

Higher Education Access & Development Services (HEADS)

Success for tomorrow



Nelson Mandela
Metropolitan
University

for tomorrow

Challenges for HE Institutions and student success in the light of the new school and FET College qualifications

Cheryl Foxcroft

Cheryl.foxcroft@nmmu.ac.za

Where do we begin? Putting the student at the centre

- **The student lifecycle approach has the following main stages:**
 - pre-entry advice and guidance,
 - admissions and induction,
 - first term/semester,
 - moving through the course and
 - employment/progression.
- **This approach benefits students in that it offers them a comprehensive and consistent form of provision: ‘The lifecycle approach enables institutions to develop their provision of support in line with individual student need, rather than institutional practice’ (Action on Access, 2002). (Thomas et al 2002:12-13)**

Pre-entry Advice and Guidance

- “Recent research has shown that dissatisfaction with a course because it does not correspond to what was expected by the student is a major contributing factor to student withdrawal ... This is particularly the case in engineering, as the subject is not taught at schools. Students arriving on an engineering degree do not always understand what will be expected of them or what to expect from it ...” (Shobbrook 2003:3-5).
- School leavers are unprepared when it comes to making informed career choices.
- How prepared are institutions to assist applicants to choose appropriate programmes w.r.t. their aspirations and competencies?

Link between admission criteria & student success

- Minimum statutory criteria (requirements) have been set for entry to HE qualifications.
- HE institutions have the right to set additional criteria, provided that they are not discriminatory.
- The onus is on HE institutions to select those students who are likely succeed, even if some require development and support to succeed, while minimizing the admission of students who are highly unlikely to succeed.

Retention rate of first time entering students: 2005 - 2009

Retention rates of First Time Entering Students 2005 - 2009



School-leaving results & admission criteria

- Internationally, results in a final school leaving examination are used as one of the key admissions criteria. Eg, Israel
- The results of the Grade 12 examinations are the predominant admissions/selection tool used by Higher Education (HE) institutions in South Africa.
- Best practice – diversify admission criteria and measures so that there is not sole reliance on one. One of the ways that admissions criteria have been broadened is by including performance on admissions tests, especially for alternative admissions.
- What makes something a good measure to use to assist in admissions decision-making?

Standards for the measuring tool used for admissions purposes

- **Where a measuring tool is used for high stakes selection purposes, it needs to meet stringent psychometric criteria. It needs to be:**
 - **Reliable (consistent/stable).**
 - **Valid – both in terms of the content of the measure as well as its predictive validity where performance at university is the criterion.**
 - **Where standards are set on the selection tool (e.g., diploma entry, degree entry), they need to be set on the basis of research to ensure that they are correct and unbiased.**
 - **Where a new version of the measure is developed each year, appropriate methods need to be in place to equate scores from year to year.**

The known – the world that was

- **For the Senior Certificate (SC), we had years of research that enabled us to know:**
 - For which symbols and HG/SG levels scores were more stable (reliable) or more variable, which made them more or less likely to be good predictors of academic performance overall and in specific disciplines (predictive validity).
- **Based on this, because we knew what to expect:**
 - we could set admissions criteria that were linked to the likelihood of a student succeeding (with/without support),
 - we could develop guidelines re where to make allowances (or not) during admissions decision making.
 - we could plan & implement appropriate academic development & support programmes

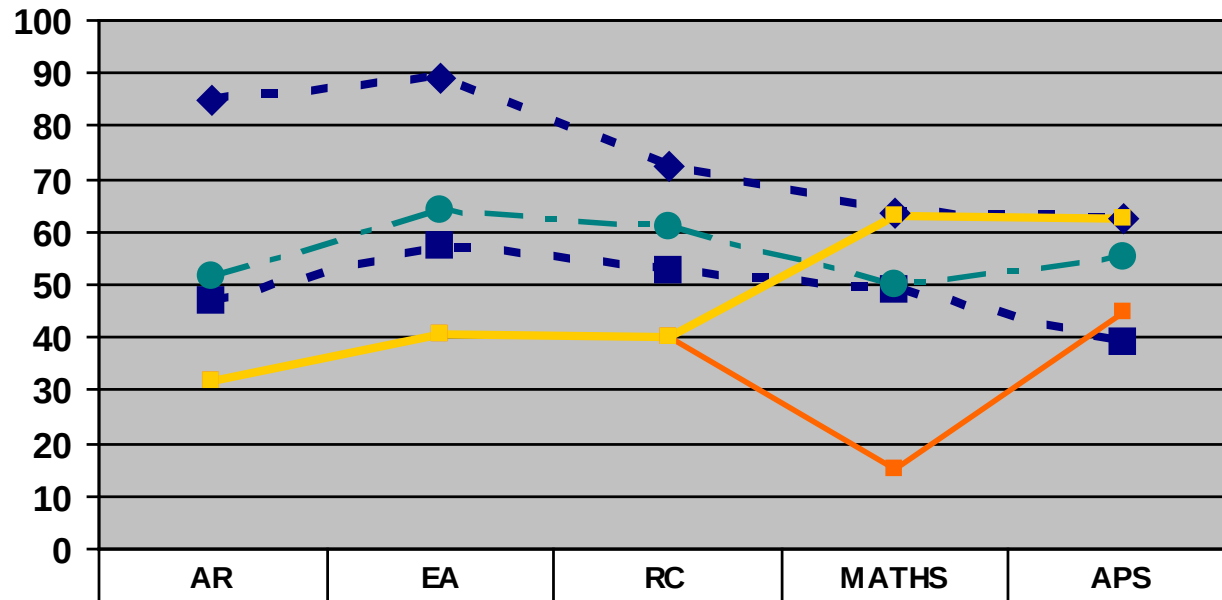
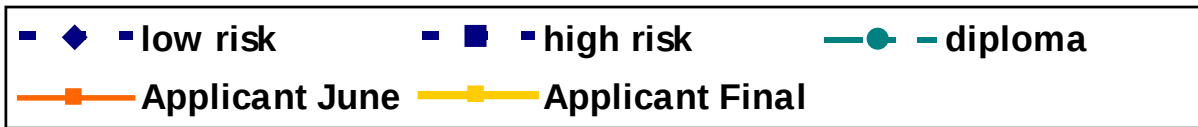
Moving from the known to the unknown – the world that now is

- What did HE Institutions “know” about the properties of the NSC as a measurement and selection tool before using it to make admissions decisions?
- We made some assumptions but had no “hard evidence” as the proposed pilot never happened.
- The result? Our assumptions were largely wrong, especially w.r.t. how to understand performance on the NSC.

Moving from the known to the unknown – the world that now is – what we are learning

- Reliability
- Validity
- Equivalence of SC and NSC
- Measurement scale post HG/SG era

BCom applicant – Not admitted (June); Directly Admitted (Final) – large inconsistency btwn June & Final

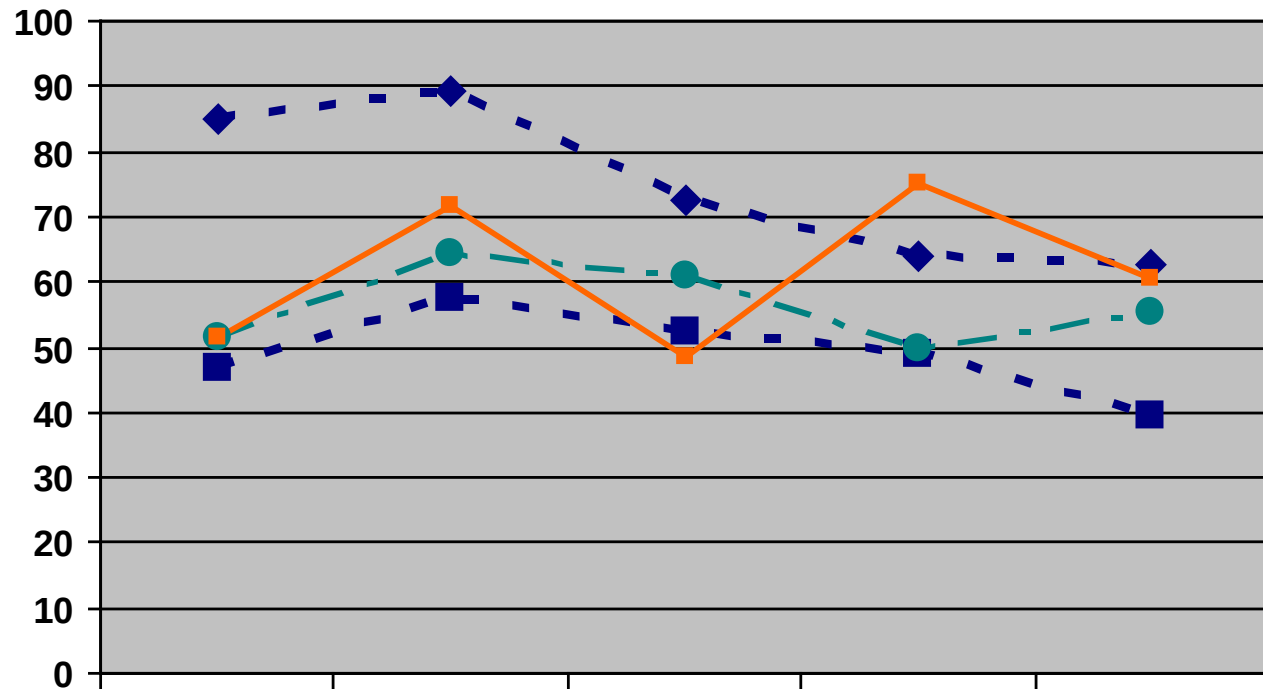


◆ low risk	85	89.21	72.5	63.75	62.5
■ high risk	46.92	57.42	52.5	48.75	39.29
● diploma	51.67	64.17	60.83	50	55.36
—■— Applicant June	31.7	40.8	40	15	44.6
—■— Applicant Final	31.7	40.8	40	63	62.5

Cert E
Deg E

Inconsistency – same/similar points but test results very different (BCom applicant)

◆ low risk
 ■ high risk
 ● diploma
 ■ Applicant final



	AR	EA	RC	MATHS	APS
◆ low risk	85	89.21	72.5	63.75	62.5
■ high risk	46.92	57.42	52.5	48.75	39.29
● diploma	51.67	64.17	60.83	50	55.36
■ Applicant final	51.67	71.7	48.3	75	60.71

Moving from the known to the unknown – the world that now is – what we are learning

- **Validity (part 1): We have no information on:**
 - **Content validity** – but we assume that Umalusi looked at content coverage in the examination papers.
 - **Predictive validity** – in terms of how performance on the NSC will predict performance at university – which has handicapped us in terms of trying to make fair and accurate admissions decisions.
- **Validity (part 2): We have some information on:**
 - **Concurrent validity** – we have a set of admissions tests that have been found to be valid and reliable for making admissions decisions at the NMMU. Over the years profiles/patterns of performance have been established by developing profiles that include both test and school results. The usual pattern found with the SC is that the test results are higher than the school results. Generally, the reverse pattern is being seen with the NSC in that for many applicants school results are higher than the test results.

Moving from the known to the unknown – what we are learning – equating the NSC and SC



Moving from the known to the unknown – the world that now is – what we are learning

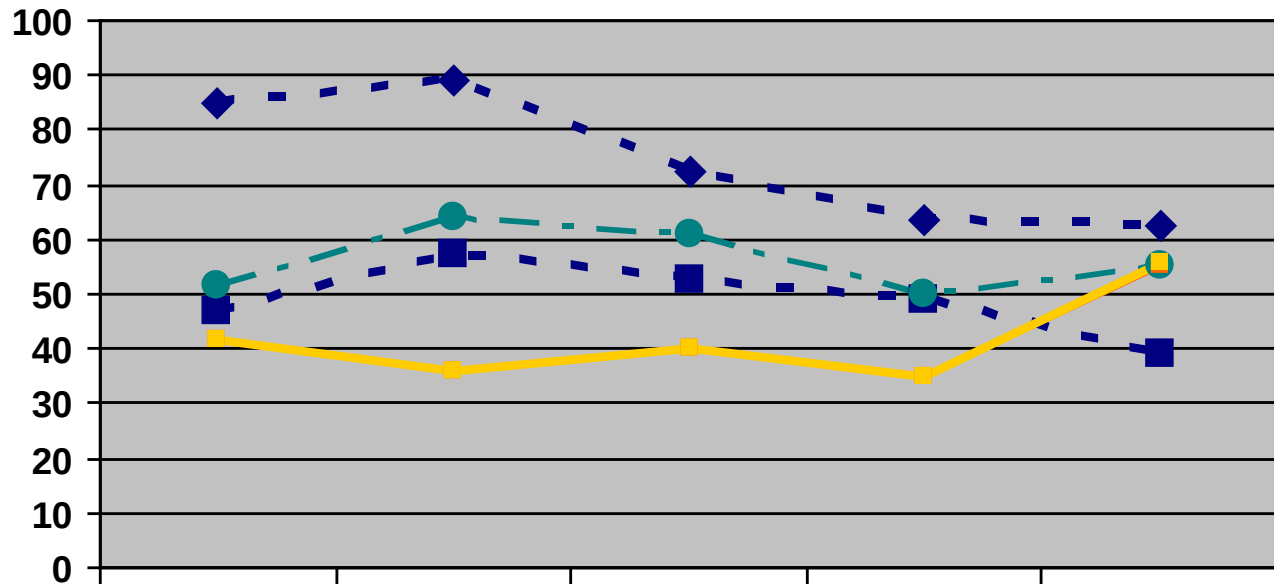
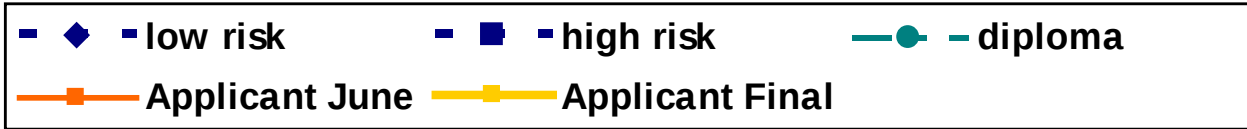
Faculty of Health Sciences

Prog	Senior Certificate			NSC			Diff
	N	SPS	% below SPS	N	Corres APS	2009 APS	
BA Psych	43	31	46.5%	76	37	34	3
BSW	40	31	75%	36	38	34	4
BHMS	26	31	57.7%	33	37	34	3
BPharm	16	38	37.5%	14	40	41	-1

Moving from the known to the unknown – what we are learning about minimum requirements

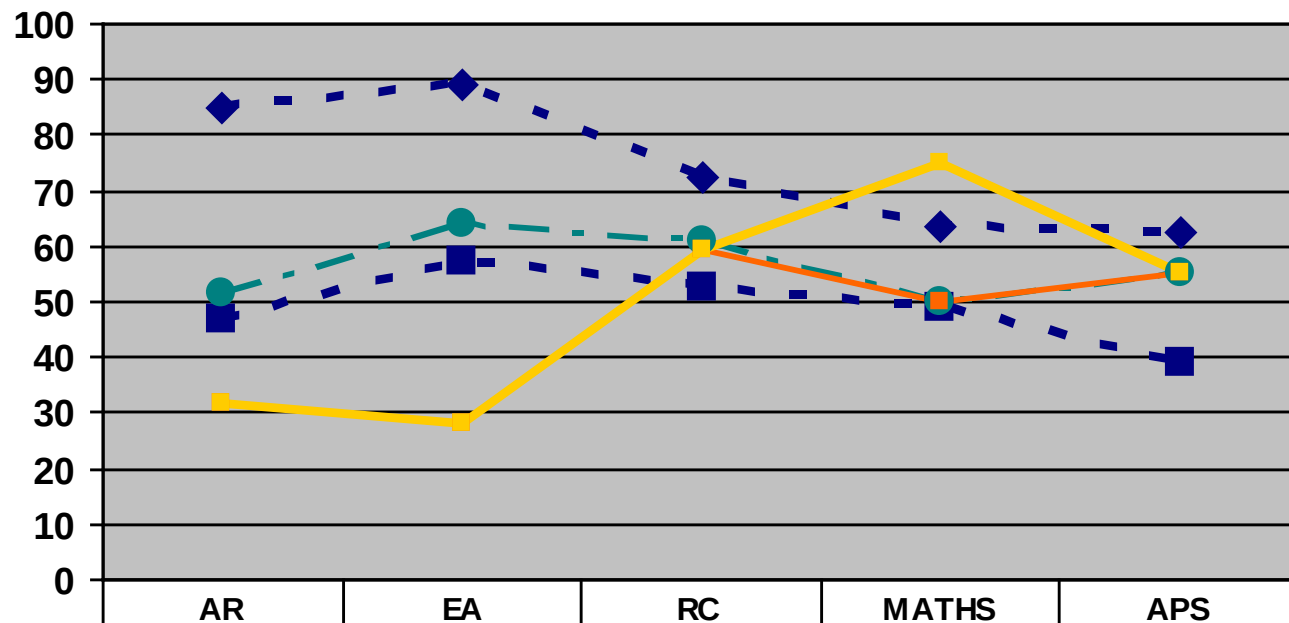
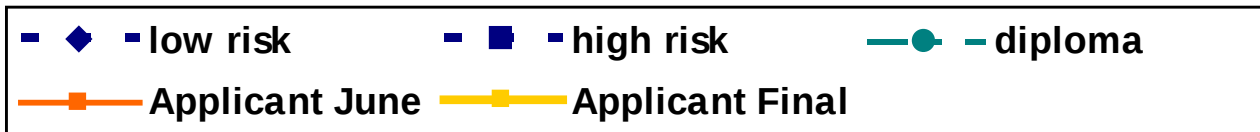
- Standards (minimum requirements): While the SC exemption requirements were fairly low, HE institutions added criteria that enabled them to make reasonably accurate admissions decisions. There is a very real possibility that, if the NSC is behaving very differently as a measuring tool than the SC did, the standards for Higher Certificate, diploma and degree entry have not been set at the correct levels.

Meets minimum statutory admission requirements for degree entry



	AR	EA	RC	MATHS	APS
◆ low risk	85	89.21	72.5	63.75	62.5
■ high risk	46.92	57.42	52.5	48.75	39.29
● diploma	51.67	64.17	60.83	50	55.36
— Applicant June	41.67	35.83	40	35	55.36
— Applicant Final	41.67	35.83	40	35	55.5

Meets minimum statutory admission requirements for diploma (June) and degree (Final) entry



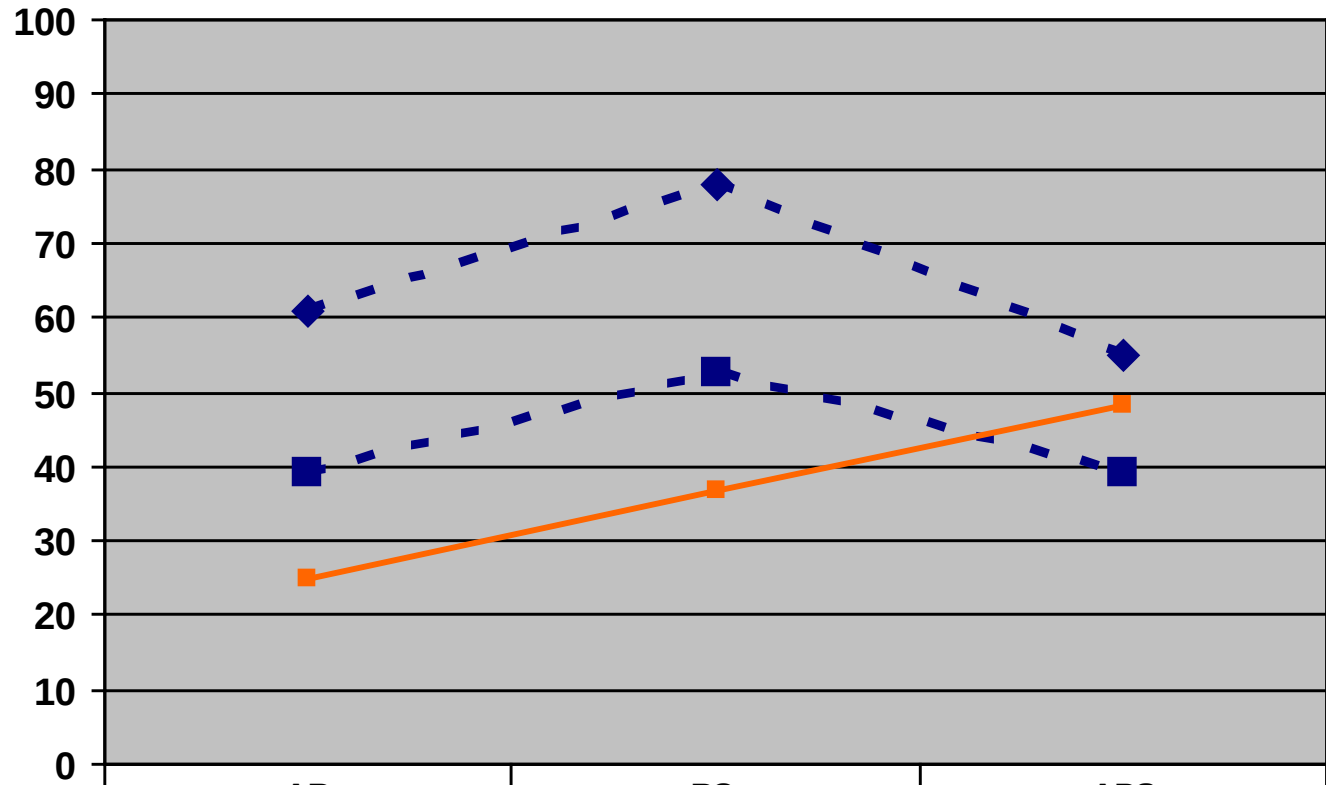
◆ low risk	85	89.21	72.5	63.75	62.5
■ high risk	46.92	57.42	52.5	48.75	39.29
● diploma	51.67	64.17	60.83	50	55.36
—■— Applicant June	31.7	28.33	59.167	50	55.36
—■— Applicant Final	31.7	28.33	59.167	75	55.36

Dip E
Deg E

Meets minimum statutory admission requirements for diploma entry



- ◆ - low risk
 - ■ - high risk
 - ■ - Applicant Final



	AR	RC	APS
low risk	61	78	55
high risk	39	52.5	39
Applicant Final	25	36.67	48.21

ND Management: Progress Map Categories



	<i>Reading Comprehension</i>		<i>Arithmetic</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
<i>Level 4</i>	2	1.6	0	-
<i>Level 3</i>	15	12.3	2	1.6
<i>Level 2</i>	81	66.4	27	22.1
<i>Level 1</i>	24	19.7	93	76.2

Reading Comprehension (Level 2): Able to comprehend short passages that are characterised by uncomplicated ideas, straightforward presentation and subject matter that largely reflects everyday experience.

Arithmetic (Level 1): Minimal arithmetic skills. Can: perform simple operations with whole numbers & decimals (+, -, x); calculate an average, given integer numbers; solve simple word problems; identify data represented by simple graphs

National Certificate (Vocational) – our next challenge

- **Purpose:** To enable students to acquire the necessary practical skills, applied competence and understanding required for: employment in a particular occupation or trade or, entrance into HE (subject to appropriate subject combinations).

Fundamental learning component

- **Compulsory**
- **1st Additional Language:**
Pass = 3 (40-49%)
- **Maths / Maths Literacy**
Pass = 2 (30-39%)
- **Life Orientation:**
Pass = 3 (40-49%)



Vocational Learning Component

- **Learning experiences relevant to particular vocational field**
- **Four 20 credit subjects**
- **Pass = 50% using a differentiated rating system**
1 = 0-39%, 2 = 40-49%, 3 = 50-69%, 4 = 70-79%, 5 = 80-100%

Management; Marketing; IT & CS; Finance, Economics & Accounting; Office Admin; Hospitality; Tourism; Electrical Infrastructure & Construction; Civil Engineering & Building Construction; Engineering & Related Design; and Primary Agriculture

Proposed HE admission requirements based on NCV

- Higher Certificate – compliance with NCV and LOLT at Higher Education as well as institutional admission requirements.
- Diploma – 50% in the 3 fundamental subjects including LOLT at Higher Education, 60% in 4 vocational subjects as well as institutional admission requirements.
- Bachelors' degree – 60% in the 3 fundamental subjects including LOLT at Higher Education, 70% in 4 vocational subjects, as well as institutional admission requirements.
- Need to be seen as being interim/work in progress

How should HE respond?

- “If all you ever do is all you’ve ever done, then all you’ll ever get is all you ever got”, Texas saying in Friedman (2008, p.6) *Hot, Flat and Crowded*.
- As a sector:
 - system-wide research,
 - advisory body of HE measurement experts,
 - subject experts undertake curricula reviews,
 - regional consortia re career advising, teacher training
 - lobbying for career guidance in schools

How should HE respond?

- “If all you ever do is all you’ve ever done, then all you’ll ever get is all you ever got”, Texas saying in Friedman (2008, p.6) *Hot, Flat and Crowded*.
- Institutionally (NMMU):
 - Institution-wide responsibility for student success and **intentional actions that create an environment for and that promotes student success.**
 - Actions grounded in theory & research.
 - Additional driver for setting admissions criteria,
 - Project team to co-ordinate & enhance career/prog advising, & developing Informative course materials,
 - 1st year “learning communities” and buddies
 - Faculty-linked support teams and FYE very important,
 - Refine curricula and T&L and assessment methods
 - “Generic” 1st year curricula
 - Learning and social spaces