

Yours faithfully

KUNENE T.V.
(DEPUTY PRINCIPAL)
Dear Sir/Madam,

Request For Permission To Conduct Educational Research On Constructivist Theory Of Education In Etwatwa Secondary Schools

I hereby humbly request permission to conduct the above-mentioned educational research. I intend to use a sample of two educators as well as two learners from your centre of learning.

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The research, I humbly request, should be conducted before the end of the month — September 1999.

Looking forward to your prompt and positive response

Yours faithfully,

Z.A. Cenenda.
Mr. Cenenda Z.A

RE: EDUCATIONAL RESEARCH

We have received your letter dated 17.09.99 the contents of which is acknowledge.

Further, we are pleased to inform you that School Governing Body of the School concede permission that you conduct research unconditionally.

Wishing you all the best.

Yours in service,

MOROTOLE L.K

PRINCIPAL