



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI



BUILDING MEDICAL GRADUATE ATTRIBUTES FROM THE FIRST YEAR

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The Challenge

For educators in the 21st-century

- To enhance **formative & transformative** education
- To ensure health professionals are
 - socially accountable**
 - empathetic**
 - creative problem solvers**
- to direct education, research and service activities towards addressing the priority health concerns
- Become **change agents** in own lives and in strengthening health systems

Frenk J, *et al.* Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World. *The Lancet* 2010; [376 \(9756\)](#): 1923-1958



GRADUATE ATTRIBUTES (ref CANmeds and HPCSA)

HEALTHCARE
PRACTITIONER

COMMUNICATOR

COLLABORATOR

LEADER

MANAGER

HEALTH
ADVOCATE
SOCIAL JUSTICE

SCHOLAR
RESEARCH
REFLECTION

PROFESSIONAL

Levels of Learning



EDUCATION OF HEALTH PROFESSIONALS
FOR THE 21ST CENTURY:
A GLOBAL INDEPENDENT COMMISSION

Level	Objectives	Outcome
Informative	<ul style="list-style-type: none">•Information•Skills	Experts
Formative	<ul style="list-style-type: none">•Socialization•Values	Professionals
Transformative	<ul style="list-style-type: none">•Leadership attributes	Change agents

Reflection = look back and consider

But--**Critical reflection** = become critically aware of

-assumptions

-beliefs

-habits

TRANSFORMATIONAL LEARNING:

- Single loop learning: make alternate plan for similar experiences
- Double loop learning : identifying reasons for what did happen
- Triple loop learning : questioning underlying conceptual frameworks and systems of power. (Argyris & Schon 1974; Aronson 2011.)

➤ Questioning own assumptions/ beliefs/ values--

➤ CHOOSE to do it differently --- become an agent of change

➤ being motivated to better understand the meaning of our experience ((Mezirow 1990.)

How do we learn?

- Formal teaching – knowledge transfer
- Evidence based investigation
- Learn from your own experience
- **Self awareness** -learn from the guidance of the heart
- Own ideas and creativity that find new possibilities

Synthesis

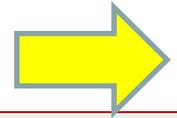
Curiosity, inquiry, discovery

- Multiple intelligence: (Gardner 1983)

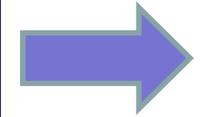
GOAL : Become your best self

- use of creative and critical thinking ---
to prepare for / succeed in/ learn from experience
- Academic level
- Personal level— reach your potential
- Human level--- understanding and empathy
- Societal level
- Professional:
 - act with more insight
 - Be more effective
- **Become an agent of change:**
 - Lead yourself forwards in your own life : microcosm
 - Leader of others: macrocosm

SOCIAL ACCOUNTABILITY AT MULTIPLE LEVELS:

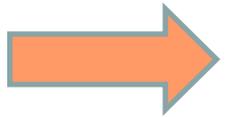


Demographics (2013, 2014)



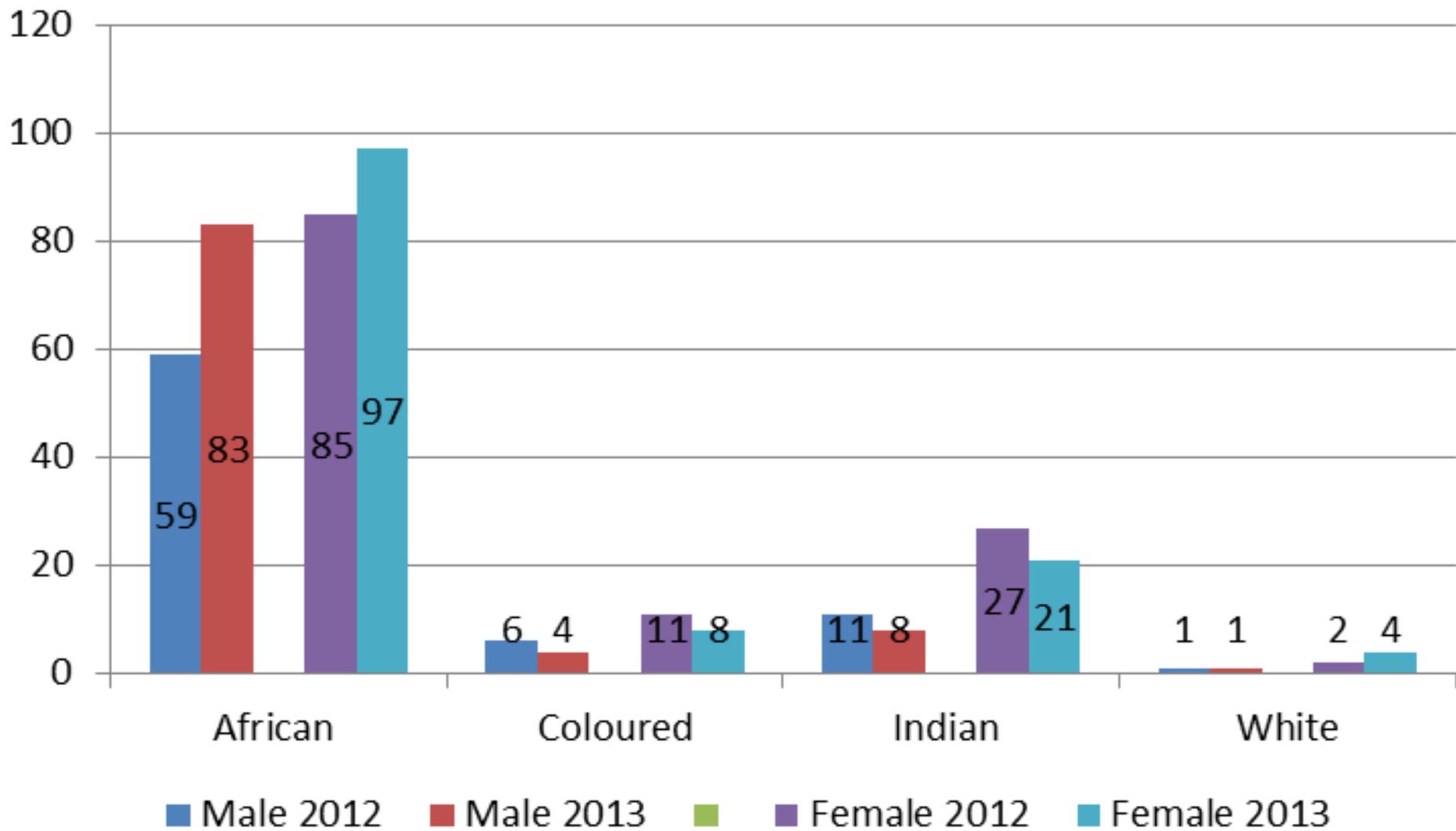
Health professionals towards communities they serve

- Cascade to other  to patient-centred care
community participation in health
- to community / society.  Social justice , social redress
population based care, prevention
health systems, policy



From medical school towards our students

- Building student self- awareness –strengths based approach, resilience
- Student integration of alternate world views



UKZN First year male and female medical students by race category 2012-2013.

SOCIAL ACCOUNTABILITY: Integration of world views

the student, the community, cultural origin, medical school
- self trust and evidence-based knowledge

➤ I made an AIDS sign. The reason for that was that I have lost a number of people who are of high vitality to me. No one was aware that it was AIDS taking them away. The only thing we did was to assume that their passing was related to witch-craft somehow. I think we were lacking self-awareness about the whole thing, so making that sign for me was to make myself and others aware that this disease is there and we must not be ignorant (First year student 2014)

HIV workshop 1: Self awareness, creativity, discovery.

(session: creating an image of health using paper materials)

Self awareness

Creativity
Curiosity
Self trust
Emotional intelligence
Self coping skills
STRENGTH-BASED FOCUS

Reflection skills
Appreciative leadership
Teamwork
Active listening
Clinical skills

GRADUATE SKILLS
Creative problem solving
Social accountability
Graduate attributes
empathy

HIV workshop 1: creativity
Making a Difference activity
Selectives programme

First year: BECOMING A PROFESSIONAL MODULE 2014

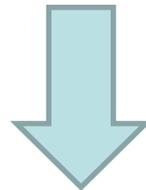
Orientation lectures
Self-awareness lectures



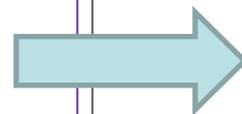
HIV PROGRAMME:

5 + 1 workshops

Workshop1: **Self - awareness, creativity, discovery**



Making a Difference group
community activity



2nd - 4th years

SELECTIVES PROGRAMME:

2nd year: selectives 1: Family Med

3rd year: selectives 2 PHM

4th year: selectives 3 Rural Health

3rd year: Selectives 2

Research skills

Development of research proposal

HIV WORKSHOP 1: CREATIVE IMAGES

PERCEPTIONS OF HEALTH : Building self- awareness, creativity and discovery

session: creating an image of 'health' using paper materials
Students make visible their meaning of the concept of 'health'.

- I created a heart with holes. This related to the fact that SA doctors to have the heart for their work, but they are not there yet. They still lack security for their patients. It take a very dedicated person to be excellent. (first year student 2014)

Self-awareness - creativity - discovery



STUDENT VOICES : 2014

- It was so good and fantastic to communicate with people of different gender, race and exploring what other people think about life as a whole more especially health!!
- I got to learn about other people's view and realised my creativity side. Yes – it should be repeated because other students learn more about health and about themselves

(HIV workshop 1. written evaluation)

WORKSHOP 1: SELF-AWARENESS, CREATIVITY

STUDENT EVALUATION: CORE THEMES

Self presentation in a group- small/ large

Express myself in front of other people

Hear the views of others (-communication skills)

Other cultures

Own creativity and of others

Ideas about 'health'

My voice also counts

I can feel stressed and still find my creativity (-- face uncertainty)

"Use anything to be creative"

Social skills

"Looking at something in a different perspective"

'A relationship of interaction' and getting to know each other

Others opinions about life

Talking about making a change

I learned about myself and others



Making a Difference group community service activity

- **Self-selected** groups of **2 to 4** students
- **Self-identify** disadvantaged community in proximity to their term-time residence
- **16 hours** of group community service activity
 - Includes appropriate HIV and AIDS awareness
- Assistance with other organizational activities
- **Skills** in building rapport and **community participation**



Education systems research: ongoing action research

- Qualitative analysis of routine written student feedback, learnings and reflection about their experiences.
- Verbal and written student reflection
- In-depth interviews with students 2013:
 - Cant diagnose public health from sitting in the surgery—
need to go where people are at.
 - Know real life situations versus what read in books.

- Remotivated educators to strengthen design in order to deepen, consolidate student learnings
- Focus on social accountability & transformative education has resulted in the **redesign & strengthening** of the activity
- ✓ The flow process, content and design of operational activities and the reflective journal activities in the *Making a Difference* activity were reviewed and redesigned in order to improve the quality of student learning gleaned from the experience
- ✓ A focus on learnings re self and public health
- ✓ Structured longitudinal reflective practice

Components of flow design :

Orientation and Self-awareness lectures

Experiential workshops for students

Student manual and outcome steps

Facilitator training

Facilitator support and feedback for students

Facilitator/ student scheduled meetings

Student onsite activities

Onsite facilitators

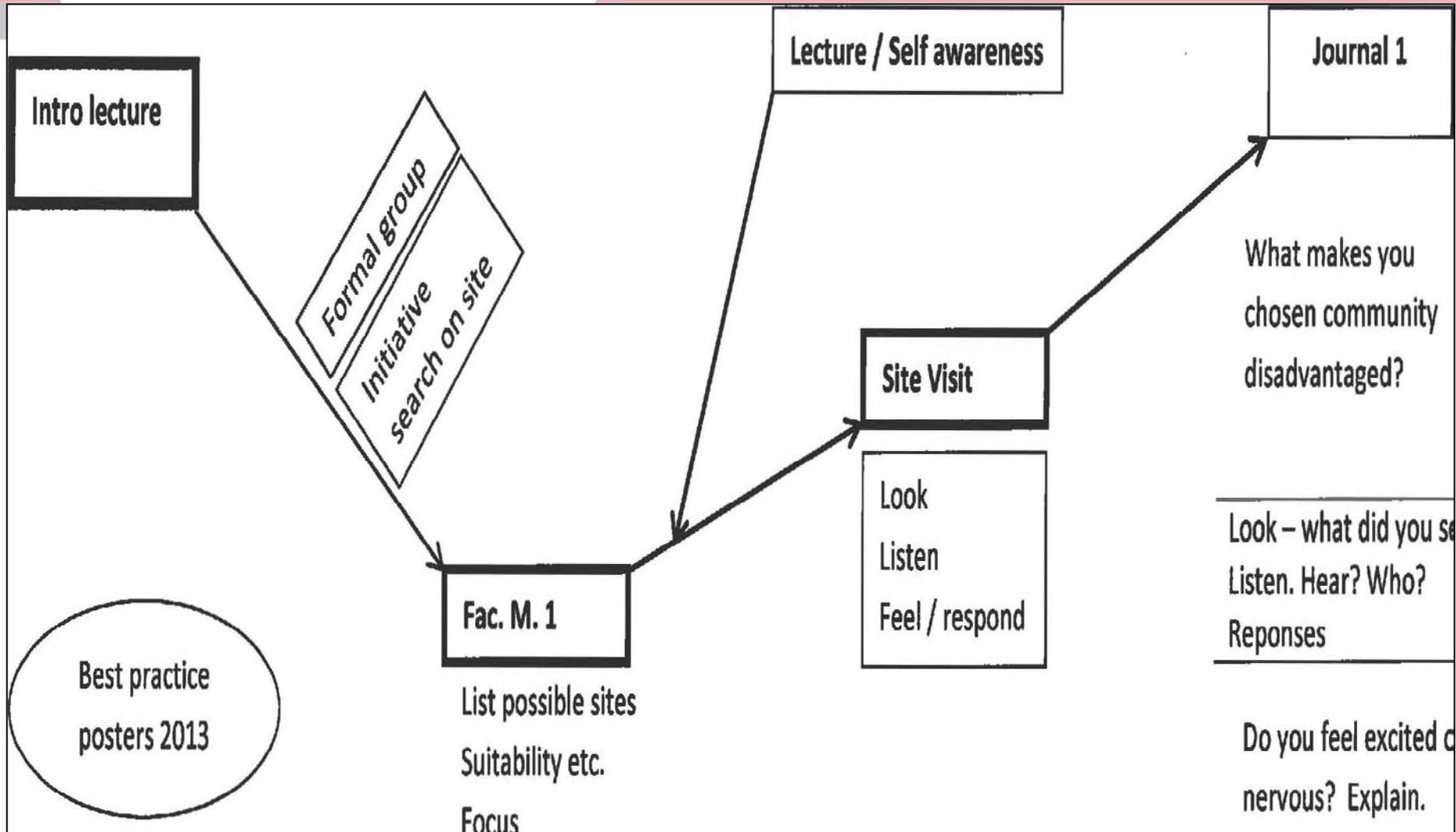
Student structured reflective practice (learning2)

Poster preparation and presentation



FLOW DIAGRAM

Integration and sequencing



- **Engage** with community in first year
- Build **respectful entry** process and **partnerships** with community site
- **Measure** how it made a difference
- Encourage **leadership & team work**
- Foster **social accountability & transformative learning** in medical students

- Build student **self-awareness in reflective practice**
- Extract **reciprocal learning**
- **Appropriately educate** members of this community about HIV and AIDS
- Assist with other organisational tasks
- Identify other health related issues that could be addressed

Making a Difference

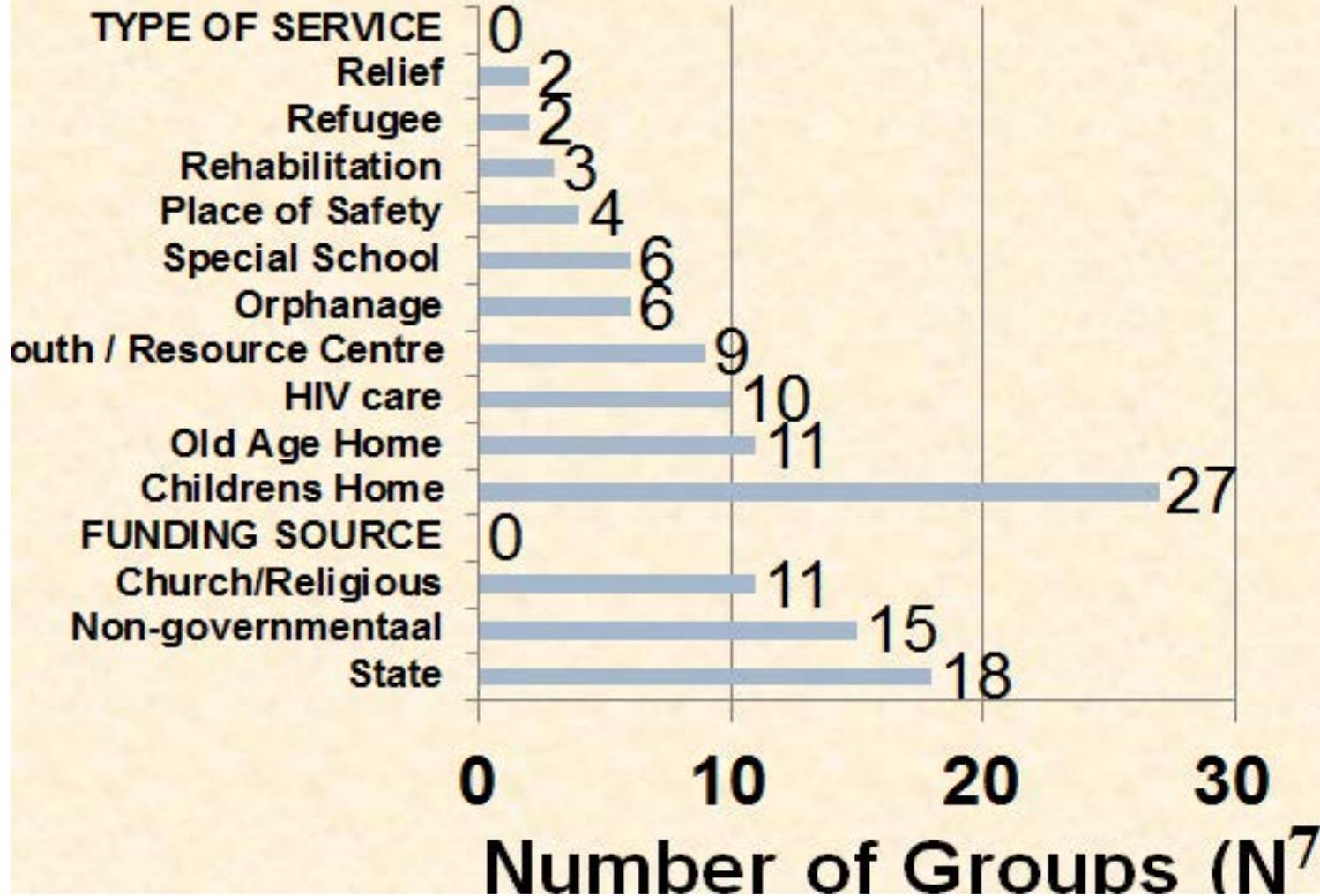
- Students carry out community entry process
- Students develop an **activity plan**
- **Report** on activities done
- Design includes: lectures, facilitator support & on-site mentoring

Assessment includes:

- Written **reflective journaling**
- **Poster** presentation describing **reciprocal learning** with **peer review**



Student Service Sites



4 LEVELS OF REFLECTION

Mezirow 1991.

Habitual action



Thoughtful action

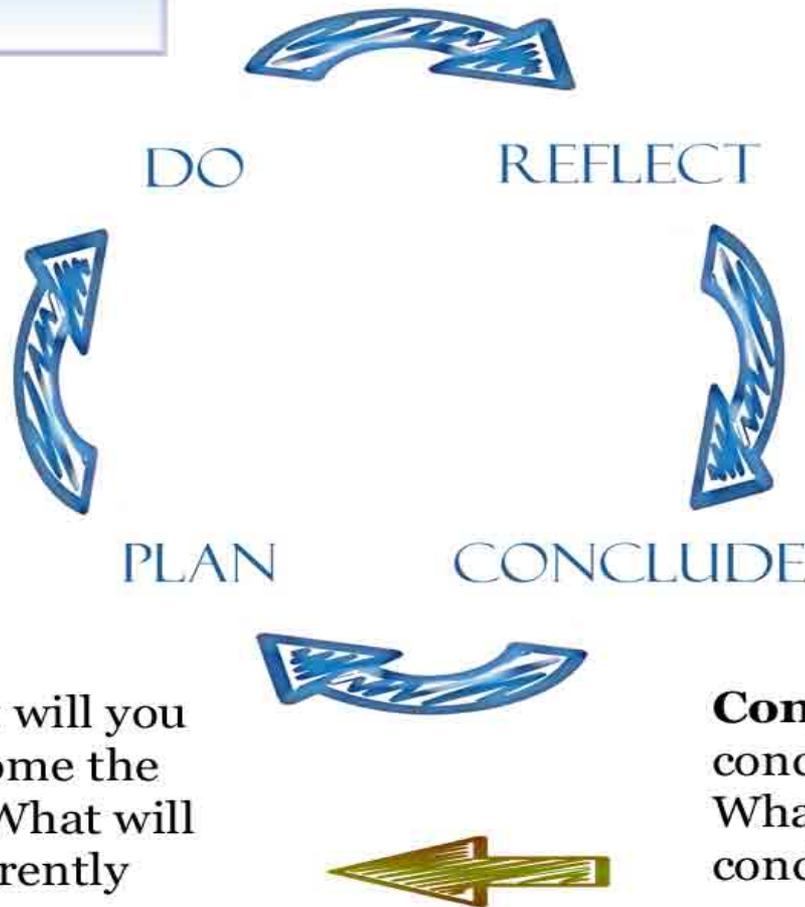


Reflection



Critical reflection

The Gibbs Reflective Cycle



Describe: What happened?



Feel: What were your feelings?



Evaluate: What was good about the experience?
What problems did you have?



Analyse: Why did you have those problems?
Did others have the same problems? What is their feedback?



Conclude: What general conclusions can you draw?
What specific (personal) conclusions do you have?

Plan: What will you do to overcome the problems? What will you do differently next time?



describe
observe
criteria for 'disadvantaged'

examine baseline
assumptions

build self-awareness of
personal responses

understanding
'health'

own ideas
participants
conclusions

activity plan

review
what went well?

activity journal

Did the community
benefit?

how do you know?

did it differ from
expectations

Gibbs cycle

RECIPROCAL LEARNINGS

what did you learn?

what did you offer?

strengths you discovered

what needs to improve

IN ME

IN PROJECT

BECOMING A
PROFESSIONAL

transformational learning?

did I change?

- ✓ Baseline --journal 1
- ✓ Links across all components and assignments
- ✓ Individual and group assignments
- ✓ Reinforce a focus on self- awareness and personal strengths
- ✓ Understanding 'disadvantage' and strengths of community
- ✓ Build familiarity with steps of reflection cycle
- ✓ Challenge multiple levels of learnings
- ✓ Progressively challenging to internalise reciprocal learning
- ✓ Application of learnings in review and replan

Creative ideas

Discovery
surprise

Assumptions re disadvantaged
Admiration

Student expectations

Questioning own assumptions

Self awareness (strengths and
limits)

Transformational learning

Facilitation skills

Teamwork skills

Taking initiative (steps in
leadership)

Problem solving skills

Student L3:

We hosted a debate re HIV – on should HIV be declared a notifiable disease?.

I was amazed—I came with the mentality that this a disadvantaged community and did not expect those teens to stand alone and speak their minds—I saw that they are living a positive life and can speak their minds out – and they express what they believe in. They amazed me a lot.

Before an event can start – you put your expectations at certain level- initially youth were quiet and in debate everything turned upside down.

(Learn re self?)

I am not a talkative person- it was difficult to control that debate- 2 opposing groups shouting at the same time and trying to stop that – I know my limits – accept that situation- so we called for teamwork with youth and supervisors -

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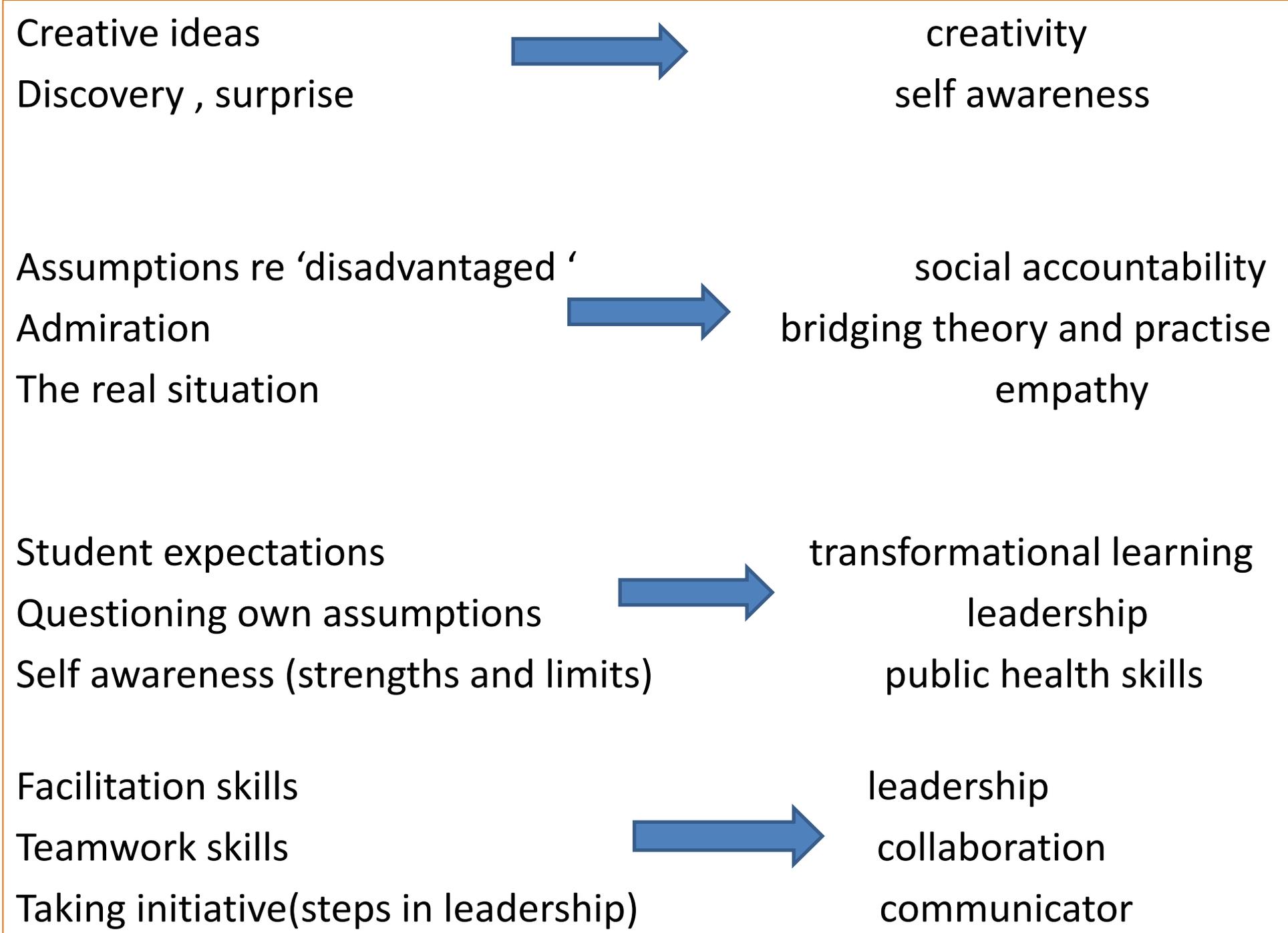
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Managing activities on-site

Activity plan

Operational activities



dealing with uncertainty

problem solving

manager

Community engagement

general health

HIV information , skills



Becoming a professional

Public health skills

Healthcare practitioner skills

Reflection skills

Research skills – evidence?



Scholar

These elements do emerge in the Making a Difference programme:

- Empathy
- Social accountability
- Creative problem –solving
 - Promotes creative thinking – no one tells you what to do – put in ocean and develop own skills – does not let you relax—there is no-one to blame (L2)
 - Graduate attributes do emerge in the community based experiential learning activity
 - The challenge is to strengthen these elements longitudinally and across the curriculum

- A range of learnings do emerge for students on personal and professional level-
- ✓ Learnings include: public health, role of doctor, becoming a professional, teamwork, leadership, reciprocal learning from participants and personal strengths and challenges.
- The real situation clarifies determinants of health– links lectures with reality; theory with practice
- Aspects of transformational learning are being expressed



- Strengthening the focus on **reflective skills** enables deepening of links and learnings
- ✓ Starting in first year and tailored throughout the selectives programme.

Students discover that –

- ✓ creative
- ✓ that they can make a difference with few resources
- ✓ That they can become agents of change
 - this builds motivation to tackle further

- *Making a Difference activity (MAD)* is very important for students- should continue- builds us right at the beginning of the profession- to become agents of change – so build ourselves on what we already have from MAD

ACKNOWLEDGEMENTS

First year medical students

Supervisors and site facilitators

Medical Education Partnership Initiative(MEPI)
UKZN.

Biomedical ethics BREC R201/04

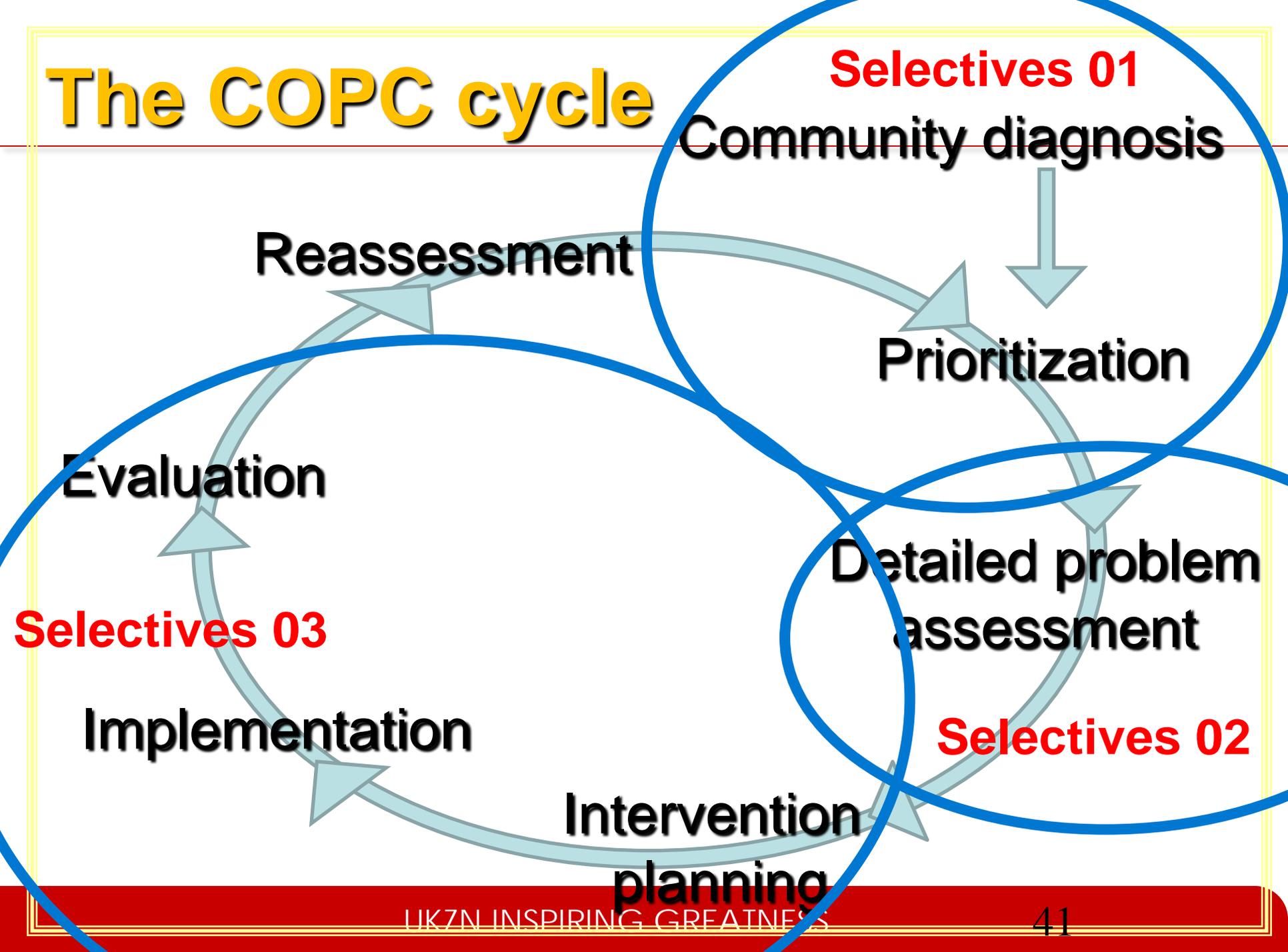
- Frenk J, *et al.* Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World. *The Lancet* 2010; [376 \(9756\)](#): 1923-1958.
- Dyche L, Epstein R. Curiosity and medical education. *Medical Education* 2011;45; 663-668.
- Undergraduate Education and Training Subcommittee of the Medical and Dental Professions Board. Graduate attributes for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa. HPCSA; Pretoria, 2013.

Adapted from the CanMEDS physician competency framework, with permission of the Royal college of Physicians and Surgeons of Canada. Copyright

2005.

- Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: a systematic review. *Advances in Health Science Education* 2009; 14: 595-621.

The COPC cycle



Key Features of 'Selectives' Programme

- Local engagement with a real situation
- Move from the clinical context into the community & population perspective of health
- Develop a longitudinal relationship with people in community setting
- Formulate their own research questions based on their own experiences in a clinic and community setting
- Research skills from real research
- Intervention based on research – making research relevant

MAKING A DIFFERENCE community activity 2014. Important dates:

Step	Task	Due Date	Type of activity	% of Final Mark
1	Form a group	7 March 2014	Individual	1%
2	Initiate a search for site	10 March 2014	Group	
3	Register of Attendance at Workshops	17 March 2014	Individual	2%
4	Post Workshops Reflection	21 March 2014	Individual	2%
5	Facilitator meeting 01	22 March 2014	Individual	2%
6	Permission from the Community Leader & Initial Site Visit	31 March 2014	Group	
7	Journalling / Reflection 01	7 April 2014	Individual	10%
8	Planning for your 16 Hours of Group Community Service	18 April 2014	Group	
9	Facilitator meeting 02	25 April 2014	Individual	2%
10	Group assignment	5 May 2014	Group	10%
11	Review Regularly	Ongoing	Group	
12	Journalling / Reflection 02	21 July 2014	Individual	10%
13	Keep Going!	Ongoing	Group	
14	Facilitator meeting 03	15 August 2014	Individual	2%
15	Journalling / Reflection 03	25 August 2014	Individual	10%
16	Journalling / Reflection 04	30 September 2014	Individual	10%
17	Facilitator meeting 04	14 September 2014	Group	2%
18	Submission of poster for printing	19 September 2014	Group	2%
19	Poster presentation	03 October 2014	Group	35%
	Total			100%

Minus 50% for late submission of assignments or delayed completion o



THEMES	CATEGORIES	QUOTES
Meaning	Becoming a professional Self Care for others My career as a doctor	Saw 1st hand some of the stuff that BAP has taught us
Discovery	Self Career Community entry- Self presentation Own creativity	Promotes creative thinking – no one tells you what to do – put in ocean and develop own skills – does not let you relax—there is no-one to blame L2



THEMES	CATEGORIES	QUOTES
Transformational learning	Self Role as doctor Values, ethos of medicine Teamwork and leadership humanity	We have views that not always right till we go and see for ourselves
Reciprocal learning	Learn from participants They did learn from us	Let people say what they want to say. Search for new ways – asking them to tell us first- let them teach us- this started a co-operation. L11





THEMES AND CATEGORIES 3

THEMES	CATEGORIES	QUOTES
Working with people	Methods for information transfer Listening Be on the same level	we also had storytelling- they also want interactive- so something to gain the interest of the kids – rather than what is right- involve the concept of HIV into something that they like— little bit of creativity makes a big difference
Theory and practice- building links		Know real life situations versus what read in books.



THEMES AND CATEGORIES 4

THEMES	CATEGORIES	QUOTES
Operational issues	Find a site Support of facilitator Site facilitator Takes time from the curriculum Journals—no of words	Not easy to choose a group. The dynamic of choosing a group and maybe you get left out of your friends.
Role of facilitator		We need a period allocated