Chapter 4: Data Analysis - *Discovery Channel - exploring the African bush*

4.1 Introduction

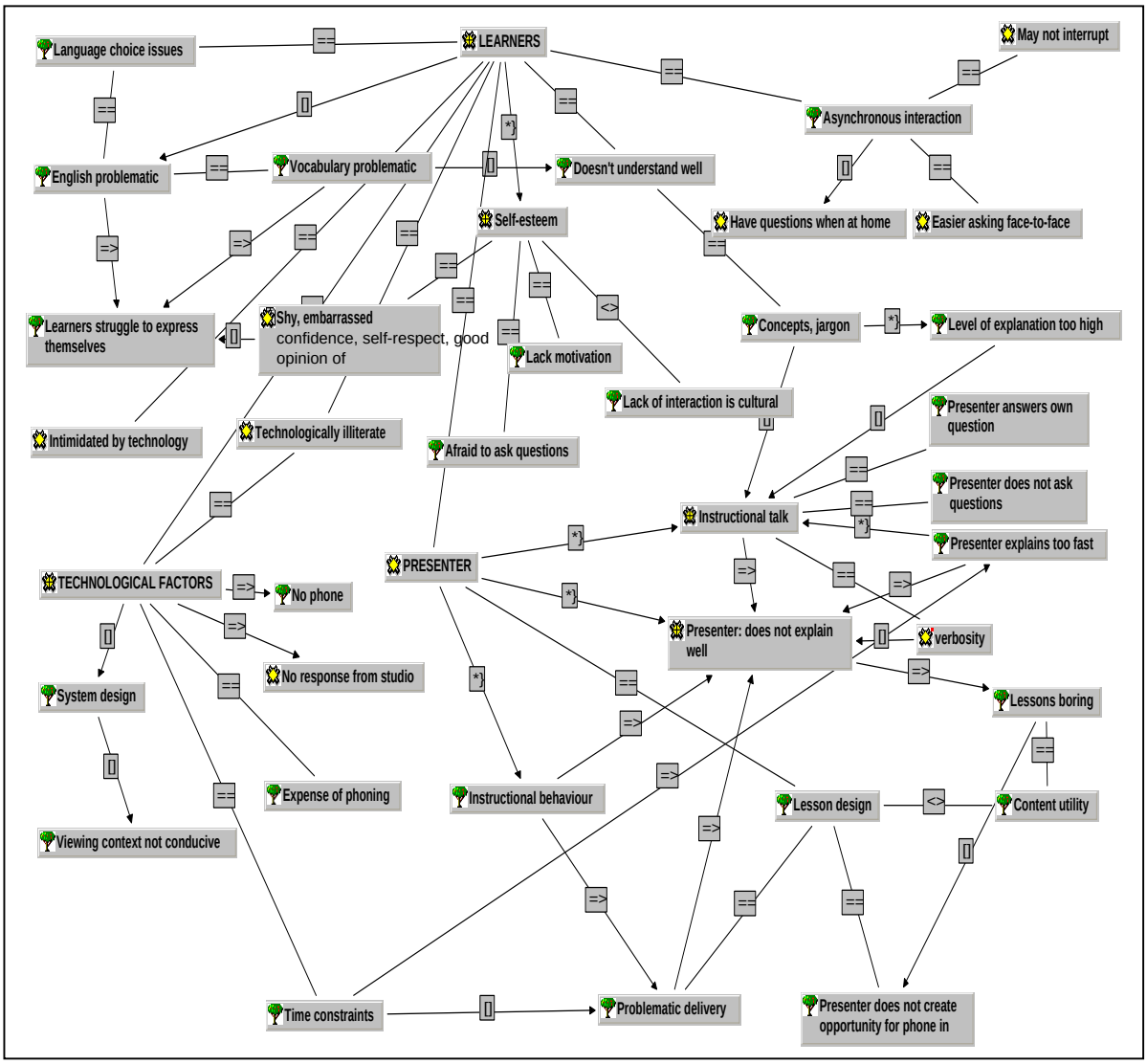
African nocturnal noises scare and confuse foreigners, making the darkness seem overwhelming. Native ears of the bush, however, separate these symphonic sounds easily. On examining the data in the context of this study, I too have started isolating and naming the noises that resonated in my head. I have gained a deeper understanding of the possible reasons why Grade 12 viewers refrain from reciprocal participation during televised instruction even though the supporting technology permits bi-directional audio links. Accordingly, this chapter offers an interpretive account of the data.

In the previous chapter I described the research design used in this study and justified the choices made with respect to sampling, methods of data collection and analytical decisions. The 2001 pilot study was exploratory in nature and did not adequately isolate a single factor that could account for low learner participation. I thus assumed that a combination of factors accounted for the phenomenon. This preliminary investigation suggested certain strategies to elicit better responses during televised instruction. Despite applying these strategies, the rate of both synchronous and asynchronous interaction remained noticeably low and another round of investigation ensued, albeit still only focussed on the viewer. Several subsidiary uncertainties relating to the lack of oral interaction were evident, yet my hypothesis remained that limited proficiency in the language of instruction - English - was the primary cause of low reciprocity. As my research progressed, it became evident that this initial hypothesis was not entirely defensible.

This study entailed intensive participation in the field observing, talking to participants and carefully recording events in context as well as reflecting on the data in an attempt to recognise any patterns in communicative events and account for or interpret their significance. Although the results of the questionnaire offered ample learner-related data, its main purpose was to serve as a guiding instrument for collecting in-depth data during subsequent learner interviews. Since the survey questionnaire was also the first step in the data collection process, I have used this instrument as the base of a detailed account

of my findings. My report integrates rich description from other data sources too. In the following section, I engage with the data provided by the various instruments in order to generate findings germane to my research question. I account for findings concerning the learners, content presenters and factors relating to the context in which the telelessons were presented and viewed. Figure 4.1 is a network display generated by *Atlas.ti*™ and underpins the discussion of data.

Figure 4.1: Reasons identified for not asking questions



KEY:

== is associated with [] is part of => is cause of

<> contradicts *} is property of

More than five codes | More than three codes | All others

4.2 Learner as viewer-receiver

I purposefully reverse the traditional pattern of sender-receiver and focus first on the recipients rather than the sender of the instructional message since it is at this point in the process that the anticipated communication loop is severed.

4.2.1 Learner profile

In order to have a better sense of who the *TeleTuks* viewers are, I not only used personal detail obtained from the survey questionnaire to draw a rough biographical sketch but I also commented on their *TeleTuks* attendance patterns and how these learners reacted during broadcasts. In addition, I provided an elementary analysis of their spoken English, using two official oral proficiency evaluation grids.

Demographic detail

In the 2001 - 2003 surveys, I formulated questions to determine the demographic characteristics of the respondents as well as obtain information about the actual television broadcasts. Slight differences between results obtained in the pilot study and the actual surveys indicated a younger learner (17 years old) than in 2001 with a shift towards older learners again taking place in 2003. This may be the result of policy interventions in Grade 11 in order to improve the national Grade 12 pass rate. The male-female distribution has been constant with 61% of respondents being female in all three instances[15]. Although there is no gender discrimination regarding access to or progress within the education system, young men traditionally have been drawn into the unskilled labour market sooner, particularly in rural areas.

Representation of urban and rural learners was well balanced although provincially, Mpumalanga was poorly represented. According to a list of participating schools

[15] Learners start formal schooling in the year that they turn 7 and attendance is compulsory until they are 15 years old or have completed nine years of formal schooling (Grade 9). This band is known as General Education and Training with the following demarcations: Reception phase or Grade 0 (5/6 years, not compulsory but a formal pre-primary preparation for schooling) Foundation phase (7 – 9 years), Intermediate phase (10 - 12 years), Senior Phase (13 - 15 years). Adult learners are able to complete a similar band labelled ABET level 1 - 4. Generally all learners are encouraged to complete another three years of senior secondary schooling (Further Education and Training band) in order to gain a matric certificate that with the necessary exemption, allows access to the remaining band of Higher Education and Training.

(R. Evans, 2001) only eight schools in this province *i.e.* 11.1% of the total number of schools in the project, had been provided with the necessary equipment. With regard to the 2002 and 2003 surveys, the data sets were collapsed as motivated in *§3.4.2 Explanation of computer-aided qualitative data analysis process.* I have reported responses chronologically as they appeared in the questionnaire; however, some have been grouped thematically for ease of interpretation.

I have indicated the distance learners travelled to get to viewing venues in Table 4.1. Half the respondents lived less than two kilometres away from the viewing venue. If this percentage is added to those who lived between two and five kilometres away (23.6%), it could be accepted that 73.4% of the learners would probably be walking to school thereby implying that accessibility to broadcasts was not problematic. Although rural areas generally lack public transport services, most South African scholars live within walking distance of their schools (Anon, 2004). Those in the city and from privileged homes would more likely cycle or use public transport than their feet. One could argue that the 26.5% of learners who lived further than six kilometres away from the viewing venue may be disadvantaged with regard to time factors and possibly transport costs. This question was included in order to establish logistical matters, which may have influenced viewer numbers and learners' motivation to attend the broadcasts.

Table 4.1: Distances travelled by Grade 12 learners to reach viewing venue

Distances travelled	% Learners
Less than 2 kilometres	49.82%
Between 2 and 5 kilometres	23.64%
Between 6 and 10 kilometres	8.73%
More than 10 kilometres	17.82%

TeleTuks participation patterns

The frequency with which learners watched telelessons is displayed in Table 4.2. This question sought to match the poor telephonic reaction recorded by the presenter logs with actual viewer numbers. For all four subjects discussed in this study, Chemistry and Physics, Mathematics, English and Geography, an average of 13.8% of respondents watched daily broadcasts during term time while 57.3% of viewers only watched broadcasts during the winter school. It was roughly estimated by the management team of this project that even if only a dozen learners out of a class of thirty five Grade 12's watched each afternoon the size of the anticipated audience would be nigh on a thousand

viewers per broadcast. Far fewer learners than expected actually attended broadcasts during the school term and this figure partially accounts for the low learner participation rate during the majority of televised instructional episodes.

Table 4.2: *TeleTuks* broadcast viewing frequency

Subjects	Every day	Sometimes	Winter school
Chemistry and Physics	11.26%	37.75%	50.99%
English	13.40%	25.84%	60.77%
Geography	19.18%	24.66%	56.16%
Mathematics	11.80%	26.40%	61.80%
Total	**13.9%**	**28.6%**	**57.43%**

The preceding table also indicates the subjects most regularly watched: Mathematics (61.8%) followed by English (60.7%). Learners choose their Grade 12 subjects at the end of Grade 9 and the choice is influenced by the learner's post-matric plans. Geography is a favourite choice among many learners as it is not too theoretical and has real life application[16] while Mathematics and Science would only be taken by those hoping to gain university entrance.

Isolated comments as part of an open-ended written response made reference to feeling sleepy and being bored. However, these behavioural responses were too infrequent and were likely to relate to learner motivation or social factors rather than being directly relevant to interaction. I thus did not exploit them during personal interviews either. With regard to the learners' future plans after matriculating, 225 of the 277 respondents (81.2%) indicated their intention to further their studies with 47.2% opting for enrolment at a Technikon and 39.9% hoping to gain university entrance. This may be in keeping with the high level of motivation evident in attendance figures specifically. Other reasons for attending the winter school were to improve their marks (94.9%) while many learners felt they needed to catch up their work (84.9%) as one learner admitted: *Winter school is very useful for those who are left behind and didn't pass their half yearly examination convincingly* (R53/01).

Neither parental coercion nor peer pressure seemed to have played a major role in the learners' decision to attend the winter school although one learner (R37/02) indicated that

[16] "The reason why Geography is a favourite subject for Black learners is that it is a subject that makes the world that they live in a 'real' world. Geography explains many things about the physical and cultural environment in which they live. It is thus a subject that is not largely theoretical, but rather a subject that can be applied in their daily lives, and is thus relevant" (M D Nicolau personal e-mail communication 29 September 2004).

she had been bribed with the promise of pocket money. In 2002, 20.8% stated that their teachers had made attendance compulsory while this figure dropped to 5.4% in 2003. It appeared from the written responses that most students were self-motivated: *This is the firsttime* [sic] *I attend winter school and so far so good. I think it should continue on* [sic] *helping the students like me who are keen on learning more then* [sic] *wasting time out in the streets* (R103/01).

Gauging the benefits derived from attending the winter school, 47.8% of Grade 12 learners indicated that their attendance had definitely been of value while 33.6% felt they had benefited to a certain degree. As respondent 50/01 stated: *Winter school I think is good because those people who teach us are very good. They don't want to see us failing because if you stay home you play, you will fail. Winter school is good.* Despite the support for the winter school, 18.5% of learners doubted the merit of having attended the televised lessons and their feelings are, no doubt, summarised in the words of respondent 67/01: *The winter* [sic] *is kind of boring, why because the presenter is fast when teaching. I prefer that presenters should come to our school and teach us face to face.*

To put the *TeleTuks* poor learner interaction into a broader perspective I discuss three studies in which frequency counts were also used. During a final observation at a community college in Iowa, interactions with the instructor during a 50-minute period were counted and recorded. Of the thirteen students at the origination site, six interacted at least once; one student asking nine times. Twenty-one interactions took place via microphone and eight without a microphone. There was no reaction from the remote sites that day although students there usually asked at least one question (McHenry & Bozik, 1995). This translates into a student response every two minutes. Lyons *et al* (1994) conducted frequency counts throughout a semester on an ITV system delivering a graduate course designed for teachers. The mean of thirty-six calls per 2.5-hour class with a mean course enrolment of 165 students translates into a student response every four minutes. Finally, a study (Oliver & Grant, 1995) with secondary school students comparable to *TeleTuks* averaged two or three real-time calls per week although off-air calls increased to ten per episode as the series progressed. Such active participation heightened the rarity of responses in my context.

From personal experience of teleteaching Grade 12 learners as well as a formal module at post-graduate level, I knew that few questions were asked during telelessons and my intellectual puzzle thus arose from this personal curiosity. An obvious starting point was to ascertain more scientifically the degree and type of interaction during broadcasts. In

order to tangibly verify the informal feedback by presenters that viewers were not interacting as freely as had been anticipated at the inception of this initiative, I asked presenters to complete a log sheet after each broadcast for a period of ten consecutive lessons *i.e.* a single academic term. They were also asked to do so during the winter and spring school broadcasts. The studio crew was to assist in this regard and ensure that the logs were returned. In the period 27 May to 30 August 2002, thirty nine instructional and five motivational episodes were transmitted while only eleven logs were completed, recording thirteen calls, ten of which related to the winter school presentations. This figure represents an interaction rate of 0.27% per broadcast. Personal communication with the various presenters confirmed the assumption that logs were only completed when a learner called in. As a control measure presenters of 2004 were also asked to complete log sheets for the period of May – June to include the winter school. Apparently no calls were logged. Table 4.3 displays a summary of the number and type of questions that presenters recorded in July 2003.

Table 4.3: Rate and type of interaction logged during the winter school (2003)

Subject	Type of interaction *	Number of calls	Purpose of interaction initiated by learner						Duration in seconds	Profile of caller
			Organise	Clarify	Elaborate	Repeat	Confirm	Other		
English	A	3		X	X	X			40	Male
	S	1					X		10	
Mathematics	A	1		X			X		120	SG pupil, female, Cornerstone College (Gauteng)
	S									
Science	A	4		X	X					Teacher and then learner called
	S									
Geography	A	4		X		X	X		60	Polokwane (Limpopo)
	S									Cornerstone College (Gauteng)

A = Asynchronous

S = Synchronous

The information represented in Table 4.3 indicates the asynchronous mode as the dominant type of interaction with only one call coming through during a broadcast. Most callers requested clarification or confirmation. The duration of calls was not excessive and learners from rural as well as urban areas participated. Interesting to note is the call

from a teacher although no indication is given that it was on behalf of the learners. The lowest number of interactions took place during Mathematics telelessons.

These poor levels of participation seemed to tally with the 2001 pilot study where 96.6% of the respondents had never interacted with the presenter and despite the apparent improvement during the follow-up surveys; a high proportion of the learners (79.0%) had still never asked a question during a televised broadcast. Data from variable 38 matched the presenter logs yet contradictory evidence was found in variable 54, where more than two thirds of the viewers (66.5%) participating in the questionnaire surveys indicated that they *did* have questions to ask during a broadcast. Data gleaned from the interviews substantiated the desire to ask questions although some uncertainty existed about procedure:

> *I have a question. If a presenter presents a lesson let's say, Mathematics and you have a question but the question is not on the paper. It's your own question. Maybe you were practising and you had a problem. Can you ask, like phone in, ask your own question?* (P1:39 249-252).

Learners specified that when they did ask a question, it related to academic content (instructional) rather than administrative matters (non-instructional). This was borne out by several persons as described by presenter M3:

> *… learners will very rarely phone in during the presentations themselves, but during breaks they inevitably phone in and express their appreciation and ask their questions. Questions mainly, … pertaining to "Please could you again explain this a little bit slower? Will you show us the sketch more clearly? Will you redefine this?" and that sort of thing…* (P13:4 47-54).

Encouraging explanations for *not* interacting telephonically revealed that several learners had no reason to ask, as they understood everything and the presenter explained well: *The lessons presented on the television are quite understandable so there is no reason for asking questions* (R25/01). Others were confident about their academic performance and felt they did not need revision:

> *My performance, I think it is quite satisfactory and you know when I see this thing… OK… Oh she's talking about this. Ag man, I'll be back. I'll just go downstairs. I'm coming back later. I know what she's talking about I know, anyway, you know!* (P1:122 552-555).

Even at sites where there was no telephonic link, my interview question, *If you could phone, would you ask questions?* elicited a typical response from learners who did not have access to a phone:

> *Not actually because I understand most of the work that he's talking about…, just to add on that, the lessons that we are attending there most of them we have already done them in class so it's just revision* (P1:302 102-107).

The learners described above, reacted as expected of mass media consumers *i.e.* they did not close the communication loop. This lack of feedback from recipient to sender would be considered impolite in direct and even telephonic communication. Yet since these viewer-receivers were satisfied with the message, they believed no reciprocal response was required. Similarly computer company analysts from North America were taken aback to discover that "Americans remain largely apathetic about interactive TV [which has been] driven more by corporate competition than consumer demand" (Jennifer 8. Lee, 2001). This resonates with Van Dijk and De Vos (2001) who did extensive research on commercial ITV and state that television audience research indicated a definite demand for passive viewing behaviour and that "… a significant proportion of present viewers have no need for interactive services in using their TV. Those who do, reveal particular social and personality characteristics" (p. 463).

In order to compare this interaction pattern with that of face-to-face classrooms, I asked learners and site educators to demonstrate or describe how learners would ask questions in class. It materialised that at the chalk-face too, few learners asked or commented and those who did were "*highly confident*" as site educator #2 elucidated:

> *Well, firstly you will find that those students who are highly confident of themselves they will ask questions, and it depends on whether they understand the work or not. And hmm ja, I would say those and generally you will get the same faces that ask questions all the time you know - ja, you get that sort of group of students that would definitely ask questions* (P18:11 211-215).

This reflects the situation in *TeleTuks*, as those learners who do interact seem to have sufficient confidence to do so, regardless of their English proficiency as exemplified by Learner M. Although her enthusiasm about the thrill of "being on TV" and placing herself in the spotlight, was not dampened by her garbled admission, it was not shared by her peers:

> *I think we just love asking questions immediately before we forget them, before maybe something happens. We just want to communicate with them or maybe having that thing of "I'm on air", "I'm talking to... "* (An Oh no! response and shy giggles from others) *I'm telling you exactly. Some of the people even mentioned that if* [Learner M]*, representing from* [site #3] *just let everybody know that it is on air, you know. It's* [Learner M]*, we love that thing! Hey let's know me* [sic]. *I'm here!* (P1:101 452-459).

Other learners indicated that they in fact only had questions later once they engaged with the work at home. This implies an asynchronous need to interact with the instructor while engaging with the subject material as exemplified in the following quote:

> *Most of the time when I have to ask a question it has to be like when I am giving a work to be to be done and maybe I don't understand the step, the step up to what I have written then. That's when I have to ask the question after I have been given a map to do then I don't know how to go on* (P1:56 110-114*).*

Asynchronicity is also a variable that decreases the degree of interaction (Borsook & Higginbotham-Wheat, 1991) but this obstacle cannot be rectified for the *TeleTuks Schools* situation, as no off-air support systems *e.g.* post-broadcast call centres are available.

As an overview of the interaction evident in the *TeleTuks Schools* project, I appraise it using the taxonomy of Maine and Riise (1995). Although this categorisation was developed to ascertain more accurately what the variables affecting interaction in distance learning education were, it serves as a useful summary of the rate and type of interaction encountered in this study.

With regard to the variable that the taxonomy labels *amount*, the frequency of interaction identified in this project, was irregular and of short duration. The *type* of learner response was equally divided between synchronous and asynchronous while the presenter fired a plethora of rhetorical questions. The variable *timeliness* relates to the efficiency of the communication system and here the *TeleTuks* systems design compares well to others with only a two-second audio delay by comparison to some systems that register four seconds before the presenter can respond to a caller's question. The *method*, or manner in which the message is encoded is a combination of voice or text. This implies that the viewers have the advantage of decoding the message aurally as well as visually while the presenter only has aural cues once a learner calls in. The lack of non-verbal communication for the presenter is more than limiting. The channel *i.e.* the means of delivering the message is satellite technology. When gauging the *spontaneity* with which interaction takes place, there was no spur of the moment exchange triggered by something in the presentation but interaction was highly regulated by the presenter and restricted to comfort breaks between slots. The only planned interaction embedded in the lessons was evident in Mathematics where learners were infrequently asked to complete calculations on their own. Some presenters did invite viewers to think about a discussion point but my controlled observation using a stop watch indicated that learners were given but a few seconds - insufficient time for any task to be executed successfully.

Several dimensions define the variable of *quality: Intensity* reflects the emotional involvement of the viewers and here it could be classed as high although this cannot be substantiated by measurable behaviour. Interview data suggest high levels of interest and enjoyment in the programmes with minimal negative comments. In all instances of observable interaction, the calls related to academic rather than personal issues. This tallies with survey data where 62.2% of learners indicated that their phone call was prompted by an academic reason and the balance of viewers (37.7%) who claimed to have made calls related to administrative matters. The *relevance* of these could, however, be questionable as the two live interactions witnessed on video tape created confusion and threw presenters off track - one was unrelated to the topic being discussed and the other was to point out a teaching mistake. *Depth* of interaction ranges from trivial to substantive. Since I judged that no cognitively challenging tasks were set and most presenter-initiated activity related to numerous rhetorical questions hopefully being answered by learners in their minds, this aspect is evaluated as trivial. (See Table 4.3 in *§4.2.1 Learner profile*). The *formality* was sufficiently appropriate with phatic communication on the part of the presenter creating a friendly rapport. This style was further evident in the use of invitational language and positive encouraging remarks. The *opportunity* to interact when so desired was poor to non-existent. In spite of a potentially large audience watching at one time, class size was not the reason why learners did not interact freely. Primarily the instructional design and technical inadequacies were restrictive.

4.2.2 Analysis of English oral proficiency

Apart from collecting more extensive data to substantiate the questionnaire survey, face-to-face interviews with the learners clarified some tensions evident in the questionnaire results and also afforded me a first-hand opportunity of assessing the oral proficiency of participants *in situ.* The actual interviews took place in an authentic setting *i.e.* the classroom in which the learners would daily have been taught, amongst others, English. Apart from their peers, the listeners in this context were two adults; the *TeleTuks* project manager and myself as researcher. The introduction of unknown role players added to the authenticity of the learners using English as a common vehicle of communication. In two cases, the site educator was also present. The environment was thus familiar but public. The semi-structured yet relaxed context was conducive to assessing their informal communicative ability.

As a researcher, I was encouraged by the rapport I managed to establish in the fifteen minutes (on average) I spent with each group. The reactions of these senior learners to my quips and antics mirrored those of the learners I had taught in my more familiar (White) teaching contexts. There was plenty of hearty laughter, many smiles, and general acceptance of me by the learners as a participant in the interview process. I report this as noteworthy since a relaxed atmosphere and affinity are particularly conducive to lowering what the linguistic theorist, Krashen (1982) defines as the affective filter *i.e.* the emotive or attitudinal state of the learner. Negative feelings related to lack of motivation, poor self-esteem or anxiety act as a filter and prevent the language learner from using the input thus hindering successful learning. This affective filter needs to be as low as possible in all educational contexts to enable learners to have the pluck to engage in oral transactions with others. Although there was some reluctance to speak, I did not sense resistance. Most learners responded spontaneously but generally offered short exchanges. A short turn consists of only one or two utterances and does not demand much of the speaker in producing structure (G. Brown & Yule, 1983). Although most Black South Africans have a broad linguistic repertoire, none of the learners I interviewed were speaking their first language, possibly not even their second. They were also being taught in English by educators for whom the latter language was not their native tongue either. Both learners and educators in rural areas would have limited opportunity beyond the classroom for conversing in English. Those persons living in the township areas are more exposed to English albeit a hybridised version of American slang mixed with several local vernacular structures and lexical items.

Upon my return from the field visits, I reviewed the cassette recordings several times while transcribing this particular data set myself. It is from these repeated aural renderings that the analysis was done. Sample recordings have been included as part of this thesis submission on a CD but contain what Brown and Yule (1983) term “smudged” (p. xi) or “blurred acoustic signal” (p. 24). This variation in sound quality is related to the size of the group as well as their willingness to speak up. In places, white noise became intrusive. I transcribed their speech verbatim and some paralinguistic features *e.g.* tone of voice, pauses and laughter, as I understood them. Different interpretations are possible and thus an attentive listener with a different agenda may produce a variation of my version. I acknowledge that the recording has primary status and the transcriptions are but a “reasonable interpretation of [oral] text rather than a correct interpretation” (G. Brown & Yule, 1983:24). They are also but a slice of the viewers’ experience and do not claim to be fully representational of their ITV experience.

I was intrigued that during the actual interviews I had understood what the learners were communicating without difficulty, yet upon reading the transcripts later their articulation into text of certain lengthier exchanges was poor and although they sounded fluent, the exchange was garbled. For instance, in answer to my question about learners' opinion of watching televised lessons, the following response here needs deciphering: *Hmm, I think that… that contact lessons on eh, especially not ask questions we must go so I think that we must ask questions personally* (P1:41 19-21). Another learner at the same site also braved more than a single word response, and added:

> *No, when they say we must phone and there's no contact … phone eh, like when you phone, there'll be like some days when you phone they'll find time and present the lesson solution and some days there'll be no time like maybe we'll be out (unclear)…like I don't know how to explain them, you know.* (Collective laughter) (P 1:252 25-28).

This lack of comprehension of the textual communication, may point to the importance of paralinguistics and immediacy behaviours that helped clarify the meaning in a face-to-face situation despite the learners' lean proficiency. This may tie in with the comments made by presenters who remarked on the frustration of not being able to see the persons they were communicating with and the resultant loss of information due to non-existent nonverbal responses (Rao & Dietrich, 1998).

Spelling as judged from the written responses as well as pronunciation was comprehensible and comparable with the average South African Grade 12 English Second Language (ESL) speaker. Although learners generally showed coherence in their expression, they were seldom able to sustain conversation and regularly offered single-sentence responses, at times even a single word answer *e.g. No*. A glance at the layout of the learner interview transcript (Addendum 21) clearly shows the imbalance of linguistic input by the participants and myself. Others used stilted, clumsy expressions *e.g. According to my opinion,* false starts, or non-lexical items like *uhhhm.* Exchanges were peppered by discourse markers *e.g.* so/like/y'know? The marker, *"you know"* was heard more often among township learners. There was barely any overlapping speech although on several occasions other signs of listener participation were evident. Joint spontaneous agreement or disagreement, often non-verbal, was regularly apparent suggesting that the learners were actively listening albeit not responding vocally. These learners displayed a limited ability to discuss a topic. It is possible that they were unsure of what constitutes an acceptable answer to open-ended questions or that they were accustomed to giving lean responses to teacher-initiated questions in the classroom. Closer analysis did, however, reveal that some of my unstructured questions limited lengthier exchanges. There were

several silences of longer than eight seconds where much prompting on my part was evident and in some cases a response was only forthcoming after I encouraged the learners to use the local vernacular. The current project manager, who served as a cultural bridge, especially in the rural communities, translated this for me.

At all sites learners misunderstood one or two of my questions and answered in an unrelated fashion causing me to rephrase at length before the appropriate response was elicited. Learners generally lacked socio-linguistic proficiency and at times, used contextually inappropriate language *e.g. What*? instead of *I beg your pardon?*[17] Furthermore the learners did not interpret my concluding an interview as a final termination but rather as a change in topic. For instance, my closing question *Anything you want to ask or last comments you would like to make?* led to several of them asking questions unrelated to the television broadcasts but important to their frame of reference *e.g.* requests for application forms (*I think you must provide us with entry forms from the University of Pretoria so that next year we can go there* (P1:183 897-898)), career guidance (*I will ask if they can give us a lecture of the guide careers* (P1:303 1528-1529)) and at one site a lengthy question and answer session ensued about the nature and demands of campus and city life. Their naivety of the world beyond their village and their mismatch in expectations regarding their future *i.e.* gaining exemption, applying for financial support, finding accommodation or choosing courses is singled out again in *§5.3.2 Mismatch as intrusive interference*.

Surprisingly, no clear distinction was evident between the proficiency of learners from township schools and those from rural areas in spite of my assumption that city learners would have greater exposure to English and television - a rich source of, especially US accented English. Those from the private school seemed more confident to speak and had longer exchanges but then that group only comprised three persons allowing for greater participation although one learner did dominate. When asked whether speaking or understanding English was a problem, learners collectively and emphatically denied this: *English is not a problem you speak, you speak* (P1:29 184) and motivated why:

Interviewer:	*Your own English - are you comfortable using it?*
Learner:	*Ja, Because it is simple it's not like English they use on the TV. (*P1:233 1620-1622).

An individual possibly venturing to respond on behalf of others contradicted this:

Interviewer*:*	*Do you understand the presenters? (*Hhmmm*) Sometimes?*
Learner*:*	*Yes, sometimes we do. The problem is English you know, people don't understand it. That's why.*

[17] *Excuse me* or *Sorry* are acceptable South African alternatives.

Interviewer: *And what language do you think you should be taught in?*
Learner: *Maybe Sotho, I mean some of us don't understand English and that's why most of us don't even ask questions in between because of the language. And fear too.*
Interviewer: *Why fear?*
Learner: *Fear of speaking the language (*giggles) (P1:140 643-650).

During an interview with rural learners, a site educator's exasperation about his matriculants' attitude towards improving their English was met with light-hearted protests from his charges:

> *And just to add more meat on what they were saying, the problem is not with the language. My dear students, I'm telling them each and every day. They have to improve their language. They're lazy, they're not reading newspapers, they don't want to improve they don't listen to English radio stations… I tell them day in and day out…* (P1:186 929-931).

Of the educators with whom I conducted telephonic interviews, only one succinctly described his learners' English as *Average ma'm, it's their second language* (P18:20 351) while the rest elaborated on their group's proficiency lying at the extreme ends of the proficiency cline:

> *The English senior learners use. I think we have sort of set a standard, and it's a higher standard, we've set a higher standard. They have managed to sort of live up to that standard and how we communicate with them, they've sort of learnt to reciprocate how we communicate with them. So the higher standard that we use, you know, they've learnt to sort of give back, to respond in that high standard. So I would say, I think they are in* [sic] *par with that and what's really expected, so they actually use that good English, acceptable English and they know how to differentiate between formal English and slang, so when they speak to us they use formal language, they use formal English…* (P18:15 267-276).

> *…the majority we have here at the moment is* [sic] *foreign students, not majority actually but the big group. So they still battling* [sic] *to catch up with the language, English. So they will ask any question pertaining to the subject as they don't understand English* (P18:25 476-479). *...We've got two sets, first the other ones they speak good English because they've been here doing English as their first language. Some they're speaking you know Portuguese English, the mixed English, so you need to know them in order to understand them, what they actually mean* (P18:28 512-515).

> *Look - since we're taking English Second Language, Higher Grade, I would say 80% of my learners are at quite a good level, I would say the average pass rate that I would receive would be somewhere around a B, with a few C's and maybe in* (unclear) *but out of the class I think I'm going to take seven to Standard Grade, I'm talking about my Grade 12s now* (P18:36 658-662).

Presenters, too, outlined opposing experiences when asked to comment on the use of callers' English. They had all interacted with proficient callers but had also had, on occasion, discouraging encounters as illustrated here:

> *... the first person, the one person that called was an English-speaking person from an English school but the second learner was battling a bit because I had to ask "Excuse me,*

> *I can't hear", she battled to express herself. After I asked about three times! She had to repeat herself and then I realised what the problem was* (P2:17 99-102).
>
> *… there's been one or two that have been able to express themselves very clearly and they're obviously on a level of Grade 12,… very much a Grade 12 level. Considering that there are pupils, the way they ask the questions, I would say above average, above standards. The others have been, you ask them to repeat themselves three or four times and you're still not sure exactly what they want…* (P11:5 68-81*). I think it's a language issue, it's not their first language, they're not fully competent in English and I have actually tried swapping over to Afrikaans, which is the other language which I can communicate with and sometimes that does help but not always. But I think it's a language issue* (P11:9 85-89).
>
> *... obviously the standard problem is many of our learners as you are aware, are not mother tongue English speakers, and that always creates a problem. But I can honestly state that I have asked the learners to repeat what they've said on one or two occasions, but that's not a problem, I could really understand what they are trying to ask, what they're trying to say, maybe I could not always discern what exactly the mathematical problem was, but not the language aspect itself, that's not a problem, you get accustomed to the pronunciation and that is not a major problem to me* (P13:16 179-186).
>
> [The language] *was English and what's more the language used was absolutely fine, I could hear they are a little bit nervous …* (P14:8 70-71).

Extended rapport with these learners may have bridged some of their reluctance to interact freely and possibly several more would have interacted and for longer periods. I emphasise that the analysis was exploratory and caution should be used in generalising to second language learners *per se.* Applying the assessment criteria to the data available, I would place the majority of learners who interacted during the visits within IELTS Band 3 or 4 (Table 4.4), with very few learners in Band 5. The provincial grid (GDE) seems to distinguish more finely between categories and also awards a percentage *i.e.* more norm-based than criterion-referenced. The descriptors do not readily match the respondents' interactions but I would assess their general spoken ability within the range of 45 - 55% (Table 4.5). This grid has only been used in schools since 2002 and may need revision. My assessment may also warrant further investigation. I have provided an extract from the comprehensive assessment grids that appear as Addendum 11 in Table 4.4 and 4.5.

Table 4.4: Extract from IELTS assessment criteria

Band	Criteria
5	Is broadly able to convey meaning on most general topics through errors in structure and vocabulary may interfere with communication. Can engage in extended conversation on most general topics, generally making use of relevant connectives and other cohesive features. Has some ability to use complex sentence forms and modifiers. However, has difficulty in presenting speculation and extended argument, while long and complex description or narration may lose coherence.
4	Can convey basic meaning on familiar topics. Can use common question forms to elicit information (though not necessarily with correct word order). Has control of basic sentence forms but longer utterances tend to break down. Can link simple sentences using the most frequent occurring connectives. Errors in grammar and vocabulary are frequent and may interfere with communication. Tentative use of modifiers limits ability to describe, give precise information or express attitudes. Pronunciation may often be faulty and impede communication.
3	Can convey only simple meaning on very familiar topics. Can answer simple questions and respond to simple statements. Has only limited ability to take the initiative with original statements and questions. Basic sentence forms appear to be used although grammatical errors are numerous except in memorised utterances. Essentially no ability to link sentences or use modifiers. Frequent pauses may occur as candidate searches for words. Pronunciation is likely to be strongly influenced by the first language and to significantly impede communication.

Table 4.5: Extract of generic criteria for Grade 12 oral assessment used by GDE

Category	Speech: Impromptu/Conversation
Good 60-69%	Able to discuss some issues competently. Listens to other points of view but may need some explanation; can argue own point of view on some issues. Courteous. Shows some insight. Good ability to argue in a reasoned, substantial, knowledgeable manner.
Average 50-59%	Limited ability to discuss range of issues. Listens to other points of view but may need some explanation, can argue own point of view but may be dogmatic. Not always courteous. Shows some insight. Shows adequate ability to argue in a reasoned, substantial knowledgeable manner.
Below average 40-49%	Limited ability to discuss issues. Does not always listen to other points of view. Explanation often needed. Can argue own point of view but may be dogmatic. Not always courteous. Does not cope confidently in a large group. Has difficulty when required to argue in a reasoned, substantial manner.
Poor 34-39%	Seldom takes part in discussions. Not interested in other points of view. Explanation often needed; can argue own point of view but often dogmatic. Not always courteous. Argues without really understanding the issue. Cannot develop an argument in a reasoned manner. Does not voice opinions even in small groups.

This biographical description has endeavoured to give the reader a sense of the learners' profile, their perceptions of attending ITV broadcasts and their participation during *TeleTuks* broadcasts, in particular. Before the second phase of the survey in 2002, I refined the questionnaire to investigate five topics of enquiry related to the presenter, technology, the viewers' self-esteem, their language proficiency and cultural perceptions. Question 10 asked the respondents to answer Yes/No to sub-questions starting with the lead-in statement: *I know I can ask a question but I don't because ….* The following explanations for not asking questions specifically relate to the learner as viewer and have been discussed holistically while matters pertaining to the presenter and technical

constraints have been discussed under separate sub headings. I now address three learner-related factors, which accounted, in varying degrees, for the lack of interaction.

4.2.3 Emerging theme: Paradoxical perceptions

As I analysed the data, I became aware of several paradoxes in the opinion Grade 12 learners had of their English proficiency as well as in the way the presenters viewed the Grade 12 learners. These opposing views added another dull noise in my head, out of sync with the rest.

Learner inhibition

Some viewers (25.8%) refrained from interacting as they were inhibited by shyness (*becous* [sic] *I am too shy to ask* (R98/03); or *Sometimes I feel like it's not a right question to ask, like a matriculant is supposed to know* (R15/03); while respondent 94/02 explained that *My voice is not loud enough.* Others seemed to admit to a lack of motivation:

> *I have got no reason for not asking questions* (R17/02).
>
> *I do not feel like asking any question* (R42/02).
>
> *Because I feel I am not concentrating enough to be asking questions* (R47/02).
>
> *Feeling very sleepy/bored – that I didn't even concentrate in class* (R56/02).

The last three respondents quoted all attended the same viewing venue but did not necessarily attend the same school. Their lethargy may have related to physical discomfort as discussed in *§4.4.2 Receiving sites: viewing venue*. Several learners (25%) were concerned about what their peers would think *e.g. I think thier* [sic] *will regard me as a slow learner* (R173/01) or as others dolefully explained*:*

> *I abtended* [sic] *in a class that is being oppressed by many student* [sic] *because our class symbol is Grade 12C, because is 12C those who are in Grade 12A they think they are better that is why I don't ask question* (R185/01).
>
> *Sometimes they do laugh, you turn out to be the fool, you know. I don't know why that person didn't call but that is sometimes the case why people don't call in 'cos they afraid their English or maybe they said that the lecturer's gonna* [sic] *think: "Ag, what a dumb question? I cannot even understand", you know, that kind of thing! Man, what a dumb question why do you have to ask me this? You know, it's pretty obvious ...*(P1:293 495-502).

Two presenters shared this perception of peer approval being a determinant:

I'm not sure, I think maybe it's a bit of intimidation… maybe they think the question is stupid or maybe it's a silly question, not that there is any silly question but I think they feel slightly intimidated by the technology and that their name would be mentioned and maybe it was not such a bright question or, particularly amongst the teachers, the students don't mind it to an extent, but the teachers don't want to be identified and they don't want their schools to be identified. That's something that I have found … (P11:2 37-44).

… also lack of confidence on their part - not sure whether their question was 'valid' or that they might to be ridiculed by their peers or comments from this "remote expert" (P7:8 46-49).

Although learner inhibition was not a surprising hindrance as learners in this age group are exceptionally self-conscious, the reluctance of some to speak in front of others could suggest a doubtful English proficiency as exemplified in the following exchange:

Learner:	*The problem is English you know, people don't understand it. That's why* [they don't phone in]…. *I mean some of us don't understand English and that's why most of us don't even ask questions in between because of the language and fear too.*
Interviewer*:*	*Why fear?*
Learner:	*Fear of speaking the language* (giggles nervously)
Interviewer*:*	*But why are you scared of the language?*
Learner:	*Hoe, I don't know why . I don't know why. They don't talk, that's why they are afraid* (P1:138 643-653)*.*

For others it may have been a combination of embarrassment and limited English as both a site educator and a peer attest*:*

Learner:	*What I've noticed with them, they lack confidence most of them, they don't feel comfortable asking questions in front of others, that's what I've noted. With asking questions from the teacher live, they normally ask me* [site educator] *to stop the teacher on their behalf, they won't do it themselves. So they will ask me to stop the teacher then they will come into the picture, they will come and ask the questions.*
Facilitator:	*Do you think that just relates to their language, or is it also self-esteem?*
Learner:	*I think self-esteem and language* (P18:26 487-497).

OK, this time also of Biology lessons I was talking about and he wants to ask a question but then this guy says: "No man, I can't ask a question. I don't know English", you know, but he was afraid that the other, the other group, the group would laugh at him, you know. That's the thing and that's why people don't call (strong non-verbal agreement from group) *He said, "No, man, I don't know English. You are gonna* [sic] *laugh at me", you know. It's the same with, ja, that's the thing* (P1:104 465-475).

On several occasions during the various interviews, learners expressed reluctance to interact because *everyone hears you. (Who hears you?) People from other schools* (collective answer) (P1:112 509-510). They had also understood the *TeleTuks* channel to be an open one with *the whole of South Africa watching* (P1:306 1143); an erroneous

assumption that not only would they be heard but also seen, unwittingly emphasising the visual nature of television.

Cultural reticence

I use this phrase to mean the pervasive influence that a particular social tradition or belief may have on the public expression of opinion by say, children or women. Their unwillingness or reserve in speech may be dictated by particular codes of behaviour and cultural customs. The Latinate origin - *to keep silent* - is also pertinent to the understanding of the term.

Apart from factors that pertained to the self-esteem of learners, I also investigated cultural perceptions of initiating questions as a minor to an (adult) authority and included questions that related to such possible cultural constraints. I sought to compare perceptions related to viewers' cultural attitudes and traditions regarding teaching and learning as had been identified during surveys with adult learners. These persons had indicated that not only did asking questions waste others' time, but challenged or embarrassed the presenter (De Vos, 1999; Motsau, 2000). In my survey, 18.1% of Grade 12 viewers felt that the presenter might feel insulted if a learner asks a question because it shows the presenter has not explained well. Only 9.4% felt that they showed respect towards presenters by not asking questions. A female learner who inquired of me whether *maybe the presenter wouldn't feel like you are disturbing the lesson or something* (P1:40 261-263) may have vocalised what 27,9% of the learners felt: It was impolite to interrupt the presenter by asking questions. The word *interrupt* as used in the questionnaire was possibly ambiguous as interrupting someone who is speaking, is universally considered rude; while asking for clarification is considered vital for effective communication and comprehension as exemplified by the remarks of other learners:

> *It's OK to ask, to ask questions when the (*unclear*) It's OK to ask questions because the presentator* [sic] *knows that that person is listening. Sometimes you've got a problem you can ask so that you can solve that problem* (P1:32 192-195).

> *Asking a question after maybe a teacher's talking, it simply means that you are listening and you have got a problem and it's hard because she explaining to you so I don't think it's an interruption* (P1:61 170-173).

> *I think that asking questions are* [sic] *a good thing because sometimes we, sometimes we actually may find a problem with something so whenever you don't understand you have to ask questions so that they can explain again to you* (P1:63 185-188).

During the interviews, I recounted our concerns about low reciprocity by sketching my teaching context with the post-graduates and explained that:

> *The adults filled in the questionnaire and they said culturally, in other words, in Black adult culture it is not the right thing to interrupt the presenter. They said it is not good to ask questions because it looks as if I haven't explained properly and then I will feel bad. Give me the younger generation's view? Is it a problem to interrupt me and ask a question?* (P1:307 164-166).

Learners - even those in rural areas - refuted these perceptions unanimously and were vehemently vocal in their denial. The most talkative of all the learners interviewed, clarified their point of view:

> *OK, the younger generation, according to me, we love talking! We like communication, you know, so with us maybe it's the western culture or maybe the way civilization has grown with us, you know. I think we just love … asking questions immediately before we forget them, before maybe something happens. We just want to communicate with them.* (P1:101 450-455).

Such views were sharply juxtaposed with those expressed by the (White) presenters who, without exception, remarked that one of the reasons for poor interaction was that Black learners have been sensitised culturally not to interrupt when an adult or authority is speaking. Introducing the theme of dissonance at this point, racial assumptions echo in the following:

> *All right if we think about the schools that we are teaching, I think it's a cultural thing. Because I don't think they want to ask questions, I don't think they .., how should I put it, it's in their culture not to inquire and to ask many questions where somebody else will, even if you look at Afrikaans and English, the English child will ask a lot more questions than the Afrikaans child. It's the way they've been brought up. Maybe there's been a lot of change recently but I think it's still an inborn thing, they don't ask because it's in their nature not to ask* (P2:58 39-46).

> *I think the first* [reason]*, the most important is the culture of learning that has been in the Black schools and to some extent, if you will forgive me in the Afrikaans schools, where the children are supposed to sit and listen and the teachers get quite annoyed if they are interrupted. I think there is this culture that education is to give these empty vessels something to put in their brains and I think that's been with us for many years. My experience of teaching Afrikaans students, post-school students, tertiary school students. My opinion of them is that it's very difficult to get them to ask you a question, because they've also come out of a school system that is fairly rigid. I know that one of the big thing about OBE is to try and break down this pattern of the teacher is there just to give information to the class and the class must absorb it and give it back in a test. So you've got that whole culture of "we must just listen". I think that's part of it, the idea that the teacher is the authority figure, you don't interrupt, it's not polite, it's not what we do, that's the one thing* (P3:5 46-60).

> *… the only thing is many of our rural learners are still hesitant to ask questions, a cultural thing. But as time goes by that will probably change and quite considerably…*(P11:4 164-165).

> *Yes, that it is disrespectful to question. As if to say the teacher is supposed to be perfect so if I question the teacher I'm saying you're not perfect or you're not a good teacher. Maybe because of their backgrounds they feel whatever we tell them is correct and they don't want to question us, it's possible, what else can I say?* (P14:17 132-136).

Not only are these views patronising but they also suggest the lack of background knowledge that the presenters have about their target audience. Due to the historically segregated education system of South Africa, these White perceptions are based on limited experience of teaching Black learners face-to-face and plenty of parlour myths. These false assumptions have possibly been perpetuated by the reality of past Apartheid generations where the oppressed dared not speak up or out against the oppressor as faintly echoed in this educator's response to whether learners should respect the teacher by not asking questions:

> *That culture has changed dramatically. They are now free, there is no more corporal punishment, and we have learner representatives and… learners are like friends to us you know, they ask questions, they do this and that, and we allow that, that fear has long being eradicated* (P18:19 340-343).

White perceptions could also be based on the traditionally strong oral culture prevalent in many indigenous cultures *i.e.* listening (without interruption) to the elders telling your history and mores (Leshoai, 1983; P. Miller, 1979).

I used the individual telephonic interviews with educators to triangulate the findings of learner and presenter data. All five educators of varying ages dispelled the myth of not being allowed to initiate interaction with one's superiors. They all explained that educators encouraged questions during class and that learners asked spontaneously. Although I questioned the educators about the rate and mode of class participation, I have not presented their responses here, as they were too speculative. Site educator #2 gave a detailed description of his learners' face-to-face interaction with specific reference to asking questions:

> *But then asking questions, I think things are changing now, I've noticed that in my class they feel free to ask questions, it's simply because I allow them to ask questions…*(P18:49 243-248)…

> *Okay the interaction in class. I would say we've got, I've got again a class of extremes, you know. I've got learners who are totally free, totally liberated to express their opinions and to ask questions and look, they are open, they are extroverted in my class. OK - You could say in certain instances they are quite confrontational, but then there are learners who are totally shy and a bit timid and I would say they are totally inferior in class and therefore they don't ask questions and they don't do well. You know, they don't do well, but again they need the courage to actually ask questions, but simply because they believe that they are totally inferior OK? and I think that sort of impedes them, impedes their development and their learning .., and that's one thing that I've really noticed, and I've learnt to accommodate them I've learnt to, you know, talk to them during breaks and after school. ja, you know, and I think that's part of interaction (*P18:18 309-321)*…. generally I think in my class learners really ask because they want to know, they want to understand, they fail to understand, but if learners understand everything, then you know you won't get a lot of questions but I don't think exception of that but you know it's real, it's genuine, they*

> *want genuine answers and they want genuine information and I think what they do is quite genuine, they don't do it to spite the teacher, no!* (P18:14 257-262).

Other site educators explained:

> *I think that is an old tradition because it would be very much useless if I simply present. At the end of the lesson, I go out of the class, I give them homework, tomorrow we do the corrections. So it's a good implication* [sic] *that if a learner does interrupt, I will ask the question and there is a point she couldn't grasp and then as such she wants to understand that. So I don't see anything wrong in them asking questions during the presentation* (P18:2 41-46).

> *You want to know my viewpoint on that one? Definitely! I always encourage them to interrupt, challenge, I like challenging because it's like a discussion, that is what I usually encourage* (P18:34 644-646).

The educator interviews had shed more light on the matter of interaction with specific reference to that taking place in face-to-face situations as well as their learners' English language proficiency and it was undoubtedly clear from the (Black) educators and learners alike that culturally there were no constraints inhibiting them from interacting with adults provided the norms of politeness were adhered to as suggested in this quote: … *if the question that's really asked with a tone of impoliteness, then obviously the teacher would reprimand and take exception at* [sic] *that* (P18:14 255-256).

Language matters

The intended pun underscores the pivotal position that language usage commands in any instructional situation. In addition, the focus on language issues arises from the fact that the preferred language of instruction, particularly within Black communities, is English - regardless of the learners' proficiency (Mkabela & Luthuli, 1997). This, despite the South African Constitution recognising eleven official languages as well as school-governing bodies having the jurisdiction to decide on the language of instruction. Responses pertaining to language issues have been clustered and foregrounded as this was the primary lens through which I had been looking at the data. Initially I planned to translate the questionnaires into a regional majority language allowing the respondent a choice between English and a more familiar language, but the pilot study done in 2001 clearly indicated that 85.4% of respondents preferred English as the medium of communication (R. Evans, 2004). To place the ensuing discussion regarding English proficiency into perceptive, I offer a site educator's words to best describe the proficiency range of learners participating in this study, followed by a generic language profile of these learners:

> *I would say we've got extremes, it's* [the school] *got those which who are highly learned and much knowledgeable in terms of the vocabulary but then on the other hand we've got those who really need extra help and that hmm, perhaps need extra help and some whose expression is rather clumsy, you know, it's just a school of extremes, I would say* (P18:16 281-285).

With reference to the language spoken most often at home to parents or caregivers, Northern Sotho (50.9%) had the largest representation followed by Tswana (19.4%). Tsonga, an official but minority language had 15.1% while Zulu (6.8%) was the only other official language with a noteworthy population. These language proportions are in keeping with the regional representation of the respondents. Five respondents (1.8%) indicated English or Afrikaans respectively as the *only* language spoken at home while one spoke Chinese and one Portuguese – both these languages having a fairly large population in South Africa but no official status. A fifth of the respondents (19.4%) claimed they spoke both English *as well as* a vernacular to their parents or caregivers. A substantial change is evident in the languages spoken to their peers, in that 58.4% claim to speak English resulting in a sharp usage decline of the vernaculars. Table 4.6 indicates the percentage usage of languages spoken by Grade 12 learners within their communities.

Table 4.6: Languages used by Grade 12 learners within their communities

Languages	% used with parents/caregivers	% used with peers
English	19.4% (in conjunction with a vernacular)	58.4%
Northern Sotho	50.9%	33.9%
Tswana	19.4%	19.4%
Tsonga	15.1%	9.6%
Zulu	6.8%	6.4%

Although three-quarters of the target population (73.6%) exclusively used a vernacular for communication within their own communities, the majority of respondents would still have preferred to answer in English even if they had had a choice of language in which to complete the questionnaire. The 2003 survey results alone indicated that 91.5% of the respondents wanted an English questionnaire. I now turn to discussing the learners' perceptions of their English proficiency.

Historical and geographical reasons dictate that schools involved in this study still have exclusively Black learners enrolled. They would have very infrequent dealings with mother tongue speakers of English and at best a limited exposure to televised (American)

English-speaking culture. They may thus perceive themselves to be fluent speakers of English by comparison to their parents or caretakers but in actual fact, speak a "township lingo".

I formulated Question 10 of the survey using a lead-in statement with subsidiary sentences to which respondents could answer affirmatively or negatively (Table 4.7). My intention with this question was to glean definitive data related to the variable of English language proficiency. Taking 20% as an arbitrary cut-off, almost a fifth of the target population doubted their English language ability with regard to vocabulary range and accent while Respondent 04/03 claimed that *I think I am not fast in English talking to someone on the transmission* [sic]. This endorses the 44.1% of respondents who felt that their English fluency was lacking and that they could not speak English fast enough to ask a question during a broadcast. A third of the Grade 12 learners (31%) who participated in the survey refrained from asking a question because they were concerned about making grammatical errors. Some 19.2% would have preferred to write down their question so that someone else could ask it and a considerable number (53.8%) indicated a preference for asking questions *after* the broadcast had ended as Respondent 22/02 felt *it is better to let the presenter to let the presenter* [sic] *talk then write down your question and ask later.* More than a fifth of respondents (27.2%) preferred writing down a question and then using electronic means to transmit it to the presenter. Table 4.7 reflects the responses of learners to sub sets of the question related to their oral proficiency in English.

Table 4.7: Learners' perceptions of their English proficiency

Statement: I know I can ask a question but I don't because ...	**Yes**	**No**
I am not sure what the right English words are	19.2%	80.8%
I cannot speak English fast enough	44.1%	55.9%
I do not think my English is good enough to ask questions	22.9%	77.1%
I do not understand what the presenter is saying	13.0%	87.0%
I express myself better in another language	47.7%	52.3%
I would rather ask questions after class	53.8%	46.2%
I would rather write down my question and ask someone else to ask it	19.2%	80.8%
I would rather write down my question and fax or e-mail it	27.2%	72.8%
Maybe the presenter will not understand my English accent	18.4%	81.6%

The admission here was that they lacked fluency, expressed themselves better in another language and preferred asynchronous interaction. It is not clear whether asynchronous, anonymous interaction was a preferred mode or whether it related to self-esteem, or even

perceived language proficiency. On several occasions during the interviews, learners switched over to their mother tongue in order to express their thoughts. A site educator on one occasion admonished the Grade 12s for using their mother tongue rather than English:

> *And even when they're in class themselves in an English class they use too much of L1, Even when they go home with their friends I tell them when you meet your friends when you want to tell your friends use the L2* (P1:187, 935-938).

The following communicative episode describes not only learners' notions of how they learnt English but also indicates their relatively poor discourse proficiency, despite simplified researcher questions. It may be assumed that those who spoke believed their English to be acceptable enough to be recorded in this edited passage from Primary Document 1, lines 1374-1401:

Interviewer:	*OK, Where did you learn your English?*
Learner A:	*What?*
Interviewer:	*Your English? … to speak your English. Where did you learn that?*
Learner A:	(inaudible response)
Interviewer:	*Do you speak English to your friends?*
Learner B:	*I learn English, English at school and I read magazines and newspapers.*
Interviewer:	*OK the newspapers. And you, you where did you learn English?*
Learner C:	*At school and even though when I'm home when I'm talking to my parents, or my friends, even in the class when I'm talking to my learners.*
Local teacher:	*Is it important for what* (inaudible)?
Learner D:	*Yes, It's important because they show us everything that we don't know and we gave something in our mind.*
Interviewer:	*And your English?*
Learner E:	*I learn English by watching TV at my home and by talking to my friends at the school. That's why I understand. My teachers who teach us English there where I understand that English, that's how I learnt English.*
Interviewer:	*Do you speak English in Maths or do you use Northern Sotho when the teacher teaches you Maths?*
Learner E:	*I think sometimes we use Sotho but most time we use English.*
Interviewer:	*OK and are you supposed to use English or is it OK if you use Northern Sotho?*
Learner E:	*No, we must use English.*

Several learners preferred their mother tongue but conceded the importance of English for post-matric purposes, especially with regard to employment opportunities as evident in the following suggestion:

> *Let the TeleTuks not* [sic] *presented in Northern Sotho because next year we are going to tertiary institution and there's no somebody who can said to us in our mother language* [sic] (P1:143 656-658).

Another learner added*:*

> *We do not want to… to know only our languages because next time we will meet some people with other different languages. We must use English as a communication language* (P1:146 664-666*).*

It is however, discrepant that while the majority of respondents (85.4%) indicated a preference for completing the questionnaire in English, almost half the respondents (47.7%) felt they would be more confident using the spoken form of their first language publicly during a televised lesson. By the same token in spite of their claiming to speak English to friends whose proficiency is perceived as superior, it does not appear to be ameliorating theirs as reflected in the following declaration:

> *Ja, like my friends are like from model schools*[18] *and they used* [sic] *to speak English like when I'm around them I like have to like talk like speak the way they do so that I can speak English* (P1:247 1717-1719).

The survey was but the introductory phase of my qualitative research project and the quantitative data only hinted at limited English language proficiency as a key explanatory variable. Other forms of data were used to evaluate the learners' oral proficiency in English, the primary being the two standardised oral assessment rubrics described in Chapter 3 coupled with my experience of assessing ESL learners for examination purposes. Comments made by the educators about the learners' English supported my ultimate findings. Subsequent research illuminated issues relating to face-to-face interaction and spotlighted the extent to which English, the language of instruction, was another barrier to (synchronous) interaction. Actual oral exchanges indicated a willingness to speak although with lean expression. Here too, there seemed to be a mismatch between the learners' own perceived proficiency and actual performance. In order to contest the oral data more scientifically, I analysed the learners' contributions.

In this section I have reviewed findings related to the learners with specific reference to their English oral proficiency offering comments made by both educators and presenters. My personal assessment of their output was made using two grids and while there was more conclusive evidence of limited English than offered by the pilot survey, it is a tentative finding and I cautiously suggest that language proficiency is a cause of reticence, possibly only subsidiary. In the next section, I address the second category, presenter-related factors and provide the learners' perspective as well as that of the presenters

[18] As part of the transitional process to democratise the RSA education system, schools were classed based on the percentage government funding received. Model C was the label given to former White state schools that received full governmental funding but were to be racially integrated henceforth. Despite steep school fees, many Black parents chose to send their children to these schools owing to superior resources and well-trained teaching staff rather than to township schools. Learners attending such schools are generally envied by their peers. Such classification of schools no longer exists.

themselves. Using a narrative style, I also offer my experience of watching a selection of their videotaped broadcasts. Thereafter I discuss in detail the actual lesson designs and comment on the presenters' lack of understanding of ITV and its interactive properties.

4.3 Presenter as initiator of communication

It appears as if so much of what constrains interaction is linked to presenter-related factors rather than only learner inhibitions or linguistic shortcomings as initially thought. In this category I provide evidence of how the learners experienced the presenter and offer a personal account of viewing many hours of videotaped sessions in the form of a "self-vignette". I also discuss planning and presenting telelessons from the point of view of the presenter while highlighting certain difficulties. I conclude by pointing out that despite many imperfections in the *TeleTuks* system, presenters had a positive attitude towards ITV and were supportive of these remote learners.

4.3.1 Presenter profile

During one interview, my suggestion that possibly the learners' hesitancy to interact related to the fact that only one presenter represented the target audience's racial identity struck a chord with the respondent who related whiteness only to skin colour and accent rather than a holistic identity. The following response also erroneously implies that interaction will improve if learners could identify racially with the presenter:

> *Very definitely that's part of it. And also even if they can't see, even if they couldn't have seen my face, my voice would have given me away in any event. It's very definitely the fact that we need black presenters then we can get to that question* [of improving interaction] (P13:6 66-69).

On the other hand, this misalignment of presenter-viewer identity, was not problematic for a site educator who responded with:

> *I don't have a problem with that, I would have a problem if they were unable to articulate or to present their subject matter as expected, so I think they were pleased with the presentation because the guys are knowledgeable and so they are well prepared to present any form of a lesson …* (P18:7 103-106).

Five of the eight persons interviewed are native speakers of English although the other three have native tongue proficiency in their second language; noticeable primarily in

accent and at times linguistic slips *e.g.* write *legitimately* instead of *legibly* (P12:27 256). I have presented as detailed an overview of the presenters as research ethics permit in order to maintain anonymity in Table 4.8.

Table 4.8: Presenter profile

Subject presenter	Gender	Age*	Period of involvement	Academic background	Mother tongue
E1	F	40+	2002 - 2004	Secondary school teacher	Afrikaans
E2	F	60+	1996 - 2002	Higher education	English
E3	F	45+	1997 - 2002	Secondary school teacher/ part-time lecturer	English
M1	F	45+	1997 - 2001	Private tutor	English
M2	M	55+	1996 -1998, 2002 - 2004	Higher education	Afrikaans
M3	F	30+	2002	Secondary school teacher/ part-time lecturer	English
S1	F	60+	2001 - 2004	Private tutor	English
S2	M	30+	2002	Higher education	Tswana
G1	F	40+	2002	Higher education	English
G2**	F	65+	1996 - 2001	Higher education	English

* increments of 5 years

** electronic interview

Presenters were willing to participate in this project and managed to stay enthusiastic although personal and professional commitments did result in two presenters withdrawing after only a few broadcasts:

> *Ja, I must say I've been enjoying it a lot, and it's been a good experience, I've learned a lot. I just hope, my wish is, that they really benefit from the lessons but then again I feel - Will I ever know?* (P2:41 201-203).

Although gender and race representation may not have been favourable, the collective teaching experience of the presenters was notable.

4.3.2 Asynchronous analysis of videotaped telelessons

In order to cast light from another angle, I now offer my personal observation of the presenters as essential role players based on their telelessons and interview data. By the time I interacted personally with the presenters, I had already viewed the video-taped

instructional episodes and was thus able to triangulate their responses with my own analysis and the learners' comments. Their contribution has been integrated in various sections of this chapter while a detailed descriptive analysis of their live broadcasts follows.

The primary mode of content delivery during each *TeleTuks* broadcast alternates between traditional "talking head" explanations and any visual material the presenter uses to clarify concepts. As already explained in Chapter 3, I had intended focussing exclusively on the interactive turns, which I anticipated would take place during broadcasts. However, the level of presenter-initiated interaction was so low and I changed strategy. Since the learner-initiated interaction I witnessed was limited to two callers I heard and judging from on-air presenter comments, two viewers who had apparently called asynchronously during the break, I decided to do a global evaluation of the televised learning event focussing on the lesson design and communication skills, looking at instructional design aspects as well as pedagogical principles (Addendum 23). For this analysis, I relied on my own practical experience of teleteaching and training as well as many years of teacher performance appraisals. A colleague critiqued my own presentation.

I have integrated my experience of viewing 24 broadcasts into a single personal narrative documenting the varying degrees of success and frustration. This "self-vignette" is neither an idealised version nor a chronological rendering, rather a subjective and selective account of a viewer's perception of a condensed reality. As Reissmann in Huberman and Miles (2002) puts it "All forms of representation of experience are limited portraits" (p. 228). I have entwined my own thoughts with narrow descriptions of the actual events that took place in each broadcast, adding authenticity by quoting verbatim from the visual text. To extend the cinematic metaphor, this account could be equated with post-production editing, the suite being my cognitive processes shaped into typed text by the technology of my computer, the numerous hours of viewing condensed to a few pages of tight description read within several minutes.

From this point forward, a stylistic adjustment in my writing ensues as I report the collection of video data in the persona of viewer thereby attempting to share with the reader some of my experience of watching the screen in a similar fashion, as the Grade 12 learners would have done. This is an attempt to approximate what several authors (Donmoyer, 1990; Merriam, 1998; Patton, 1990) suggest is a characteristic of effectively reporting a case study *viz.* providing detailed description of particulars in order "to afford the reader the vicarious experience of having been there" (Merriam, 1998 p. 238). My

personal stream-of-consciousness narrative is interspersed with presenter discourse that has been italicised and reported verbatim:

> It's raining. Most conducive to video watching! I snuggle under my African print duvet. Mug of tea steaming and clipboard poised. Remote control on hand. All set! Click… pleasing blue screen announces in white font that shortly I will be viewing Maths presented by XYZ and the topic we'll cover is Sequences and Series. Up-beat synthesised music creates further anticipation allaying some of my apprehension about Maths not being my strong point! The presenter appears wearing grey that offsets well against the bright rural backdrop. Perhaps her hair is too big? She announces the lesson topic*. Now perhaps for a number of you, you haven't as yet touched on this section, but don't worry about that, it's good for you just to listen and to take in whatever you can.* Can one master Maths by a process of osmosis? Within the first minute she suggests that viewers phone into the studio with any questions. *And of course I'd really love you to phone in with some questions or even questions of your own and we will have a look at those together as we go along. Try to work out the questions with me as we go along and see if you can work out exactly what we are doing. And please don't hesitate to phone me and if you do want to ask something. Right, let's begin by having a look at two different types of sequences. Let's look at these two. If we have a sequence 3, 8, 13, 18,* … She starts to explain the difference between geometric and arithmetic sequences. *You can see the pattern, can't you?* She speaks at a steady pace with a clear RP accent. Her handwriting is legible and the neat layout on the Elmo camera is well planned. However, unfortunately, the technician has not set up the overhead lighting correctly and her shaggy hair casts a distracting shadow across her written explanations. *Let's look at last year's paper. Does this question tell you what type of sequence we've got?… All right everyone…* And on she goes with a clear, logical explanation! I had barely managed to read the question, let alone think about the answer! She regularly breaks eye contact to look at something to her right. Having taught in that studio, I know it's the studio clock! The technicians should pick up this annoying severance of audience contact and reposition the clock! They ought to also be quicker to change camera angles. Her regular use of Maths jargon makes me wonder how many other viewers know and understand the concepts. *This looks a bit scary to solve, doesn't it?"…*
> *" Can you see the sequence is heading down to zero?* Why doesn't she ask the technicians to at least show the calculator while she makes the calculations? *We're busy here with a mix of Higher Grade and Standard Grade work… See?* I find this a bit confusing. Perhaps she should have differentiated more clearly what was expected at each level*. That will give us our difference, won't it? All right everyone? What do we do with these logs?* Her animated explanations and chatty style appear to invite interaction with the content but she never allows sufficient pauses for me to do the calculations along with her and check my answer! Not surprising no one phones in – there's just no time unless you want to miss part of the explanation! I am following but I need to really concentrate. The shadow her hair casts on the white paper she is working on is a bit bothersome. Why do the technicians not re-adjust the cameras?? *Do you remember your log laws? … You can combine them, can't you?… We want to work with exponents, don't we? We can anti-log, can't we?* She really needs to give us more think time before answering her own question or proceeding to the next step! She does not speak fast but needs to provide more links between her explanations. *So the arithmetic sequence has what we call a common difference and that's very important. Let's look at the next one. Are we adding something? … So that is the most important thing about an arithmetic and a geometric sequence. The one has a difference, whereas the other one has a constant ratio. So what we're going to do, everybody, as we go along is, we're going to make a table of characteristics and formulae that we use with our sequences and series. And I hope that will help to build an overall picture of the sequences and series. So the first thing that was important was that they have this particular characteristic don't they? The one for the arithmetic is that it has a common difference, and remember, we get that difference by saying term 2 minus term 1 or term 3 minus term 2. The geometric has a constant ratio and we get the constant ratio by saying term 2 divided by term 1 or term 3 divided by term 2. Okay, that's our first thing that we're going to put into our little table is*

the characteristics of the different types of sequence and series. Alright, one other thing, what I would like you to remember is that if we have a sequence… The camera needs to adjust more often to accommodate her animated explanations rather than just focusing on the paper with her faceless voice!…. *So remember this law, everyone…. I'm sure you'll agree with me…."… "If you're struggling, do phone in. It is a tricky one!* I am surprised when the session is over as it wasn't too tedious. She again invites viewers to phone in during the break. I wonder if any will? I'd phone to suggest that she pauses more often! The red, blue and gold university logo invites me to stay tuned, announces what topic is to follow as well as the studio number to call if I have any questions. The same signature tune plays.

*** *** ***

I settle in to watch another Maths session. The screen states that we'll be working out short questions from the national exam paper. The music is becoming repetitive. I've made some more tea. I wonder what the kids did during their break? Ah, here we have a particularly well-groomed presenter! His burgundy jersey is a good choice for the camera. Pity he's so nervous - a smile would help me feel more motivated. *Hello boys and girls and teachers out there!* He announces a change in channel for the next day's broadcast and invites the teachers to phone in if they have any questions. Most odd! *Maths is really fun; it's enjoyable… see if you agree! Let's look at the three graphs here*… He explains that he has five sums to do and requests us to do them with him. He does not speak fast but never seems to take a breath! I lose him within minutes. He explains the steps as fast as his thinking allows. There is no way that I can even think to keep up. I am still trying to remember what a parabola looks like let alone what an absolute value graph is! *Now let's solve this! Boys and girls!* (How on earth can he call eighteen and nineteen year olds "Boys and girls"??? This is most inappropriate!) *Let's draw a graph here. A student who understands graphs will do well, so make 100% sure that you… Boys and girls, always have a very neat system of axes* (Doesn't use a ruler himself?!!) *I hope everybody is doing it with me! This is a very important concept to grasp! Now let's quickly see what happens here…Let's quickly test this….* He starts an explanation and then digresses. *Now boys and girls, it is VERY clear…!* (to him -yes!) *What do we find? Low and behold, the red value is smaller than the green one! Boys and girls, this type of reasoning is EXTREMELY important! Make sure you can do it!* Lots of extraneous English; too much for a second language speaker's ear to process. *Right, we have 12 minutes left so let's quickly look at #3! It's very easy* I do not share his view about Maths being easy. RUSH! RUSH! RUSH! RAMBLE… RAMBLE… RAMBLE… He is, however, well prepared and keen to share his love of Maths. *Boys and girls I truly hope you are enjoying this! I am enjoying this a lot!* (first hint of a smile) *Let's look at next sum! Read this very carefully you have to know your theory!* (I cannot see what he has written – too small. The green and red pens he is apparently using do not show up on the screen.) *Now let's solve this! ….* His explanations don't seem to have a purpose. I presume he believes he is doing revision thus assuming all viewers have already covered these aspects of the syllabus. He does not tie these activities down to typical exam questions nor make them applicable to real life. All is so abstract. In actual fact, I don't even know whether this is Higher Grade or Standard Grade work? I hear English but understand none of the reasoning. He interrupts himself again and goes back to a previous point. How many Grade 12's are benefiting? Even pausing for just two seconds between sentences would allow for easier cognitive processing!! *Boys and girls! It doesn't matter what you do. Whichever way you prefer*. (I don't even know what to do l*et a*lone the preferred way?!) *Now let's quickly see what happens here …. …Our next sum! Before the break I think we have time! …. Let's quickly test this …. Is that clear to everyone? I'd like you to try and do that on your own but use your ruler. This is very simple once you understand it and very difficult if you don't! Now boys and girls I hope everybody is following me!* I cannot figure whether it's a 2 or a Z. His handwriting is too small and all the calculations on the same page are really confusing! The only reason I am still watching is because I have to! *Now boys and girls, let's write it down! Let's stay cool calm and collected … please don't lose me here. This is our function and don't lose sight of this and it says, I want to underline it!* …(How does a second language speaker decode all that verbosity?!) *It's very easy! It's as simple as that! It cannot be any*

> *simpler. Boys and girls don't be hard on yourselves!* Suddenly the presenter freezes. I recognise a faint crackling sound in the background and surmise from the startled look on his face, that it's as an interruption by the technician to say a caller is on the line. This Pied Piper does not tell the other viewers. They must be wondering what has happened to him! The caller's voice is very clear but the audio delay confuses the presenter. He is probably so taken back by this call that he doesn't ask for her name or that of the venue. She points out that he has made a mistake in his calculations (so I wasn't so dilly when I heard him say 4 but write 6!) He looks sheepish but claims he was waiting for someone to notice! (Easy cover-up but not a sound pedagogical principle IMHO!!) His gratitude to her for phoning in borders on the congratulatory! And off we speed once more! He starts coughing again. Probably straining his voice. No apology?! I wonder whether he realises how the sound is amplified on air! *Boys and girls, never fail to show all your calculations. We will go though your calculations to find marks and we will … You must show them clearly! Remember you have to show all your steps or else you won't get all ten marks! Right now , let's see…! So this is the solution! Now look back! We have five minutes! Let's focus on another sum* (Already the seventh sum in 45 minutes!) *Now this is so easy! … Can we just return to the sketch once more? No, let's leave it at that! Boys and girls, I really hope you've enjoyed your mathematics! We've had our first call. Why don't you phone in and let us know if you are enjoying it as much as I am?!* It's over at last. The link logo shows the studio number and an e-mail address this time. It also warns of the channel change tomorrow. All that preparation delivered in such earnest and I reckon to no avail! Wasted time and effort on all parts. I did not even have difficultly in following his speech pattern or accent as I did when viewing the Science broadcast on Alkynes. This presenter's cadence was no different from mine. But all that English and a flood of Maths jargon must, no doubt, have created much frustration for Black learners listening to the *Lekgoa* presenter! This link music is driving me dilly! If I hear one more tinny timbre or brash note, I'll…

In musical terms, a coda is a ceremonial passage added to the end of a movement that indicates a formal close. Labov (1972) cited in Huberman and Miles (2002) labelled a coda as the formal closure of a narrative analysis that "returns [the reader's] perspective back to the present" (p. 231). On this discordant note, I end this representation of my primary experience of viewing but expand on this metaphor of dissonance in my discussion of the implications in *§5.3.2 Mismatch as intrusive interference*.

I am fully aware that the physical, psychological and technical differences of presenting via the medium of television, present new challenges for the teleteachers not encountered before in the traditional classroom (Ho, 1991; M.G. Moore, 1989). I was, nonetheless, perturbed by what I had witnessed on the tapes. I now discuss generalised thoughts that emerged after the observations of these telelessons[19] with specific reference to the presenters' lack of knowledge regarding their target audience, their understanding interaction as well as their lesson design and delivery. I also comment specifically on the presenters' communication skills.

[19] A detailed summary of all telelessons viewed is provided in Addendum 23.

4.3.3 Emerging theme: Presenter nescience

The term *presenter nescience* should not be construed as derogatory, as it carries connotations of being naive about or unaware of circumstances, rather than ignorant. I have chosen the term to describe a definite flaw in the *TeleTuks Schools* operations, as no presenter had made any concerted effort to establish with more accuracy whom they were teaching nor what mediated interaction actually entailed. No archival evidence existed to suggest that management had provided sufficient orientation until 2001, when the first official training course was introduced. It was also clear from viewing the telelessons, that presenters had transposed their face-to-face teaching strategies to the ITV environment without modification, perpetuating the myth that it was the same as traditional classroom teaching (Cyrs & Conway, 1997). I proceed to discuss certain misconceptions about interaction, instructional design and delivery as well as communication via television.

Misconception of interaction

An unusual tension existed between presenters lamenting the lack of interaction yet considering it advantageous being able to teaching without interruption. As several presenters explained, the best thing about teleteaching was:

> *…you can just waffle on and on, perhaps that's a good thing, there's no interruption, I don't know but I mean there's no interruptions, so you can go through your lesson beautifully in your allocated time and you can do all your examples, so that there's no frustration or having to digress and go off at a tangent to explain something else because nobody asks any questions* (P4:10 72-76).

> *On the other hand, what is best perhaps about teleteaching is the fact that you can structure it. You can be much more specific about what you're going to deal with. You don't get distracted by somebody asking you a peripheral question, which sometimes leads to interesting discussions on the side, but then it's difficult to get back to where you were. So the structuring of the class, you can feel I have dealt with this issue, so perhaps that's one of the things, one of the plusses* (P3:62 139-145).

> *First of all, it goes quicker because you don't have to find, stop to get people's attention, you've got your lesson and you go through it. Nobody stops you and you get through it* (P2:6 29-31).

> *The lecturer cannot be distracted by disruptive students. Also, you give the lecture and go - no pestering after the lecture is finished* (P5:2 16-17).

> *Without sounding facetious, to get on without interruption and complete a unit as a rounded 'concept' hoping to put it across so that they get the 'whole' story, how it fits and its importance/meaningfulness* (P7:2 19-22).

These comments highlighted the presenters' limited understanding of what interaction is or how the presenter could create opportunities for it. This assumption was borne out by their answers to questions "How do you define interaction?". All defined it as a two-way action but nothing more than a learner's oral response to a question. They shared Winn's view (1989) that it was the presenter's responsibility to initiate it and most felt it was essential for learning yet they did not plan for it allowing learners "to gravitate to a passive role during the instructional process" (B. O. Barker, 1995 p. 8). Presenters believed that they had to wait for a viewer to call before any form of dialogue was possible and although they extended general invitations to call in they did not have an established place for interactions in the lesson design. Table 4.9 summarises their lean views.

Table 4.9: Presenter definitions of interaction

Reference	Quote	Bi-directional	Written response	Asynchronous	Presenter-initiated	Essential
P3:31 206-219	*If I defined it in terms of the television, then I would define it in terms of information being offered but the recipient asking for it or there's some feedback from the recipient to say I have received this information. To me what was the breakdown was in this feedback, whether the teacher is simply just giving facts, and I don't have a problem with that, with a teacher giving facts. If there is no indication that the learner has accepted those facts, understood those facts, absorbed those facts, received and been conscious of receiving those facts, then I don't think you've got interactive. So I'm not suggesting that you have to have the situation you have face to face, where you can ask questions right through the class, but there should be some way where the learners can say, yes I've accepted that piece of information to that piece of information, I understand it, I have it or I don't quite understand it, could you add something? Some explanation in some way. That to me is interactive, some feedback from the learner.*	X			X	
P3:34 223-231	*Yes, verbal because the problem with it not being verbal… If the question comes later, my experience of children is that they forget what they've written five minutes after what they've written, I'm sure they forget what they've asked five minutes after they've asked. Certainly one way of overcoming this would seem to me to be better contacts with the recipient schools, to say for the next lesson, which particular issues arose out of this lesson. Which particular issues would you like us to revise or expand on at the beginning of the next lesson? That would be one way of creating some form of feedback.*	X		X		
P4:26 175-179	*Yes, I used to sometimes suggest that we would work through a problem together, I used to say: Try this one together, but then that's difficult if you don't know that they are actually doing it, or you don't know where they are having problems, you know in a classroom I could walk around and see what was happening.*		X			
P11:22 12-19	*Well it should mean that the students have got interaction with you at all times, right throughout the presentation or the transmission, obviously it doesn't happen, well it hasn't really happened, but I would say you need students that are there, available on the phone, that can interrupt you half way through a sentence and say "What do you mean by that?" So in other words it's total, they are almost as if they are in the studio, that would be what I would say interactive is.*	X				
P13:3 38-42	*Interaction in my opinion is when a learner has the opportunity and uses the opportunity to communicate with the presenter, in other words, it's not a one way mode of communication, it's a two way mode of communication.*	X				

Table 4.9: Presenter definitions of interaction (continued)

Reference	Quote	Bi-directional	Written response	Asynchronous	Presenter-initiated	Essential
P14:18 8-17	*Inter means between, action is doing things. I think the interaction starts with the presenter inviting a response and I realise then there is a waiting period and then the listener replies during that waiting period. And possibly the presenter tries to imagine what the reply might have been bearing in mind what sort of misconcepts are usual and could refer to them. But it is a two way thing. So the presenter asks something and waits for a response, and invites the response. And I like to warn the learners at the beginning that it is very important for them to respond, so it's a two way thing. And part of the response could be making a phone call or communicating by fax or some other way.*	X		X	X	X
P15:4 6-10	*I think the presenter must hmmm .. there can be no interaction unless the presenter actually makes it possible. I'm quite sure. The presenter must invite and expect interaction and show appreciation and recognition and praise any interaction. I think the presenter needs to make it quite clear that interaction is an absolute essential part of a lesson.*				X	X
P3:4 25-27	*We don't operate in that system*, [Learning Channel] *we operate more in the giving of information, not in the asking of questions, because we found in the past that if you ask questions you don't get an answer because we don't have that kind of sophistication.*					

Design and delivery dilemmas

Instructional design pertains to how the presentation of the subject content is planned and how learning activities are organised. Whether teleteachers are preparing for ITV or face-to-face instruction, they need to do so systematically. As indicated in *§1.4 Explanation of key terms*, the concept *learning experience* encompasses all behaviour and activities on the part of an instructor (presenter) and or learners that enable both parties to achieve the outcome(s) set by the presenter within the fixed time period of each broadcast. Although this term is currently preferred by OBE theorists, I have chosen to use the word *lesson* despite its archaic overtones, not only for ease of explanation but also because it is more suited to the transmission mode which dominates the *TeleTuks* milieu. Without exception the presenters were extremely well prepared as could be expected of superior pedagogues; yet they were unable to design appropriate telelessons despite their comments on how much time they spent preparing. Once it is apparent who the recipients of the information are, planning the content of each broadcast can begin.

Target audience

Before any meaningful instructional planning can be done, teleteachers need to have a sound knowledge of their target audience's needs and expectations. Not only from the lessons observed but also by their own admission, presenters had a very limited sense of the context of the *TeleTuks* learners as well as their academic abilities:

> *I know very little because, I know it is more towards the outskirts of Pretoria, the black schools, that's about it* (P2:20 113-114).

> ...[I know] *very little apart from them being from previously disadvantaged backgrounds, I do have access to the list* [of schools] *and I've actually sent stuff to the different schools, like maps and things like that. And they do seem to come from areas where I actually wonder if they even have electricity at times* (P11:20 194-203).

Much was assumed about the Grade 12 learners' culture, background, prior knowledge and experience. Upon asked about her background knowledge of the target audience, presenter M1 acknowledged that she did not know:

> *… very much, I must be honest, I think we had, there were two meetings where there were some teachers from the school present, but even at that meeting I wasn't able to get too much background as regard to the children that I was teaching. I wasn't sure about what they were like, what their home backgrounds were like, what their mathematical ability, did they have a foundation or not?* (P4:3 18-23).

It remains uncertain what presenters could have done to ascertain more about their target audience but sans such knowledge of a target audience no meaningful learning outcomes can be formulated. The envisaged target audience was originally to have been Black learners from previously disadvantaged areas but an emerging trend appears to be that some White home scholars who have subscription access to the pay channel also make use of this free service (Addendum 24). These could be learners wishing to accelerate their academic careers but sometimes parents, based on either religious or political convictions, have opted not to expose their children to the formal school system. Younger children are usually taught by their mother while older learners enrol for a correspondence course offered commercially. They would value the opportunity to watch a "real" teacher elucidate on their written support material. Although it is difficult to assess the *TeleTuks* target audience due to its diversity and anonymous character, certain common denominators do exist and it can be safely assumed that:

- viewers are all preparing for the Grade 12 national exit exam
- attendance is voluntary
- the vast majority are from poorly resourced educational backgrounds
- they do not resemble the traditional distant learner in that they are young, very dependent on rote learning and being spoon-fed
- a culture of enquiry and critical thinking is not prevalent
- varying degrees of motivation to achieve would prevail.

It is regrettable that *TeleTuks* presenters neglected the advice offered by Bosworth (1991):

> The preparation of any learning material must start with an analysis of what is to be learned, who is to do the learning, where the learning is likely to be done, what equipment and tutor or mentor support is available. This is followed by decisions on which techniques or technologies will be most effective (p. 89).

Learning outcomes

At times, while critiquing the videotaped lessons, I had the impression from these presenter-dominated broadcasts that content was delivered in an arbitrary fashion with an overarching aim of focussing on problem areas of the syllabus. Not having clear, well-defined learning outcomes for each broadcast was the chief lacuna in the instructional design in spite of presenter E2 confidently stating her understanding of sound teaching:

> *I think lesson design is perhaps the most important element from a presenter's point of view. That you must know why you are doing whatever it is you are doing with. And I think the old way of saying, today we going to do this and at the end say we have done this, I think that is so important. I suspect that lesson design might teach more than just the pupils, it might teach some of the teachers, that this is a way to put a lesson together. I wasn't always brilliant at doing this, sometimes I just ran on from the previous lesson without specifying, but I do think that should be, I think that's such an important element of the education process, that they know first what they are going to know. Be taught and then afterwards this is what they've heard* (P3:42 264-274).

Various models of instructional design exist *e.g.* Gagne (Gagne, Briggs, & Wager, 1992) yet any of these models identify learning outcomes as the key aspect on which other instructional strategies hinge. In the broadcasts I reviewed, the intended learning outcomes were not clear and the point of departure seemed to be *teaching* outcomes. Lesson planning related rather to the amount of content to be covered within the rigidity of transmission time rather than defining outcomes pertaining to learner performance. Such outcomes do not describe the learning activity that takes place but state in precise language what the learner will be able to do after the broadcast as a result of a learning activity (Cyrs & Conway, 1997). In face-to-face Grade 12 classes, the general and specific aims (now called learning outcomes) are prescribed by a core curriculum that has not been updated since 1995[20] (Gauteng Department of Education, 1995) whereas for this supplementary televised instruction; learner needs for support or revision ought to have been taken into account.

Structure of the lesson

Implementing technology in the instructional process requires even greater attention to lesson design and instructional preparation than ordinarily (Dede, 1996; Main & Riise, 1995; Mason, 1978). I have used lesson structure to mean the planning of all activities that make up a transmitted episode and constitute the instructional message, which the sender wishes to share with the recipient. It was not clear whether presenters actually had a written lesson plan, but most presentations lacked a notable structure. A general lead-in statement either welcoming the learners or referring to some aspect of their immediate context *e.g.* cold weather introduced each session. This was followed by what the presenter hoped to do during the remaining minutes of the broadcast. The content discussed pertained to isolated topics with no main component or supporting exemplification:

[20] The National Curriculum Statement for Grades 10-12 was introduced in 2003.

> *…when we are watching the lessons, the screen is very small and then the teacher, the presenter does not make any examples. He, he only concentrates on from the paper on the on the paper that is in front of her hmmm* (P1:24 148-150).

The presenter played the role of reactive information supplier and primarily talked at the camera giving a sequential explanation of the selected content. No tasks, which stimulated critical thinking or high-order learning, were planned. Dede in Butcher (2002) suggests that the "instructional design [of distance education delivery] is a complex mix of the cognitive, affective and psychological" (p. 7). Yet there are limitations to the types of activities suitable in the ITV environment as encountered by these presenters:

> *I tried, with the lesson plan, I wanted to have a sequence of events where we reach a conclusion, so the thing wasn't left in the air, especially with the Maths, I think it's better if one does reach a bit of a conclusion, or I suppose we could have come back to it in the next lesson* (P4:28 197-204).

> *So when you're planning it's kind of like a very static planning even. And the planning was even more difficult, because you know you're not going to have any feedback, you almost just plan to give a lecture. And so I find it exceptionally limiting in terms of the mode I was using, the delivery mode, it kind of … I felt bound me to transmission mode* (P19:6 80-84).

If the issue of language is raised again, and it is borne in mind that the medium of instruction is not the primary language of the learners, Nunan's (1991) warning that wait time is imperative in the second language classroom as "greater processing time [is] required to comprehend and interpret questions" (p. 193) was not heeded. Dillon and Walsh (1992) also report using silence as a means to encourage cognitive digestion. Without allowance for discussion or "think time", learners had no chance to actively reflect on what they saw or heard and voiced their frustration as follows: *This winter school is very well* [sic] *and the presenters teach us well* [sic] *than our teachers. But our televised* [sic] *is too fast and we can't write notes* (P9:123 213-214).

Apart from the perceived speed and density of content, there was also little attempt to relate the work being discussed to other experiences and thus it is doubtful whether any sense of understanding was being developed. Presenters should have anchored the content with more concrete and practical applications and also used more applicable examples. The use of repetition or summary to stress main points was also lacking. Generic handouts are not part of the *TeleTuks* package as cost and distance militate against this but it does complicate the presentation, as learners are not necessarily "on the same page". It would not be uncommon for a presenter to be working from a specific textbook not used in all provinces or another edition of a particular prescribed work. Furthermore, *TeleTuks* presenters have no post-broadcast obligation towards the viewers

apart from following up on any commitment possibly made during a telelesson. By implication, they do not give homework tasks that may reinforce the newly acquired or revised knowledge nor do they have an effective means of assessing the degree in which the performance outcomes have been met. Learners participate voluntarily and thus supposedly take responsibility for their own learning progress.

Content material as initial message

I turn now to the first utterance that initiates each instructional episode. By this I mean the message encoded in verbal and visual cues which carry meaning that viewers receive during any instructional episode. Part of the taxonomy used to summarise the nature of interaction in *TeleTuks* (*§4.2.1),* relates to assessing subject matter in terms of the proficiency level at which it was discussed (Main & Riise, 1995). For some learners the message was not new in the sense that it was a revision of work already done in class. This places it at the familiar end of the cline while others were hoping for mastery. The message addressed mostly the cognitive domain although there seldom was any application to real-life contexts. Rowell (1991) distinguishes between information and meaningful knowledge. She defines information as any written or spoken statement conveyed from one person to another. However meaning is only constructed when the receiver is able to process the information and link it meaningfully to existing personal knowledge. The dominant mode of *TeleTuks* encoding was “tell-talk” mode. Presenters assumed concept knowledge and although they only expected lower order mental processes, information overload predominated.

The structure and delivery of content matches the study by Stodolsky *et al* (1981) who commented on the persistence of recitation. This teaching habit refers to an instructional segment in which the teacher calls on individual learners to answer questions, read in turns or give answers to homework, usually in a “rapid-fire” pattern. Such short presenter-initiated exchanges also dominated televised classroom discourse. Since presenters cannot see what learners are doing, they cannot diagnose or actively give feedback on accomplishments. They thus provide their own answers, comments and corrections in an endless one-way stream of words. By implication, the message never ceases. Perhaps the high proportion of viewers who claimed not to understand the presenter was in fact not grappling with the comprehension of content but the explanation of the presenter *i.e.* decoding of the message. If one unpacks the complexity of the subject matter, it is on par with what is required by the national curriculum.

Teleteachers are expected to design generic lessons selecting topics from the provincial curricula with little leeway to deviate from the prescribed learning schedule. These broadcasts are viewed as an adjunct to classroom teaching and aim to review or highlight content already learnt. Since the overarching purpose of the project is to assist Grade 12 learners prepare for their final exit examination sat in October-November of each year, presenters review key concepts in each subject, discuss past exam papers and suggest ways of tackling exam papers. Limitations in terms of this support relate to only a single broadcast per subject according to a fixed schedule each week and no assignments are submitted.

A disconcerting mismatch between the diligence of the presenters in formulating their message carefully and the learners' expectations or needs has been selected for closer scrutiny. I refer specifically to content utility - by this I mean, how useful is the information to the learner? Thirty-seven quotes were identified by this code and related to *e.g.* literature not prescribed or a confusion about whether content was Higher or Standard Grade[21]. Some learners also had requests for other subjects beside those already televised *e.g.* Economics. In some cases, work was dealt with which had not yet been done in class. Blame for this cannot be ascribed to the presenters, as educators work at their own pace and the only national deadline is late October when final Grade 12 examinations commence. The English literature telelessons did however, alternate between set works prescribed in different provinces thereby restricting utility. One may argue that the broadcast schedule had been sent to schools in advance so learners could have chosen which slots to attend yet sometimes presenters would attempt to cover a variety of set works in a single telelessons with cold comfort to viewers that:

> *… those of you who are not reading the particular books that I'm talking about, won't think that I'm not talking to you. You know any experience that you can have on reading and talking about the work that you've read can only benefit you, even if the story or the set work is unfamiliar to you. So I do hope that you don't just switch off because I mention a name that you don't know. For example, we are starting off today at a particular request of some schools in the Limpopo area on the short stories collection called: A Handful of Life. I know that there are a lot of you who are going to say "We don't read that book". It doesn't matter, what I'm saying will apply to you if you are reading any of the short stories selection and what I'm saying to you will apply to you even if you are only reading Bessie Head or only reading Shakespeare* (P12:17 62-74).

Asked whether she would attend a winter school again, a learner from site #2 cautiously replied*:*

[21]Most school subjects can be selected on either level. Differentiation is based on content matter and degree of difficulty. Once the new RSA curriculum has been implemented across the board, this academic distinction will be replaced by outcomes and degrees of proficiency. Currently Grade 12s still need Higher Grade subjects to obtain university entrance.

> *I would ja, I think I would but then this time call in just ask if they can please do that things we're struggling with.* (Or more relevant to what the textbook says?) *Yes, I think the problem with most of the local schools, most of the private schools have finished the syllabus earlier and most of the rural areas finish the syllabus later and when we do the TeleTuks, most of us haven't finished the chapters (*unclear*)..Why are you doing this course? We haven't even reached it. We not know what is she talking about now* (P1:120 535-541).

The tabulated quotes in Table 4.10 further emphasise the mismatch between the content being presented and learners' needs or expectations.

Table 4.10: Mismatch between viewers' needs and content material

Quote	Viewers' needs	Mismatch
We are not going to deal with the fundamentals but we want to deal with problems, that presenter he was touching on fundamentals (P1:244 1696-1698).	Discussion of problematic calculations	Basics are discussed, learners not challenged
Learner*:* *You did Geography Paper 2* (unclear) *because meantime we are doing Geography Paper 1* … (misinterpreted response by interviewer clarified by current project manager) Translator*:* *No, I think what she is saying what Melanie is presenting more Paper 1 than Paper 2. I wasn't even aware that Geography has Paper 1 and Paper 2* (the map work) *because I realise that she does a lot on* [sic] *map work than on the other issues and I think it's the second time that … Yes, that is the second time someone has asked* (P1:181 879-888).	Discussion of Paper 2 which deals with the theoretical aspects of the curriculum	Too much map work and aerial photo interpretation, insufficient reference to theory
Learner*:* *My experience was OK the thing was OK but then the lecturer kept doing one thing I was expecting her to do also theory* (bell interrupts again) *he overdid Julius Caesar??.... OK she only give Medoc* [Macbeth] *and I'd only,.I 'd say or my conclusion is* (stutter) *in my, the school here we don't particularly struggle with Macbeth but then she, we struggle with theory. Novels. It wasn't that OK I wouldn't say it was good but you know.* Interviewer*:* *Your expectations were different.* Learners*:* *Aahem hmmm* (agreement) (P1:82 335-344).	Discussion of another genre required	Too repetitive, no discussion of their prescribed work or novels
The only disappointing thing is that we do, is that they teach first language and we are doing second language (P1:218 1481-1482).	Content so unfamiliar learner thinks it's first language work	Content is second language syllabus
And some of the presenter I do not understand the one who teaches Physical Science because always she treated like Higher Grade questions (P1:159 730-731).	Need Standard Grade work explained	Some learner needs not addressed
Now for your syllabus, please ignore this one, it's not actually a prescribed syllabus. What is prescribed, is acyclic hydrocarbon. Now we are starting with hydrocarbon, …(P12:37 381-383)	Prescribed Grade 12 Science content not revision of junior grade work	Presenter discusses what is not in syllabus

Ill-informed persons believe that ITV preparation time is similar to regular teaching. Cyrs and Conway (1997) explode this myth with their statement that preparing for telecourses takes 2-3 times longer. Several presenters endorsed this as exemplified by the following admission of presenter M2:

> *May I be honest, preparing myself, it takes loads of time, I present for 90 minutes but believe me it takes about three hours to prepare a single session, it's not something that .., especially in the case of mathematics, it's not something that you just pitch and deliver, it doesn't work that way. So it's a very time consuming exercise* (P13:7 73-77).

The doubtful effect of a presenter's effort and the difficulty of not knowing the target audience's abilities are mirrored in the following quotes:

> *I don't think anything was easier than face to face. I personally didn't enjoy it at all, perhaps the preparation. No, preparation is not even easier, because I almost had…No., when I prepare a lesson I had like a learning trajectory in my head, like a thought experiment that will take place, when I plan this, this will happen, when I plan this, this will happen. I couldn't do that with the television because I had no feedback, little cycles happening to say go slower, go faster. …And also to bring humour in, which I liked it in a classroom, I find very difficult to do on the television as well.* (P19:6 74-86)*….No, I have no idea* [of the effect of telelessons on Grade 12s] *although I doubt it was very much. That's the other thing that ends up happening, which is why I chose to stop because you end up preparing thinking but "What is the point of this?" you're not sure. I personally don't subscribe to that model, transmission mode of teaching, so therefore I think it's pointless to continue with that belief* (P19:8 107-111).

> *Gauging the level of the listeners and whether your pace is in keeping with their level of comprehension. Not knowing exactly what their prior learning on that specific topic is. How 'far' back to go before carrying on with Grade 12 content or requirement especially when dealing with a topic that requires some preliminary knowledge* (P7:1 10-15).

It merits my disconcertion that the amount of time the presenters spent preparing and their dedication to the project did not dovetail with the actual needs of the Grade 12 learners. This mismatch of content is discussed again in *§5.3.2 Mismatch as intrusive interference.* Having explained several matters, which would influence the instructional design of a telelesson, I now illuminate aspects pertaining to instructional delivery.

Appearance and immediacy behaviours

Presenters were all immaculately groomed and the general impression of a "talking head" agreeable. As appearance guidelines (R. Evans, 2000) had been followed little distraction occurred due to vibrating patterns or stark colours. Yet despite training workshops and printed guidelines that had been made available to the presenters, stilted presentations occurred. In an attempt to illustrate my statement, I offer words taken from literature

related to interactive teaching environments: *interesting, absorbing, mental engagement, arouse enthusiasm, stimulate interest, exciting, refreshing, imaginative, exhilarating.* Few of these adjectives matched what was evident on screen in spite of presenters understanding some of the principles that pertained to an animated delivery as exemplified in Table 4.11.

Table 4.11: Presenters' understanding of ITV delivery

Quote	Principle
I think the closer the presenter is to an actor, the more mobile face, even the use of hands occasionally the better. I think, yes, the presenter can affect the interaction if the presenter sits absolutely still the whole time. There is the danger of the talking head and to get away from that I think you need to perhaps encourage your presenters to move their heads a bit. I'm not suggesting irritating, nodding all the time, but I do think that the more mobile, within the parameter of that little box, the presenter can be the better. I think also the extent to which the presenter demands the camera on his or her face as opposed to some graphic or hard copy, I think that also makes a difference. I think the presenter should be aware of the possibility of boredom and try to make it from face to drawing, from face to drawing, be conscious of that. I have seen some presentations where the presenter in fact has spoken throughout the full time. I don't think it communicates very well and the influence of say, technology on interaction (P3:75 158-169).	Facial animation and gestures as well as visual variety maintains attention span
I don't do the English grammar, if I did then I would, I would expect some sort of answer because you're dealing in small bites. I tend to deal with the matter concerned in literature and the understanding of a poem, so no, I tend to tell them, I tend to read it and tell them meanings as we go along, if I ask for a meaning of a word in a poem I don't wait that long to get an answer, partly because I don't know whether anyone needs to know what that word means. I have no way of knowing that the word is unfamiliar. So my classes tended to be my identifying words that I thought they might not know in order to give them the meaning of those words (P3:10 101-109).	Explanation of unfamiliar vocabulary or concepts
That's right, I do that [plan for interaction]*, try to, say with calculus with it being so abstract, perhaps try to make it more concrete by doing lots of little drawings for them, that sort of thing and in the hope that maybe with those drawings perhaps somebody will phone in and ask a question, it didn't happen* (P4:11 123-126).	Visual elucidation of concepts
… like yesterday, I gave them three minutes and I said to them right I will talk you through this but you do it yourself and then phone in if you have an answer. Again if they don't phone in it's a clear indication to [sic] *that either they are entirely happy, because when they phone in they say there's no need to phone in, we've got everything right, and in any event we knew that we were going to discuss it. So that's what happens. But I really try to build in activity into my lessons, in a sense that I make specific provision for questions, for saying to learners, I want you to provide me with a* [sic] *feedback, I want you to do these sums and* ...(P13:13 117-127).	Active learning encouraged by mini tasks (calculations)

Although opinions differ on the length of an instructional segment, "chunking" is a vital action in any public presentation. By this I mean, introducing some task or opportunity for interaction, every five to seven minutes after an exposition of new information by the presenter (Cyrs & Conway, 1997). For example: *Get your pens ready. I'll wait for you...Right, here we go. Let's write that down then* (P17:58 115-116). Not only does this change the pace of the presentation but it also allows for easier processing of the

information. Several telelessons had decided sections or topics that could have afforded solid teaching chunks but presenters did not capitalise on these, rushing to finish within the allocated time. Two presenters in particular were also inclined to interrupt themselves and shift topic causing much confusion for the learners:

> *…she could pick something and then suddenly she is in another topic I did not understand. We did not have that conclusion from the previous one, she was already somewhere [else]…* (P1:269 312 315).

Mathematics lessons contained more "doing" *i.e.* active problem-solving tasks than the other subjects although insufficient time was given for their completion. Like the teachers in the study of Stodolsky *et al* (1981) who used the blackboard more heavily, the Mathematics presenters relied very heavily on writing out calculations, resulting in a faceless hand drawing symbols and explaining simultaneously. A difficult message to decode indeed!

Presenters were above average in their use of immediacy behaviours. Verbal immediacy behaviour refers to any attempt at decreasing the psychological distance and establishing a positive affective atmosphere even at a distance by making encouraging remarks, personalising the lesson *e.g.* using first names, praising the viewers or introducing humour. Nonverbal immediacy behaviour relates to smiling, a relaxed body posture and vocal variety (Dillon & Walsh, 1992). Judging from the following quotes, presenters' encouraging and relaxed attitudes ought to have alleviated viewer intimidation:

> *So you do try to do some humour and things like that, the problem is you're never sure if they're appropriate because you don't know your audience* (P19:23 207-209).

> *I can remember somebody called Naomi, I've said Naomi has just called from a school in Hammanskraal and I just want to say how delighted I am you phoned, you asked a very important question and I'm sure lots of people were very worried about this, so well done Naomi. So I try to make them think it was really great to ask the question* (P14:5 46-50).

It is difficult to divorce immediacy behaviours from communication skills since choice of words and paralinguistic features determine much of the affective atmosphere experienced by learners in an instructional situation. I have made further comments relating to this under *Miscommunication* later in this chapter.

Use of visuals

Visual aids used in ITV delivery may require a degree of acclimation for the presenter (McKenzie *et al*., 2002) but the same design principles as for designing face-to-face

materials in a traditional classroom apply; *i.e.* visibility and legibility. The appropriate choice of colour, font type and size, use of animations and format of graphic material cannot be compromised. Including visual material in a telelesson reduces the "talking head" monotony by allowing technicians to switch from a full screen shot of the presenter to the overhead document camera trained on the graphic representation. The document camera is a positive enhancement of the delivery system as it can greatly magnify minute detail for large audiences to see simultaneously. However, the length of time it is trained on the visual aid is important or else viewer frustration occurs: *They are to* [sic] *fast. I get confused because I am trying to write some notes and on the order* [sic] *hand I want to listen and they remove their paper very fast* (P9:102 169-171).

Although the media used was appropriate for the target audience, presenters needed guidance in using their visual material effectively. A principle unique to television is aspect ratio and refers to the horizontal orientation of a television screen *i.e.* 3 units high by 4 units wide. Not all visuals conformed to this format and the overhead camera either cropped text at the bottom or revealed the desk. Presenters could also have benefited from leaving a margin, invisible to the viewer, in which to write their notes. This scanned area does not appear on camera, but serves as a border to essential information that must not be cropped by the camera. Readability is a non-negotiable factor when using visual tools – a powder blue background with simple, bold letters in light foreground text is ideal (Cyrs & Conway, 1997). Most presenters used white paper that reflected a glare at times. Not all handwriting or print was visible usually because the camera had not zoomed in close enough. Some hand-drawn graphics, notably those used by presenter M3 needed bold lines and should have been drawn with a thick marker pen rather than a ballpoint. Colours, in particular red and green were not always distinguishable. Some *Microsoft PowerPoint*™ presentation slides lost fine detail and the colours on the screen differed from those chosen for electronic slides due to the inherent characteristics of TV. I did, however, when making judgments, take into account that the original BETACAM videotape had been transferred onto VHS format with the consequential loss of colour quality. The quality of presentations would have been greatly enhanced had the character generator been used to display key concepts, new terminology or a summary of the lesson outline. Furthermore, camera work was not effective and the ability of technology to magnify visual material was not utilised sufficiently. Had more of the visual design principles been adhered to, fewer comments like *Sometimes you do not see what the presenter is talking about then you you* [sic] *fear to to* [sic] *ask* (P1:150 682-683) would have been made. Sadly, in some instances a well-prepared presentation was marred by unsatisfactory technical support. Shadows obscured images and in places the shot was

out of focus. Close co-operation with the technical crew is vital. Their role is elaborated on later in this chapter under *§4.4.2 – Production suite: technical crew.*

Miscommunication

The presenter - as a kingpin of the instructional process - was rated highly by a large proportion of the learners (63.5%) who felt that they did not need to ask a question as the presenter explained everything well. Respondent 102/01 endorsed this view with: *The presenter teach* [sic] *in a way that we can understand. They are not fast so I am never left behind.* Respondent 16/02 also reiterated support of clear explanations by commenting that *the teaching and the explaining is enogh* [sic] *to make me to understand the work.* Other remarks of praise included:

> *… I understand well more especially she/he uses some diagram* [sic] *to show what she/he explains* (R23/03).
>
> *He/they [*presenters*] explain quite adequately, enough to satisfy my knowledge* (R31/03).
>
> *Everything the lecture* [sic] *explains, it is clear and understandable* (R32/03).

However, these complimentary comments about the presenter did not tally with more than a third of the viewers (36.5%) who felt that the presenter did not explain well. Viewers who shared this view, specifically highlighted the speed of delivery. As respondent 48/02 stated: *In Maths lessons the teacher was too fast. Even in English we also could not write important notes cause of fastness.* While respondent 36/03 also experienced frustration because *the presenter is too fast so I have lots of questions in a little* [sic] *time.* Another added: *I would like to have the mathematics video cassette to watch it again at home cause somewhere the presenter was too fast* (R21/01). At site #3, a learner explained that:

> *Sometimes for me it is difficult when the presenter is presenting on the TV because I don't even understand. We… we… I was not… eish*[22]*! I don't… don't know what can I say…* (loud laughter from peers) *the… the presenter presenting on the TV, he or she is fast, that's why I don't understand* (P1:177 821-825).

He was supported by respondent 68/03 who stated that *I do not understand because I don't have inof* [sic] *time to ask.* Respondent 41/01 politely endorsed this view: *I would say that* [the winter school] *is nise* [sic] *but I don't understand anything that they taught*

[22] Typical Black South Africanism used to express a variety of emotional responses *e.g.* shock, surprise and in this case embarrassment.

use [sic] *because the presenter was too fast and we didn't have time to ask questions* (P9:1 7-9). After being encouraged to use his mother tongue, an urban learner from site #1 wryly added: *The presenter when he presents the lesson he goes like we are watching a movie and not like a teacher in a class* (P1:53 137-138). Upon concluding an interview, a rural learner raised his hand saying:

> *I I* [sic] *have a qu-question and I just want to know if we can try to to* [sic] *tell the the* [sic] *presenter to be slow as sometimes they they* [sic] *are fast (pause)… and if they can try to to* [sic] *decelerate* [sic] *their speed sometimes we can understand too* (P1:157 713-716).

Despite his speech impediment this learner had sufficient confidence to talk to me without my having elicited a response suggesting that in his case, the reason for not interacting was unrelated to inhibition but rather external factors. Another suggestion made by an exasperated learner (R08/01) was:

> *At least those teachers must try to come to our schools so that it can be simple for us to stop him/her when we don't understand. On TV they are teaching fast so we can't exactly understand* (P9:106 177-179).

In order to establish whether presenters were in fact speaking too fast, I calculated the speed of their spoken English during televised instruction and present it in Table 4.12.

Table 4.12: Rate of spoken English per presenter

Presenter	Recorded time	Words in chunk	Words per minute
E1	6:50	881	130
E2	7:30	1090	145
E3	7:28	1001	134
M1	6:31	763	117
M2	6.23*	1004	181
M3	6:30	767	118
S1	6:40	771	116
S2	7:30	868	116
G1	7:10	1199	167

* (minus 41 seconds of task silence)

Using a manual stopwatch, I recorded the introductory section of a broadcast from the actual video recordings and then transcribed it into text, where after I ascertained the number of words per minute using the word count function in *Microsoft Word™.* An average of seven minutes offered a comprehensible chunk of English with sufficient context. The average number of words per minute for a mother tongue speaker of English

is set at 125 - 145 words per minute (Du Plooy-Cilliers & Olivier, 2001; Monson, 1978; Zhang & Fulford, 1994). Only two presenters (M2 and G1) were markedly fast, four spoke slower than the average rate while the other three presenters had an acceptable rate of spoken discourse. However, what was audibly manifest, was that presenters did not pause between statements thus not allowing for time in which learners could process the input aurally and cognitively. It was this lack of "silence" as well as insufficient verbal signposting that created the illusion of speed *e.g. … Well, then that's just by way of interest. Something about prepositions that is difficult, is …* (P9:1 7-9). Some presenters were also unnecessarily verbose; further complicating matters for a second language learner who had to process all the English and then still distinguish between vital and extraneous information as illustrated here:

> *We will now do question 5 of last year's national exam and that comprises logarithms. Now logarithms, again you have to know a few… hmmm… formulae, you have to know a few definitions and then honestly I think that everybody and anybody can and should love doing logarithms. See if you agree with me. Let's read our first question now. It says here that: Showing, show without using a calculator, very importantly, do not use a calculator, that 1 plus etc. Now let's quickly rewrite it and then again, as always, there is no room for spectators in mathematics. You have to do this with me. 1 + 4 X log of 3…* (P12:2 08-16).

One respondent (R24/03) was less perturbed by her lack of understanding because *when the lessons is* [sic] *over our teacher explain again for us* (P8:25 40*).* An unsolicited response came from site educator #5 who also claimed to discuss the broadcasted work again:

> *Look, I suppose they were quite good, because we actually readjusted our timetable to the TeleTuks , and I think the teachers there were quite good ones and it's just that sometimes when kids want to ask questions, you will find that the teacher is actually busy on the TV, but we used to discuss that later, it helped us when it came to extra lessons, like after school, then we would discuss what's taken place on TeleTuks …so now they preferred to take the lesson, take notes on that and then ask me as the teacher afterwards …* (P18:37 695-700, 718-719).

The 70.5% percentage of Grade 12 viewers who felt that they did not understand everything is disconcertingly high and this lack of comprehension was, no doubt, exacerbated by the perceived speed at which presenters explained. The following quote exemplifies this uncertainty:

> *Actually it's not that very much difficult but the problem is that sometimes, especially in Physics and Maths, uh I mean like the words they are using are not too familiar to us therefore it is difficult to understand* (P1:231 1608-1611).

According to 13% of viewers, presenters apparently did not always create the opportunity for them to call in as both respondents 63/03 and 78/03 alleged: *She did not give us a*

chance to phone in and *The presenter did not give me a chance to ask question* [sic]. *Everything in winter school was just fine but I was desponded* [sic] *because we didn't have a chance to ask questions.* Presenter E1 admitted neglecting to create opportunities for real-time interaction:

> *I'm guilty myself because I just think they know they must phone in. But you actually, even if the number appears on the screen, you don't say it. I made a point of it today and said: If you have any problem please phone, phone during the break because I will be here and… but then during the break they are tired, they want to go and drink water, they want to stretch their legs* (P2:49 51-56).

Some learners made sensible suggestions about meeting their need for interaction as illustrated here:

> *After each, when coming to Mathematics, after each solution he must give us time to… to… to question… to ask questions* (P1:164 748-749).

> *…because we treat those chapters when we come here, we want to verify…. Some of our teachers they do not even have time to to* [sic] *deal with that so if maybe that man, that presenter, gave us a chance to send those questions to him so that we can evaluate them…* (P1:245 1702-1706).

The above perspectives on the presenters given from the learners' point of view cover aspects related to the speed of delivery as well as insufficient opportunities to ask questions.

Other pertinent aspects of the presenters' communication skills that I considered included their fluency, accent, accuracy and whether they used inclusive, invitational language. I also noted their tone, volume, idiolect, and the level at which they pitched their communication. All presenters spoke a clear, unmarked English (S1 being the only exception) and were articulate although one or two could change their voice pitch and volume in order to emphasise certain key phrases (Addendum 25). Comments on speed of delivery have made elsewhere, the chief hindrance being the lack of pauses and verbal signposting *e.g. Here are two points: Firstly, ….The second point is….* Word bridges or transitions were lacking and sequences were linked solely by inhalation of air. As one learner remarked:

> *… but I had a problem with the way, especially with English the way she was explaining, she was too fast, … and you know, we did not have time for revision* (bell rings) *and analyse the work, she was too fast* (bell rings again and interferes with recording) *taking it there and there and finished .... That's it!* (P17:73 311-321).

I copied down all questions that were asked verbatim as well as the verbal attempts at getting viewers to engage with the content or their peers. The majority of questions were rhetorical and asked learners to recall. Presenters responded to their own questions without pausing while some had the verbal habit of using tag questions and inserting *OK* or *Alright* into almost each sentence. In Figure 4.2, an extract of questions asked during a few consecutive minutes of transmission exemplifies the low mental processing requirements not to mention the lack of opportunity to respond.

Figure 4.2: Sample of presenter questions asked in consecutive minutes

- What's the implied request? Does Maru say……. ? No! What does *too,* double O mean? It means *also*, doesn't it?
- Do you remember that business of the pictures? Of course you do!
- Why did he laugh and laugh? I think because….
- **I seem to do nothing but ask you questions!**
- I think I gave you the page, didn't I?
- Why does he think of himself as the "homeless foreign alien"? Where does he come from? Yes, you knew that! South Africa!

Ironic too, the presenter's awareness of asking many questions (bold type) and her perception that this was effective interaction. Some presumed an invitational or inclusive style to promote interaction:

> *Let's do an example together as to why we need logs. We handled similar ones a couple of weeks ago but just to refresh your memory we are going to try one. On the screen in a few seconds you should be seeing a sum...*(P 12:39 400-403).

> *Now are you sitting perfectly still like me. Do you have a velocity at the moment? I bet you all said no, of course I don't have a velocity, I'm not changing my displacement, I'm sitting here perfectly still. So you could say your velocity compared to the floor below you or compared to this table is zero* (P12:64 199-203).

Generally the tone was conversational but ever so often a pedantic or moralising tone of voice was evident, conveying more than the explicit message:

> *Boys and girls, never fail to show all your calculations. We will go though your calculations to find marks and we will - You must show them clearly! Remember you have to show all your steps or else you won't get all ten marks! Right now, let's see! So this is the solution! Now look back! (P16:92 148-152).*

> *... that's why I cannot urge you enough to read everything you can lay your hands on. Everything you can lay your hands on, it doesn't matter whether it's in English or in your mother tongue. To read is important - I would like you to make a kind of promise to yourself, "Yes I should read" not because it's better for your English, but because it's better for you* (P12:19 121-133).

Presenters also “put the fear of exams into them” although they tried to add a humanising element by motivating learners and wishing them well.

> *So make sure that you bring your share and that you do your very, very best and remember that you must prepare…there's a lot of work that you can study, the more you know, you will be prepared or the less scared you will be. Then you can go and sit down, be relaxed and really enjoy your paper* (P12:96 260-266).

Human fallibility resulted in several speech slips *e.g. We always have an exclamation mark at the end to indicate that the information* [read exclamation] *that has been made of let's say pain, Ouch! or pleasure Aaah!…* (E3 – P12:88 572-573); or explanation inaccuracies *e.g.* the presenter saying 2 but pointing to 4, or saying divide but using the multiplications sign. In Chemistry, one presenter repeatedly self-corrected: *Alkines are double, sorry, these are triple*. These slips may possibly be due to loss of concentration or illness - two presenters admitted on air to having influenza. One such inadvertent blunder led to a viewer calling in to point out the flaw. Two presenters soon converted this incident into a didactically debatable technique in order to encourage interaction:

> *Something that I would like to share with you, simply that really works. If I make a mistake deliberately and sometimes not so deliberately, you do make negligent errors, they will immediately alert you to that and in that way you can see whether they are attending or not. That's something .., I've learnt to build that into the equation as well.* (P 13:17 187-191).

> *I know the one time I did something, I actually made a mistake in one of the formulas, and somebody did call in and I was relieved. I was pleased because at least I knew there was a body out there. Well I identify problems and I ask them questions, I would do something on screen and I would say afterwards "I think I've made a mistake here, can you help me?" Try and phone in…* (P4:47 234-236).

Another pertinent aspect of the presenters’ formulation of a message, which was a possible impediment, was the assumption that learners were familiar with subject-specific concepts and jargon. To illustrate what this means, I offer an extract from a telelesson:

> *Right, what have we been doing? We have been looking at motion and we've been looking at a whole lot of words that describe motion like displacement, force, velocity, acceleration. We know that all of those are vector quantities and that if you say, have two displacements happening one after the other, if you draw them head to tail, they will have a single effect called the resultant displacement. Alright? The resultant of two displacements is the single displacement that has the same effect as those two acting together. And we've looked at resultant displacements and resultant veloci..., forces but we've never looked at that. So that is what we are going to look at, looking at a vector, as velocity as a vector quantity that can have a resultant. And I need you to imagine quite hard. Do you remember what velocity means? It's the rate of change in the displacement of a body, or if you like how much the displacement of a moving body changes in one second* (P12:23 186-199).

It is clear from the above explanation that if a learner is not familiar with these terms and experiences an incomprehensible presentation, it further decreases any chance of interaction. This aspect of the content material could also have been discussed as part of language proficiency but I discuss it here, as there does not seem to be sufficient consensus that the lack of comprehension in parts relates to language issues rather than content. Furthermore, it ties in with the level of abstraction assumed by certain presenters. Presenter E2 was concerned about this matter and elaborates on her experiences of learners' struggle to comprehend in a traditional classroom situation:

> *Now if you, particularly in English, if you give them some concepts and they don't understand them, they don't know how to ask about them. They don't know how to formulate a question in English because they are not sure what you are talking about. I suspect with a lot of them, in perhaps not English classes but in their content subject classes, if they loose a thread at the beginning of a class, they've lost it* (P3:55 72-74). …
>
> *Certainly I think we have a severe problem with concept forming through the medium of English, to know how to put your question. I had an interesting experience in class with some older students. I said to them: We were dealing with drama, we have lots of examples, using words, compound words for example. And I said to them don't ever let a word go by that you don't know what it means because you must improve your vocabulary. If you don't know what a word means, ask. A little later we came to a word, I was pretty sure they didn't know, I asked them what it meant, of course nobody knew. I said "I thought I said to you please ask if you come to a word and you don't know what it means". One of the students said, by the time we work out what it means, you are on to the next word. And I think that's it, it takes time for somebody to say "Wait a minute, I don't know that word. She said we must ask if we don't know" - by that time I had moved on. I think that happens in TeleTuks as well, this is face to face but I think at TeleTuks that kind of thing happens, how long is the presenter going to wait, imagining that somebody doesn't understand and is formulating a question. That doesn't actually work. It's hard enough in face to face and it doesn't work here* (P 3:57 78-96).
>
> *Most of them, and I know because I'm coaching children from other schools. They just get a piece of paper called notes, saying displacement is bloody bla and then they're supposed to learn that off by heart, they don't learn, they memorise them. And they'd …*(unclear). *The word from then onwards is used in all lessons without any further explanations, and they don't understand what it meant. The concept, I think that you must spend more time on the basic concepts than you do on the work that comes later because if the foundation is good you can go fast afterwards. And I'm finding that the questions that I've been asked are all to do with very basic concepts* (P14:12 106-115).

Two presenters did not consider their use of jargon to be problematic:

Interviewer:	*Your subject has got a lot of jargon to it, concepts, you've mentioned language proficiency, are you in any way able to determine whether it's language proficiency, in other words English that is problematic or is it possibly just the concepts that are problematic?*
Presenter G1:	*No it's definitely the language. The jargon is an issue, but before we even get to that jargon you've got a language issue, it is a problem. Sometimes jargon is a problem but generally speaking I think it's a language thing* (P 11:12 97-102).

> *No that's not a hurdle, very definitely because I've worked strictly according to the learning programme set out by Mr Mdluli and company so I cannot in any event deviate from that. And as far as the jargon is concerned, there is a* (unclear) *rule of thumb in Mathematics, if you don't know the specific limited language of Mathematics you cannot achieve in Mathematics. That's something that, that's a concept, regretfully, which is absolute in many of our schools, so yes, that's something that I'm trying to facilitate in schools. It's just that people for some reason or other, do not - fail to understand the significance of acquiring the limited vocabulary. So that's part and parcel of my presentations* (P13:18 198-207).

Thus far, I have presented data relating to the two main role players of the instructional event. I now discuss factors relating to the technology of the delivery mode as well as the physical sites at which transmissions were initiated or received.

4.4 Context-related data

A communicative encounter is influenced by the context in which it happens (Du Plooy-Cilliers & Olivier, 2001; Gamble & Gamble, 1998; Steinberg, 1995). Factors such as time, place, roles and the status of the participants all affect the communication process. I delineate *context* as factors that pertain to the delivery and receipt of the message (systems design), the medium (technology) and the physical sites (setting) that influenced audio interaction. I have used this word rather than *environment,* as it is more specific and tangible.

4.4.1 Technology profile

Systems design refers not only to the entire process of getting a message from one point to another but also to the various aspects of technology that are interrelated and interdependent on each other for the effective performance of the *TeleTuks* project. A change in any aspect of the system affects the other components, be they functions or persons (Steinberg, 1995). The most obvious breakdown in systems equilibrium is the practical hindrance learners experienced in not having a phone in proximity to the viewing venue thus preventing them from asking questions. This accounted for 57.2% of the poor participation in spite of an earlier intervention where broadcasts were structured in such a way that learners could phone in during the break because they could then reach the phone generally reserved for the principal's use. Of the sixty-eight respondents who chose to comment in the space provided for the open-ended "Other" [reasons for not

phoning], twenty three learners (33.8%) reiterated the fact that the viewing venue lacked the appropriate technology *i.e.* phone, fax or e-mail facilities:

> *There is no phone in our classroom so it's imposible* [sic] *to call the studio (*R69/02),
>
> *I was going to ask but there's no phone in our room* (R82/03).
>
> *We don't have computers/faks* [sic] *mails for sending back* (R89/03).
>
> *There is no other reasons* [for not asking], *it's only about not having phone/microphone* (R93/03).

Respondent 20/03 claimed that *I don't have money to phone and ask* supporting 31.3% of viewers who commented on the expense related to making a phone call. Concern about cost is noted but should not have been problematic since learners are not supposed to pay for the call personally. Those who did have a phone on the premises also felt that the cost of a call was prohibitive, that they would miss part of the broadcast or

> *I cannot realy* [sic] *ask a question because I cannot stop the television and go ask the question. The phone is far away from the TV* (R104/01).
>
> *Phone bill is too expansive* [sic] *and you cant* [sic] *phone on a public phone* (R06/03).
>
> *Most do not have phones in our class or money to phone* (R09/03).
>
> *I can't afford to make one due to my background (disadvantaged family)* (R12/03).
>
> *Because the presenter was far and I wasn't able to phone because I was not having phone* [sic] (R62/03).
>
> *Because the telephone was far and I couldn't leave to learn and run to phone* (R70/03).
>
> *Because the public phone was too far from the class and I can't leave the class and loose lesson* [sic] (R71/03).
>
> *I never ask questions because I was stranded in the room* (R79/03).

Several respondents mentioned that learners did not have permission to use the telephone facilities: *Our school do* [sic] *not allow us to use fax machines or telephones* (R10/01 and 15/01). While respondent 24/01 plausibly claimed that *There is a fax machine at our school but we were told it isn't connected.* This lack of basic telephone technology is disparate as schools are not equipped if they do not meet the minimum requirements while it is recommended that schools purchasing their own equipment have a telephone line and good security (Sedibe & Evans, 1999). Twenty-two schools participating in the *TeleTuks* project were funded by the Limpopo Provincial Education Department and such schools may have been given the equipment although no landline link was available.

Some responses indicated that the "*phone lines were always busy*" or as respondent 128/01 commented: *They should have more lines in order for us to get through because sometimes the lines are often busy and were* [sic] *not able to ask those questions at the right time.* This remark is discrepant as the studio is served by ten incoming lines and so rarely should the studio number be engaged. Disconcerting too, were comments pertaining to unanswered calls as described in the following exchange that was translated from Northern Sotho:

Translator*:*	*She says there was the day on which they had a question and Gigiboa asked a question and nobody answered. Did Sydney phone the studio?*
Learner*:*	*Yes.*
Translator*:*	*And was there no response from the studio?*
Learner*:*	*There was no response* (P1:304 1314-1319).

Two technicians are supposedly on duty during each broadcast with one seated at the reception console expressly responsible for answering incoming calls and transferring them to the presenter in the origination studio. Two respondents claimed not knowing the number of the studio yet these contact details (phone number and e-mail) are screened for many minutes before and after each broadcast while it also appears in the bottom third of the screen for a brief period during broadcasts. This chiron reads: *Any questions? Phone 012 362 5151.* During the transmission break, the link screen includes the fax and e-mail details. If technicians are executing their duties efficiently and learners are paying attention, they ought to see the number more than once. Once again a dissonant note is audible, relating to a mismatch of management expectations and non-delivery at operational level. I pick up on this aspect in *§4.5.2* under *Production suite: technical crew.*

Some misinformation and uncertainty was prevalent as expressed by this learner who may have voiced insecurities shared by other viewers:

Learner*:*	*No, because we are not allowed to call while she's talking, we are only allowed to call when we're taking a break.*
Interviewer*:*	*Do they give you that opportunity? A break?*
Learner*:*	*Ja, yes, they did.*
Interviewer*:*	*What do you think will happen if you phone while she is teaching?*
Learner*:*	*I don't think my call is gonna* [sic] *be answered because they write like during the break they write: now you can call at this number. Ask your questions, and everything, you know. And I don't know if they call, do you really speak to her?* (P1:305 319-327).

Although respondent 75/03 admitted that *I did not understand how the phones work,* overall learners did not seem intimidated by technology as were the viewers in Nahl's study (1993) who were camera shy and reluctant to activate the microphone buttons.

Apart from *TeleTuks* viewers not appearing larger than life on screen, this is possibly owing to site facilitators who can assist or because presenters initially take time to explain how the technology works. Some presenters did not share the view that learners were technologically literate:

> *But I think it's a language issue. I really do, I think they're intimidated by either speaking on the cell phone or they're also not sure are they on air? Aren't they on air? Or is it being recorded? I think it's intimidation to a certain extent, technology as well as language barrier* (P11:10 88-92).

> *So the technology which is very hi-tech and you sort of wonder how is this being done in that specific area when you actually wonder if they've got electricity, you sometimes you actually wonder if the hi-tech technology is actually working whether there's somebody that knows how to switch on the satellite dish or key in codes or whatever they do, I don't know if that always works* (P1:20 198-203).

> *They're afraid the other students will think they're stupid. Also, the call-in facility is not always functioning and/or they don't know how to use it* (P5:4 40-42).

Concerns expressed by presenters also related to their own experience of learners who actually phoned in:

> *I could never hear what the students were saying. The technology isn't clear enough, I don't, I don't personally hear electronically transmitted sound very well, I find the telephone difficult; the cell phone almost impossible. So that's one of my disadvantages, but I'm wondering even people with better hearing than mine can pick up the question without having to ask for it two or three times which is an absolute switch off for the candidate. Whether they can hear it, it seems to me that the actual technology wasn't sharp enough. I don't know whether that makes sense* (P3:28 173-181).

External factors such as lightening strikes rendering the satellite dish useless or telephone cables being stolen have also resulted in no viewer feedback. The two-second audio-delay is also disconcerting and may deter questioners: *The time I was calling like I was actually hearing my voice* (giggles) (P1:113 51) and a past project manager explained that, at times; there were some technical deficiencies:

> *Sometimes there are some problems with telephone lines and it's also expensive to open all the lines throughout the lesson…* (P6:6 18-19). *Sometimes technology itself can disappoint us e.g. when there is* [sic] *some technical problems with the system on the other side as well as power failure* [sic] (P6:8 25-27).

It may be prudent to remind the reader that *TeleTuks* does not utilise the highly sophisticated technology used elsewhere *e.g.* site to site audio and video linkage, monitors that register students' image or academic profile. Some systems are even able to allow for *interalia*, swivel cameras at the remotes sites, individual digital keypads and suspended microphones.

Many of the communication difficulties presenters commented on relate to their having no video link with any remote sites. By implication, they have no idea who is watching; anonymity to the extent that not even a name list is available. This not only increases psychological distance but may also raise the affective filter that acts as a barrier to learning. For the presenter, however, it is the lack of non-verbal cues that impedes communication. In face-to-face teaching, the educator is able to mediate the learning experience and easily gauge the level of the learners' progress by interpreting paralinguistic features and kinesics. In particular mutual eye contact between educator and learner assists in directing the learning experience. The medium of television makes this virtually impossible as the remote learners are invisible and thus no such features are available by which teleteachers can judge comprehension as several presenters explained:

> *And you never know if what you're saying it's actually being understood, you don't get that type of response. In a teaching sort of situation when it's contact sort of teaching you immediately know when you're doing something that the pupils don't understand, whereas on the television sort of set up you never know whether, have they just switched it off because they don't know what you're talking about? Or are they listening and adapting, you don't really know if you're speaking below their level or above their level, you actually can't determine that. I find that a bit frustrating* (P11:18 173-181).

> *The other thing that's difficult for me personally is that I don't see expressions. You know, if you don't see somebody you can't relate, you have your Mickey Mouse. One day they left Mickey Mouse, you know how difficult it was for me - suddenly it was like you are staring into the darkness and you don't even have that little face to look at. That to me is the most difficult* (P2:45 21-26).

> *I find having not to see the person I'm teaching, I've had to imagine a lot, I teach the Mickey Mouse and they took the Mickey Mouse away for two weeks and I really missed that little figure. So, and I moaned about it and it came back. Mickey Mouse is back so I can teach Mickey Mouse. It's an artificial kind of thing, that you've got to look at a camera that isn't a person and you mustn't look at this monitor screen, you must look at something else far a way*…(P14:24 232-238).

Two of the preceding quotes suggest the strong need presenters have for seeing a person - even a plastic toy with a face is a better substitute than a camera lens! Another presenter felt that the entire definition of interaction was dependent, not on expressive exchanges between two parties but on the physical presence of people:

> *I would define interaction, probably not just communication because interaction for me there has to be eye contact, so with the camera it's not that easy to make eye contact, whereas if there were other people in the room, in the studio you can make eye contact with them, which in a sense gives you that personal feeling which I think you then convey on the bigger medium of the television* (P19:22 26-31).

This feeling of alienation was shared by a learner who claimed: *I like asking questions to someone who already knows my cupubilities* [sic] (P8:13 21). During a face-to-face delivery, the teacher would also rely on contemporaneous nonverbal feedback from the audience in order to adjust in terms of speed and depth of elaboration. Learners and presenters alike commented on the psychological distance created by the medium that made it impossible for the presenter to decode non-verbal messages, as they could not be received. The sense of disconnection (Rao & Dietrich, 1998) which ITV presenters experience persists even though they attempt to create the impression that they are making eye contact by staring straight into the camera should it be set at the correct level and angle. Asked about the difference between *TeleTuks* and face-to face teaching a learner raised an interesting perspective when she remarked that learners had what she termed eye contact with the presenter but that the presenter was detached from them. Although she claimed that the lack of eye contact did not matter, it was the one significant difference for her. The ability of learners to see presenters but not be "connect to" seemed to heighten the psychological distance experienced:

Learner:	*They* [presenters] *have no eye contact with the learners.*
Interviewer*:*	*Is that a problem?*
Learner*:*	*No, it's only the difference between the our* [sic] *teachers and the presenters* (P1:23 152-155).

During early experimentation with the medium, a bi-directional visual link had been established and found to have enhanced the learning experience for both parties as a veteran presenter explained:

> *I could see the faces of the learners and that greatly enhanced these lessons, that really contributed to me getting to know them and them getting to know me, they seeing my face and I'm seeing their face. And for some reason, maybe this is not the place and the time to discuss it, but for some reason or another there has been a change, normally we would have a very small picture of my face in left hand corner and the rest of the presentation. They loved that, and then when they phoned in I could see their faces and that's gone now for some reason* (P13:14 135-142).

Unfortunately due to financial constraints and lack of bandwidth which resulted in a poor image this visual link was discontinued after the pilot project ended in 1993 (Jorissen, 1993).

Despite the many technical problems relating to the systems design, two presenters highlighted the obvious advantages of the delivery mode - the ability to magnify detail for many viewers instantaneously:

> *You mean about advantages and things like that, that just stands out. I actually think the whole - that the whole thing of teaching on television for my subject is actually great,*

> *because it's an expensive subject to teach at schools, you don't always have facilities, those colour maps, all those sort of things, text books that they don't necessarily have or the newest updated text books they don't necessarily have, and the teaching on the television sort of screen actually helps them see things that when you're standing in front of a class you actually can't teach it effectively, because nobody can actually really see what you're trying to get at on a map for instance. On the screen it's immediately on the screen, it's actually a teaching aid that I think is much more effective than actually sitting in a classroom* (P11:15 143-155).

> *The fact that I know I'm reaching many more learners than I would normally do in a standard traditional classroom, that makes a whole lot of sense to me and the fact that I don't have to ..(unclear) chalk and talk, the fact that I can use lots of very interesting stuff, I can use PowerPoint™ presentation, that sort of thing, with the greatest of ease. I can make the lesson much more interesting than would otherwise have been the case* (P13:9 87-92).

This underlying sense of "meaning much to many" is shared by many South African educators and is often quoted as their chief motivation for having chosen teaching as a career.

4.4.2 Physical sites

I here discuss the conditions at three locations vital to the delivery of a telelesson as well as describe shortcomings or ineptness that had a marked influence on the efficacy of broadcasts.

Receiving sites: viewing venue

With regard to the technical preparation at the viewing venues, viewers (54.9%) generally felt satisfied that the equipment was in working order and ready for each broadcast. Personal observation of live telelessons at several sites including one more than 500km from the Pretoria studio, confirms superior clarity of the transmitted image although only 60.6% of the viewers claimed they could see well. This aspect of visibility may, however, relate to the incorrect position of the monitor or the number of viewers in the room *i.e.* the distance an individual would be seated from the screen. Audibility was less satisfactory as only 46.7% of the participants claimed to have heard well during broadcasts:

> *…they don't look at TeleTuks because the supervisors, cos* [sic] *they make noise and then people who have to concentrate, they don't concentrate any more because of the other people* (P1:87 373-377).

In 65.7% of the cases, there was adult supervision although learners from one site commented on the "absence" of a teacher during broadcasts: … *No supervision cos* [sic] *they just sleep* (P1 379). Such undisciplined circumstances would not be conducive to concentrated viewing. However, a startling comment was made by respondent 89/01 who found the school environment more conducive to learning during the holidays than in term time: *Winter school is good for us because there* [sic] *no noise in the school. We are not full in the school. So winter school can make pass my matric* [sic]. The viewing venue may also be the reason why some learners admitted to not concentrating. The particular venue where three such learners attended the winter school is directly on the street front with pedestrian as well as vehicular traffic. Judging from the 31 responses received from this site, such a small room would have had viewers uncomfortably cramped. Insufficient space seems to be the echo of Respondent 18/01 too: *I quite like this winter school and this TV thing but I would be happy if the school provide more than one class for us and the young ones* afte [sic] *us* (P9:115 196-198).

I have only reported on the class environment as witnessed by myself during several site visits or as mentioned by learners in interviews or questionnaires. Dillon and Walsh (1992) cite academic staff who act as instructors for ITV modules as experiencing "poor audio quality, fixed cameras, fixed seating and delays in receiving course materials" (p.13) as the primary barrier to the use of interactive strategies. As these instructors concede, my personal ITV experience has also tended to rely on teacher-centred approaches due to physical design restrictions. Rao and Dietrich (1998) suggest that the classroom environment is reflected in more than just the physical lay-out and the technological support and includes the ambiance created by the instructor. I have discussed this non-physical aspect of a viewing venue earlier in this chapter under *§4.3.3 - Miscommunication* since creating ambience at a distance relates more directly, in my view, to the language ability and paralinguistic features of an empathetic teleteacher.

Origination site: studio

As an orientation to the layout of the studio, I invite the reader to consult Addendum 26 where photos of a presenter taken from behind the soundproof glass of the transmission suite, exemplify the interior of the origination studio. The orange backdrop represents a typical South African rural sunset with a silhouetted windmill. The foreground shows the editing desk. These visuals as well as the following description offered by presenter S2 highlights certain key issues related to teleteaching, notably the restrictions of the studio and the importance of close coordination with technicians:

> *There is a sort of logistical constraint about handling the pieces of paper, about not being able to communicate with the person in the studio so that you give little clues about whether you'd like the camera on your face or on a piece of paper and before I start I now call the people and say:" I'm going to play with my little car like this, I'm going to hold this bit of string with a weight on it" and then they would say "We will use that camera for that and we will use this camera" so they are forewarned about what to do. As long as you - it's a constraint, it's that you cannot do experimental work easily also if you do, do the experimental work, it takes ages and ages, so I've decided that I do tiny little things that don't require a lot of apparatus, so I cope with a constraint like that and rather draw it, show the apparatus, draw and then look at the results because they have to interpret the results. So the constraints are a lot with time and apparatus and the nitty technical aspects of using three or four cameras. I find having not to see the person I'm teaching, I've had to imagine a lot, I teach the Mickey Mouse. It's an artificial kind of thing that you've got to look at a camera that isn't a person and you mustn't look at this monitor screen, you must look at something else far away. So you've got - but eventually you do get used to it, it starts to happen quite automatically, so it's a lovely challenge* (P14:32 219-239).

The comment made by the independent assessor of presenter E3: *Born teachers need blackboards!* encapsulates one of the ways in which presenters are forced to adapt their teaching style when working with ITV as a medium of content delivery. Presenters are compelled to be static constrained by fixed seating, audio cables, lighting and camera positions. Presenter M2 explains how the physical restrictions necessitated an adaptation to her regular teaching style:

> *For instance having the microphone, the microphone gets fed through, in fact on a cord, so you also quite limited in your movement and I enjoy moving a lot when I'm teaching, but the microphone I felt very restrictive, it wasn't remote, it was attached to something, that, and also the light at the studio, the desk was -, you couldn't really stand up, you had to be seated, and I would never teach seated, it's just not my way. And ja, so you can't really move your hands, you can't move your body, you're just sitting staring at the screen, and you almost become limited in your creativity in terms of then what you prepare as well as what you deliver … probably just the very first lesson, I realised, and probably the fact that you have to look straight at the camera as well* (P19:7 91-102).

Despite the restricted teaching environment in the studio, presenters did not look uncomfortable operating within such physical constraints. They appeared at ease with the studio technology and dealt professionally with any hitch *e.g.* papers that were muddled or sound not being relayed effectively. Appearances may have been deceiving, since some presenters admitted to not being at ease with the medium:

> *I also found that I was far more false than I am in a classroom with people because you kind of lose personality or you have to fabricate personality, because I was talking to Mini Mouse who was the irritating character on the camera, and that is all. And yet you feel extremely self-conscious* (P19:5 53-65).

The following light-hearted comment also suggests some initial intimidation by the presenter monitor: *Seeing my own face the whole time! This is traumatic for someone who never looks in a mirror except when putting on lipstick* (P5:14 28-29).

Another compounding factor was time constraint. Presenters seemed to be victims of the rigid programming and resultant race against the clock, placing teaching objectives above learning outcomes. Possibly they were attempting to cover too much content per session as elaborated on in the following quotes:

> *I certainly had to keep an eye on the clock. I had at the beginning, certainly I found I was running over the time and didn't finish what I wanted to say, but you get into that habit after a while, you get the feel of how far it feels like* (P3:23 150-153).

> *And I did feel that time was a bit of an intrusion, you know sometimes the people at the back would tell me there was five minutes to go or whatever, and I wasn't quite where I'm supposed to be and I've never confessed it. I had to rush on. So the clock is a bit of an intrusion* (P4:28 197-204).

> *A great deal but then I think we take this into account when preparing. however, I must admit I always was conscious of the time factor in relation to the real need 'out there' - length of session as well as total time allocation per subject – the enormity of the task and need is mind-boggling when you think about - in practical and theoretical context!* (P7:9 64-69).

> *…it seems as if I intend to present for about three hours. And inevitably it doesn't work that way, half of what I prepare always fall* [sic] *by the way side, I just realise that I have to go slower and slower, so that, very definitely* (P13:20 224-228).

A pre-occupation with the studio clock was visible and presenters created further tension with time-related utterances such as: *Now let's quickly see what happens here. Let's quickly test this…. Right, we have twelve minutes left so let's quickly look at #3! It's very easy! (*P16:61 100-102, P16:65 107) or *…we've got a lot to do in this session. We will start straight away* (P12:83 472). Inadvertently learners felt under pressure too: *If one has limited time to complete a particular portion one feel* [sic] *that asking questions will waste time* (P6:12 22-23). Learners also expressed the need for longer and less compact presentations:

> *To* [sic] *much to recall, to* [sic] *little time* (P9:40 89).

> *They must increase the time for maths maybe one hour and 30 min* (P9:58 21).

> *I satisfied* [sic] *about the winter school lessons but time is limited. Especially in Geography the time was very short and it was only one programme* (P9:60 22-24).

> *But I suggest that they must prolong the time of certain key subjects like Maths* (P9:66 40-41).

> *It helps the students a lot and my only problem is the time slots. It should be at least 2 hours per lecture esp. Maths, Science and English* (P9:96 156-157).

Apart from the visible attempts to beat the clock, it was also evident in most broadcasts that presenters ought to have discussed the instructional episode with the studio crew prior to going on air and have cued the technician during the broadcast in order to eliminate some annoying technical matters *e.g.* poor lighting or cameras left too long on the visuals while animated explanations were lost. These technical distractions are discussed next.

Production suite: technical crew

It was evident in several episodes that the *TeleTuks* crew required more training to handle a wider variety of functions. This may have enabled them to be more creative as well as capitalise on the unique characteristics of ITV. Often printed text or handwriting was far too small and map work not clear, simply because the technician did not zoom in close enough. On several occasions the studio lights had not been adjusted and dark shadows fell across the paperwork. In some instances Mickey Mouse[23] or the clock was also incorrectly positioned, causing an annoying sideward glance or unnatural staring at the roof instead of looking directly into camera. These are matters, which the presenter has no control over and the crew need to align. Personal experience and several presenter complaints during my stint as project manager endorse the frustration of this presenter:

> *The difficulty is also with the movement of the different cameras. I realise that there's not an active cameraman as such in front following your movement, but when you're moving from what you're writing on for instance, to the computer, to you being on the screen, I find that quite difficult, because it's not really rehearsed, the people don't always know when to switch, so the switching, sometimes they weren't watching or perhaps fallen asleep or whatever, but it wasn't happening. So I would end up having to repeat the sentence going, "And now we'll switch to the computer, and now we will switch to the computer* (P19:5 53-65).

Visual quality and a full learning experience ought not to have been sacrificed because of technical limitations or crew apathy.

4.4.3 Emerging theme: Problematic practicalities and partnerships

Unlike traditional face-to-face teaching, teleteaching is not a solo activity. In reality, it ought to be a finely orchestrated performance for which each team member has prepared well. Apart from wasted resources, learning opportunities are depleted when any role

[23] After a training session and in an attempt to lessen the sense of speaking into a void, a colleague placed a plastic Mickey Mouse toy on top of the central camera into which the presenter teaches. For some presenters having this comic character to "teach" lessened the emptiness of the studio while others found it distracting.

players neglect their duty. Presenters can only be as effective in their delivery and display visual material to full advantage as the technical crew permits. The visual image transmitted to viewers must be optimal. Switch-overs or zoom-ins that are not smooth and seamless could confuse or bore viewers. Worse, the broadcast becomes a travesty, especially for young learners, when incorrect camera angles create ludicrous distortions. Appropriate lighting, sound quality, and camera angles enhance the visual capability of the medium. It is thus imperative that presenters spend time prior to going on-air discussing their telelesson with the crew. Providing them with a written outline indicating where certain change-overs take place also facilitates their task. If presenters implement the advice offered by Cyrs (1997) then there needs to be three times more visualization in a telelesson than a classroom. By implication, the crew need to listen and watch attentively for action cues in order to respond immediately and appropriately. Since *TeleTuks* presenters do not rely on an auto-cue (teleprompter) but delivery their lessons live and unedited, it is even more crucial that technicians are on task. Presenters have very little, if any chance of correcting technical flaws, as they cannot perceive their lesson as the viewers would and thus rely on alert technicians. Since *TeleTuks* presenters do not enjoy the luxury of a full studio crew, graphic artists, secretarial help and information specialists as do their counterparts in industrialised countries, their dedicated input in terms of preparation needs to be supported by close teamwork in order to ensure a well-executed presentation with high presenter credibility (B. O. Barker, 1995; Luck, 1997; McHenry & Bozik, 1995).

In order to minimize the “talking head” characteristics of most instructional broadcasts, technicians need to manipulate the equipment creatively *e.g.* using corner inserts (picture-in-picture), transition effects (wipes), character generators (chirons), graphics, and various camera techniques to minimize tedium. Apart from exploiting the full capacity of the available technology, they need to ensure that all equipment is operational. Learners and site educators may not be inconvenienced by poor quality broadcasts or cancellations. With dysfunctional and under-utilised technology, to rephrase McLuhan, the message is affected by the medium and will account, in part, for poor viewer feedback. Chiefly the success of designing, developing and delivering subject content lies with the presenter but without support from a knowledgeable and co-operative crew, this effort is in vain.

4.5 Discovery channel: main findings

Survey data indicated that 66.5% of *TeleTuks* viewers did have questions to ask and this was confirmed by interview data. An unambiguous question thus arises: If viewers did have questions, why did they not ask? The central story line that played out on the *TeleTuks* screen suggested that contrary to the initial hypothesis that guided this study, poor English proficiency was not the primary reason for the lack of learner responsivity during interactive television instruction. Furthermore, both educators and learners, unanimously refuted cultural reticence as an explanation for poor participation. In answer to my research question, I established, in descending order of influence, that

- presenter-related factors, rather than limited language proficiency, combined to ensure low reciprocity in the viewer audience.
- technological limitations and inadequate technician support, may have further contributed to low levels of interaction.
- learner inhibition had an influence, albeit limited, on participation rates.

In this chapter, I presented the empirical data clustered around three major categories constituting various factors that seemed to account for low interaction during televised lessons: Presenter, Learner and Context. These categories represented the unit of analysis: the *TeleTuks Schools* project and were constructed from an inductive analysis of the data produced by eight instruments, using *Atlas.ti* ™. I endeavoured to closely examine and analyse the data collected in order to come to a profound understanding of why Grade 12 learners were reluctant to interact during broadcasts. Three themes emerged from this process and appeared to answer the research question relating to poor viewer participation. I shall provide interpretive commentary in Chapter 5, where I intend to fully explore the order and relationships among the findings offset against the selected theoretical framework and related literature.