

PEER INTERACTION AND THE ACQUISITION OF KNOWLEDGE DURING DISTANCE EDUCATION FACE-TO-FACE TUTORIALS

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ABSTRACT

The article discusses classroom interaction with reference to the link between tutor discourse effectiveness and learner initiative during peer interaction. English, which is a second language for both tutors and learners is used for conducting tutorials, and not Setswana, the first language of the interactants. Two areas are focused on:

- a. the effects of ideas about oracy on initiative during peer interaction; and
- b. how initiative enhances negotiation of learning

Nine tutors of the Small Business Management course, offered through distance education in Botswana, participated in the experiment. The experimental group comprised six tutors who received some training about classroom talk, while the three constituting the control group did not receive such intervention. Tutorials were audio-recorded before and after intervention. These were then transcribed and analysed using pre-specified discourse categories derived from the discourse analysis model by Sinclair and Coulthard (1975). Results from the two stages showed that tutors who received training about oracy selected more effective discourse, and that learners under their care showed a higher level of initiative than their counterparts. The conclusion drawn was that learner initiative and the capacity to negotiate learning are enhanced when learners are taught by tutors who consciously apply ideas about oracy. This led to a number of recommendations, one of them being that distance education tutors should be systematically trained about the potential of oracy ideas for more effective face-to-face tutorials.

Keywords: Oracy, collaborative interaction, discourse effectiveness, initiative.

INTRODUCTION

It is often claimed that working and talking with peers while carrying out tasks set in different school subjects benefits learners cognitively. The extent to which knowledge can be acquired through talking, as opposed to writing, has preoccupied educational linguists since the 1960s (cf. Barnes et al. 1969). This has been so because of the perceived problem of establishing more definitively what learners have learned when they have talked (Bruner, 1986). Acquired knowledge, the learner's range of information and understanding of a given subject, is readily measured when learners submit written work, but not so easily when they speak to one another. The problem associated with the elusiveness of talk assumes even more complex proportions when learners work in groups with minimum supervision by the tutor (cf. Larsen-Freeman, 1986). Classroom practitioners continue to have misgivings as to whether learners achieve any cognitive intentions when they interact with peers or merely engage in organised noise.

Mercer (1995) has, however, defined peer interaction or group work positively as purposeful collaborative interaction. He claims that working and talking with peers can lead to the achievement of learning goals, and that this is mediated through language. According to the Bullock Report (1975), interaction refers to the verbal encounter orchestrated by the

participants to elaborate and exchange knowledge. For that reason, organised classroom talk has come to be recognised as a special discourse type known as ‘oracy’ (cf. Wilkinson, 1965). McLure (1988:302) observes that when viewed as a medium of learning, oracy refers to utterances, speech acts, and related language features consciously selected to negotiate learning. As a subject, oracy “is a further aspect of language competence, which teachers now have an obligation to promote alongside the traditionally recognised skills of reading and writing” (Edwards and Westgate, 1994:5). Essentially, therefore, oracy involves the contextual demonstration of communication abilities that are mastered as functional literacy by both participants in a tutorial, and in Young’s (1992) opinion this is based on the ideal speech for a given learning situation.

In recent years, researchers have paid increasing attention to the role of language and social interaction in learning school subjects (e.g. Hubbard, 1998; Tichapondwa, 1997, 2000, 2006, 2007). This interest relates to the function of language in both teacher-led interventions and in peer group activities (cf. Wilson and Haugh, 1995; Mercer, 1995, 2004; Mercer and Sams, 2006). In the present article, the Vygotskian (1978) perspective is taken to pursue the primary interest in language as it relates to its functions in learning when the individual collaborates with peers. With specific reference to distance education, Moore (1973) has defined oracy as dialogue that is broadly interpreted as an expression of academic interaction aimed at effecting learning. Moore’s contemporary, Holmberg (1981) defines oracy as guided didactic conversation that is evident in distance education study materials and is expected to be reflected in face-to-face tutorials.

In education circles, the virtues of peer interaction have been widely acknowledged, and highly extolled. During pre-service training, student teachers receive meticulous lectures about the importance of group work. What remains unclear though, is the extent to which the potential of oracy is appreciated and applied effectively. That lack of clarity has led to two questions that guide the present study, focusing mainly on peer interaction. This is an opportunity given to learners when they meet for face-to-face tutorials in distance education:

- a. What are the effects of ideas about oracy on collaborative peer interaction?
- b. How do learners who demonstrate initiative negotiate learning more effectively than their counterparts?

In other words the study examines how learners can be helped to develop initiative so as to negotiate learning by using more effective language when they interact with peers. On the basis of the research questions, the study tests the following hypothesis:

Distance education learners under the guidance of tutors who have been trained in the use of ideas about oracy will show more initiative when working collaboratively with peers than those under tutors who have not received training in such ideas.

This hypothesis points to the potential that tutors can be trained to consciously select language that promotes more purposeful interaction, thus providing learners with guidance and practice in using language to work jointly on a given task.

The impetus to investigate these concerns arose from observation of the way tutors of a distance education programme in Botswana handled the opportunity for group work commonly afforded learners during face-to-face tutorials. English, which is the medium through which tutoring takes place is a second language for both tutors and learners. In

practice tutorials provide the only opportunity for interaction, and are held infrequently. For the greater part of the tutorials, tutors tended to resort to lecturing, and gave little time for group interaction. In the situation, oracy ideas were not widely used. This shortcoming led me to try and establish ways of promoting active learning, hence the decision to carry out the present study.

Views about peer interaction

Wilson and Haugh (1995:265) propose that: “when a pupil who understands, explains to another, the understanding is both extended and refined”. It is presumed that this becomes possible after receiving supportive guidance from the teacher. Similarly, in his study of collaborative learning, Mercer (1995) hypothesizes that interacting with another child who has a different understanding of events may shift the understanding by a learner. The scholar uses the term ‘socio-cognitive conflict’ to take account of how interaction with more capable peers can improve individual discourse performance. The basic idea, according to Mercer (1995) is that when two contrasting world-views are brought into contact, the resulting conflict has to be resolved to solve a problem. This is likely to stimulate some cognitive restructuring and improved understanding.

Essentially, therefore, knowledge is socially constructed. The support given to the individual has been referred to as scaffolding (cf. Bruner, 1986), accomplished through purposeful dialogue so that the individual can eventually stand on her own. In that proposition, communication, thinking, and learning are treated as related processes. Vygotsky (cited in Mercer and Sams, 2006:508) argues for the importance of language as both a psychological and cultural tool, claiming that social involvement in problem-solving activities is a crucial factor for individual development. As he puts it, “inter-mental (social) activity – typically mediated through language - can promote intra-mental (individual) intellectual development”. The plausibility of this claim has been widely accepted.

The promotion of inter-mental and intra-mental activities is realised through subtle aspects of interaction such as the questions tutors ask to elicit learners’ ideas. Questions make clear to them the nature and purpose of tasks, and encourage discussion of misconceptions, paying attention to contributions by individuals before arriving at joint decisions. Interrogatives, especially the more open-ended ones, are central to purposeful engagement when tackling a task during peer interaction. Tichapondwa (2007: 75 – 76) acknowledges the significance of questions thus: “Questions are used to promote interaction through competent use of grammatical features to share mutual understanding in the course of meaning-focused activity”.

Similarly, Alexander (2004:32) refers to the systematic use of interrogatives as dialogic teaching, and suggests that this is indicated by certain features of classroom interaction such as structuring of questions to provoke thoughtful answers; provoking further questions as the building blocks of dialogue; and the chaining of exchanges into coherent lines of enquiry.

The view that questions stimulate answers, and that answers provoke further questions is a specification of the significance of inter-mental construction of meaning at a higher level of cognition. This conscious alternation of turn taking and speakership has been referred to as prospective and retrospective turn taking by Van Lier (1988:91). According to him, a retrospective turn is linked to a preceding turn either by a peer or the tutor. The preceding turn influences the prospective turn. On the other hand, the prospective turn looks forward to

and limits the next speakership, thus influencing the way learning is negotiated. This idea is central to the negotiation of learning when students work collaboratively in groups.

Van den Branden (1997) identifies three defining characteristics of negotiation of learning, namely, maintaining mutual understanding between interlocutors (negotiation of meaning); using grammatical utterances during interaction (negotiation of form) and the production of accurate information for a given topic (negotiation of content). This view about oracy is central to the investigation of peer interaction.

It is, therefore, argued that systematic use of dialogue that pays attention to the importance of retrospective and prospective interaction signals productive rather than reproductive use of language in which learners are creative as they co-author knowledge. However, as I noted (Tichapondwa, 2000:37) with reference to research conducted in Zimbabwe, “we should heed the admonition that all group-based learning is not always inevitably valuable”. Without shared expectations of what should happen when working collaboratively, dialogue is bound to be dysfunctional and will miss the primary objective of negotiating learning. For that reason, Ortega (1999:109) has argued for the need to plan before engaging in group work. He argues that planning increases focus by providing “space for the learner to devote conscious attention during pre-task reflection on formal and systematic aspects of the language needed to accomplish a particular task”. It is noteworthy that according to this theory, sustaining dialogue is a complex matter, more especially when the language for communication is a second language. Thus, the competing goals of fluency and accuracy can be balanced and enhanced when planning takes place in preparation for DE tutorials.

Further, it is important to observe that the task around which collaboration takes place must be carefully thought out, for it is the task that constitutes the meeting point for dialogue. Fisher (1996:249) observes that first and foremost “discourse participants should recognise the educational purpose of the task”. The problem for which the task is set to solve has to be accessible to all participants so as to minimise conflicting interests. Effectively, where there is a shared understanding of the objective of the task, negotiation of learning is likely to proceed in a regulated manner. To ensure that learners become able to carry out meaningful discussion, Barnes and Todd (1977, 1995) propose classroom talk in which all relevant information is shared; all members of the group are invited to contribute to the discussion; opinions and ideas are respected and considered; everyone is asked to make their reasons clear; challenges and alternatives are made explicit and are negotiated; and the group seeks to reach agreement before taking a decision or acting.

The foregoing leads to a very important conceptualization of oracy as an applied linguistic notion in pedagogic circumstances. Ogunsola (2010:33) makes the following observation, “...face-to-face tutoring time should be optimally spent since dialogue enhances learning”. This underscores the importance of systematic intervention to ensure tutor awareness is raised on how best to talk in order to promote the guided construction of knowledge.

Mercer’s (2004:146) proposition summarises the position succinctly. He created a typology by which learners’ talk is characterized by three archetypal forms. These are: *disputational talk*, which is characterised by disagreement and individualised decision-making. There are few attempts to pool resources, to offer constructive criticism, or make suggestions. Secondly, there is *cumulative talk*, in which speakers build uncritically on what the others have said. This can be referred to as reciprocity, that is, peers mutually agree with what their partners say. Thirdly, there is *exploratory talk*, in which partners engage critically but

constructively with each other's ideas. Statements and suggestions are offered for joint consideration. Wilson and Haugh (1995:272) refer to this as "the hypothetical category" in which group members are tentative in their exploration of the given task.

Method

The study involved identification of oracy ideas, training tutors in those ideas, applying the same ideas during tutorials, evaluating the discourse performance of tutors, on the one hand, and that of learners on the other. The subject upon which the study was based is Small Business Management at certificate level. The investigation was carried out at its pilot stage. The method is directly linked to the hypothesis, namely:

Distance education learners under the guidance of tutors who have been trained in the use of ideas about oracy will show more initiative when working collaboratively with peers than those under tutors who have not received training in such ideas.

To test the hypothesis, teacher discourse effectiveness and learner initiative were operationalised on the basis of the quasi-experimental pretest-posttest control group design over a period of six months. For this research, teacher discourse effectiveness means the competent selection of relevant language used for purposes of interaction, thereby enhancing active participation by learners. In order for learners to participate actively, and show initiative, all depends on what language the tutor chooses.

The Sample

The research sample comprised nine tutors of Small Business Management. Each tutor taught a group of 25 learners, conducted tutorials at appointed times, and marked the assignments. The course was run in four pilot centres with a distance of not less than two hundred kilometres apart.

The tutors

There were a total of 21 tutors in the four centres. However, the study was carried out in only two cities, the capital city and one of the smaller cities. Three tutors held their tutorials in the smaller city, while six tutors taught students in the capital city. There is a distance of 450 kilometres between the cities. All the tutors held a degree in business studies, plus a certificate in education. They were employed by the College on a part-time basis with most of them being full-time employees in high school. They had teaching experience of three years and above.

Assigning tutors to groups was based on purposive sampling, that is, the two chosen centres and the respective tutors were readily accessible, while at the same time being representative of the other centres. The three teachers became the control group, and those in the capital were the experimental group. There was initial equivalence between the two groups in terms of teaching experience, professional qualifications, and teaching experience. Being in two different locations, and separated by vast distance was a significant factor. It ensured that when the intervention was carried out with the six, the three tutors from the control group would not feel deprived of additional intellectual stimulation.

The intervention

Six of the tutors (A B C D E F) were given training about oracy ideas. Guidance was given during the six-month period when the course was run. It took the form of discussing with tutors ideas selected for effective interaction, and this was done for two hours over the weekend preceding the next scheduled tutorial. The six tutors were guided to relate the new ideas to their experiences and share with colleagues. The potential of speech acts such as clarification requests, prompts and clues was explained relative to the discourse acts they promoted in learners, namely, clarifications, counter-informs, extensions, etc. When tutors interacted with learners, they were urged to consciously select and apply such discourse and evaluate learner responses. The content covered in tutorials formed the meeting point for interaction. The six tutors constituted the experimental group, while the other tutors (G H I) who did not receive any intervention constituted the control group.

The students

These were adults whose age range was between 18 and 55 years. They had chosen to do the course by distance mode for a variety of reasons. The main one was that the majority were employed and sponsored by their organisations. Pursuit of studies by distance was, therefore, preferable as they would continue to work and study at the same time. Another significant factor was that the majority had last been in formal class for the last four years and above. Thus, learning by distance was something new because most of the time they had to study on their own. Face-to-face tutorials were the infrequent occasions when the human element was added to the print media, referred to as study modules. As Moore (2007) observes, the introduction of the human element reduces transactional distance significantly.

The design

Tutorials were audio recorded at two stages. The first stage was made up of tutorials before tutors received training about oracy ideas (pretest), and the second stage comprised tutorials after training had taken place (posttest). Two tutorials were recorded at either stage and the performance measured accordingly as summarised below:

Group 1 (experimental)	M1	M2	X	M3	M4
Group 2 (control)	M1	M2	-X	M3	M4

A total of 36 tutorials (four for each tutor) was recorded and transcribed. Each recording captured 20 minutes of group interaction, and this translated to 720 minutes or 12 hours of interaction. The transcripts formed the database for the study.

Transcription reduced dialogue to written discourse, then data were analysed using the analytical framework of pre-specified categories. Focus was on the discourse of tutors as well as that of learners in order to determine tutor effectiveness and learner initiative (cf. the hypothesis). The performance of the experimental group before and after intervention was compared with that of the control group. Also, the performance of the experimental group in pretests was compared with its performance at posttest. Performance was also evaluated qualitatively by analysing the pedagogical function of utterances within a given tutorial, using an analytical framework.

Limitations

The main limitation, it would appear, is the low number of participants, which makes it difficult to generalize the findings. However, the limitation reflects the fact that the study was based on a pilot study with fewer numbers. Notwithstanding that, it is noteworthy that in ethnographic studies, it is possible to gain in-depth insight from samples that are even smaller than the present one. Another limitation could also be the external validity of the results, that is, the extent to which this study can make a contribution to comparable situations because of its limited nature. Notwithstanding that, analysis of typical episodes of learning has been conducted in greater depth. It is argued that this is an important mitigating factor because by its very nature in-depth discussion can yield far-reaching insights even from small samples.

The analytical framework

The analytical framework is based on the discourse analysis model proposed by Sinclair and Coulthard (1975). In it, classroom interaction is characterized by turn-taking, an issue that is explained by Van Lier (1988), whose model complements Sinclair and Coulthard's model that quantifies discourse acts in objective terms. According to the model, the unit of interaction used for measuring quantities of discourse is the 'speech act'. Certain discourse acts show tutor's effective use of language, while others show the opposite. Similarly, certain discourse units show learner initiative, while others do not. Van Lier (1988) defines initiative as the spontaneous willingness to participate in a dialogue. Evidence of initiative by learners stands as both a qualitative and quantitative measure of learner discourse associated with successful negotiation of learning. A discourse unit is recognised by the pedagogical function it performs as in:

[1] How do you determine the price of a product?/ Rita.

There are two discourse acts in this example. The first is a question that requires an answer to a problem, and the second one nominates somebody to give a response. Sinclair and Coulthard (1975) distinguish the more effective from the less effective discourse acts. Among the less effective ones are:

i. *Polar questions*: These simply require yes/no answers relating to the content around which the dialogue takes place, e.g.

[2] Does advertising help you identify employees?

ii. *Question tags*: The function of tags is to merely call for attention, for example:

[3] A business plan is necessary when you apply for a loan. / Isn't it?

iii. *Display questions*: They are questions asked with a particular answer in mind, and the learner is expected to respond in the same words used by the tutor, for example:

[4] What did I say is the difference between a sole trader and a partnership?

Among the more effective discourse acts, which stimulate a heightened level of learner initiative are:

iv. *Clarification request*. These require learners to explain a point in their own words. According to Van Lier (1988) clarification requests encourage learner initiative by engaging participants in extended discourse.

v. *Referential questions*: These are the exact opposite of display questions. The tutor does not ask the question with a specific answer in mind. Such questions are characterised by 'why' and 'how' keywords, and solicit appropriate content from the addressee's experience.

- vi. *Evaluations*: Evaluations make a value judgment of a given response, thereby encouraging the discourse participant to make further contribution.
- vii. *Prompts*: These are distinct from evaluations and push the interlocutor to say more, e.g. when the tutor says, “go on”.
- viii. *Clues*: These normally follow an elicitation to which there is no reply, as in:
[5] Why do banks ask for collateral?/ Think of security - - -

The second act typifies a clue, and is often followed by an instructional pause or silent stress (- - -).

- ix. *Silent stress*: This is a paralinguistic discourse act realized as a pause following an elicitation or a clue as in [5] above. It avails learners the opportunity to plan the appropriate language before replying.

These tutor initiated discourse acts encourage learners to participate more actively in situations where the tutor stands before a class, as well as when learners interact collaboratively with peers

Turning to discourse acts attributable to learners, those showing limited initiative include:

- i. *Minimum responses*: These are realized in two ways (Van Lier, 1988:92). Firstly, they are shown by a class of small linguistic items in response to question tags or polar questions. They take the form of agreement with the tutor through vocalisations (*mmh...umm...uhu...*) or *yes/no* answers. Secondly, minimum responses are identifiable when learners respond to display questions.
- ii. *Avoidance*: This is evident when the learner does not take up the allocated turn. Avoidance is thus a paralinguistic discourse feature characterized by silence.

Three discourse categories and two turn-taking categories are considered to be evidence of learner initiative because when used, learners demonstrate a higher level of initiative. These are:

- iii. *Clarifications*: They stand out as output that follows a request for further information or elucidation of a point made previously.
- iv. *Counter-informs*: These are used to dispute a position. Counter-informs signify the most initiative because they are evaluative and take the discourse in a new direction.
- v. *Extensions*: These are reflected when the learner provides additional information to topic initiations.

The two turn-taking categories are:

- vi. *Bids*: These are realized by verbal as well as non-verbal items such as *me teacher... sir...or* clicking of fingers.
- vii. *Self-selections*: These are turn-taking categories occurring when the previous speaker has given up a turn. The learner does not wait for the tutor to allocate a turn. Apart from being evidence of initiative, self-selections add to the naturalness of the discourse.

To analyse the transcripts, the six categories associated with tutor effective discourse (clarification requests, referential questions, evaluations, prompts, clues, and silent stress) were used, while those associated with learner initiative (clarifications, counter-informs, extensions, bids, and self-selections) were applied.

FINDINGS

In this section, findings on teacher discourse are presented first, and these are followed by speech acts that typify learner initiative.

Findings about discourse effectiveness

When comparison of the use of the more effective discourse acts by the two groups at pre-test stage is made, it is clear that there is limited use of such acts. For example, from tutorials by Tutor H and those by Tutor B (pre-test), the percentages of effective discourse acts (defined here in terms of the occurrence of the six acts) in the 20-minute interaction time, is 9% and 10% respectively. However, for the post-test, there is a marked difference between the discourse performance of the two. Tutor H makes use of 0% of effective discourse, while Tutor B shows a jump from 10% to 33%. More generally, it appears from scrutiny of the frequencies for other lessons that tutors belonging to the control group (G H I) consistently use less effective discourse at both stages, while the opposite is true for members of the experimental group. Figure 1 illustrates the performance of teachers from the control group in terms of effectiveness measures.

Figure 1 Effectiveness measures – control group (teachers)

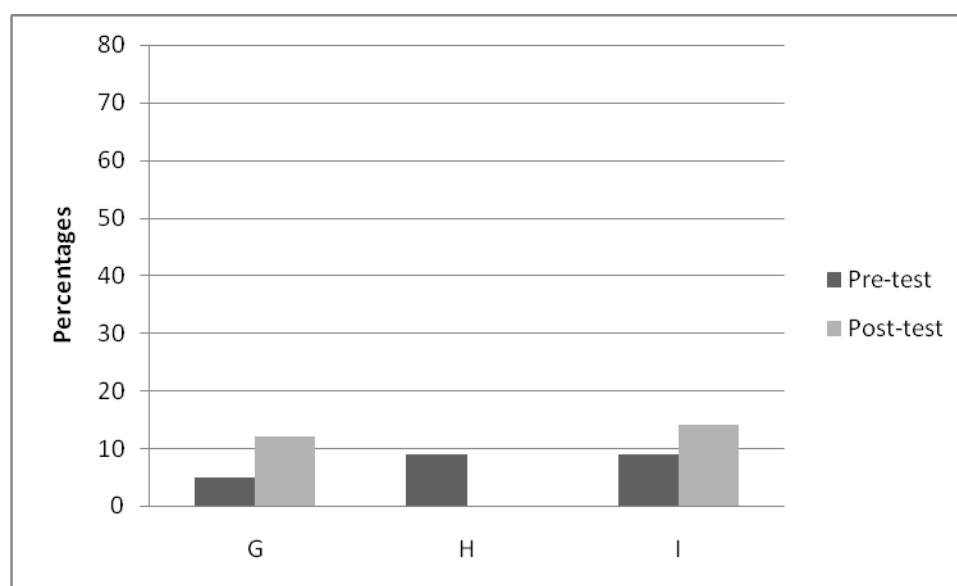
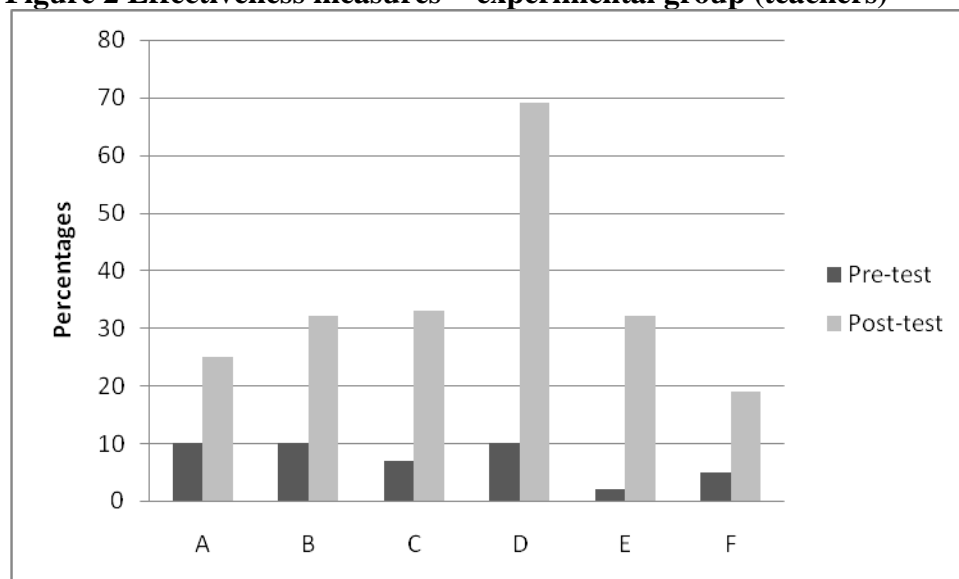


Figure 2 illustrates the performance of teachers from the experimental group in terms of effectiveness measures.

Figure 2 Effectiveness measures - experimental group (teachers)



It will be clear from the statistics that those teachers who received training about oracy show some consistency in the selection and use of more effective discourse. This is the exact opposite of their counterparts in the control group. In a sense, therefore, the results show that training of tutors has some influence on discourse effectiveness.

Effectiveness was tested statistically by way of Chi-square tests that compared the pretest and post-test totals of the set of teacher 'effectiveness' acts identified relative to the remaining teacher acts in each group. The result for the control group confirmed that there was no significant difference between the two stages, as shown in the statistical report:

Statistical Result

Teacher effectiveness hypothesis: control group

	Pretest	Posttest	Total
Teacher effective acts	16	15	31
Teacher other acts	218	159	377
Total	234	174	408

Chi - square value

ue: 0.23 p= 0.6315 (1df) (Not significant)

The value for Chi-square is 0.23, and so at 1 degree of freedom the significance level (p) is 0.6315, which is far too high for the required significance threshold of $p \leq 0.05$. The result for the experimental group, on the other hand, revealed a very significant difference between the pre-test and post-test as shown below.

Statistical Result

Teacher effectiveness hypothesis : experimental group

	Pretest	Posttest	Total
Teacher effective acts	30	100	130
Teacher other acts	362	223	585
Total	392	323	715

Chi - square value

ue: 1.13 p<0.0001 (1df) (Significant)

The value for Chi-square of 1.13, and so at 1 degree of freedom the significance level is $p < 0.0001$, well below the significance level required.

In combination, then, given also the broad equivalence of the control and experimental groups prior to intervention, the two statistical tests provide strong support for the effectiveness hypothesis.

Statistically, out of the 66 acts by the control group Tutor G at pre-test, only three are categorised as effective. These are two prompts and a silent stress, equivalent to 5% of the discourse. Similar patterns of interaction are noticeable in lessons from the control and experimental groups before intervention. The tutorial by Tutor E (pre-intervention) illustrates how tutors who received training on ideas about oracy lacked discourse effectiveness before exposure to the course. Out of 46 discourse units, there is only one instance of effective discourse, a prompt. Interaction is characterised by question tags, polar questions and use of extensions.

The choice of discourse by tutors in most pretest tutorials reflects constraining discourse (cf. Sinclair and Coulthard, 1975) leading to minimum responses and avoidance on the part of learners. The teachers' elicits invite choral responses (examples of minimum responses), and these abound in the transcripts. The tutorial by Tutor I (pre-intervention) presents two varieties of choral responses. The first is in response to either a polar question or a question tag. The second is choral gap-filling, asked with specific answers in mind.

Starting with Tutor G's post-intervention tutorial, there is evidence that 12% of the tutor's discourse comprises effective categories. Although this shows some difference over the 5% noted in the pre-test tutorial, it is still relatively low. Counterparts in the control group reflect similar performance. As in the pre-test tutorial, dialogue in the tutorial by Tutor G is characterised by the use of display questions.

Differences are noticed in tutorials taught by the experimental group tutors at post-test stages. Tutor A's pre-intervention tutorial is characterised by discourse acts that constrain learner expression. Question tags and polar questions abound. In most cases the tutor answers his own questions, and engages in lengthy explanations, thus depriving learners of the opportunity to participate actively. However, the post-test tutorials reflect a degree of progression towards more effective discourse. Interaction is characterised by clear instructions at the beginning, and these focus learner attention on the objectives. Tutor intervention is made up of clarification requests (e.g. *What do you mean?*) and non-comprehension signals (e.g. *Explain...*). In the other lesson the tutor asks referential questions (e.g. *Why is that interesting?*) and such questions are followed by instructional pauses.

The tutorial by Tutor D reveals effective talk proceeding in accordance with principles where discourse acts are manipulated to strategically change the interaction patterns and create more productive learner responses. In the tutorial, out of 49 acts, 20 of them or 69% are categorised as effective, much higher than seven such acts (10%) at pre-test. Like most post-test lessons for the experimental group, there is an increase in the number of referential questions, instructional pauses, and clarification requests (e.g. *Meaning? - - -, What about it? or Why do you say that?*).

Four important characteristics of effective talk can be inferred from the transcripts. Firstly, there is an appreciation and renewed awareness of the purpose of talk by tutors; secondly,

there is a shared understanding of relevant vocabulary between participants; thirdly, much more talk was focused on a task in which knowledge is shared; and lastly, the tutors consciously used discourse acts to negotiate learning. These findings confirm the more effective use of discourse by tutors exposed to ideas about oracy.

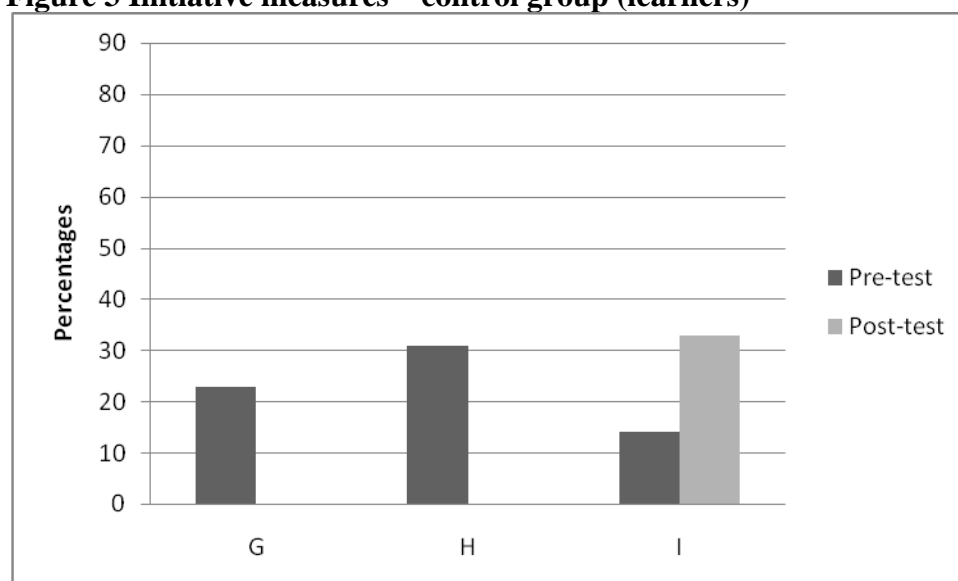
Findings about learner initiative

The fact that the discourse behaviour of tutors in the experimental group changed as a result of the intervention is probably not as surprising as the impact of such teachers on the discourse performance of learners. In this section interest is on how learners changed their discourse in post-test learning events.

Statistics confirmed that the proportion of tutors' discourse acts in both the control and experimental groups was much higher than that of learners at pre-test. The findings can be interpreted to mean that learner participation at pre-intervention stage was minimal. On the other hand, the proportion of discourse acts by learners, whose teachers had participated in the intervention course increased very significantly.

Figure 3 presents statistics from the six tutorials led by the control group tutors (three at pre-test and three at post-test).

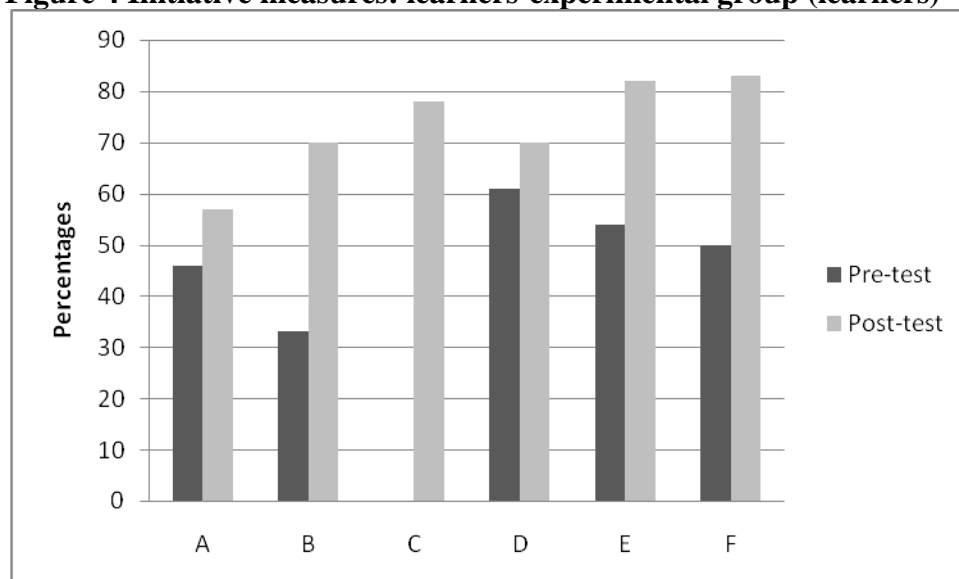
Figure 3 Initiative measures – control group (learners)



It is striking that out of the total number of discourse acts in each of the six, there is little evidence of discourse acts reflecting either participation or initiative.

Turning to Figure 4 below, which deals with the experimental group, the pattern is similar to that of the control group at pre-intervention.

Figure 4 Initiative measures: learners-experimental group (learners)



There is a lower proportion of discourse acts of initiative. Statistics, therefore, show that the level of initiative for the two groups is comparable before intervention. On that premise, it is logical to do intra-group comparison with the experimental group to establish whether they display improved initiative at posttest (having been taught by tutors who participated in the intervention course).

The learner initiative hypothesis was tested statistically by way of Chi-square tests that compared the pre-test and post-test totals of the set of learner 'initiative' acts identified relative to the remaining learner acts in each group. The result for the control group confirmed that there was no significant difference between the two stages as shown in this statistical report.

Statistical Result

Learner initiative hypothesis: control group

	Pretest	Posttest	Total
Learner initiative acts	11	4	15
Learner other acts	40	24	64
Total	51	28	79

Chi-square value

ue: 0.24 p= 0.6242 (1df) (Not significant)

The value for Chi-square is 0.24, and so at 1 degree of freedom the significance level (p) is 0.6242, which is far too high for the required significance threshold of $p \leq 0.05$. The result for the experimental group, on the other hand, revealed a very significant difference between the pre-test and post-test as indicated below.

Statistical Result**Learner initiative hypothesis: experimental group**

	Pretest	Posttest	Total
Learner initiative acts	48	150	198
Learner other acts	67	62	129
Total	115	212	327

Chi-square value: 25.08 p<0.0001 (1df) (Significant)

The value for Chi-square of 25.08, and so at 1 degree of freedom the significance level is $p < 0.0001$, well below the significance level required.

In combination, then, given also the broad equivalence of the control and experimental groups prior to intervention, these two statistical tests provide strong support for the initiative hypothesis.

As observed earlier, more purposeful group work is characterised by collaborative interaction, which occurs when learners are encouraged to achieve common learning goals by working together. In that respect, learners are given instructions on a task, work on their own, and guide each other's dialogue (negotiation of learning) so as to achieve learning goals. Analysis of data is accomplished through a dual focus on the transcripts, in terms of both learner and tutor discourse, though primarily on the former, and the discussion will be guided by the typology of disputational, cumulative, and exploratory talk referred to earlier (cf. Mercer, 1995).

One of the oracy principles associated with effective teacher discourse is that learners engage in open extended discussion when talking with peers outside the visible control of the adult (cf. Mercer, 1995). Being outside the visible control of the tutor simply means learners will be engaging in dialogue with one another in accordance with the instructions given by the tutor regarding the task on hand. In that respect, the discourse for instructions is critical for the enhancement of initiative as learners interact among themselves. Such usage is dependent on the quality of tutor-initiated informs; the nature and clarity of task; and the extent to which rules for peer interaction are made accessible to the learners.

The general picture that emerges from an analysis of pretest transcripts is that of a lack of awareness (on the part of tutors) that peer interaction can help in the achievement of pedagogic goals. Following observations before the study, it became manifest that in the majority of tutorials, group work is either not encouraged or is engaged in as a mere routine obligation. Where attempts were made, there was little evidence of initiative. The excerpts cited subsequently are meant to illuminate the whole idea of less effective discourse vis-à-vis effective one in real tutorial set-ups. In the tutorial by Tutor C (pre-intervention), this directive is given:

[6] T: Let's now answer these questions / in our exercise books... / No time for group work.

The discourse creates the impression that working in groups is not that important, and is a waste of time. Instead learners should write. The effect of this is to close opportunities for

dialogue. This pattern is reflected in tutorials by other tutors before they took part in the intervention programme, but for consistency, evidence from Tutor C will be presented both before and after intervention. The instructions, the chief means of directing peer interaction, confuse learners. He instructed the learners to define stock-taking and stock-planning. Once in groups, their discourse is mainly a regurgitation of language used by the teacher prior to the activity. Similarly, there is hesitation to do anything autonomously, lest that runs counter to teacher expectation, hence the unwillingness to take initiative. Though not present in the group, the tutor's ineffective discourse (evident in the instructions) negatively constrains discourse output as the group encounter proves in [7]:

[7] S4: But why did the tutor say it is stock planning/ and not stock recording?

S3: Never mind

S1: Stock planning means the same as stock recording

S4: No. / Stock planning comes before.

S3: I can't remember what he said.

S5: You just write stocktaking./ He will correct us.

The lack of explicit rules about group work leaves learners uncertain, and the tutor's ineptitude with the language of instructions accounts for a number of interaction problems including misconceptions when S1 equates *stock planning* to *stock recording*. For that reason, negotiation of content, form and meaning is stalled. In a comparable example from a tutor in the control group (Tutor G), learners are assigned to do group work without explicit instructions being given. This constrains interaction as evident in this extract.

[8] S1: You write

S2: No. You write first

S3: Hurry up

S4: You can't spell

S5: Give me / and I will write

S1: What are we supposed to do?

This episode typifies disputational talk (already explained above). Participants take an active part, but there is little evidence of co-operative engagement with the task. The exchange is, therefore, unproductive. In a comparable study, Mercer (2004) confirms that such a pattern of interaction is common when teachers lack exposure to ideas about oracy.

This section has illustrated the extent to which initiative is lacking during peer interaction at the pre-intervention stage. Tutorials revealed a general pattern by teachers in which a lack of awareness about effective discourse for preparing and then facilitating group work resulted in opportunities for learner initiative being lost. This was true of both the experimental group and the control group.

Evidence of initiative characterised many post-intervention lessons. Tutors who participated in the course chose the discourse of instruction more consciously. As an example, Tutor C gives the following instructions:

[9] T: I notice you have many good points about business management today./
We did not hear from everyone, /so to give everyone a chance let's work in
groups./ Remember this point : / Ask your friend to read out their point./
before the secretary writes that down. / No use of Setswana./ OK? / English
only as used in business management./

In this instance, the task is clearly defined, and as argued earlier, a consciously defined task has the potential of securing learner understanding. The tutor is more deliberate in her choice of discourse acts, and does not hurry learners as she did in the pre-intervention tutorial. Discourse acts are chosen more consciously and systematically, and are deliberately calculated to encourage participation, as well as to ensure that learners have a clear idea what is expected of them.

The first discourse act is an example of positive evaluation of learner contribution. This is followed by a directive, which gives precise points (rules for group work) to be observed during peer interaction. The tutor instructs that dialogue must be conducted in the language of the subject in order to encourage interaction through the target language, English. The following peer interaction took place thereafter:

- [10] S1: Jowa.../ you are the chairman
 S2: Yes.../ let him chair
 S3: So.../ let's take turns/ read your reasons quietly / before you tell us
 - - - - OK... / My reason is that product pricing is more important than promotion.
 S4: Why do you say that?
 S3: Without a price you can't sell./ You have to sell to get returns./ Promotion comes second.
 S5; Uhu .../ What about place or location of the business?
 S6: It is ummm...part of the marketing mix.
 S3: What is the marketing mix?/ by the way...
 S4: It has to do with the 4 Ps

The positive influence of the tutor's discourse is evident in the learners' replies and the way they control their own discourse. For a start, the turn-taking is well organised. Through a directive by a peer, one of them is nominated to chair, and this is accepted without dispute. The group leader (S3) re-interprets teacher instructions and further clarifies how the task ought to be handled (an example of initiative). This he does through what we may term 'inclusive discourse' (*Let's take turns*). Everyone is expected to take part and that creates opportunities for initiative. The silent stress (- - -) is used to allow thinking and planning time. The chairman then starts the discourse with his own reason, using an inform that is in original discourse towards the negotiation of content. The negative feedback (*Why do you say that?*) stimulates a clarification from S3 in which new content is added and expanded upon, using extensions, and this serves as evidence of critical engagement in topic exploration.

The response makes the content clearer and adds new information to that given originally. S5 agrees through the minimum reply *uhu...* (cumulative talk) before contributing new information. Then S6 also contributes (*It's part of the marketing mix*), an example of further negotiation of content. The introduction of *marketing mix* is a contribution associated with the negotiation of form, and learners show resourcefulness when they find the correct meaning (from their notes) on their own initiative. In their exploration of the task, learners share ideas, provide reasons for their opinions, question each other, and self-select, and these are instances of initiative and exploratory talk (Mercer, 1995).

This result confirms that learners taught by teachers whose discourse awareness has been enhanced are able to take control of a topic and use extended discourse when working in groups. The dialogue reflects the idea of reciprocity (cf. Wilson and Haugh, 1995), in which learners demonstrate the ability to recognise discourse junctures in terms of when to gain the floor, and when to make a contribution. There is joint construction of new knowledge that

leads to mutual understanding. This is made evident through clarification of opinions held, and giving counter information to shed more light on the issue under discussion. Further, learners also assume the role of the tutor by stimulating exploratory talk through clarification requests, evaluations, instructional pauses and prompts. In this regard, learner-learner exchanges are evidence of maturing communication skills, and these findings resonate with those of Mercer and Sams (2006) showing that the use of more effective discourse promoted learner initiative as the negotiation of learning progressed.

To sum up, the findings confirm that the choice of discourse acts by tutors, prior to intervention, constrains learner initiative. The opposite is, however true for tutors who receive training and learners under their care. Evidence of that has been shown by the progressive improvement evidenced by tutors and learners in their choice and use of discourse for interaction purposes. Extracts from transcripts especially selected to reflect the situation were presented to confirm this.

DISCUSSION

The assumption, at the outset of the study was that the discourse effectiveness of tutors can be developed by giving them training in the use of ideas about oracy, and conversely, it was assumed that distance education learners under their care had their level of initiative heightened. Also, central to the argumentation was a description of the analytical framework that can be used to assess discourse effectiveness and initiative in a relatively systematic and objective way.

In quantitative terms, results showed that tutors who were exposed to ideas about oracy used more effective discourse acts after intervention than before. This led to the conclusion that conscious training of tutors results in more attempts to consciously negotiate learning. There was evidence of conversational adjustment by tutors in which clarification requests, referential questions, prompts, clues and instructional pauses were used to encourage original discourse output. Learners were made to recognise the educational purpose of tasks when they worked in groups.

Results were also presented on the construct of initiative, that is, the willingness to get actively involved in discussion. The construct was operationalised in terms of the proportion of extensions, clarifications, counter-informs, self selections, and bids. A conclusion was arrived at that statistically and qualitatively, there was enhanced learner initiative when tutors gave explicit instructions for group work, asked more referential questions, and prompted learners to give their opinions through clarification requests. Working on their own, learners used discourse more purposefully to negotiate learning, while their counterparts in the control group did not manifest this change in discourse behaviour.

In combination, testing for tutor discourse effectiveness and learner initiative yielded findings that confirm the argument, alluded to earlier, that negotiation of content, form and meaning knowledge is mediated through language.

Notwithstanding the limitation, the strengths of the study are in terms of its contribution at theoretical-methodological, descriptive and applicational levels. At the theoretical level, the study has contributed by confirming the usability of a framework for explicating the notions of discourse effectiveness and learner initiative from a discourse analytical perspective. This is a novel phenomenon in pedagogic circumstances where such a framework has not been

applied before, but more importantly in circumstances where the medium of instruction, English, is a second language to both tutors and learners. This framework was applied within a quasi-experimental research design to establish the effects of innovative ideas about the potential of talk in terms of discourse effectiveness and learner initiative. The findings that emerged feed ideas back into theory about what types of act characterise classroom discourse that enhances the negotiation of learning (cf. Tichapondwa, 2008).

In terms of the contribution of the study at the descriptive level, one is more concerned with description of a particular situation, in this case the detailed analyses of the classroom discourse of certain groups of tutors and learners that are made available, as well as the account of changes brought about in the discourse behaviour of some of these tutors and learners. Admittedly, the study did not follow up whether tutors continued with their changed behaviour after the study. This is a matter for another research focus that could also determine how similar discourses might re-assert themselves in Botswana and in countries with a comparable linguistic background.

Insights from the study have the potential to also make a contribution at a more applicational level, showing that by focusing on oracy, tutors achieve better learning results with their learners. This implies that there are changes needed in teacher education. Conventional approaches to teacher training that focus on educational psychology, educational sociology and teaching methods should be modified to include a strong focus on oracy and the role of tutors in promoting it in their tutorials in the interest of more purposeful interaction. More specifically, for example, results from testing the initiative hypothesis make an important contribution to researchers, teacher educators and curriculum planners because the results prove, in practical terms, that certain teacher-initiated discourse acts are closely related to learner discourse behaviour in which extended discourse is originated. Such results show the interconnectedness between teacher effectiveness, on the one hand, and initiative on the other. The study proved that when tutors consciously select certain discourse acts, learners participate more actively. On that basis, curriculum planners who access the study should find it valuable for making the necessary changes regarding the link between oracy and curricular subjects.

In testing the initiative hypothesis, key findings about group work were presented. Results from pretest lessons showed that tutors did not give explicit instructions and they did not clearly define group tasks. This led to disoriented discourse output, and in the majority of cases, the exchanges were non-task oriented (cf. Malamah-Thomas, 1987). This implies that when aims of interaction are not shared, learners' attempts to communicate are constrained and little is achieved in the negotiation of learning. However, after awareness of tutors had been raised (post-intervention), both tutors and learners became more purposeful in their use of discourse, being more conscious of what to say and how to say it.

Two related implications are identifiable. The first one, relating to the management of learning is that in the absence of clear instructions and a clear definition of the task, there is no clarity what learners are supposed to say regarding the content, and what language would be appropriate to convey meaning. Although there was improvement in the way experimental group tutors handled group work, there were still instances where problems were noted. The mishandling of group work happens against a general background in Botswana and the other SADC countries where theories about the issue are taught in pre-service courses and often talked about in staff rooms, yet as results showed, tutors do not practise what they preach. It is recommended that researchers in Southern Africa should undertake more context-specific

studies about group dynamics in the classroom, taking into account the fact that English is a second language. Research findings should then be made available to curriculum developers, teacher educators and educational planners. It is argued that conscious improvement of the discourse used by tutors and the level of participation of learners eventuates in flexibility in the way learning is negotiated.

Most importantly, it is also recommended that distance education institutions in the sub region engage in more sustained and systematic research about oracy. This should be on a more extensive scale than the present study. Recently, as I noted (Tichapondwa, 2010:51) in an exploratory study on trends in DE research in Southern Africa, there is a lack of innovativeness by researchers who fail to address key pedagogic issues and dwell on institutional platitudes. Such research is usually characterized by a great deal of enthusiasm to inform, but limited in skill.

CONCLUSION

From a very early age, children play with peers. In such groups they learn a wide range of skills through interaction. Those entrusted with the education of learners in distance education situations have no reason to think that group work is for the conventional classroom only. Tutors must recognise that what the adult learner says to a peer shifts the understanding of a given body of knowledge when a problem-solving task is tackled. There are both inter-mental and intra-mental cognitive benefits in collaborative interaction. The study has demonstrated that there is a close link between this observation and tutor discourse effectiveness and learner initiative. The findings confirmed that when tutors are trained in best ways of handling oracy, there are benefits in terms of learner initiative during peer interaction. The manifestation of initiative, in turn, enhances negotiation of learning. Unfortunately, prevailing practices in distance education tend to create the impression that tutors are there to give lectures, while learners are there to listen and write notes. The opposite should be the case. Adult learners need to engage in dialogue with peers, and for that reason, tutor awareness of the potential of ideas about talk should be raised in a systematic manner. As Brumfit (1996:10) puts it:

If teachers have no formal training in linguistic awareness then they will lack categories and framework for thinking about analysing crucial elements in learning, and will therefore draw such categories from a common store of half belief in which prejudice and fact combine indistinguishably.

REFERENCES

- Alexander, R. 2004. *Towards Dialogic Teaching: Rethinking Classroom Talk*. Cambridge: Dialogos.
- Barnes, D. and Todd, F. 1977. *Communication and Learning in Small Groups*. London: Routledge and Kegan Paul.
- Barnes, D. and Todd, F. 1995. *Communication and learning Revisited*. Portsmouth, NH: Heinemann.
- Brumfit, C. 1996. "Educational linguistics, applied linguistics, and the study of language practices". *Language and Education (BAAL)*. Clevedon: Multilingual Matters.
- Bruner, J.S. 1986. *Actual minds, possible worlds*. London: Harvard University Press.
- Edwards, A.D. and Westgate, D.P.G. 1994. *Investigating classroom talk*. London: The Falmer Press.

- Fisher, E.1996. "Identifying effective educational talk". *Language and Education vol.10 no. 4*.
- Holmerg, B. 1981. *Status and Trends of Distance Education*. London: Kogan Page
- Hubbard, E.H. 1998. "Discourse performance in minimal immersion and non-immersion groups: a comparative analysis". *Publications, pp658-666*
- Krashen, S.D. 1995. *Principles and practice in second language acquisition*. New York: Prentice Hall MacMillan
- McLure, M. 1988. "Assessing spoken language: testing times for talk", in Mercer, N. (ed), *Language and literacy from an educational perspective. Volume1, Language Studies*. Milton Keynes: Open University Press.
- Mercer, N. 1995. *The guided construction of knowledge: Talk amongst teachers and learners*. Clevedon: Multilingual Matters Ltd.
- Mercer, N. 2004. "Sociocultural discourse analysis: analysing classroom talk as a social mode of thinking". *Journal of Applied Linguistics. 1,2,pp 137 – 168*
- Mercer, N. and Sams, C. 2006. "Teaching children how to use language to solve Maths problems". *Language and Education. Vol 20, No.6, 2006*
- Moore, M.G. 1973. "Towards theory of independent learning and teaching". *Journal of Higher Education. Vol. 44, 661-679*
- Moore, M.G. 2007. *Handbook of Distance Education, 2nd*. Ed. Mahwah NJ.: Lawrence Erlbaum Associates
- Ortega, L. 1999. "Planning and focus on form in L2 oral performance". *Studies in second language acquisition. Vol.21 , ,no.1 pp110-145*.
- Tichapondwa, S.M. 1997. *Language and the school curriculum*. Harare: Jongwe Press.
- _____ 2000. *Interactive communication and the teaching-learning process*. Gweru: Mambo Press.
- _____ 2006. "Oral interaction and the guided construction of knowledge". *Language Matters Volume 37 (1) 59-80*.
- _____ 2007 . " Facilitating Interaction During Face-to-face Tutorials in Open and Distance learning: Insights from the Socratic Method." *International Journal of Open and Distance Learning. Vol (1) 74-86*.
- _____ 2008. *The effects of a course in classroom text and discourse on oracy in high school classrooms*. (Unpublished doctoral thesis). University of South Africa.
- _____ 2010. "Trends in distance education research in Southern Africa". *International Journal of Open and Distance Learning. Vol (3) 35-55*
- Van Lier, L. 1988. *The classroom and the language learner*. London: Longman.
- Vygotsky, L. S. 1978. *Mind in Society*. London: Harvard University Press.
- Wilson, J. and Haugh, B. 1995. "Collaborative modelling and talk in the classroom". *Language and education vol. 9:4*.