ADDENDUM 21: EXCERPT FROM LEARNER INTERVIEW TRANSCRIPT

1 And do you [phone]?
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 lessons and some days there’ll be no time like maybe we’ll be out (unclear)…like I don’t know how to explain it (laughter)

2 Help her?
Why do we have to phone we watch our lessons in the libra (sic) and the phone machine is inside the office so he said we won’t be able to see the section then it’s going to be a problem because you just phone in you won’t be able to see the solution at the same time

3 OK so there is not a phone in the room?
Yes// Ja

4 OK And the lessons?
The lessons were…….were good.

5 Does the presenter ask questions?
Aah, no

6 No? OK
They only (inaudible) ?? It is a problem for us to ask them maybe later we can ask the teachers They put in charge with us for that lesson, Ask the question then maybe we can ask them to the question then most of the time the teacher just ask the questions to the presenter. We only answer them ourselves when people discuss.

7 Amongst yourselves? OK and your feelings?
I think by phoning is just a waste of time because the time you phone the lessons goes on and then you will miss it..

8 So that’s a practical problem, Thanks. OK. What lessons did you watch?
Hmm, the lesson is good but I think the involvement is too everything …you can write down everything so that you can answer the other person who helped listen with them ……Ahmm.

9 Is it a problem that you get the lessons in English?
No (collective answer)

10 It is not a problem, (collective murmur) Not? (Ja-ja.) And you understand the presenter’s English?
Yes we do (collective agreement)

11 They don’t speak too fast? (No) Your comment?
Well, I think the lessons are good because maybe if our subject teacher is teaching in class?? maybe I understand 50% of the work and so now I start attending the
lesson maybe a percentage like……..it gives me a high possibility to pass and improve my marks.

12 And how do you think your teachers feel about the extra lessons being offered in the afternoon?

They feel good because if they didn’t feel good we won’t like watching the lessons.

13 OK So you don’t think they are threatened.

No (collective). I think they feel good because we will be able to (hesitation) increase our marks and (inaudible)?? OK I think a lot of burden it taken off them so that they are asking their afternoon that’s why because they will want to have to explain most of we can see the lesson and if we have any questions maybe we can back back to them again

14 And they still do work in class? They don’t sit and say ag, no you are going to watch in the afternoon?

They still do their work
ADDENDUM 22: AUDIO CLIP: EXAMPLE OF LEARNERS’ ENGLISH PROFICIENCY
## ADDENDUM 23: ANALYSIS and EVALUATION of VIDEO TAPED PRESENTERS’ INSTRUCTIONAL BEHAVIOUR

<table>
<thead>
<tr>
<th>Presenters</th>
<th>Appearance</th>
<th>Preparation</th>
<th>Verbal</th>
<th>Nonverbal</th>
<th>Immediacy behaviour</th>
<th>Language usage</th>
<th>Knowledge of target audience</th>
<th>Elicits interaction</th>
<th>Use of media</th>
<th>Information transfer</th>
<th>System design</th>
<th>Most pleasing</th>
<th>Most annoying</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>Immaculate but colour jacket too light</td>
<td>Very thorough but no ITV structure</td>
<td>Invitational speech</td>
<td>Motivates</td>
<td>Friendly smile, animated face</td>
<td>Satisfactory pace; monotonous at times</td>
<td>No pauses, word bridges</td>
<td>Appropriate</td>
<td>Some low frequency words</td>
<td>No</td>
<td>Fair, font too small, uses caps. In parts,</td>
<td>Dense</td>
<td>Just talks, no show or do! Learning outcome?</td>
</tr>
<tr>
<td>E2</td>
<td>Neat, simple</td>
<td>Very thorough but no ITV structure</td>
<td>Invitational speech</td>
<td>Motivates</td>
<td>Friendly, formal, nervous but no distracting mannerisms</td>
<td>Appropriate expectations</td>
<td>Imagines them when she talks</td>
<td>Many</td>
<td>Metaphorical questions</td>
<td>Fair</td>
<td>Fair too small blue paper does help glare</td>
<td>Useful for those who know their work</td>
<td>Camera</td>
</tr>
<tr>
<td>E3</td>
<td>Attractive but chunky jewellery</td>
<td>Thorough but could have more structure. Sharpen definitions.</td>
<td>Invitational “I'll wait for you”</td>
<td>Friendly</td>
<td>Formal, nervous but no distracting mannerisms</td>
<td>Appropriate</td>
<td>Some slips</td>
<td>Low frequency words</td>
<td>Clear diction</td>
<td>Chatty style maintains contact with viewers</td>
<td>Type is large enough,</td>
<td>Too much too fast? Too theoretical?</td>
<td>Camera</td>
</tr>
<tr>
<td><strong>Maths</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1</td>
<td>Appropriate but hair distracting</td>
<td>Very thorough</td>
<td>Invitational speech</td>
<td>Inclusive</td>
<td>Gentle voice</td>
<td>Very good pace</td>
<td>Much jargon</td>
<td>Assumes</td>
<td>much prior knowledge</td>
<td>Invites phone ins</td>
<td>Student in class</td>
<td>Neat, clear colours</td>
<td>Successful</td>
</tr>
<tr>
<td>M2</td>
<td>Acceptably plain</td>
<td>Very thorough</td>
<td>Invitational speech</td>
<td>Inclusive</td>
<td>Animated</td>
<td>FAR TOO FAST</td>
<td>Much jargon</td>
<td>Assumes</td>
<td>calculators But not log proofs</td>
<td>Excellent attempts @ IA with peers &amp; content</td>
<td>Check Ppoint colours</td>
<td>GHP OK, Spelling mistakes</td>
<td>Too fast</td>
</tr>
<tr>
<td>M3</td>
<td>Immaculate</td>
<td>Very thorough but far too much</td>
<td>Invitational speech “Maths is fun”</td>
<td>Could smile more often</td>
<td>FAR TOO DENSE</td>
<td>Much jargon</td>
<td>Assumes</td>
<td>No word bridges</td>
<td>Extraneous English</td>
<td>Several slips</td>
<td>Knocks rural learners but does not teach with them in mind (use colour pens)</td>
<td>Expect viewers to be working with him</td>
<td>Metaphorical questions</td>
</tr>
</tbody>
</table>

*University of Pretoria etd – Evans, R (2005)*
<table>
<thead>
<tr>
<th>Science</th>
<th>Neat, casual</th>
<th>Evident</th>
<th>Inclusive language</th>
<th>Too fast</th>
<th>Many inaccuracies</th>
<th>Nothing specific</th>
<th>Few rhetorical questions</th>
<th>One activity</th>
<th>Negative small</th>
<th>Average</th>
<th>Too little face, hammering annoying, Too much faceless voice</th>
<th>Enthusiasm</th>
<th>Illegible small, illegibility of explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Immaculate</td>
<td>Very thorough</td>
<td>Invitational, Smiles, gentle voice</td>
<td>Excellent pace</td>
<td>Appropriate some slips</td>
<td>Assumes prior knowledge</td>
<td>Does try to make it applicable</td>
<td>Few rhetorical questions</td>
<td>Font far too small, hand writing OK</td>
<td>Drawing help understanding</td>
<td>Successful</td>
<td>Camera should zoom in, more face</td>
<td>Pace of delivery</td>
</tr>
<tr>
<td>Geography</td>
<td>Immaculate</td>
<td>Thorough and structured</td>
<td>Explanatory rather than invitational</td>
<td>Too fast, no pauses or transitions</td>
<td>Uses plenty of jargon</td>
<td>Assumes they know concepts but also covers work already done</td>
<td>None</td>
<td>Uses PowerPoint but font too small, colours faint, uncontrolled use of mouse lots of visuals but magnificatio n not exploited</td>
<td>Too much at once Talk and tell</td>
<td>Camera should zoom in on visuals</td>
<td>Good SAE accent Visual material</td>
<td>Does not connect with viewers</td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td>Immaculate</td>
<td>Thorough and structured</td>
<td>Explanatory rather than invitational</td>
<td>Should smile</td>
<td>Too fast, no pauses or transitions</td>
<td>Uses plenty of jargon</td>
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<td>Camera should zoom in on visuals</td>
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<td>Does not connect with viewers</td>
</tr>
</tbody>
</table>
**ADDENDUM 24: EXAMPLES OF ASYNCHRONOUS INTERACTION**

1. **E-mail from learner being home schooled**

Hello!

I have been watching *TeleTuks* from this year and I want to thank you for broadcasting it. I am 17 years old and I am doing home-school through Sukses College and last year I was still in regular school (at the beginning of the year) but we decided on the home school. At the time I was in gr-10 but then I jumped to gr-12! We have split the year in 2 so that I do 3 subjects per year. The *TeleTuks* has really helped me because I do not have a teacher at home to help explain things to me, but the teachers on *TeleTuks* have helped me.

Thank you!

I was watching the Winter School English Exam tips on Friday 29 June and the presenter was talking about the marks.

- Oral 60 marks
- Portfolio/CASS 80 marks
- Final exam 160 marks

I was wondering what to do, seeing that I am doing home school! I haven't done any oral and I probably won't not to mention the Cass marks. How will I acquire that 140 marks?

I suggested to my father that we also contact my college.

I have also inquired about the Comprehension Work Book and I have been told that I will receive further info via e-mail.

Thank you once again for the help on the T.V.!

2. **E-mail sent from viewing venue**

Dear Mrs. E Fereira

These are the questions that we have prepared for today's lesson since we cannot get through to you as the phone is always engaged.

Newton's laws of motion

1. Why is it easy to throw a tennis ball up than a sac of maize?
2. What makes a car move at a car move at a zero acceleration?
3. An astronauts lends on a approximately spherical asteroid (a small planet) of radius 2x 105. He finds that a 5kg mass released from the rest at a height of a 4 m takes 4s to reach the surface.

Calculate (i) the gravitation acceleration of the object while falling, and the (ii) the mass of the asteroid. Could you please send us notes on gravitational law through the e-mail (above address)

From *TeleTuks* students

Edupark.
ADDENDUM 25: AUDIO CLIP
ADDENDUM 26: STUDIO LAYOUT and TECHNICAL SPECIFICATIONS
Table A26: Equipment available in TeleTuks educational studio

<table>
<thead>
<tr>
<th>Function</th>
<th>Equipment available</th>
</tr>
</thead>
</table>
| Visual shoots/recordings | • 3 X Sony 3 CCD studio cameras fitted on remote controllable heavy-duty pan and tilt heads  
                                 • 1 X Sony 3 CCD overhead camera fitted on remote controllable heavy-duty pan and tilt head |
| Lighting              | • 2KW Freschnell lights with barn doors  
                                 • 1 KW Spotlights with barn doors and flood facility  
                                 • Fill lamps and soft boxes  
                                 • Extensions and pentoraphs for light supports  
                                 • Defusers and scrimms for soft lighting  
                                 • Coloured gels for different lighting effects  
                                 • Dimmer control units |
| Sound                 | • Dynamic lavaliere (lapel) microphones  
                                 • Power supply Phantom power approx. 3.6 mA or supply voltage 9 V battery (switchable)  
                                 • Pickup pattern - Omni directional  
                                 • Frequency response 30 - 20,000 Hz |
| Audio mixing          | • TASCAM 24 CH audio mixer |
| Video mixing          | • FORA VPS 300P8 CH mixing desk |
| Input sources         | • BETACAM SP, DV Cam, Super VHS and VHS, PC with composite output screen card for running PowerPoint presentations |
| Character generator   | • Inscriber generates intro slides, lower thirds, chyron, and caption crawler |
| Telephone links       | • 10x incoming telephone lines, patched through to presenter's monitor |
| Control room          | • Minimum of two crew members depending on type of broadcast |
| “Green room”          | • Movable wooden unit in corridor outside studio affords presenter privacy prior to broadcasts |
ADDENDUM 27: PROMOTIONAL PAMPHLETS EMPHASIZING INTERACTIVE NATURE OF BROADCASTS

University of Pretoria
TELEMATIC EDUCATION
Guidelines for Interactive Teleeducation
Schools Programme

The University of Pretoria is an established leader in science and technology and firmly believes that quality tertiary education is a prerequisite for prosperity in South Africa.

To make quality education accessible to more learners and to contribute to meeting some of the educational needs of the community, the University has entered the challenging field of innovative Teleeducation (TT).

With this venture, Teletuks became the first South African institution of higher education to practically demonstrate the potential of live interactive television broadcasting to derive education.

Contact Persons:

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Tel: 011-239-3277 Fax: 011-239-3007
063-328-5862

Ms. HJ van den Merwe (Office Manager)
Tel: 011-239-3277 Fax: 011-239-3007
063-328-5862

or write to:

Teletuks Schools Project Manager
Telecommunication & Education Innovation
Education and Law Building 3-36
University of Pretoria, Pretoria, 0002
ADDENDUM 28: GARTNER’S GROUP™ HYPE CYCLE

Visibility

Digital Camcorders
Digital Photo Printers
Video on Demand

High-Definition TV
Interactive TV

Satellite Radio

Digital TV (Cable or Satellite)

E-Payment

Household Wi-Fi

Digital Media Centers
Smart Home Appliances

Personal Digital Assistants
E-Book Readers

Personal Video Recorders

Mobile Telephones
Telematics

Broadband

Home Theater

MP3 Players

Wireline Home Networking

Digital Cameras

DVD Players

Internet Shopping

Game Consoles

As of June 2003

Maturity

Technology Trigger
Peak of Inflated Expectations
Trough of Disillusionment
Slope of Enlightenment
Plateau of Productivity

Key: Time to Plateau

☐ Less than two years
○ Two to five years
■ Five to 10 years
▲ More than 10 years
☒ Obsolete before Plateau

Source: Gartner Research (June 2003)
ADDENDUM 29: A CHRONOLOGY OF TELETUKS SCHOOLS
COMMUNITY PROJECT

1985

- Faculty of Engineering starts investigations into possibility of using ITV. Trial broadcasts using microwave-based distribution and optical fibre links commence between the UP campus and a government affiliate. Target audience: postgraduates.

1988

- Prof. Robert Kincheloe, a visiting consultant from Stanford University shares his experience of Stanford Instructional Television Network (SITN) with UP.

1992

- Decision to start degree programme broadcasts to Witbank satellite campus, 100km away in order to alleviate lecturer travelling costs. Point-to-point optical fibre link is used.
- Idea of academic support for secondary school learners is conceptualised; technological infrastructure needed is investigated.

1993

- June: 19 English and Afrikaans school representatives invited to ITV demonstration and focus group discussion needs analysis and feasibility studies follow.
- Broadcasts to 2 Eersterus schools commence: One hour on Tuesday and Fridays during school hours. Aim: Academic support for matriculants as well as educators. Tuesday broadcasts utilised for vocational guidance upon request.
- September: Private company SENTECH offers UP a transmitter at no cost for 12 months for further experimentation. EM-lab & Grinkar Avitronics donate several prototype antennae too.

1994

- January: Unit for Interactive Teleteaching established as part of Buro for Academic Support Services.
- Decision taken to start community project for schools.
- External funding is raised; generous donation of $8,500 by May and Stanley Smith Charitable Trust kick-start project.
- 8 secondary schools involved; 6 in Pretoria and 2 in remote North West province.
- June: first winter school; 3 schools involved.
- 18 presenters appointed; 188 instructional broadcast hours to 344 learners, 116 educators receive in-service training via ITV.
- ORT – SIER, an organisation specialising in the technical training of educators launch a pilot study to practically test the technical skills of technology educators via ITV.
1995
- 16 participating schools.
- Winter school runs for two weeks: 5 schools involved; 60 instructional broadcast hours.
- August: 22 schools equipped and participating.
- September: First Spring school introduced.
- 692 learners participate in a questionnaire survey; results indicate overwhelming support for ITV by both learners and educators.
- 254 hours of instructional broadcast per annum.

1996
- UP approaches Liberty Life Foundation as co-partner.
- November: installation of video conferencing equipment.
- December: First video conferences held: London and Australia.

1997
- 50 participating schools.
- February: change over to satellite technology (Ku-band digital).

1999
- Limpopo provincial education department equips 22 schools with monitor, satellite dish and decoder

2001
- 72 participating schools.
- Formal ITV training course introduced: 20 ITV presenters trained.

2003
- 34 site visits undertaken in order to assess degree of utilisation and commitment of schools on record.
- External donors (Phalaborwa Foundation and a platinum mine) enable 11 new schools to be equipped
- Pilot project in conjunction with Tshwane Metropolis investigates possibility of video streaming. Technology and policy limitations hinder implementation.

2004
- 102 officially on record
- June: Last Winter School
- September: Last Spring school
- December: UP discontinues rental agreement for satellite channel

Quo vadis?:
- Advances in videoconferencing investigated, continuation of video production
- Exploratory discussions with Mindset relate to possible research collaboration as well as in-service teacher training.