

# TRANSCRIPTION

---

*Commission of Inquiry into Higher Education and Training during SET 3*

---

*Chairperson : Judge Jonathan Arthur HEHER*

*Commissioners : Advocate Gregory ALLY*

*: Ms Leah Thabisile KHUMALO*

**Evidence Leaders**

*: Advocate PILLAY*

*: Advocate LEKOANE*

*: Advocate ZULU*

*: Advocate MABUDA*

**Expert**

*: Prof T Mosia*

*: Dr G Simpson*

**Witnesses:-**

*(1) Professor NONGXA*

*(2) Ms KALUKE MAWILA*

*(3) Professor IAN SCOTT*

*Date: 20 October 2016*

**Venue: City of Tshwane Centurion Council Chambers**

**Chairperson:** Good morning everybody?

**Professor NONGXA:** -Most universities, all universities except a few would have a research inside a skills. So if you publish you get a reward for your publication which is the percentage if one can call it that of..., I mean it is related to a publication on a number as students.

**CHAIRPERSON:** What do you say if you publish, do you mean when somebody is employed by university publishers the university gets the reward or are you speaking about the individual?

**Professor NONGXA:** No somebody at the university, sorry I have been lose with language. I am talking about academics. Your publications, first of all the designation must be institution which will claim that publication from the department of Higher Education and Training.

Now it could be that last year I did not submit a publication that was accredited and rewarded then I do not get and then this year depending on how many units because this is also measured in units depending on how many units you might have contributed then the Universities...they are not forced to do that.

I think Cape Town actually have a research incentive scheme, but others for a variety of reasons would incentivise people and give them some money. I quarrelled with the union of my academics towards the end of my term around this.

Then there other one is the percentage of academic salaries if one says that for some of your time you have to spend that time on research and one can look at that. The highlight here is you have to provide some research support and again because of the pressure of university budget sometimes this suffers, I know that universities would cut back on your Library resource which is unfortunate.

Research development ranges or varies from university to university conference attendance, this incentive scheme one of the things is that if you get that money then you do not have to beg the university to give you that money for the conference. You can just use it for the research grant and attend the conference whereas other university there's a limit to how many conferences you can attend.

Young people or people who have just joined the university who have not submitted publications that gain accreditation you would give them a start up grant in order to get them going. There are some schemes some of them from the national research foundation (TUTUKA) being one of them.

If you believe in this and then show us the money so that we can invest and scholarships again depending on that some of that grant is invested in that post graduate scholarship

**Adv. LEKOANE:** Pardon at which level that publishable research occur, would it be at the Masters level or the Doctorate level, and is it waited differently?

**Professor NONGXA:** No the publication is not waited it really depend on whether a student decides to publish or not, or the supervisor encourages the student to publish or not, so whether the publication comes out of the masters.

Some of the publication could come out of an Honours Degree. Honour students produce something that is publishable. Coming to DSTA funding, most cases when I was at HISA, most reasons because we report to the Dep. of Higher Education and Training we turn to focus more on the Dep. Of Higher Education and Training and pay less attention to the others.

Now even as a Dean that is one of the things that one focus on. The Advantage here is that what they want to do is...they disseminate this. Secondly I must compliment them they did in the past they are friendly they reach out to universities. They visit universities and they disseminate information on funding opportunities because their success depends on the take out from universities.

The bulk of the money that they invest goes to universities. One could say other departments same thing as well that number of academics Senior Officials came from universities themselves which again is a down side because we talk about the next generation of academics. Some of them are in government with PhD that could be contributing to training of student and publications.

Constrains here quickly is that the money is ear marked if you are given so much for the student you cannot say no this I will use it on something else and a number of academics have been caught out on this. Other funding streams like centres of Excellence, your research chairs all are ear marked. People feel that what you have to do to get the money out of the RFDST you have to compete lots of forms compared to maybe other funding agencies.

I would not say that this is a constrain but I just put it under there. There is an ongoing debate as to how much money goes to Sciences verses Humanities. This is one of the issues I have raised with my colleague that we focus on people who are already established.

There is funding for younger people but if you look at the split a lot of it goes to established people again because you have confidence of return on investment on people that are established. These are the illustrations such as grants that the NRAF has made in the last three years. Over the years increasing to just over half a Billion Six Hundred and Forty to just over a Billion. This Data comes from the NRF.

**Adv. ALLY:** Professor In respect of distribution model. Is the NRAF the same as DEAT in terms of what we under stood yesterday on Professor STUMPF? Is that DEAT does not deposit the money into the university unless certain criteria are met like publications and so forth. The NARF funding scheme does it work in a similar manner?

**Professor NONGXA:** It depends there are many schemes for an instance if you are a scientist, I say this under correction you submit you get an annual grant depending on what you are going to do. You submit an annual plan and then with a target and at the end of that year if you have more money then there is some negotiations between yourself and the researcher and the NRF. The other schemes would be your TUTUKA as staff development grant again for so many years for milestones for the continuation of that.

**CHAIRPERSON:** Professor before you go on to my ignorance can you explain what the source of the income of the research fund is?

**Pro. NONGXA:** It comes from the Department of Science and Technology that is why I grouped them together.

**CHAIRPERSON:** Is it purely Government state funded, or does it have other sources?

**Professor NONGXA:** That is a good question because in the NRF act of 1998 the NRF is expected leverage resources from none governmental resources but if my memory serves me well I think the proportion would maybe up to 90%, but there are funds that are coming from other sources NRF would maybe managing grants from research councils elsewhere. The Bulk of comes from national Treasure via Dep. Science and Technology. This from younger people if you can compare as a proportion that is allocated

**Adv. ALLY:** Sorry Doctor! This is part of that 1.5% that is spent on RND it would be included in the NRF expenditure?

**Professor NONGXA:** Remember that in that slide there is Governance, higher education and institutions, so this money would be under the Science councils. This is money that is spent by universities.

To highlight the funding has not kept up with inflation. So thus serves to illustrate that. Dep. Of Trade and Industry the only funding that I am aware of going to the universities is for technology and human resources for industry programmes established in 1991, from the GTR is managed whole by the NRF.

I say up to 21 acts because it has been taken back to the industry but the pipeline funding that is still being managed by the NRF. There is really the idea or the goal is to bring industry researchers to the universities, possible to look at conduct research at what is called as applied research. There is a 50/50 by the Dep. Of trade AND Industry and the participating companies. That is the investment over the last three years, this date again is from the NRF about 150 000 over each of the last three years.

**COMMISSIONER KHUMALO:** I did not get the point on the previous light. What has happened now to the technology and human resources?

**Professor NONGXA:** it is managed in house by the Dep. Of Trade and Industry but what has happened now, I am not aware now whether they are going to still continue with the same scheme or be on other institutions, it could be other. Because the mandate of Department of Trade and Industry Artisans and so on they will be looking at growing that sector of the economy

**COMMISSIONER KHUMALO:** So the impact on that is ...How does it affect the RND as well?

**Professor NONGXA:** The impact of that is for universities there is still a pipeline. The funding would be for three years at a time. The Dep. Of Trade and Industry is still committed to those projects but what they do later on we do not know, but on the NRF the budget has not changed, but there are no new projects that have been identified

**Adv. LEKOANE:** To what extent the NRF able to leverage the third stream income, you mention earlier that the NRF is encouraged to get other sources for funding. Have you been successful in that?

**Professor NONGXA:** I do not have information on other than possibly playing a brokerage role like bringing together people from universities with other parties. In our budget we do not have. I will come to third streaming later on in the way that I understand it. I have highlighted a big problem not only for our universities but globally the question of properly costing the research that is done by universities on behalf of other parties is an ongoing challenge and we can talk about it later on.

**COMMISSIONER KHUMALO:** To follow up on the Advocate's Question. You say NRF has got a legislative mandate to fundraise. So we not sure whether they are following up on that mandate.

**Professor NONGXA:** I would say they are in terms of brokering relationships that could lead to funding the systems, but it is a small proportion at this stage maybe stands at 10% of the total budget. It is something that I have discussed with the new CEO that we should try and increase that proportion of our budget, because the budget of the NRF is really under strain as he might have commented.

**COMMISSIONER KHUMALO:** But the way you understand the act it means you can go to European unions to get funds and comes directly to them.

**Professor NONGXA:** Funding from other agencies that is already happening, sometimes they deal directly with the universities and in certain instances are funders who would want to work directly through the NRF. So funding from other systems that is already happening but we want to do more of that. Let's look at the strategies, Energy which is a challenge for the country.



The National Service in the U.S would have Energy then people together around renewable energy, where both we and the NRF would make an investment in a multi country or a multi institution project.

**Adv. LEKONE:** Those partnerships what factors would potential partner in an institution to do to enter in such partnership it would depend on type of project that is being run?

**Professor NONGXA:** This comes from the department. I was looking at the government funds that do research and Dep. Health managed to extract this, less and less of what is happening in other Department. It was going to take a lot of time for instance agriculture research council which is major funder of research also in universities and biological sciences.

My observation is that funding Through Department of Trade and Industry through and universities in engineering faculties. I do not have data to back that but it is my gut feeling. For obvious reasons the Dep. of Health MRC is funding Health related research probably the bulk of it will go to universities with medical schools and agricultural research council. Then you can look at the research of those schools with faculties.

**Adv. LEKOANE:** The first bullet point. That would include universities of technology

**Professor NONGXA:** Yes. But there could be a project around software development which maybe somebody with computer science would be involved in. so one would have to look at the actual projects to say this is a validity or not. I had extracted data to compare UJ and CPUT and so on.

The instruments are such that if one can compare what goes into various universities and then if for an instance funding is constrained, which the NRF trustees are likely to

suffer because they cannot feel the gap. Moving on to funding of post graduate students, this my own informal distinct that I make in terms of research training. The students on the one hand could probably belong to a research group where you have a supervisor.

What I want to emphasise here is that people working on related projects is people using the same equipment. Your supervisor is likely to try and find funding for you especially the running costs, but it is unlikely to be the tuition for you. It is the ability to research; they will take responsibility for that.

One would find this in the sciences the experimental disciplines, take mathematics because a mathematician is that one deals one on one with the supervisor because of the approach culture in the humanities of science. There is a research that says students should demonstrate independence from the conception of the project in terms of finding out what is worth doing and how we are going to do it and so on.

In the experimental disciplines you could be given a piece of a big project. There were times I was the deputy vice chancellor where students would approach me they did not have money to do their field work, they did not have money to do statistical analysis of their data.

My view was that that is part of doing the project. If you do not have money to finish the project it means you cannot finish the project, but in many instances supervisors do not pay attention on that I might be unfair on them.

**Adv. LEKOANE:** If I may just take you back to your chat in investments in Wits. What would this look like for an example university of Fort Hare, say the research grant verses the equipment grant?

**Professor NONGXA:** I have got the data I can share it with you.

**Adv. LEKOANE:** Please!

**Professor NONGXA:** There is a bit of focus in our discussion on tuition fees and we should also be looking at what will it take to fund a student to finish a degree. Tuition fees maybe it is nominal some universities would even wave tuition fees for certain degrees. The living cost where someone will be staying n I have also touched on the research cost, has that been budgeted your lab cost field costs and so on.

This is nice to have because we are training the next generation that while they are still doing their research they can start networking to look for opportunities as well. One can do that by attending workshops locally or internationally. I have some data which comes from the national survey.

I did not have time to check what is included under post graduate students. The reason for that is some people would include honours students as part of that but if you are doing your forth year degree as engineering whether that is included here I do not know one needs to look at how the data was collected.

This gives a flavour that in the whole system on how much has been spent on graduate students. From 2009 just over half a billion to 2013/14 this comes from national survey, but one needs to interrogate that data and not take it at face value.

**Adv. LEKOANE:** When you say system what do you refer to, when you say in the whole system?

**Professor NONGXA:** It is where the students would be registered degree granting in situations would be universities. So this goes to universities. This is what the NRF invest in graduates, training and I did a calculation which is somewhere that but my colleague from the NRF maybe will assist. What proportion of students was funded by the NRF? Some are or would be about training somewhere that 25% the question is who else because it could be way off. The question then who else is funding of graduates students? Okay I've been told that it is 10% it is half of my estimate.

**COMMISSIONER KHUMALO:** I think Professor If your colleagues want to contribute, the judge can swear them in so they can contribute.

**Professor NONGXA:** Okay they didn't see the presentation.

**Adv. LEKOANE:** You have got time Doctor!

**Professor NONGXA:** SABC board and one of the other board members said is the first time I see the presentation. The other funders could be government funders. Some Gov. Departments channel the money via the NRF whereas others give directly into the university need to understand what is included here and what goes directly from universities even Government. For instance the MRC would fund students directly it does not go over the NRF.

**Adv. LEKOANE:** These are grants do students have to pay it back, the NRF grant or it is just a grant not alone?

**Professor NONGXA:** Yes. This is something that I would like to highlight which goes back to my total cost of training. This was brought to my attention by the people of the NRF that, I am not saying they used some of the categories that I highlighted but in terms of their own calculations is that at the honours level this is the value of the year. So where does this come from, where are the students supposed to get the stipends. That has many implications maybe the student works part time they could make the difference. It is off concern that we are not funding student or post graduates at the right level.

Just a favour of this we extracted this from the annual report and again one would look at other universities get that information from their own annual report how much they are getting from their own money. This not only this money its money from various sources, this includes money from the NRF, money from donations etc. Part of this is what the universities make from its own resources. I will rush through these because there is process of streaming.

**Adv. LEKOANE:** You do not have to rush doctor I am sure you have got sufficient time.

**Professor NONGXA:** Third stream income from other sources, big thing. When I start as a leader there is so much money you can make and do all sorts of things. What have we learned again these are my subjective views if we look at what have been implemented in other systems and maybe what has worked in other systems but of course the environments are not the same.

We were excited that with all the research that we can get some new products and start up a company the university would have 100% shareholding and get back money that it can on research.

What we learnt among the first lessons is that you need to make an investment in order to gain benefits out of this, some initially investments that you need to make in this. Sometimes it takes a while to realise that the returns which again says that if now say your reserves or whatever money that you are really to spend then is almost on existence.

Then your constrained unless possible then you can get a partner in providing sit funding. I started as Deputy Vice Chancellor Research. At the time that commercialisation and licensing was a big thing. We started a company called VC Enterprise. And in my first two years as Deputy Vice Chancellor somebody brought to my attention that globally very few companies actually succeed.

I can make example about Google and Yahoo whatever the case maybe but the majority of kind of moving from research to commercialisation, the success rate is very low. People which are question of intellectual IP, now there are legal eagles around here so I need to be careful about what I say here about the Laws of Intellectual Property.

Department of Science and Technology set up this technology for innovation agency and can never get it right, which is supposed to deal with some of the challenges. When I was involved with the review of the Science and Technology in a rational scape looking at what was happening around. We went talking to the people at TIA and also then universities.

There was a lot of happiness about TIA to the extent that one of the our recommendations was that it should be reviewed and there is a report which is available on the DST website on some of the challenges that this agency which is supposed to assist university in commercialisation was it faced

You must have possible interviewed people from TIYA I do not know. There is that agency to do that

**Ms KHUMALO:** What was called before: Was it called in a different name?

**Professor NONGXA:** No, no, no! It is Technology for innovation agencies. I sometimes get it wrong I do not know if it's Technology...Technology Innovation Agency. I use to say Technology for Innovation Agency, but I mean I think it was set up around 2005/6.

**Ms KHUMALO:** There was another name for...

**Professor NONXA:** -It came out of a merger of some funding instruments, one was innovation fund which was managed by... it was a DST Fund managed by the NRF. The other was in investment in Biotechnology format tics. It was those two major funding schemes that were brought together to be managed by TIA.

**Ms KHUMALO:** Do they do under graduate funding?

**Professor NONGXA:** No, NO, NO! It is to assist the universities to translate research funding in possible commercialisation.

**Ms KHUMALO:** It was not called Life Lab or it was part of that?

**Professor NONGXA:** No I do not know life lab.

**Ms KHUMALO:** Alright.

**Professor NONGXA:** The other project that the universities embarked on is still ongoing, should I called Professionalism Fundraising and Development. There is an initiative by a foundation in the U.S, the CRESGI foundation which in the first term invested over R10 million US dollar or over 5 years assisting about 5 universities.

University of the Western Cape and so on. The idea was to look into the success of the universities in the U.S with huge endowments fundraising and so on. When we started thus I visited Australia and they were doing something similar. British Gov. contributed a portion which was called a Thomas Report, on what the U.K should be doing to create an environment for people to give especially to universities.



Our success really because we really do not have that many rich people to donate some of the funding would be linked to a project it is not flexible. Most of the, I am talking about year the bulk of the money from other sources came from U.S Foundations. Your Ford foundation, you KANEGI foundation and so on.

One of the recurring constraint is that there is no culture of giving in South Africa. This will be contrasted with the U.S say people of the church donation where the basket goes around the church and people donate. People donate all the time I am exaggerating. The other one is the tax regime within the country.

Michael CUTTS when I raised this said that his report how the tax regime could, I can't remember the details but that is one of the things that encouraged and are giving when it comes to the tax backs

**Adv. LEKOANE:** So Dr there is no culture of giving the giving happens more in your established institutions you UCT, you UP and Stellenbosch

**Professor NONGXA:** There is no culture of giving by individuals, we do not make donations as South Africans even rich people are stingy I say this without qualification of getting into trouble. One could take away as a percentage of our earnings, we give less compared to because again we were imitating what was happening in the U.S, we give less than your ordinary American citizen would be donating for good courses and one of them be education.

**CHAIRPERSON:** Professor would this be a good time to adjourn for tea?

**Professor NONGXA:** Sure!

**AFTER TEA BREAK**

**CHAIRPERSON:** Dr you are still under your oath. Thank you.

**Professor NONGXA:** Yes.

**CHAIRPERSON:** Can we proceed with this witness please?

**Adv. LEKOANE:** Thank you Doctor you had just finished the Development and Funding slide.

**Professor NONGXA:** The next activity would be, I have just listed a whole range of opportunities for leveraging resources to some of the constrains and the possibilities. The next one is continuous development lifelong learning, that is universities could generate funding from this that is short courses classical example is from business school. It covers a whole range of things; some universities would set up a company to run these activities.

There are opportunities there but depending on how you structure things. One that has not been fully exploited is using your infrastructure again for a whole range of things. Currently in South Africa the activities that one would identify would be making available the plant and residencies for conferences workshops and so on and other systems that can be taken under assert management. Contact Research and Consultancy again is an activity that has been there for quite a while the challenge for universities, I keep on going back to the question of course recovery and the time that maybe the academics might spent away from the universities and not be available for students.

Medical schools there is a lot if that happening I qualify that. Let me talk about Wits would be running private practises and so on at the Millpark campus, law students have offices and I must be careful to say this.

**CHAIRPERSON:** Wait! Do you mean full time employees? Full time employees are running Medical practises?

**Professor NONGXA:** Yes. You see at Wits we had an agreement and this is just before I arrived that academics could work for themselves 20 % of the time so we changed that. It is a big problem in the public sector, especially there is called the AROWARKS which is remunerated work outside of public something which is a big problem where people are working for the state as well as for themselves in private sector.

**CHAIRPERSON:** This is beyond simple consultation employment?

**Professor NONGXA:** One would be a partner and it depends on how much they spent on that, partner in a practise one would spend one afternoon or one day a week consulting.

**CHAIRPERSON:** It always used to be the case that university lecture consulting in legal matters where they were experts but that was some part time ad hoc business. You say now the university staffs is entitled to work fulltime or work a percentage of their time on the field than the university?

**Professor NONGXA:** Yes. I can also justify I mean to reach out to the community, we call it academic citizenship.

**CHAIRPERSON:** That makes it easier for somebody shall we say that in position to do outside work, to somebody who is an English lecture at a university?

**Professor NONGXA:** You are right but somebody could, take for instance the private universities MONAJ, somebody could be teaching at MONAJ on certain days where they do not have lectures.

We have policies where they have to declare that and then if they don't it is a disciplinary offence. Also the risk associated with this kind of activities. Somebody could use a letting part using the latter heard of the university and the contracting part thinks that it's on behalf of the university.

**CHAIRPERSON:** Conflicts of interests could occur too?

**Professor NONGXA:** It could be that as well. Here I am referring to a project which was undertaken by, that is European association, which is association under the E.U which was looking at the title Financial sustainable universities....

-And it devotes a volume around on you can go around kind of mitigate the risks and also the things that the university should be on the lookout for so the universities global issue challenge brought the challenge opportunity. Strategic procurement again this has been around for a long time.

You see when academics have their grants they can purchase whatever, your computer whatever the case maybe they do not need anybody's permission for that. The approach here is that we come to an agreement with a few suppliers and then arrange some discount and so on and leverage some savings.

It is something that had a lot of unhappiness at our universities, I think it could be same at other universities as well people feeling they do not have the flexibility to purchase and having to get something signed off let's say air ticket signed off by business manager and so on when you can actually book online again it something that leaves people extremely unhappy. Is in topic of insourcing and outsourcing because is a hot topic.

My personal view is that we haven't framed the debate properly in order to have a kind of meaningful discussion around insourcing versus outsourcing because there will always be outsourcing. Some universities would have outsourcing audit function and other will have the audit offices outside.

There I leasing of sources a certain piece of equipment. Do you buy the equipment that you are going to use? So there are certain things that you will be insource because you don't want to be in practice within the university. The question is can we have some characteristics of things that should be done in house and others? Because the insourcing now we did ask some Advisors how much it would cost during my last year as Vice Chancellor.

The price tag was around R150 million per year on going. It's a function of which services you are going to insource again. Now the currently leadership is has decided and we are trying of out of what we are spending and it is going to cost R120 million and extra for the insource services.

**Ms KHUMALO:** The Contractual obligations with the service providers how have you dealt with that?

**Professor NONGXA:** These Contractors are usually three years so they will run their course and then for those services that have be insourced and then people will become employees of the universities.

**CHAIRPERSON:** What is the single motivation of the in sourcing that the person that provides labour should be properly treated?

**Professor NNGXA:** Should be?

**CHAIRPERSON:** Should be properly treated as would be the employees of the university and full time employee?

**Professor NONGXA:** Yes.

**CHAIRPERSON:** Is that not really the only underlined motivation of this whole insourcing campaign?

**Professor NONGXA:** No!

**CHAIRPERSON:** What are the motivations?

**Professor NONGXA:** I mean the issue of properly treated it depends on what you mean by that.

**CHAIRPERSON:** Well! They will be properly remunerated looked after provided pension funds, unemployment and whatever?

**Professor NONGXA:** When you say it is like that the remuneration levels are low compared to what the university would be paying. Then the question is our Labour Law is failing.

**CHAIRPERSON:** But that is the sole motivation of the people who are behind this campaign. Is it not? .That the employees should be looked after.

**Professor NONGXA:** Yes.

**CHAIRPERSON:** It has got nothing to do with it benefit the university or it doesn't benefit the university.

**Professor NONGXA:** From a perspective of a university leader you look at what would be the financial implications and you are redeploying funds that should support students for this particular project. It is a complicate issue I am not a Social Scientist

**CHAIRPERSON:** Does it go beyond labour relations?

**Professor NONGXA:** It doesn't. Are you asking me or?

**CHAIRPERSON:** No I am asking?

**Professor NONGXA:** I have not been involved in that debate for quite a while I was thinking about when I was seized to this maybe it was about four years ago. All I am saying here is that the financial implications and those resources could be used to fund. My topic here is research and training of students, but I am not saying at all there is not merit to it. These are the trade-offs that the university leadership has to make with a limited budget. The discussion here about supporting students in terms of Free Education there will be trade-offs and so on.

So I am just using that as an example then you do that then there are some certain things that you won't be able to do which maybe for the purpose of me presentation, you will be funding students for the additional money that you are going to invest to pay people better. The issue of the MOCS, online courses, unfortunately there are people from the CHE. If is going to it has to be accredited.

**Ms KHUMALO:** What do MOCS stands for?

Professor NONGXA: Online something, Massive Online Open Courses. This is online studying. Now I think the strategy that has been adopted by WITS now is that now students can study online and the course that what they will do is accredited.

But if they want a credit that will contribute towards their degree then have to pay a fee. That's how the income generating aspect of it works. Somebody might be interested about learning the Intellectual Properties Laws but I really don't want that towards accredit. I can do it online but I don't pay.

If maybe it's something that will contribute towards a law degree then after have done that been kind of assessment has been done and I want credit for a degree at Wits then that's where a fee that will be paid. So it is something that is been explode. Now when this...

**COMMISSIONER KHUMALO:** -Sorry a fee to be paid is just a once off for the inclusion of credit in the degree? It is not a fee for studying like the cost? It is not cheaper?

**Professor NONGXA:** I do not think I follow the question!



**Ms KHUMALO:** I am saying does it not become cheaper; the only fee would be for the inclusion of that online course in the degree, unlike the course that is been the presentations we have been on the staffing and everything that comes with studying, contact studying so to speak.

**Professor NONGXA:** I have not looked or discuss with people the investments that be course associated with the running courses online. Bandwidth would be one of them. People that are developing that course maybe they can pay them extra but no I have not looked at the cost of running MOCS versus this.

**Ms KHUMALO:** I see your colleague is nodding maybe she can contribute to this. Do you have anything about that?

**Ms MAWILA:** Yes.

**CHAIRPERSON:** What is your full names please?

**Ms MAWILA:** KALUKE MAWILA.

**CHAIRPERSON:** Ms MAWILA would you take the oath?

**Ms MAWILA:** Yes. Do you swear that every evidence that you will give will be the truth, the whole truth and nothing but the truth? If you do raise your right hand and say so help me GOD.

**Ms MAWILA:** So help me GOD.

**CHAIRPERSON:** Thank you. Yes Ms MAWILA!

**Ms MAWILA:** The issue of comparing MOCS with contact learning is almost like comparing apples and oranges. We must not forget there is platform provision that is essential for MOCS to run so you have infrastructure must be developed, it must be maintained. You have people who design the courses, those just design then you have the ones that design the curriculum and then you have those that teach. You have all sorts of supporting material...

**Ms KHUMALO:** -Teach would be in this instance?

**Ms MAWILA:** MOCS are usually run in different fashion, so you can have distance where you submit and you have no contact, but then there are also electronic contact like classes that are run using electronic platform such as video comm. Tele comm. where you can hold good discussions amongst students. All of that is run online and physical or hardware infrastructure.

If you cost it now you will be able now to differentiate between the total cost of the full time contacts, face to face or physical as opposed to electronic platforms because this is offered in two manners, so you have physical and electronic put together so its necessarily cheap.

**Ms KHUMALO:** Is it not the start-up cost that is the investment that is expensive but the running of it also is it cost bearing?

**Ms MAWILA:** Yes so is the maintenances of it, one of good examples is our libraries which are connected and must be maintained in order for our research committee to get the most updated data not just from this country but from outside.

With that connectivity you need to be able to pay licenses, in order to use the software that you use to run this infrastructure.

**Ms KHUMALO:** Thanks. I remember on our first sitting we had a young gentlemen who was actually saying online is cost effective. So I think one of our sense if we can have him back and then interrogate what we have just had.

**Professor NONGXA:** Okay! That was the last lighting factor. Thank you.

**Adv. LEKOANE:** Thank you Doctor! I do not have much left, just for few issues and for clarity and comments. In the light of the decreasing subsidy for research, you mentioned earlier that the enrolments were outpacing the subsidy. Yesterday Professor STUMPF was of the opinion that the current NDP targets are not achievable. So would like to get your view to that. Are these targets realistic? Can they be reached in the light of these decreasing subsidies?

**Professor NONGXA:** My favourite example is the target for PhD's are 5500 by 2030. Now if you just look the enrolments that are agreed to and the number that are projected to graduate by 2019. One would need to really ramp up enrolment and the graduation rate much-much higher than we currently have.

I think this country started exceeding 2 000 PhD's in the last year or two maybe three. Personally I agree with that that the targets that are in the NPD are not achievable. Because the other issue that I highlighted earlier on about the constrains that are there with regard to simplistic strategy of increasing enrolments (postgraduates enrolments) at the postgraduate level your constrain to supervisory capacity.

You also number of people who can supervise is a constrain because the proportion of staff with PhD's is less than 50% across the system and possible those universities that have a history of producing PhD's the supervisors are already caring a heavy load so the capacity for smaller universities that has not produced small of PhD's

**Adv. LEKOANE:** Just relating how would you suggest the problems of the staff? What do they call it Professoriate, how do we resolve that and get in new lectures in PhD level?

**Professor NONGXA:** Thank you for raising that question, well it is something that I have been aware of. The NRF has for many years been running the TUTUKA Programme which is aimed at that co hot of young people already employed at universities, to register for masters and PhDs. So one was quite excited three years ago when the Department of Higher Education introduced the N gap. The N gap is the next Generation Academic Programme.

My understanding is that over the medium-term expenditure frame work which ends let's say 2019, I don't have the exact figures, the Ministry had asked for just under a billion rands. In his testimony to the Parliamentary Portfolio Committee last week he sad that part of that money or he said all it has been redirected as result of the pressure on assisting students with regard to fees.

So that is one of the unintended situations. One can think of the other areas where the resources can be redirected and what are the consequences of that for the whole system.

**Adv. LEKOANE:** Does the redirection of the fund can we use that as an indication to how Gov. views research this moment under these conditions as a priority in the sector?

**Professor NONGXA:** I don't know at the Government level but I can only talk about the Department of Science and Technology which is the lead Department when it comes to research and post graduate students. In one of my interactions with the minister capacity as the chair as the honour of board.

I asked her about what was being done; this was last year or even 2014. I asked her about what is the probability of moving towards the 1.5 % GDP on gross whatever expenditure on Research and Development. She said to me that had been a task that was put together, task team between the National Treasure and the DST to look at where are the opportunities for leveraging resources.

One example is that at the provincial level and let's say that at the municipal level there are some things that would require some research investigation, let's say water supply and water purity and a whole range of things. There could be some resources at those levels municipality and provincially that maybe could be unleashed towards research.

The answer to your question then is that the Department of Science and Technology is the big champion naturally of increasing investment in Research and Development. I don't know what the response of this case, her colleagues in the Cabinet with regard to making that case for Research Development.

**Adv. LEKOANE:** May I refer to an excerpt from the ministerial statement on university funding for 2016/17 and 2017/18 financial years. This does refer to research, it says the additional funds for block funding for 2017 and 2018 for the carry through of 0% fee increase is introduced in 2016.

Now it says the research output sub blocks total is not increased because the focus is on undergraduate students and not postgraduate research activities. So it seems like the Department of Higher Education has shifted focus is that fair to say in that statement, from research?

**Professor NONGXA:** I have not seen that.

**Adv. LEKOANE:** At least to an extent it was caused by the 0% course of reprioritising. It seems like that reprioritisation happened in the research space, funds were moved from the research area to fund the 0%. Am I wrong?

**Professor NONGXA:** I would not be able to comment on that. What one would think of that the percentages of the total subsidies that are spend on the different block grants like Teaching Input and subsidy, I do not know if they have been changed that would probably mean that.

Was it 7% or 8%? 10% yes. That would then mean that the proportion of the research subsidy would decrease. Now I am not sure whether the fact that in the funding formula which was introduced whenever these figures were fixed. They were not they were flexible. So that quote is worrying.

**Adv. LEKOANE:** And finally just on the Third Stream Income. Is there space in institutions to secure more third space income, it think it was the Ministerial Statement Report I cannot recall it now. 2014-2019 I think. The import of the statement was that the institutions were to take steps to do funding, of course in the light of the current decline in the subsidy. You explained early of course that the current stream funding is already under pressure. Now I just want to know from the other side of the coin. Are there opportunities, but to what extent can the institutions be expected realistically to source further funding from Third Stream?

**Professor NONGXA:** There will be always be opportunities working with the private sector life long learning, continuous Professional development. One could say that there will always be a need for people develop themselves further. The point I was trying to make is that one has to think carefully about factors in terms of leveraging more resources and also what are looking at the consequences of that.

Let me just illustrate that by a simple example. You are selling the expertise as the university of your academics which means that the academics will spend part of their time in these activities. Is either they have no work to do etc.

Let us assume that they are fully occupied already so then have to reduce the time that they have spent on other activities in Third Stream income. Maybe in our environment where enrolments are increase or maybe they are likely to increase if the question of funding is addressed that it does not become an issue.

The workload in terms of numbers of students' staff that they have to deal with will increase. It is not new the academics have been complaining about that the rate of increase of enrolments has been much faster than the rate increase of academics. The conclusion the workload has increased.

This activity then of the Third Stream Income will put an extra burden. One has to think in all those things and see really what are you trying to achieve as an institution and which are the things that you will put maybe you put less emphasis on

**Adv. LEKOANE:** Thank you Doctor. That is all for me.

**Adv. PILLAY:** Chairperson may we ask for the short adjournment? I think we need to correct something on the recording I just want to make sure we are 100% correct.

**CHAIRPERSON:** Thank you.

**Adv. PILLAY:** We can have 10 minutes adjournment?

**CHAIRPERSON:** Yes.

**Adv. PILLAY:** Thank you.

**CHAIRPERSON:** We adjourn for 10 minutes!



**Adv. LEKOANE:** Thank you Chairperson. I would like to make a correction on record with relation to the Ministerial Statement of 2016. The second bullet point relates simple to the only to the carry through of the 0% which was spread out between items 1 page 4 second bullet point. Spread out between items 1.1 to 1.3 and that is the only point that the paragraph makes. It does not extend to whether the research output is remains Government priority or not.

**CHAIRPERSON:** Is this your interpretation or is this are clear that it is what it means?

**Adv. LEKOANE:** I am clear and this is what it means Judge. The question is to whether the research allocation has increased or decreased we are going to look at that in another set.

**CHAIRPERSON:** Alright!

**Adv. LEKOANE:** But this paragraph does not say research is no longer Government Priority.

**CHAIRPERSON:** Yes I accept that.

**Adv. LEKOANE:** Yes.

**CHAIRPERSON:** Thank you. I think the witness would like to say something about that.

**Adv. PILLAY:** Just before he does!

**CHAIRPERSON:** Yes.

**Adv. PILLAY:** I think the issue is that reference to the bullet point at the Ministerial Statements relates to the research output item in the Block Grant Funding allocation. What we will do in due course is we will be here in the NRF because for the purpose of the next set which specifically we do need to understand the kind of allocations that NRF has been getting over the past few years from the state. Whether or not that has been sufficient or asking for money that they have been allocated, so I think the issue is one that we will take up in the next set.

**CHAIRPERSON:** Thank you. What would you like to add to add Professor?

**Professor NONGXA:** I am still, I am trying to get my heard around the interpretation of this. But the observation I wanted make is that when you compare the funding from the Department of Higher Education and Training and that from the DST. The subsidy from the Department of Higher Education and Training is allocated according to these categories.

But Universities are at liberty to spend it in any activity. Previously for example when the new funding formula was introduced, and people from computer science would want to look at the more lucrative sell. And we made representation to the Minister of Education who is the current minister of Science and Technology.

Her stock response was look at the global amount because ultimately how universities decide to spend their subsidy was not within the control of the department. So it could be that, I mean maybe they could respond and say that on each value that is being decreased but there is nothing stopping a university from keeping the funding or even releasing it for their subsidy because of questions of Institutional Autonomy.

**Adv. LEKOANE:** That was me Judge confused on that, I have got no more.

**CHAIRPERSON:** Advocate PILLAY do you have anything to ask?

**Adv. PILLAY:** Just one more Judge, Doctor I may be taking you back but I think it is important for us to appreciate. The research output Sub-Block Grant, are that relates to actual relate output? Perhaps you can just explain to us what does that mean?

**Professor NONGXA:** The question of research output is converted it looks a...

**Adv. PILLAY:** -Sorry Doctor could you just switch your microphone on because others won't hear you?

**Professor NONGXA:** Oh sorry! The question of research output is converted into units, let us call them funding units. Let us use a Masters qualification as one unit, so if you were graduate 100 Masters Students units then you get 100 units. A single PhD student would generate 3 units so then you multiply by 3, then every publication in a credited journal will count for one unit.

Once you have added this be look at multiplication and add up then you end up with argument and say 700 units. Then your share, and another university say they has got 1400 then your share that was allocated for research will be half of the university that has generated 1400

**Adv. PILLAY:** The point that you were making earlier is once the university has made actual Research Output and has received funding based on that they could do with that funding what they wish to do?

**Professor NONGXA:** Yes. There is flexibility to spend it.

**Adv. PILLAY:** Thank you chair I have no further questions.

**CHAIRPERSON:** Thank you. Is there any other Evidence Leader who would like to ask a question?

**Evidence Leaders:** No.

**CHAIRPERSON:** Thank you very much. Doctor do you want to add something else?

**Professor NONGXA:** Yes I just want to, I mean the data that I collected was done in a rush. So I hope that the submission is not for circulation because otherwise I would like to check the figures and so on and acknowledge them properly so if it is going to be a part of a public record. I only sent it this morning. There are one or two tables where the heading is not correct.

**CHAIRPERSON:** Well you will not mind if we can give the President the incorrect information, will you?

**Professor NONGXA:** If there is something for the record then I will...

**Adv. PILLAY:** May I just indicate that all of our presentations and submissions we need to put out on our website. You will give you an opportunity then Doctor to give us finalise version then we can put on our website.

**Adv. ALLY:** ALL: let us clarify only relates to and getting accurate nothing in terms of your input today it will say instance you got this from NRF or you got this from Wits to indicate the processes.

That is because you see you have given us evidence as to what you were saying, the data that is there might be inaccurate but you never really referred to data to being part of your evidence but you include in your evidence “this might not be correct”. That was my understanding of the evidence is that correct

**Professor NONGXA:** All I am requesting is that, it think I have already indicated that. All I am requesting is the final document that goes to the public domain that I will have an opportunity to make the proper corrections.

**Adv. PILLAY:** I think the point that the Commissioner ALLY he is raising is the corrections that you intend on making will eventually affect the evidence that you have given me today.

**Professor NONGXA:** No it will not.

**Adv. PILLAY:** We just needed that assurance.

**CHAIRPERSON:** Thank you. You are excused.

**Adv. PILLAY:** Chairperson may we take lunch adjournment now?

**CHAIRPERSON:** Yes if you would like to.

**Adv. PILLAY:** We will reconvene after lunch.

**CHAIRPERSON:** Very well. At request of the Evidence Leader we will take lunch adjournment now.

**Adv. PILLAY:** I think we can reconvene at 14H: 00 Chairperson.

**CHAIRPERSON:** Okay thank you.

## *After lunch*

**Adv. MABUDA:** Chairperson if you can place a witness on oath on record because your microphone was off.

**CHAIRPERSON:** The witness is sworn, we may take it as done. Thank you.

**Adv. MABUDA:** Okay is fine. Chair as you are well aware that this set three of the commission of enquiries into Higher Education and Training. This set is dealing with the funding of Higher Education and Training and operational costs. This is day 3 of set 3 and it is dealing with the internal pressures of funding. Today we have Professor Scott who will be dealing with academic support and student support services in the context of university budgets. Professor Scott could you please state yourself and your qualifications just for the record please?

**Professor SCOTT:** I am an emeritus Professor of what is called Higher Education and Development at UCT. I was a full Professor there for some time. I was worked as the Director of what we call Academic Development Programme at UCT for 30 odd years. I need to declare my involvement in that area which is the area which I will be speaking about mostly today.

**Adv. MABUDA:** Thank you I believe you prepared a presentation?

**Professor SCOTT:** Yes I did.

**Adv. MABUDA:** You can proceed with your presentation. Chairperson just before we begin, Professor Scott presentation is broken up into four broad themes for the sake of efficiency, he would like to deal with each aspect and then we can ask him questions after each topic.

**CHAIRPERSON:** Thank you chair.

**Adv. MABUDA:** Thank you Chairperson.

**Professor SCOTT:** Thank Chairperson, colleagues I am very pleased to have had this opportunity. This topic I know I have on it for 30 years. This topic really of students' success, this we are talking about. With all of this is one that enjoyed little attention remarkable little attention in the course of recent debates about Higher Education.

Generally over the years people are well aware of now because the figures are being published. But in my view as a Professional in this area it does not get nearly enough attention in relation to its importance to the country.

Interestingly it has become important again for quite material reasons in that people have been aware of NSFAS that if we do not get more graduates coming out of people who are supported by NFSAS. There are fewer who obviously can pay back. Not even in such a narrow way where people will contribute through getting senior positions in the like growth to the economy and indeed to swelling the whole Economic Development of the country.

The new attention to the question of what we are getting for our investment in Higher Education. I think that is the most important issue for us to discuss here. I do also believe that it has a strong bearing on the events that are happening around us on the campuses at moment although it is often that is not something that is acknowledged and I would like to speak to that a bit.

Because we are obviously talking about money and resources here in order to think sensitively here we have to get into understand the significance of this work. Is it really necessary to the wellbeing of the universities and the country. If so in what respect and indeed what was the scope of the operation that is needed? So I am dealing with those issues the overall significant and challenges as I was asked to do in the first couple of sections.

And then the first with a lot of data in it really is to do with how many people, how many students in the system can be seen to require this kind of assistance? Of course that has serious budget implications. What is the necessary size of this operation? That and to look at some of the specific number of money that is going into this field at the moment, so that we might have an idea of what it might cost in future. I hope that is order.

**CHAIRPERSON:** Very much in order. Thank you very much.



**Professor SCOTT:** The first section is on the context and then I say significance of this work, significance in the sense of some academic notion as the wellbeing of the sector. I think I believe the Commission had a good deal about some of the details throughout success rate and etc. I am not going into that.

I do think it is important to get some of the headline numbers just to set the context. A very critical point. Before we even get to student success is how big is our system. Because and you will appreciate most countries have difficulties with student success, we are not the only ones with poor success rates.

But there is a very big difference between a country that has huge participation in Higher Education like United State for example. Almost everybody goes to college in one way or another. Now ourselves it is a very small participation. In America 35% to 40% of the students do not graduate it does not do to the economy what happens in our case where 30% or 40% or maybe 50% of the student intake small selected student intake does not make it.

We are drawing on the cream of our talent, you will hear this once or twice in this presentation. The first point is that our participation just people being in higher education is very low in relation to compare to other countries. Numbers do not matter here, but for illustrative what they call gross enrolment ratio is about 20% whereas a lot of developed countries are in the 90%, South Korea is in the 90%. So there is a massive difference in the number of people participating in higher education.

In South Africa of course our history of inequality is pursuing us we see major racial stewing still in our participation. Even though there has been a great increase in African and coloured students numbers in higher education enrolment. The fact is only about 12% this is an approximate figure of African and coloured youth ever getting in to the universities at all.

So it is small. Generally speaking a select few that are getting in. Collectively that group should have high potential to succeed. If we accept what the psychologist say that whatever that quality of people have that enables you to benefit from higher education, inelegance educability whatever educability whatever you may call it.

If that is distributed randomly across South African populations. We should have every much expectation of being able to educate a better proportion of our youth than we are achieving now. How does it come about? We know some of the reasons. How that come about? The countries like South Korea can succeed with very high percentage but we do not?

**CHAIRPERSON:** I think it's a strong motivation as well.

**Professor SCOTT:** Absolutely powerful Chairperson. I will say it later on that there is no but I can see that there is no enteric reason why we cannot do well. What is going on? Yet we can see our performance stubbornly stays poor and racially stewed. Just a few headline figures. By the way contact students means those who are not in distance learning. So you would expect student from UNISA to take longer on their studies, etc.

The less I say you will see these are contact students. Under 30% of our contact students graduate the time that they are meant to, under 30%. That means under 30% of our students ever follow the curriculum as was planned. Get through their science degrees in 3 years, get through their engineering degree in 4 years, BA LLB in 5 years that kind of thing.

Under 30% and that is also racially stewed. If you add another two years into regulation time you will see that only 55% of contact students graduate in that time. In there being the number of years for the degree specific to the degree.

So BA would be 3 years but add that to two years of their time still 55% of them will make it. It is a very scary figure this one nearly half, if we now take the total intake including UNISA, graduate within ten years. Over half graduated and nearly half do not.

**CHAIRPERSON:** That does not reply that they stay at university for ten years?

**Professor SCOTT:** Indeed Chairperson the figures that the DHET they have produced shows continuous registration for these students. I am reporting what the DHET tells us. Some of the numbers you will see later be explained a little bit more that the DHET has figures from a particular intake.

I am looking at the most recent one that we have which I think was in 2008 with sufficient longitudinal data in it. If look at and crack that through the DHET is on a 10 year period now. Not quite close to 2008 but what we see there are students who stay in the system for remarkably a long time you will see a little bit more detail on this where it is more relevant.

The overall high level point here is that if you look at our participation rate 12% of the youth more or less under half of those students will successfully complete. You can see that only about 7% of African and coloured group are succeeding in any form of higher education. For a Morden state that is not a happy figure.

And what we have seen unfortunately is that the progress we have made in increasing access in the physical sense of it and increasing equity in access gets neutralised to the large extent by the very high value rate, which is very worrying and this is why this is so important.

We have what we can call low participation, high nutrition system as my colleague Glen Fisher called it a while ago. It affects the majority of the current and future intake. What we used to seeing around the world is high participation high nutrition system the old U.K was the opposite of which was low participation high attrition.

We are the worst of the two worlds. I am sorry to be bringing the bad news. What I would like to go for this for a minute if you will be with me. This issue is hardly featured in the student protest and the like in recent months, in fact for the whole year but that is very surprising when you think what this about.

I am sure there is a lot of things that it is about as well, but the core issue of this is about getting the benefits of higher education. More evenly and equitably spread across the country, across poor as well as rich across those race groups, that's it is what it is about.

Yet the emphasis has been just so strongly and just on the starting point of that. On access particularly in the sense of getting in and financial access at that making sure that you are not prevented which is legitimate from getting and also being able to stay in the system.

In that part of the debate there has been little talk about what happens to you once you get in. I want to argue that is really crucial. So as I said I think the free education movement here in fact is dealing with two issues that really relate to access.

First to this, physical, financial access to be able to get a place in an institution and not be thrown out because you do not have money. If you have to ask then what is that access to, because if you see these figures students are then fighting and legitimately for to access to 50/50 probability of not making it. That is what you are getting, that is the reality inside.

If you are NFSAS student your probability going down quite considerable the figures go down, the figures vary accommodated between 30% and 40% probability of succeeding at all if you are NFSAS student. So what really are we fighting for?

The second point which is very interesting one because the demand decolonising which by the way is not really peered into all the institutions, but decolonising the curriculum what does that mean? Well of course it has got a range of meanings. In my view it actual has a great deal to do with people feeling alienated from the work that they are being asked to do.

They are finding it very difficult to get access to the knowledge and is a term that is being used for some time epistemic, sorry it's a funny word relating to the knowledge. Epistemic means being able to learn and benefit from higher education. If you can see the decolonising access in one way I think we are seeing more and more of this actually is to say "why is it that our success rates in our institution so bad, what is it about our education in this country that our people are finding difficult to deal with. (I am giving an opinion on this).

There are inequalities as you will see later on an access to the knowledge. I would think that this business of proceeding people are asking different way of looking out the knowledge to what they believe to be more accessible. I would be happy to take question but now I will not dwell in it.

I believe that performance in the current education is not of unimportance in the current process, for this reason. If you have got low and stunted performance the students who are not doing well are likely to feel defecation within these institutions.

If you do not know why you are struggling there are reasons for that has been much study of this over this over the years, documented in research and etc. If you are struggling with your performance there are all kinds of reason you are not going to feel good about being in that institution when you are going there for a qualification but you are struggling to do it. Very often you are at top of the school somewhere and you come the university and you do not make it is extremely humiliating for a lot of people. I don't believe that is about some intellect intelligence.

So what I am saying Chairperson let us assume to getting these barriers to access out of the way. What we will be seeing is more demands and I will be not surprise if those demands to not start relate to the unequal chances of success that people have in the institution. It will need to be explained and dealt with. So I think this is timeless right now. May I continue?

**CHAIRPERSON:** Yes.

**Professor SOTT:** So the question why is this performance so poor and so stewed? Well is been a lot of work for many years. We can see from the figures that no group, I am sorry about using the groups I do not like the race groups but that is what we are working. No population group that is doing well as you will see in some of the figures.

But there is a burdened evidence about race and class inequality going on in the success area of the institutions. The obstacles (there is no good reasons to this) to substantial improvements are by no means is amount able. We have the selective intake, we have got the intelligence in the students, what is going wrong?

Social influences, material influences, poverty, poor schooling, background and etc. have a huge influence. But our arguments in the field is that the extent of that performance we see we are losing almost half of every intake of students who are coming in.

That kind of low performance cannot simply be ascribed to the student not being intelligent enough or not working hard enough or whatever. It is a systemic problem that is indicated by that.

And what can be seen and studied over the years is what I would like to call a mismatch between the tradition and university expectations which by the way are not yet concrete nor universal. The traditional expectation particularly at entry level which do not match with the realities of most of our students is has got nothing to do with the intelligence, is to do with peoples intelligence it's got to do with what people experiences have been and unless there is a reasonable between what people come to the university with and what the expectation is. We have seen huge in the universities dysfunction in the learning to instant in this I can give you more examples of that later.

So what about what we are doing about this? I will focus on Educational Development and Support, this is a matter to the whole system to worry about. We start by saying virtual all of the academic and general support serves exist in order to try and deal with this issue, try to improve student performances.

That is why they are there directly or indirectly even the sports clubs if you like to promote students towards the end of good learning and success. So that is what they are for and if they are not working then it is right to question their existence.

Or there are doing things the wrong way? I am not going to deal with a great deal in general support services because I am not in psycho social or none academic if you like that side of thing. For a bit of context these things is been around quite strongly since the Second World War as Higher Education began to grow and more students in trouble began to travel and a greater variety of students evidence. Right from the start they were trying to identify what the difficulties were and were not and what they could do about it.



The key change in South Africa happened in the early 80s just as the racial exclusions on interest universities entrance started to relax or to be relaxed through force. What happened was a greater diversity of students coming into with particularly then the white institutions and in the historically black institutions much bigger number coming in and recreating quite difficult system problems.

Our field which is called the academic development indicates that what we are trying to pop up really indicates what we are trying do is to work with the system, to improve aspects of the system rather than working directly with individual students or small groups of students.

So if you like there is a bit of analogy in public health and individual medical attention. Our focus or what distinguish us is our systemic development with the aim of improving student learning. What are the faults in the institutional and systemic development with improving students learning. What it is forced in the system that is troubling us.

Why should we worry? I think we have to go into details why is important to improve students' performance. If you just look at the students at the screen student, students improvements is for all of those things and more. Of course it is about the individual and also about economical and other form of development.

Social justice and I am adding in there now stability in the country. We have seen that in years that scares resorts is not in Higher Education is not equitably distributed we can expect trouble. Indeed as for per NSFAS example ensuring the viability fo Higher Education funding.

It is notable Chairperson that we are having problems in all those areas. Our services in so far they are playing an important role in this. Should be recognised as essential if they are working for improving student performances for actually creating the conditions in which learners can flourish across a very-very different student body.

Indeed that is the way of increasing the return on the huge investment Higher Education. I hope is not light or fancy but I would just like to share with you an image that I have always had in my mind about this. If you are planting a garden it could be proper of wheat or something, you spent a lot of money and you invest a lot in planting your garden or wheat field.

Then you do not water it or you do not feed it, we know what happens. In my analogy the feeding not just the students being in front of the lecture and so on but actually the concern and the wellbeing and the learning of the student is a huge contribution to the person's success.

And to withhold the water and the fertiliser, fertiliser is a dangerous image but anyway, the nourishment hold that from the crop is actually extremely false in the economy because the whole thing is not going to work well. That is why I think the whole world of academic development, academic support and general support is an extremely important role into helping realise what higher education is supposed to be doing with graduates and we are not doing enough.

But the way just to make a point these different kinds of supports need to work in concept with each other. I am nearly finished with the first section but I want to tell you about this terminology that I am using. Academic development the term that we used focuses primarily not only institutions and systematic development. Academic support often called COCARENT it is working regular syllabuses and courses for the regular teaching and learning process is really aimed at all students.

Student support services generally would be defined negatively as none academic although it affects academic process. It is like a social, career services, material bursary, enrichment and etc.

All of those I am lumping together because they are for all students but they are intending to do the same thing. And then a very particular point about Academic Development field is that it is designed to redress historical inequalities. I have already spoken about my own affiliation. So I do not know Chairperson if you want to ask questions in this point before I go into some of the more specific challenges that are involved and why they are there blockages?

**Adv. MABUDA:** Professor you have indicated that generally around the world there is a high participation and high attrition rate, is there anywhere in the world where there is high participation rate and low attrition rate in higher education?

**Professor SCOTT:** High participation and low attrition, definitely there are places that are doing quite well in that. If you take the Nordic countries they are very equal kind of countries, you get high success rate in the Nordic countries the developed Wworld generally speaking.

The U.K has got good success rate, South Korea has got good success rate and etc. So by enlarge where there is high level of development. Good school education and etc. you will see the fruits of this coming out, many people go many people succeed, but you do get the other way. America has not good success rate they are not bad as ours but they are not far off because they do have huge number of people going into college. They know they have a problem with the completion rate particularly to what they called communities colleges.

**Adv. MABUDA:** In terms of numbers what is the good success rate?

**Professor SCOTT:** I will say this is a complicated issue but it varies and a good deal but if you are in our case where just graduate we are scares of getting more than half of the people.

We take the U.K for example you are looking at the success rate at 80s and so on. In a number of cases you would expect at least three quarters of students who are coming in to get out successfully. It depends a lot on the type of institution because rather likely the American communities colleges people would go in for a few courses, they are often mature students with real life and they don't complete because they choose not to because their lives is too much for them. So that you will get that kind of variation.

That is why it is difficult for me on record to say that this is the ideal rate. You have to look at your own circumstances and can we say in South Africa even a 55% graduation of the intake it is okay in our society where we have got such a low participation. Patently it is not because of with our skill shortages.

**Adv. MABUDA:** Looking at it in context are we referring to the success rate and university education? Are we be looking at it because I think the terminology is a bit different? In this country the P set include Private colleges and community colleges as well and so on. So the success rates that you are referring to in America for instance is just the universities or it includes colleges as well?

**Professor SCOTT:** They mean different things. I am talking about in this country Higher Education and the rough definition of that is any educational programme that leads to a qualification post metrics it is higher education.

And it is almost exclusively contained in the universities. Now there are Private Higher Education providers who do a range of different things but the great majority of students are in Higher Education or in public institutions is the free task of the universities. The general universities, the comprehensive universities which do a bit of both and then the Universities of Technology which by enlarge the old technikons. So I am not sure what the point of the question is but just to say that are comparing with line?

**Adv. ALLY:** Professor lets perhaps clarify you saying it deals with any qualification post Matric now you have got technical vocation and training where you get a diploma. That is post matric? The question being posed to you by Mr MABUDA is do they have the same kind of system in America in order to compare like with like? So you have colleges in America where you get diplomas certificates and so forth, so the P set system that he is talking about here is there anything post matric?

**Professor SCOTT:** As I say it is not me making it that. The definition of Higher Education as included in our legislation as far as I know. CSHE people know about these things a bit more but if you look at the international competencies there will be differences as far as Higher Education is defined but of course there will be.

By enlarge what we are talking about is qualifications that will be recognisable at a certain levels. So if you look at our NQF levels you be looking at level 5 and above. So in American communities colleges for example their standard offering is what they a Associate Bachelor's degree which the equivalent of two years after school, after their higher school which is to be sort of similar to ours.

There is big debating in South Africa now about whether we should go for Associate Bachelor's degree of that kind. It is very different and complicated from country to country. The American for example have extended four year undergraduate degree which will take them to the level clearly where beyond our 3 year standard degree, close to our honours here.

These are very well documented and they are doing their best to compare like with like. The critical point here is not to worry about the percentage point but to look at the stark difference between what we are able to produce and what the other countries are able to produce.

Look at other parts of Africa for example it is very difficult to get verify information on things like success rates. On the word in vein you get evidence on this and etc. I would say that many of the other African systems are much smaller than ours. There are very few students who get in at all.

It is a contestation for all for places. There are numbers of cases even from primary into second that. There is another one that operates in higher rates and etc. So you would expect in those circumstances a very elite intake into a small number of universities that you would get quite good success rates and by enlarge the evidence is too stronger words indication are that you do to get much better success rates than we do.

We are in a difficult position, it is an old legacy and the point here that we are not good and we are not producing the number of school people that we should. We are not making good use of the massive investments that put it to Higher Education if we only managed to get half of our product actually through.

**Adv. ALLY:** That is the only point you are making from the number that you are given? That the point that you are making it doesn't matter what do we looking at, the numbers we do have is not good at all, that is the point that you are trying to make?

**Professor SCOTT:** Correct.

**Adv. MABUDA:** Professor the context of the question that I am asking is that, it seems a lot of your numbers are dealing with universities?

**Professor SCOTT:** They are entirely dealing with higher education. Which is as I say pre dominantly universities many of these number are from the public, from CHE and so forth deal with public higher education.

**Adv. MABUDA:** I do not dispute that the difficulty that I am having is this commission in terms of reference both universities TVET universities as well. So we have to look at these numbers in terms of a system as whole. For instance I think it was in your fourth slide you said 12% of Africans and coloureds gaining access. So this is only in the context of our universities. So this number could be more if you were including TVET and community colleges?

**Professor SCOTT:** Yes. I see it does not quite say it in my slide about higher education which is what I know. Yes you are quite right but let us get that clear and of course the TVET would swell the numbers as they rightly should, often talk about inverted pyramid that we have in South Africa. What we should have is the universities in top, I mean excuse the picking top but this is how people think of it.

University at the top relatively smaller sector very big TVET type sector below and then there are other things but then if we turn that around we have bigger number in universities and the tertiary's and smallish numbers although they are growing fast in the TVET areas if we included but I am not expect in TVET at all, but if we included TVET success rate the ones I am showing you right now would be a lot worse because the TVET success are unfortunate at the moment notoriously low.

**Adv. MABUDA:** So in this instance you have indicated that the success rate is generally a high participation in a high attrition rate, so just for the purposes of our own benefit what would be the dangers in increasing participation in for instance TVET?



Let me take one step back, the numbers that you are giving us now in terms of low participation and high attrition comparing them to America for instance do you have numbers context of just universities compared to universities to this country what are the success rate in that regard?

**Professor SCOTT:** It would not be a helpful comparison because our qualifications deal with substantial qualifications because our qualifications deal with substantial qualifications beyond school and we indeed have similar qualifications although we do not recognise them as such. Many of our college diplomas these days, they are called diplomas these days the old technical.

In engineering for an example there are only four semesters of academic work plus two semesters of experiential learning which would be very similar to an American bachelor's associate degree. I don't think there is a point to myself into aggravating those too far.

We are looking at the range of skills that we need post school, and indeed the figures of unemployment and the figure of life time and so on. These show very clear that the success rate when it comes to employability and your actual employment rate and the money that you would earn so I do not think that it would make sense that it would make sense to only focus on the three year degree.

We do disaggregate those thing when it comes to planning but for compritive purposes with other countries it does not make a lot of sense infect if you looked only at the universities in America the four year degrees you would get a higher success rate because it is the community colleges that have a low success rate.

**Adv. MABUDA:** Thank you Professor. Anyone who has questions can proceed.

**Adv. ALLY:** How we get to say you are now competent in a particular subject matter that we dealt with now here? I am getting into a realm examinations versus being able to indicating to person that I am not of knowledgeable about the subject. Has there been because I would think that academic development and so forth would know those kinds of things because at present and in system across the world because as far as I know examination is the determinant of whether you know the subject matter or not.

**Professor SCOTT:** Thank you. That is an extremely good question. Yes we are extremely interested and yes there is a great deal of work about that and much controversy and disagreement about it. It think big part of the problem is that people are not really sure what competency are required.

If you ask an academic Engineer, what the Engineer will need to know you will get a string of theories and scientific knowledge and so on and say absolutely essential. If you talk to a captain of the industry who employs the Engineers you may well get a different answer, in fact you usually do.

It is a difficult thing to compare because if you are producing good Engineers then that is taken for granted because your technical and scientific knowledge if taken for granted and then the employer they will wanted to know what are your skills for working in team, what is your affective make up, are you a winner, can you stick to doing your job so on and etc.

What we know is that employers around the world are increasingly demanding what we call soft skills to distinguish them from hard skills of hard knowledge, scientific so on and etc. So what we have are a great deal that employers are privileging those soft skills are a great deals these years.

Generally what we have at universities these years we do not do a good job of dealing with that. The whole topic of employability is a massive one in the world. There are some people who think universities should not even think about it is not our job. If you are a Professor in a theory of literature the applicability of literature to the public is not evident, it maybe but it is not evident.

That is not you don't go and do that in order to get a job as whatever you know unlike the Professions what is very important Adv. ALLY in the Professional areas you will be aware that the Professional bodies themselves have got a huge role in quality control, quality assurance and etc. This is the CHE is a great speciality they look after it for the nation.

There you have very strict conditions operating. They don't wait university to suit bin this but they are meant to help the universities of the professions. So we have got mentor fo the engineering, we have got the accountancy, we have got HBCSA for the health sciences and they accredit us in their own way.

So they accept the qualification from us and then it's past their master and it doesn't mean that all we will do. It is very often in the university that we do more but that is what they said.

In those areas if you like the competences is broadly defined are very well know understand and set out. For theory there is no such thing, there is no agreement across the world that the theory of graduate literature should look like

**Adv. ALLY:** You see the reason for posting the question you post the question as to why the situation of high participation, even if it was high participation you have got a low throughput you have got a low success rates and so forth.

Hence my point that it would seem as it is an accepted fact that in our system and most systems across the world unless you have passed a subject with 50%. As far as I know 50% is the lowest but whatever percentage unless you have done that you cannot move on and you will not get a qualification that says you have a diploma, you have a degree, you have a masters and so forth.

So my question is relating to would we ever get to a system where you do not need to write an examination to able to say that this person is knowledgeable in that subject or not?

**Professor SCOTT:** Well you are right and you have touched on something that is very important in South Africa at least since 1994. What we are talking about was a huge issue in apartheid and the people were not recognised for the knowledge that they had. The typical issue with learning and so on.

**Adv. ALLY:** The prior learning lecture.

**Professor SOTT:** Yes you are right. What has grown up out of that is the issue of recognition of prior learning.

It should be in many ways, in another expansion recognition of prior experiential learning because all degrees are this is a very interesting issue that you raised but in the end there is...between the qualification and who will employ people, the market if you like. So if you are consistently not producing the goods that the world that they needs your graduates will not get employed. That is probably what it is.

That is what we see in a number of areas. The Professional boards do their own thing but in the case of... as I said who took different sorts of things there. It is not a benchmark there and it is not even a clear point of finishing mark except academics are extremely good at understanding the academic paths.

Let us take the example of theory of literature again. I use it because it is a fairly obtuse kind of topic. The people in theory of literature will know what it will take postgraduate work. So they want to make sure that by the time student comes out of the university Honours Degree that person should be able to do postgraduate studies in that field eventually anyway.

That create eventually kind of benchmarks. It is often even written down in a clear way but there is an international network of scholars and the likes. All reputation will very soon suffer if you do not produce the graduates who can be competitive, who know enough. In fact there is a range of different mechanisms. Ultimately it is a kind of market that it is here.

In South Africa as in all countries we need (in my view) to be able to produce sufficient number of people who are clearly certifiably skilled in this area and there is no reason why we shouldn't.

Absolutely no reason why we shouldn't. The old so-called Man Power planning has not been dispensed because we can't predict any more how many chemical engineering we will need in 10 years' time. So to come down of that level of details is actually largely giving up because that world change is actually fast because the jobs that people are offering in 10 years probably do not exist now in some cases.

So it is difficult to plan that way for your various reasons but I do know that we need to have more educative populous where certain clear Scarce Skill areas, government is putting a lot of money into trying into Advanced Scarce Skills but we should know I think. I think we need to be able to say exactly this or exactly that. The broad direction in which we need to go and that we need to improve. That is really my underlying message. What we are doing is not good enough.

**Adv. ALLY:** Which brings me to the next question, because in this commission we have had presentations and evidence that your basic education to put it mildly is not up to par and they use that as the basis to say that we have low throughput rate and so forth.

My question is been to these witnesses presenters is that the only reason we do not have and I am sure there could be many. So had Basic Education here to explain to us what they think of their system and they indicated that their examination is benchmarked against the Scottish system and a whole of others just on the broad level.

Furthermore there are people from USEF people from the ACADEMIA that are brought in to moderate the question papers that they set and therefore according to them the National Senior Certificate is a good predictor of whether the person will succeed or not. So I am trying to get how it is and then we don't have a success rate in... for purposes of your evidence in Higher Education?

**Professor SCOTT:** Advocate ALLY may I request to come back to that because I am going to deal with that matter in this very section. IT is a hugely important one that the relationship between different education systems because actually those things are under our control. And in my view doing something about that is one of the keys that we can do to make a big change. So may I take it later?

**Adv. MABUDA:** Yes you may proceed Professor.

**Professor SCOTT:** Thank you very much for good questions. So the next section is called Academic Development and Academic Support. For mainly be about Academic Development because that is the systemic part of this.

But you have asked me to speak about the challenges in relation to this work. What we beginning to see as way through this section. I want to want to put up this graph for you because in my view this is exactly the challenge that we have. For those of you looking at it carefully don't be too bothered about the clusters, the different ones within the clusters but we are seeing there on the left is the percentage of the student intake that graduates the time it should, 3 year for a 3 year degree.

The three different column are the three different degrees types that we are studying here. The diploma blue the three BSC or like a BA and a four year type of degree which could be engineering or whatever so this is none cumulative of cause.

There is a relatively small people graduating compared to the triangulation time, I said there is under 30% and then a year later another group of people managing to graduate a year late a smaller group.

Then the real problem is that big group at the end that is where the trouble lies those are the people that have not graduated with N plus two and unfortunately many of those will never graduate as we will see and many of those will stay in the system for a very long time and still not graduate.

**CHAIRPERSON:** Does not that strongly suggest that where they were at the beginning certain people with defecting start certain numbers they were able to overcome but a very large proportion were not able to overcome and should not have been there?

**Professor SCOTT:** Chairperson I will go with you to the very last part of what I said. I think that we have to take issue with that they should not be there because and I would be talking more about it. Clearly they have not got over the bad start if you like to put it that way, they haven't.

That is why we have got a lot of trouble I would like to show you what I think that start means that is very important. The point is we can really only say should not be there if we are prepared to face the notion of the very mole of the higher education system that is entirely elite.



That would solve all of this if we went to a system of cherry picking and picking only the very best and putting them into best institutions we would not have trouble anymore than the other countries. Nobody does well we have got problems in our system, but that is not acceptable in the modern world if we look at our participation rate is that we can see is that we do not have enough people in higher education and if we are going to come up in the NDP target for participation that is 30% or something but certainly higher than what we have now cause that was the estimation.

We need more skill and what we do not ask sufficiently is how do we get them there, simply putting more people into the system does not do it but simple increases the height of those right hand columns.

What we have got to do why I say this is such a graphic indicator is move all those people sitting in those right hand columns further left that is where they have to end up successful in a reasonable time. The question is how we do it? Of course it has got to do with what you come in with and how can we work with that is quite a big issue and have got a lot of experience in it.

**CHAIRPERSON:** Obviously when I suggested that they should not be there at all does this tire in with the possibility that in order to revert the pyramid we should recognise...

**Professor SCOTT:** That is an extremely good question but I have to answer and say no I don't does, because absolutely we do not have enough people in higher education. What we need to do is not to revert the size of that pyramid but increase the size of the pre degree type qualification.

We are at the moment powerless position when it comes to the skills in the place.

Artisans skills for an example, artisan population is unbelievable small and I read again in the article do not quote me to the President if you don't mind.

The average age of artisan in this country is 55 and the number of artisans in training have been reduced by 1000% but that does not make any sense but they are now to about a 10<sup>th</sup> of what it was at some point in the past.

So we have got huge work to do in that TVET area and not, you see it not take enough to se have not got enough people in higher education and we do not have enough graduates coming through. That is I am arguing with you that we have got to think about cutting people out but how do we get people in successfully.

**CHAIRPERSON:** Thank you. You are not arguing with me.

**Professor SCOTT:** Thank you, I just want to...that is what we have got to change would not it be nice if 10 years down the line we would see that graph changing, that is the job. So what are these obstacles I am calling them systemic structural.

I will say it again failure in graph scale with a small selected intake is not normal it has to be attributed to some week system faults and the only way you can deal with those is systemically that is the argument. Our research and all sorts of bit of experience research over time have looked at structural elements of learning through the educational system and particularly our tradition higher education system.

How does it link up with what has been done before? That is a very crucial question.

The term usually used is articulation which all you Latin speaking lawyers simple means up. Though what we have got is a sense of joining up between certain phases of education.

It is something that is in our control to do, but what we do not have is and could join up you see the outstanding results of what we are seeing now and the people that are negatively affected by that are largely are the furthest away from joining up that is the people who come from different socio economic background however bright they may be or township schools not having English as your assuming English as your dominant is a massive issue.

So what we have got to look at this joining up area and can we see where the faults may lie and can we do something about it. Because articulation is crucial because all the learning these days as people will tell us. We abstract our own knowledge not to us by some academic. It is constructed and once you construct on a sound bases if you do not have a sound bases of prior knowledge to construct on then that is very shaky so we talk a lot about foundations in this way.

I will show you where it has gone wrong but I will eventually get to it right here. I would say that we understand that the things that we are going to talk about are the thing are really essential for getting serious progress in education and her they are and they will not even look that strange to you. What very important is a gap between school and university.

So for the top students coming through that is tough challenge coming through and it must be university must always be tough but it must be reasonably and it is. People get stretched. For students out different backgrounds and totally similar provisions at schools.

I will give you an example to make sense of this, it is a gap that is often too wide to cross. I will take one example if I may, if you take a good subject like mathematics, the curricular for most subjects are not developed from stretch. In most cases you know where you got to end up, where the benchmark is and so plan backwards.

So in mathematics our Professors know very well where you are going to end up in the 3 year degree. So they pack as much as they can into third year second year first year etc. that is what determines the entry level so if they can fit it in to teach for the three years it does not get taught you have to come in with it.

There is some reasoning in there let me take a subject like calculus which is very critical in maths which is a part of the school syllabus. In many schools the teachers do not know about it and not remotely and properly taught. A few bits and pieces about theorems and formulae that you can use.

Students will master those but students do not know calculus. If you come to the UCT day one maths course you will find revising calculus which you should have spent months counting difficult stuff conceptual stuff. The question is do you know it. What happens is that good students I mean good able people who can learn they are often top of their own schools.

Let us say a top maths student in KHAYELITSHA from a township school can perfectly can conceivably be behind in maths from day one or at least week two they will be behind and many of them will not catch up and the difficulty here is something like maths you cannot teach what has been taught at the same time as you are teaching to the course that expects knowledge of it.

It is like an analogy of fixing an air flight in air. There are many examples of this particularly in the language issue. Let me give you one law because many of you would have been to that kind of a degree. Yourself a top student in KHAYELITSHA coming into the social sciences let us say at UCT will expected alongside everybody else to write an essay in week six of year one except for that student in KHAYELITSHA has never written an essay in her life before.

Never you do not do it in first language and you do not do it in second language so just do not do it. So for that person coming in those are the daunting tasks that they have to face and deal with they have to be able to read radio sociological text in high level translations there is no simplified version you have got to read and you have got to understand and grasp that conceptually in ways that you are not familiar with in academic terms and then thirdly you have got to produce writing that is up to academic standards not that the person cannot do this it is that that person has not done it before and when you expect it to be done in the next six weeks you are actually expecting ridiculous things. But this is now what we know in our area if you give it time to teaching of that those students very often shine. That top maths student will learn calculus when it is actually taught. And do absolutely fantastically...sometimes it would take six months to get into that whole of learning language usage of reading high level...in English.

Sociological text whatever it may be they will learn they have overcome obstacles but they will learn in the traditional system because there is no time. It is a hugely important point I think you can see where I am going for that student there is no articulation between what school actually produced in them and what they came to higher education with and the actual demands of higher education three months later.

**Adv. ALLY:** Excuse me Professor! I understand where you going to and the points you are making because then we need honesty in the system. Honesty from UMALUSI and Professor Formic KOTZE was here and his own view of it and we have higher education and universities in a different planet it would seem.

Now the point is you have got to bring as you say close the gap and the gap in my view is that the two say they are talking to each other but they are not talking they cannot be talking if that is the result.

**Professor SCOTT:** You know I am sort of edging around to your question you will see it will come up but I have to say that I agree with your observation I think that it is very obscure they are living in different worlds and bear in mind that something happen to make those world move further apart the old matriculation board was a creature of education centre it moderated the matric now it has been a natural evolution in some way and people say why is it this way.

The matric is an exam for everybody or merely everybody or not just preparing people for higher education but life and so on. Actually it is not right for universities to control it, it was taken away. We have got UMALUSI now who does a fine job the difficult that I find here is that what is matric when you are seeing people coming through with seven subjects in 90% in the same exam as other who are only have to get three or four subjects at 40% and another three at 30% to be able to make nominal university entrance qualification.

I say nominal it works it is legal device but in practise it is a disaster and what we have done as a sector in fact I proud as our own institution for doing it is developing these march marline things called national benchmark tests cause you can see benchmark is trying to get honest, that is the exact the word.

We are trying to get honest with what people are bringing with them. Those national benchmark test done in mathematics academic literacy which is language staff and quantitative language or numeracy these are the main ones that happen there. You will see massive differentials in all the students all of whom have have a matric certificate or national senior certificate.

Interestingly we have done studies to show and again I will speak under corrections it is not my experts field I have seen the studies from the colleagues to show that if you get 90% for mathematics in the national senior certificate and you come into the university.

I am talking UCT because I know it best that 90% predicts can almost open to almost anything. you will have the people that got that 90% at the end of maths one you are summed with 10% literally and others with a 100% so it is not a clear predictor in that way there some associations whereas in national benchmark test which forms in on the skills that we are looking for in the university.

And in fact have quite high standards you get a much better association so I want to come back to that because what I need you are right honesty is the word. You cannot deal with any qualities of what we have got here, dealing with massive inequalities in access to good education right through and of cause that is having a defect.

You cannot deal with those inequalities by pretending like they are not there you have to face them but not in way of denigrating them you are not blaming the students you are saying this is situation that we have to deal with now how do we deal with it.

From UCT what I have read interestingly the difference between formal inequality where you treat everybody the same under the law and equity approach where you can take different approach to people because of their different backgrounds and so on. The playing field is not equal in education so that is one of the keys to what we have to do.

I want to say under this particular point we call it the articulation gap for a reason it is a complex thing it is not about the subject knowledge it is a whole lot of things...that come out of school townships with compared with others and we talk a lot about under preparedness in students and yes it is true they are under prepared for the curriculum in place the standard one the calculus people assume that you can do essay in six weeks.



They are clearly under prepared for that no argument we should not be afraid to say so it is not their fault that they are under prepared. Given that those students are in the majority in the country why should we leave university expectations where they are. There has been a lot of talk around the world there has been a whole conference about it on under preparedness on who is under prepared. Is it the students or is it the institutions and I am not saying this in a rhetoric way, I am saying our education system need to adjust itself to the realities of higher education system...and we need to be able to educate the top ex. Per cent in our country call whatever ex you like to choose for that matter you should be able to do that from every group in the country. That is indeed through socio economic standard that is what we need to be able to do and I will add that we have been doing it up to a certain scale...that gap can be closed from either side

**CHAIRPERSON:** Sounds though you are pleading for post matriculation?

**Professor SCOTT:** Well I am not actually it would not be a bad idea except that if it is done in the schools it will simply excoriate the quality going through that is one of the big difficulties. If for an example you are quite right we narrow that gap it will help but to have a matric post which is all we can afford because we cannot add another year...to an A level in England for example we simply cannot afford that.

The trouble is that it would be taken selectively and the people who are at least were off is the township etc. it think yes I am talking about intervention in that period between what comes out of the school and the traditional university.

What forms that ex? Is what we need to discuss it has to be there you have to teach that mass student calculus otherwise it is not going to happen if you do not teach it does not happen

**CHAIRPERSON:** Very little has been said in this commission about the in ability of students to handle the language that is not their own

**Professor SCOTT:** That I very peculiar the language is very researched amazingly a research all around the world and in this country and it is arguably the biggest difficulty in students all over Africa have is that the mother tong of all people.

Swahili is starting to change now but by a large number mother tong of people has never been into higher education so there has got to be a language switch somewhere.

There has been a great deal of this all over the world the difficulty of academic use of language compared with day to day...has been well documented and I think that is what we are talking about.

**CHAIRPERSON:** Very little has been made about articulating the gap which that shortage of language skill...what is it about?

**Adv. MABUDA:** Chair we will be dealing about tomorrow in great detail

**Professor SCOTT:** I said at the begging chair that this topic has not got a lot of attention

**CHAIRPERSON:** You have got s clear view of it you know...do you mind if we hear that

**Professor SCOTT:** Absolutely, no I will get to that. Can I just finish what I am doing here and then get to that because this a need a bit of background because I must not dwell on. The articulation gap is probably the biggest one but you will see that... (I think this is not working.

Is it on) another one that I think is very important but I do not want to dwell on is that student come to make pre mature selection on courses they want to study on often entirely in appropriate and they do not have an opportunity to change them so many students loose motivation and we have a problem.

If we have an articulation and more time for students to do more things. Somebody coming out of a township school will again not know these disciplines and some did not know them I did not know them myself. So it is a very difficult issue but it is a very common issue as I said there now. Our standard curriculum does not allow any of this to happen. Things that should aid learning they do not have the time,

**CHAIRPERSON:** You know with the falling away of the compulsory misery service there is time where there was no time before.

**Professor SCOTT:** It is true.

**CHAIRPERSON:** I mean I spent a year out reach of anybody as well. That is no longer necessary and why should we not put that time to good use and why should there be a hurry?

**Professor SCOTT:** You know I have to say that I think that I agree. I think that the mad rush that people get into I think primarily is for economic reasons, people want to get in and out of the university as quick as possible to get a good job.

That is a very dominant view in the world and it is very different from my days in the 60s where we would have liked to stay in the universities as long as possible, because it was a very nice place to be. That pressure now to get out there and earn is very strong. Where people need to support their families in others it is not.

I think there is a precipitated rush but what it provides in the end is not the good results we are looking for in rushing we are doing things badly so what we need to do is stop a little bit and do other things at this period in time. I will just finish quickly and then we will get into that.

So the third one is exactly language issue. What we need is a sustained development and they call them literacies these days for the obvious reasons particularly to language but it can relate to numbers just as much. It is all over the place we see the shortage of people understanding of information and how information should be managed in these days it is a crucial skill.

Numbers, sense of numbers academic language, it is a massive thing and we treat everybody the same when they come through whether with good English or whether in townships they must first pass the post you come in and you get three 40% or get three 90% you get in to the same courses it makes no sense to me, but that is our education system. As I will explain.

The fourth one is newer but there is a curriculum research that there are transitions, intellectual transitions within the curricular for which the students are prepared, the easiest one to pick is engineering where students with basic sciences suddenly hit real engineering design and so on and they are not prepared.

We take it for granted that they are because in the old days the people who fiddled with engineering did so for a long time, they came in because they had a strong visual imagination, not case anymore so what we take for granted is not valid. This is the theme that runs again and again and I want to say something about why.

The point here this is creating an un-productive and unfair situation because the burden of these structural obstacles is falling quite disproportionately on people who can ill afford that burden at them. As I have said students that come from disadvantaged schools because that is what is and different language groups and etc. have the odds stacked against them.

And in that sense I think that the students have the right to complain about any qualities in access to the knowledge that we are talking about here. Why do they raise the question now chairperson, why do we have these structural obstacles?

**CHAIRPERSON:** Because we have always had them.

**Professor SCOTT:** Thank you. Our higher education structure was in fact inherited. This is colonial structure. Good in its place become a very inappropriate for us was inherited from the Scottish system. Why not that one? Because we would normally take England as the main colonial master at the time but England wrote at A level which is 13 years of schooling.

We didn't have that. The Scottish system have a 12 year schooling system a still does have that. It fitted very well with ours and that we is why we have honours at moment. So an English degree starts at the end of A level and another three years you end up here.

The Scottish degree started a year bellow and another three years made up the gap so they had to add up a year to bring them up to the same year as the English graduates because the English degree became an honours degree that later year become an honours year.

A 100 years later we still have it, so the point here is that structure has seen very little if any fundamental change in a 100 years. Yet the circumstance that it is meant to operate have changed particularly the size and the diverse intake into the system. I will say this South Africa in institutions have a higher number of diversity in their intake than any in the world.

Other institutions differentiate through stator particularly like the Americans you have got the four you have got the big universities state universities down they come until you get to the colleges. The colleges have got a completely different set of standards, we are within a non-differentiated system.

That is why we have a winner takes all kind of system, as you can see from the figures it really is not working. So my point is this the system was designed in relation to different student intake and that was the case in South Africa largely white if not entirely and relatively off.

And pretty homogenous now we have got to reverse and the same system is supposed to work, it is a one size fits all and I cannot for the life of me see a one size fits all see the fit all the diversity coming in. within the population groups coming in it makes no sense but we have always had it.

So here is a big point in our current inheriting structure there is no curriculum space there is no time to deal with the curriculum things when they arrive if the students comes across them they are doomed to living with them because that is all they can do. If you teach a student calculus the student will learn calculus if you don't he won't so that is what we are sitting with the way with that calculus is being taught there is no time.

**Adv. MABUDA:** Professor is this what is not offered to students referred to decolonisation?

**Professor SCOTT:** Thank you there is my last bit. Curriculum structure may be the problematic thing from our colonial masters.

**Adv. MABUDA:** In terms of curriculum reform what type of changes would you suggest are made in order to accommodate the diversity of the student population?

**Professor SCOTT:** Can I leave the detail of that for another few minutes I am looking at the time I have a few minutes

**CHAIRPERSON:** Do not feel obliged to...

**Professor SCOTT:** No I am fine thank you chair I will ask somebody to delay the driver a little bit... as I said I am not going to get an opportunity again in this life, so it is very fascinating for me to hear the kind of responses hear. Just to say very briefly before I get to say what I need.

The emphasis to decolonising that has been on content on orientation of the system so what people are saying in the crudest possible way if you now ran a literature course in a south African university that focused on Western European literature as if though there are no other literatures in the world that would be a reticulum colonialism and people are saying there is still quite a lot of that the economics teach is western economics is a failed economics.

I am not saying it is the truth but the say it is a failed economic why are we teaching it. We had this thing that went viral a couple of days ago with a student at UCT in fact saying that in terms of science we should be scrapping the whole of science because it is western and dualist and all that sort of staff and these are her words not mine and start again using African science.

I do not know what that would be but there has been a lot of discussion around that but the idea and power behind that is that students get into discussions and we can work with etc. that is legit and much has been done, decolonising engineering in the examples you choose personally I do not know. I do not think you can to me science is a universal language but that is not the view that is held by everybody.



**CHAIRPERSON:** Let us assume that the students are appreciate that something is wrong. Some of them grasp what is wrong more than others and many will blame all sorts of reasons without precisely what are those reasons.

**Professor SCOTT:** I think that is understandably I said at the beginning as my interpretation of an aspect of this decolonising agenda it is actually an appeal for epistemic agenda for something that means something to you, which you can build for you.

To me that is more than legitimate aim it is more than that, but that does not mean you throw everything out and start again because that is not possible and it does not make any sense if you take this extreme view of it you are not going to do down well in the academic. The other point is that surely what higher learning is about it is essential to get out of that.

**CHAIRPERSON:** It is also building on what was done before.

**Professor SCOTT:** Thank you indeed perfectly right so there is a legitimacy in that but the structures which these things are offered are never discussed partly chairperson because they are not seen as important.

They are so embedded in people that if you take them and look at them. if you look at our borders, Zimbabwe has an A level system and Botswana next door has an O level system which is two full years academically if you look at A level so what do they do if they chose higher education benchmark that started at A level no one or nobody would make it so they do not very sensibly they build on the O levels to sort themselves out.

We are sitting with the colonial inheritance with the particular structure that in my view is the most disadvantaging factors that we have in democratising our education. In other ways we should be saying all who can should be able to come in,

**Adv. MABUDA:** The two countries that you referred do they have the success rate than we do?

**Professor SCOTT:** Again I say these things are not readily comparable but my understanding is yes, their systems fit well. Certainly the university of Zimbabwe had an extremely good rate it has gotten into trouble for reasons that are political interference and starved of funding but it's reputation is excellent in Uganda it is fantastic very good universities but being undone by politics and control of funds instead of being left alone but yes they have fantastic results.

And they are widely respected all over the world. Some of them are starting to come again because that is the natural flow by the way it does not mean that fear because in Zimbabwe was the people that got into A level were already elite from the really good schools in Zimbabwe quite often the people who got left behind were left behind at an earlier level because there was that gap again between primary and higher level.

You know chair I see it in this there is a brutal thing that is around the world that swifts out the elite if you like and very often that is socio economic because of access to opportunity. It leaves behind the perfectly talented people that are giving them the actual knowledge that they need in order to pass the tests.

So that is what we see because it happens at different levels. In America now because it is so rich it happens at a higher level it even happens at post graduate level, where the big siftings is happening you know when you think of the law schools in America sift for the people coming out you have got to be the tops.

There is a real filter that operates there and what we have got is a filter that is operating just and leaving behind really talented people all because of these challenges. How is it that only 7% of our majority is succeeding? It cannot make sense, so yes you picked it up beautifully, so this is a bit of a propaganda I guess our mission has always been to redress the issue of inequality and that of racial.

Our aims are that of equity and success. Meaning that not everybody can come in, your potential in your matric exams that will not give you but it will give only a fair idea of how you have been taught. Other ways have to be found to identify potential and we work on that a lot. Then the equity of outcomes which means actually the graduating class should have the same outcome as the coming class.

That is why they have to act together, so if you have an equity programme at the beginning and then you have an equity leaning programme you will have a graduating class that will resemble the natural intake. You will not be racial stewing or any kind of socio stewing that goes on but that takes work, so just to say there is a long history to this.

Right back in the early 90s I and my colleague we were righting about the systemic way and came to an understanding about the foggy way at that time that it had to do with the curriculum so what happened at that time is that the origins and the courses at the universities that did not form part of the traditional courses.

If you like they were preparatory courses, so we can bring in students would did not have the normal requirements expose them do the maths that was required for a year and then have them prepared for a university place to be able to go on. That became known as extended curriculum it was extended down to meet the realities that students face and at a place like UCT finally to identify student to be able to access the institution and able to get enough of a foundation to build success.

That idea the extended programme has survived to the mid-80s to now where it is such a thriving business and it is still a minority programme. It is precisely designed to deal with these big structural gaps and it does in some cases and it does not in some other but I will come back to that.

What our programme do is they utilise to an extra year because now the government funding for this kind of thing starting in 2004 we have got a year that is funded where we can work with a students to deal with particularly and very particularly language issues numeracy issues where they arise.

And some we are able to deal with subject choice because we are able to see to more subjects intervening year where they would be able to do it regularly deferent disciplines for which they can choose more readily and there are successes and failures. It is a difficult section as you can see it is something that is added on we have got it sits there is maths one two three.

This way work has to fit inside that and that is often difficult when you working and trying to create a curriculum that articulates with a range of subjects up above be tough enough so that people survive in that traditional world that people have good enough foundation and carry on but we are having to draft what we do with a bog trunk of a traditional curriculum model.

We can do it many traditional students have come by that route and gone out successfully but the success rate is by no means what we would want and part of that is that four big structural project in curriculum we cannot do anything about. We can develop some curriculum with some extended programme higher up there is nothing to us but the university culture is very resistant to any of that.

So if these programmes are recognised by Department Higher Education and funded particularly for fostering student success and equity and they are now carrying the big...because the standards are now doing it they are not going to meet the students where they are. It is this kind of work that is doing that.

This is an inadequate but to say the least because a lot of work has been done on it the constraints have been recognised as I say they are a minority thing they stigma with some students because they feel they are being made to look stupid they are supplemental they are very big of a problem in other words. In other institutions they are being treated as third cousins once being removed and not even administered properly in the university and poorly staffed etc. it is very sad...to break to it.

I am hoping so as I have said extended programmes have a unique role where it's needed especially for those that needed university, more than over they have provided laboratory on the ground and what can work and how do you teach student calculus at a higher education level when they have not had it school.

There are very there is a tremendous amount that all around the world this way and we have written up some of it I have got a reference if somebody wants to take a look and ask odd questions you are very welcomed. This is the report that I was involved in, a task team was put together. Can we have curriculum reform? The answer chair is yes I think we can.

**CHAIRPERSON:** I just want to ask a question, chapter 5 of the CHT of 2013 have we got that?

**Adv. MABUDA:** I have the copy of that print I will provide it to the commission.

**Professor SCOTT:** It is a substantial report it was proposing a curriculum reform it was completed in 2013 and rejected in early 2015 for reasons I can tell you if you want.

**CHAIRPERSON:** I expect it. We also know what the reasons were.

**Professor SCOTT:** I will be happy to, at the right moment we will tell you...clothed in some unities, there was a form of report that came. To say quickly we did the report NJABULO NDEBELE who is the ex. Vice Chancellor of UCT chair of that group with senior, in its five or six and I was brought in to lead the research and report writing obviously for my passion for the subject and experience on it.

So I was absolutely implicated in it at all and our proposal was what we need our curriculum to become to deal with the diverse equity challenges is in itself flexible not rigid we need to have flexible doing the extended programmes we need to have students who can come and do the real thing and be taught calculus if what they need.

We went into chapter inverse on how it might be done and afforded which I think is very important for us that we look because it bares strongly on how the funding should go. What was disappointing was that it was a difficult time to implement anything new it going to be, was a disaster given what we know now.

Reasons for it was the interventions that are currently in place including our extended programmes get R300 million a year now and the big think called the children development grant had not been given a chance. The statistics indicated that quite good progress had been made.

That is where I have an objection because while there has been some change from 2000 from is what they picked on which their benchmark, it's not strong change it's not what they echoed I do not think that those figures I mean I have argued this I am going to right it quite soon, they do not provide grounds within themselves to say that we do not need to do anything. They do not but there is politics in there as well.

**CHAIRPERSON:** Thank you

**Professor SCOTT:** So just a quick word I am not going to speak a lot, the current academic support is very important kind of conventional things that many students need many think that it will help people but it does it deal with serious structural problems it is not meant to it supports.

If you look at it briefly that all students that study skills using data to how to know things all that staff is just useful to young people to have. The other types are there will be some language development going on in some curriculum that is usually tiny because of some insufficient scale it is hard work but it is not going to imbed itself.

I am not going to go into this but just to say these forms of support should be regarded as formal support they are part of the watering of the crop, if you do not do it the crop will not thrive so relatively.

They are cheap and because of this they should be funded at rock ground but the block ground has to be sufficient we do not want to tell universities how to deal with these things. What I want to look on next before we go on this major curriculum shift, a huge question is actually what proportion of our students really need this?

Can we do with that because if there are small numbers we can and if there are large numbers and so on? Or it will be done on the side because that is all that we can do. I want to go into details of what the figures tell us and these are the Dep. Higher education figures not my figures, I will just turn over to you Advocate Before I rush on.

**Adv. MABUDA:** You can proceed with your presentation but I have no questions for now but I think you can proceed.

**CHAIRPERSON:** There is my questions that have not been answered you said you will come to it and I expect you will.



**Professor SCOTT:** The main one was what should we do? We have got the extended programme that is what we have been talking about in the beginning and I will give you some figures about the scope at that. As to some significance I hope I made it clear that something has to be done about the systemic programme that we have.

Some intuitions will say if we do not get these things right if we do not deal with the articulation gap if we do not do something about the language issue you can see that some things are not going to work well, why should we be surprised when they are not working well.

The odds are stacked and they are stacked where they should not people with the most need to be included in this era. Let me try at this moment I am still talking about extended programme, people say we cannot do this extended programme it is too expensive add another year so going to add up to the three years to four years.

And you will be up by one third that is what the cost say will be but it is not all true. They also say which is true that it is a burden to students that they require additional time to graduate but they would not have graduated anyway if it was not this level of support. So I want to take on that seriously, so the people who will go into the extended programme all will have a proper flexible would be those in any case take longer.

If you saw from those figures 30% graduate in minimum time. The point is I reject that argument. Extended programme is not affordable on two grounds one is the money is being spent anyway for the extra year and the other one is can we afford not to do something about the other thing of almost half of our students nit making it? Here is an important heard line you might have seen

We are very lucky to have him. He did a very serious calculation of how failure is costing us in the system detailed coming down to the student because you will appreciate you cannot just calculate some students just drop out and then that is it, others stay for a long time and do not graduate quite a big problem.

Our think is often quite confused here chair the word retention is regarded as a good thing in higher education not the word. Retention because you want students not to drop out, but the two different kinds the retention that leads to graduation good retention, retention that that keeps people in the system and do not graduate a very bad retention.

Expensive it is what lead to students leaving with nothing but debt and it cost the system a large amount and there us the figure. This is in 2015 the direct cost for student who lead to graduate the direct cost was calculate to 4.5 Billion per Annam in a sense is wasted now you are never to going to avoid waste in that year if we were to save half of that we would have great resources to use.

It comes about that waste happens when there is work going on the institution if the student fails maths 1 the student has to do it again and the student has to pay the fees again, pay for the teaching the same way that student maths 1 double the teaching has been taken.

The more failure as there is teach as there is wastage happens. It's very important to know if there is wastage but if there is something done about it can open up resources.

**Ms KHUMALO:** So Professor what would be the timing of this extended programme is it pre is it the first year post or is it an assessment that can be done during the years or the elongated years so to speak?

**Professor SCOTT:** Very sharply and of course the majority of the work happens early because it is foundational nature that student in maths has to have maths teaching early so we have to identify ways that in terms of their probability of succeeding in a given time the is data on that now.

Some system provide a trail on site how you are doing the course you are doing so you can shift over early on. This is most common in America in most common degrees in America you have to do a range of subjects picking on maths you have to do some maths and it is quite normal to have pre-calculus maths and post so people who have go and those who do not learn the calculus and no big deal.

For us only one way and it makes no sense. The work has to happen. How do we know someone is going to take ten years well we do not know but the number of predictors that we can use in all. In the end we have to make use of what is in the interest of student a lot of this is in the detail.

Now the categories this is the key question for this section. What categories of students which will then give us numbers quire extended programmes? Which of those will actually acquire in order for it to succeed? I would argue that maths student requires that teaching, others whose chances had improved I would say that they will not improve but their chances would be boosted.

The curvier tear and I think that it is an important one. We have no means of determining what causes student failure there are whole range of things, clearly if a student has no money does not eat that is not going to be good for the chances of success there is money family issues there is drugs and there is this and that etc. How much of a failure can we attribute to learning difficulties?

If you are doing well and have no money we cannot count you for extended programme. The point is true we not know accurately but what we know is that these problems very often coincide in the same student. That student who is bright but with challenges often will have a difficult life and experience academic difficulties through no fault of his or her own.

What we are saying is let's not pick about a few percentage points these are the potential candidates for the people that are not hurt by extended programme. The three categories that I have put in are these, I am talking about the people who really need it in order to succeed or benefit from it. They would not be hurt by it the very worst.

Those who drop and never graduate would be candidates apart those who drop out for money reasons, we are using this ten year cut off and I will show you the figures in bit thy can hardly afford these divisions...the next category is that all students who do not graduate on time could do with extended curriculum support because they are already taking an additional year to graduate.

Their reasons failing an odd course here and there but they are not deep fundamental reasons. To be reasonable let us say we will go to N plus one the people who are not graduate in a year in my view are clearly are people that an extended programme will give.

Those are the three and here is the first table these are the figures sometime the data from different sources are not matched up they are not meant to be exact. If you take a look category dropped out they have now year ten but they have been registered for ten years that is 30% of the intake.

The people who have not graduated in ten years but are still in the system 35% that tells there are 5% of those not graduated in the system after ten years. N plus one those who have not graduated in four years and are BSC are 55% these are contact students not UNISA.

**Ms KHUMALO:** Professor Why others not applicable on different categories?

**Professor SCOTT:** I see your point I am only picking up...because those are the boundary groups any group under the sun in south Africa but by enlarge drearily consistent actually we see whites performing best and Africans performing least well in between coloured students often close to African students and Indians often closer to whites so I did not want to clutter the graphs.

It makes very unpleasant reading and it's not like we do not know why it is not like we do not understand the history of inequality in the country we have to say this is not the reflection of intelligence for the group it is a reflection of the resources and education that they had that is crucial.

The group digression full 50% of white students many of whom have not graduated with N plus one year 60% of African and then it gets difficult it gets up to 60%. 30% graduate in regulation time 70% did not. 75% and 55% are the numbers in different groups. For reference this is for contact and distance learning this is important because UNISA makes up one third of the enrolment data, so we cannot ignore UNISA there are reasons for it being different...which I am not even counting in most if chats is doing very badly. If they are going to put interventions they should not put out UNISA

**CHAIRPERSON:** I was going to ask you are the articulations the same articulations?

**Professor SCOTT:** Subject by subject they would be why not the same math problem may apply because they go to UNISA knowing they are going to take their time and they know they are going to take long.

The patents are stewed you cannot say you have not graduated in three years from UNISA you are in trouble because clearly you are not intending to. The articulation issue will apply and you will see that the discrepancies are not what they seem to be its quite high actually you can see the figures yourselves and how much they go up and the group differences are not different there are a lot of African students in UNISA.

Those will give us indicative figures about people who would do well in extended I would say about 55% is a good figure to start with let us reduce it by some obiter percentage for those who do not drop out for learning reasons it's because they had no money or their families fell apart etc.

Let's reduce that I do not know what the percentage would be 20% it is still a very bit number of student intake. If you look at contact and distant learner it will arguable be half to the majority. Just to give you an idea on the qualifications. The three year diploma does very badly, this is very important because diploma provides for those that come from poor backgrounds and those that want to get their hands on training.

Those figures are very bad, they are disastrous only 19% get their diplomas in regulation time. Three year degree a bit better but still under a half getting a degree and N plus one and getting up the average degree in those degrees is the four year degree which is the elite it's LLB the engineers etc. with very high requirement and often quite stewed racially. So they do better so they jolly well they should.

The population group the same curviest if you don't mind just to give you an idea of how the variation group applies across we do not need to dwell on that it's in record. We are getting into the nifty gritty of what sort of procession we are supposed to grow the higher education sector which is about a million now to 1.6 million by 2030, national development plan Department Higher Education and Training White Paper.

That is a lot of students coming into the system. What basis do we have for this growth if we are already having high failure and attrition rate, is it sensible to grow in this way if nothing changes, so here is your point I think chairperson.

The range of studies or was it you Adv. ALLY a range of studies last month showed a very clear positive association between performance in the NSC and the university, but it did not surprise us but because of the old racial sing it often went away but there is a very clear correlation in terms of this study so what does that mean?

Since the university intakes are generally taken almost entirely from the upper echelons of that NSC groups the next half of a million students that come in to education are going to have quite a low Professorial of NSC and of the correlation continues they are going to have a main stream existing curriculum and that will mean higher failure rate and higher attrition rates. Is that what we want? This very reasonable

**CHAIRPERSON:** So what you are saying is they will be in a position of a diploma?

**Professor SCOTT:** They will always. So significant growth in the form of proportion dependent on extended programme if it's kind of 45% now and we continue to grow it is going to be 50% in no time. It is most probably is because our figures is always a bit behind so we are talking a little bit about needed with effectively about half of our students not being well served by our current structure.

The elite are continuing doing well by elite I do not mean pejorative in this particular sense those that learn easy with that particular background, so we have serious think to do about the responsibility without having to say we have to change our system to do it. If we go in the schools are not going to get better by 2030 simple going on in the same way are astronomical because we have so much wastage.

The conclusions irrespective of the fuss and the muckiness around the edges we have students in the intake who need help and that is something different if it is going to address structural problems it has to be structure of nature, it has to address the structure to give us room to be able to do the right things.



Here is the equity issue because the bulk must come from African students with battled backgrounds those are the ones who are going to fail because we have already seen the numbers they are stewed and is going to make equity worse, end of section. What I am going to show you in the next one if you are not going to stop me is of what some of these things will cost

**CHAIRPERSON:** Yes I suggest that we take a 10 minute adjournment because we are clearly going to be here until 17H: 30

**Professor SCOTT:** If we can take 5 Minutes because I might miss my flight otherwise I might have to put my driver off. I think we can get through it in another sorry if we took, I have to get out of here that would be lovely thank you very much. I appreciate your time.

**CHAIRPERSON:** Yes would you like to continue?

**Professor SCOTT:** Thank you so much for that the reason for that is that a couple of things might be from the slides I am not sure I wrote them, just to make sure there are no misunderstandings about the funding. So I am going to skip some of the things so the commission know.

There is funding for extended it has been on place for about ten years now. It's grow quite a lot I think I will go into details it is a combination of romp funding and subsidy funding all the details are here in the slides. The issue the extended division...we call it the credit bearing the courses that are done count otherwise they are going to do more if you are in extended programme. Because they count they do some subsidy.

They go through regular teaching input. If they were not topped up they would be a drain in the institution it would be a disincentive to offer them.

**Ms KHUMALO:** I wanted to check! These are earmarked I do not know today or it was the other day we need to believe the earmarked ones maybe you get 20% and then the rest you claim as in when? Does it work like that?

**Professor SCOTT:** No it is different for the current revision it comes in the way the standard subsidy would do it's earmarked money so it means we have to count for it separately we have got to prove it was used for the purpose it was given

**Ms KHUMALO:** So in the concept of being block grant or earmarked it would be earmarked?

**Professor SCOTT:** Block grant you spend as you want. It is generated from inputs that are going on it comes from the big amount ...the institution uses the amount as it sees fit the query you cannot manage which is correct, the institution will have the good sense to spend the money in the right way.

The point is the top up here, the one that makes the subsidy gap between what the course is actually need by way of resource and what they are getting from regular subsidy is made up by the Earmarked Grant which gives us and part of that are Ministerial reference group that actually manage this process for many years no. so we are able actually to see what institutions are doing with that money.

So they don't spend money for redress purposes on something else because this is a redress fund to large extend.

**Ms KHUMALO:** My interest would be, is it manageable if you are just saying in this R300 million there is a R400 million, if it goes for varsity what will be the account? It is be the intake or participate in the extended programme or is it for the graduation? How do you follow that actually?

**Professor SCOTT:** Another good question.

**Ms KHUMALO:** With the other ground we had presentation on that you submit maybe to say in the infrastructure grant, this is what and you giving 20% as when you progress with the project you get that money. How do you get this?

**Professor SCOTT:** I think that is depend on how you want to spend your money. In this case in teaching you have to get the money in able to do it. But there is quite a stronger accountability because the extended programme are approved by the Minister. Our reference group. We go through that and advise the Minister that this fit the definition of the funding.

And then they get approved and they set budget for them. The funding depend on how many students you got and the waiting in the system. It is accountable that we have to and all institution have to report annually to the DHET to show what the results had been. We look at success rate and the relationship of success rate in the foundation courses to the regulation. There is a range of different there to keeping some accountability and the fund are also audited formally.

So we know if that will be spend in a right thing because will be audited. Actually there is a numbers of cases which funds has been withdrawn because they were not spent on the appropriate stuff.

**Ms KHUMALO:** At what point do you withdraw? After you have not getting results or during there to see that you can decide on the next year allocation? Like now how do you know that the institutions going to use it in all of that.

**Professor SCOTT:** It is a quite a lot of complicated process that the number of students going to the programme assuming you have got your array of approved programmes you can apply for new one every year. During the enrolment management process which the institution entered into with the Department of Higher Education and Training they negotiate enrolments in different programmes.

So it put a limit to the amount of subsidy that would be coming in if you are left with institutions they will just enrol more and more people and that is like the government writing a blank cheque. They do not do that anymore what they do they include it in that process. Once that has been improved they get the money.

Its retrospective lacunas and they only getting the money after two years, it has been spent. If you have massive growth you will be out of pocket for a little while until a bigger subsidy come. If you misbehave and the auditors find out you either pay the money or it is taken off your next year's allocation.

**Adv. ALLY:** Professor just to read to you what you were saying, from the ministerial from the university funding 2016/17 to 2018 one of the main indicators on page 17 one of the main indicators use to assist the effective use of grants which is what you are talking about is to determine the reduction in the drop out rate for first time under graduates in their 1<sup>st</sup> and 2<sup>nd</sup> years of studying this is done by undertaking systematics...for the first time in students each year.

**Professor SCOTT:** It is a difficult one but I do not want to go...into today but part of it is to get students through early but that is not the whole story cause there is high dropout rates after that but the Dep. has seen a reduction in dropout rates and that of cause good provided that the students move on to graduate but if not then you have got bad review.

**Adv. ALLY:** Well let us ask this in terms of this that I mentioned has the new policy been published because I will say to you also on page 17. A policy for extended curriculum programmes will be released in 2016 and will replace the guideline for privation made in 15 may 2012.

**Professor SCOTT:** That is something very familiar to me I will spend very much deal of my time working on it, it is a lot clearer in ways and more accountable.so who is placed in extended programmes the institutions are going to count on that much more...than they have been on the past

**CHAIRPERSON:** When you come would you take the trouble to explain to us to what extent this revised programmes will address the problem of articulation

**Professor SCOTT:** Yes agreed. I will mostly do that because the intention is to go some way in that policy towards dealing with that issue. There is still a lot of limitations on but that is exactly what we are trying to do.

So I must move for your time now but just to say the where are we now...we made the subsidy the amounts the two sources of funding that I was talking about this very all over the place the next table is best this is the current years grant which by the current day is small with the billions being tersed around I must say 304 million chair when we first got that money we were absolutely over the moon I think reasonable spent. What you see there is that the percentage catered for that amount f money is about 13%.

**CHAIPERSON:** Now this is for the whole country and it does not apply universities or TVET Colleges?

**Professor SCOTT:** Yes I does not at the moment not at all the same sort of needs are there but it's on doubt.

**CHAIRPERSON:** You might explain how the allocation total in universities if you have any knowledge of that?

**Professor SCOTT:** I do have knowledge and I do have some analogies. The biggest spenders for example UJ has a lot of good programmes and their budget is huge. And my own university has about R10 million off hand I would say out of it but UJ would be 50or 60 million but the figures are illustrative but they are available.

In fact they are in the ministerial statement. Adv. ALLY think the one you are using is the one from July. Is that right?

**Adv. ALLY:** Yes that is correct.

**Professor SCOTT:** There is an old table there showing the grant. Page 17. The lists of grants per institutions. They do not apply a lot it is part of internal capacity to apply

**CHAIRPERSON:** Do you have an input to how much goes into a particular institution?

**Professor SCOTT:** In the old days yes but now it's formulae as with....you get the money per number of students you had. How far they have got to migration into fool hem math I am not sure but once they get there they will know the exact amount that is all by Department of Higher education.

So just to say this money let's say is for 13% of the intake the figures that I have shown you indicate that the need is much greater than that. For the N plus ones very much greater than that. In fact in the letter that the Minister sent to the CHE rejecting our flexible curriculum proposal there was the recommendation that the proportion of students taken into extended programmes be increase to 30% which is considerable improvement.

You will see the figure there that is my calculation to take that allocation to 719 that has not picked in yet. I don't know whether it is the shortage of money, I am not sure but that is what the Minister has indicated. Still 30% is only covering people who never graduate in those 10 year time.

**CHAIRPERSON:** 719 is still small in the biggest nature?

**Professor SCOTT:** Indeed it is. It takes a lot to spend those kinds of millions, it's not brick and water it's paying people that need hard teaching work so every million there, there are two to three people there doing hard teaching there.

It's easy to give it away but not in this in fact the investment in the support is a fraction of the money poured in financial aid. If we can find that financial aid that is water and fertiliser why not. In my cooperate back ground it is something that we took for granted. I think we should be doing the same but unfortunately in my experience for all sorts of reasons government does not take kindly into the investment.

Its current budget and current outlay. The adequacy of funding if I may but again what if we grow what if we get another 500 students. Makes no sense funding it if is an add on its too expensive. It is not a good way. Put things together into a common robust system. Not going to be perfect but what I want to show you is how well it can work

**Ms KHUMALO:** Professor this growth I do not know if it a good thing or it is bad think, Dep. of Basic education because I suspect that this growth might come from this under paten, it is the growth in your opinion

**Professor SCOTT:** You see I do not think it has been set that way it's an aspirational target people are saying I heard the minister saying not long ago we are still on track to achieving those targets I am sceptical about it. What is going to happen with those is my fear.

As far as I know there is no plan from basic heard. To say now we produce x % more students. We did a calculation SHP while ago so figures will be a bit out-dated. Our current forms our main stream that's the 30% who get through in regulation time. On this scale if we are we would need well over one hundred thousand matriculates if we were able to sail ahead. Right now we are getting forty thousand. I do not believe it's going to happen.



It is the institutions of higher education that have to come down but ill prepared for standard curriculum but meet them when we did our big report we have got the whole structure and a whole different scenario.

The only that I want to mention now are is on the screen which is our proposal and increase in effectiveness, that would come about in the new structure. so you coke can that are coming out are becoming more and more wasted as you go along so here are the sailing figures

**Ms KHUMALO:** Before you get to figures do you anticipate going into post graduate because we had a presentation about how the research and development is suffering because of the out puts...

**Professor SCOTT:** I was dying to say something about the issue it's a pipeline issue if you do not have the school kids coming through to the university or you do not treat that well you have got a problem at every entry level there is a filter there's a pipe line and that pipe line is filled with all sorts of staff.

So if we do not get a good pipe line of candidates coming through as post graduates we will never get along. At the moment that is so racially stewed even if people want to go they do not qualify and we wonder why we have got few PhD well it is not rocket science to figure that out a lot of the staff is coming out there is some few good studies that is done by the Stellenbosch.

Crest the research operation and a guy called Stefan van Debug. The issue should be graduate output not input output the coke cans are what count my people, hate these production higher analogy what we have to gage our success by is not our enrolment.

That is our graduates surely that is sensible there is no point in growing to 1.5 million if we do not get common growth in graduates and improve their rates. so here we are with actual costs.

So if we simple increase the intake in order to get the increase in the number of Scenario for a bit of an out lay 16% more outlay give you more graduates. What the current system have to do to get more graduates. The additional cost of 2b the intake the addition cost for each co hoed, it is coming through from year one to six would be normal the R1.8 billion would go onto producing these graduates by simply projecting these figures that we already got have these projections taken more seriously.

At any given time there are four co hoed in the system. There more you put in the less your output is going to be so it is not surprising that it is going to need more and more money and more and more effort on graduates coming in. so that Kayelitsha student in maths does not have a problem is actually well prepared for it as if though it were a foundation course.

Cost per graduates not is what people look at cost per can, if you look at the cost per graduate an achievable rethink our proposal or something like that we recon 10% per graduate for a more efficient modern and these figures are very well organised you can audit them. If the status quoi changes to 20% of what we are proposing the money are huge and here is the out lay the concept of investment is getting outlaying the system we figure it would be 16% the same number of students we have not graduated and 16% is going to cost more but it will get 28% more graduates at the other and that is appreciable and it is an investment.

We could then do this without increasing the outlay at all but because the system is more efficient that would mean reducing the number of students coming in the intake would go down you get the same number of graduates out as we do now better than in fact. Outline doesn't change number of graduates get better but number of students going in gets reduced and we think politically that is not acceptable to reduced and people are expecting it to grow.

The point is chairperson there are a lot of interesting things to look at I think the rigor with which these were done it is not my work of Charles Shepard and others you will ask him it actually deserves some analysis. When we are thinking opening s as appearance of openness will think it's free well in fact the process will spit out what in the 80s called the revolving door.

A critic of the old liberal institution to say do come in your all way and you are welcome here but by heavens you are found on the street again very quickly because the welcome was not a genuine one in the sense that the system was set to take you on. Many thanks for putting up with me for so long. I hugely appreciate that.

**CHAIRPERSON:** Well we I find out without the fear of contradiction we find it very stimulating and I trust that we will find it very helpful. We would like that you mind your experience and knowledge further. Thank you so much

**ADV. MABUDA:** Thank you Professor.