MEDICAL EDUCATION: AN INDUCTION INTO THE PROFESSION

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WHAT IS MEDICAL EDUCATIO

MEDICAL EDUCATION

PRACTICE & PROFESSIONAL CONTEXT
Medical education is an induction into the profession, not just an education

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WHAT IS A PROFESSION?

Education, apprenticeship, & formal examinations

High standards of professional and intellectual excellence

Freedom to exercise professional judgement: work autonomy

Prolonged specialised training in a body of abstract knowledge

Regulatory bodies with powers to admit & discipline members: licensing

Cognitive base, high degree of systematic knowledge

Critical evaluation by other members of the profession: colleague control, self-regulation

A system of rewards defined and administered by the community of workers.

Code of ethics; vocational sub-culture comprising implicit codes of behaviour

Institutionalised training

Service orientation

Professional association, group allegiance, corporate solidarity

THE UCL CURRICULUM GOAL:

To produce the UCL doctor:

- A highly competent and scientifically literate clinician
- Equipped to practise patient-centred medicine
- In a constantly changing modern world
- With a foundation in the basic medical and social sciences

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WHAT IS A PROFESSIONAL?

Expert and specialised knowledge

Excellent manual, practical and communication skills

An expert who is master in a specific field

A high standard of professional ethics & behaviour

Has a higher duty to a client, a privilege of confidentiality, and a duty not to abandon the client

Has interest and desire to do the job well

Holds a positive attitude towards the profession

Appropriate treatment of relationships with colleagues

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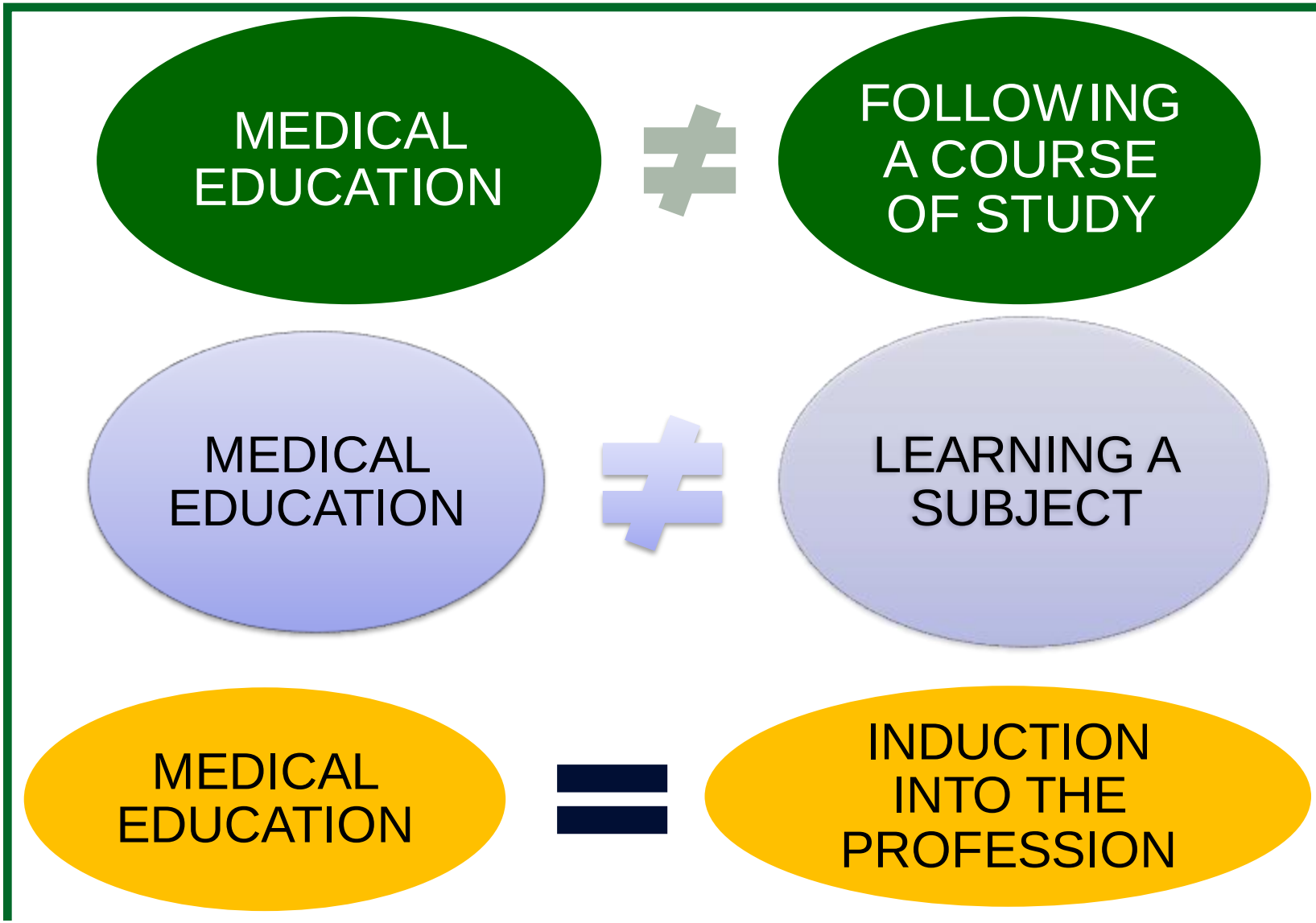
MEDICAL EDUCATION
≠
FOLLOWING A COURSE OF STUDY
MEDICAL EDUCATION
≠
LEARNING A SUBJECT
MEDICAL EDUCATION
=
INDUCTION INTO THE PROFESSION

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HOW DOES THIS INDUCTION WORK?

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MEDICAL EDUCATION: A PLAY OF THREE ACTS

- Act 1: Basic medical education
- Act 2: Postgraduate training
- Act 3: Continuing professional development

- Each has its own directors
- Each has its own characteristics

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HOW DOES LEARNING CHANGE THROUGH THE 3 ACTS?

Learning begins with limited involvement in practice: Early clinical contact while the knowledge base is being acquired

Theory is gradually learned more in the context of practice

Eventually, learning occurs by engaging fully in the professional process:

- with developing responsibility for the outcome

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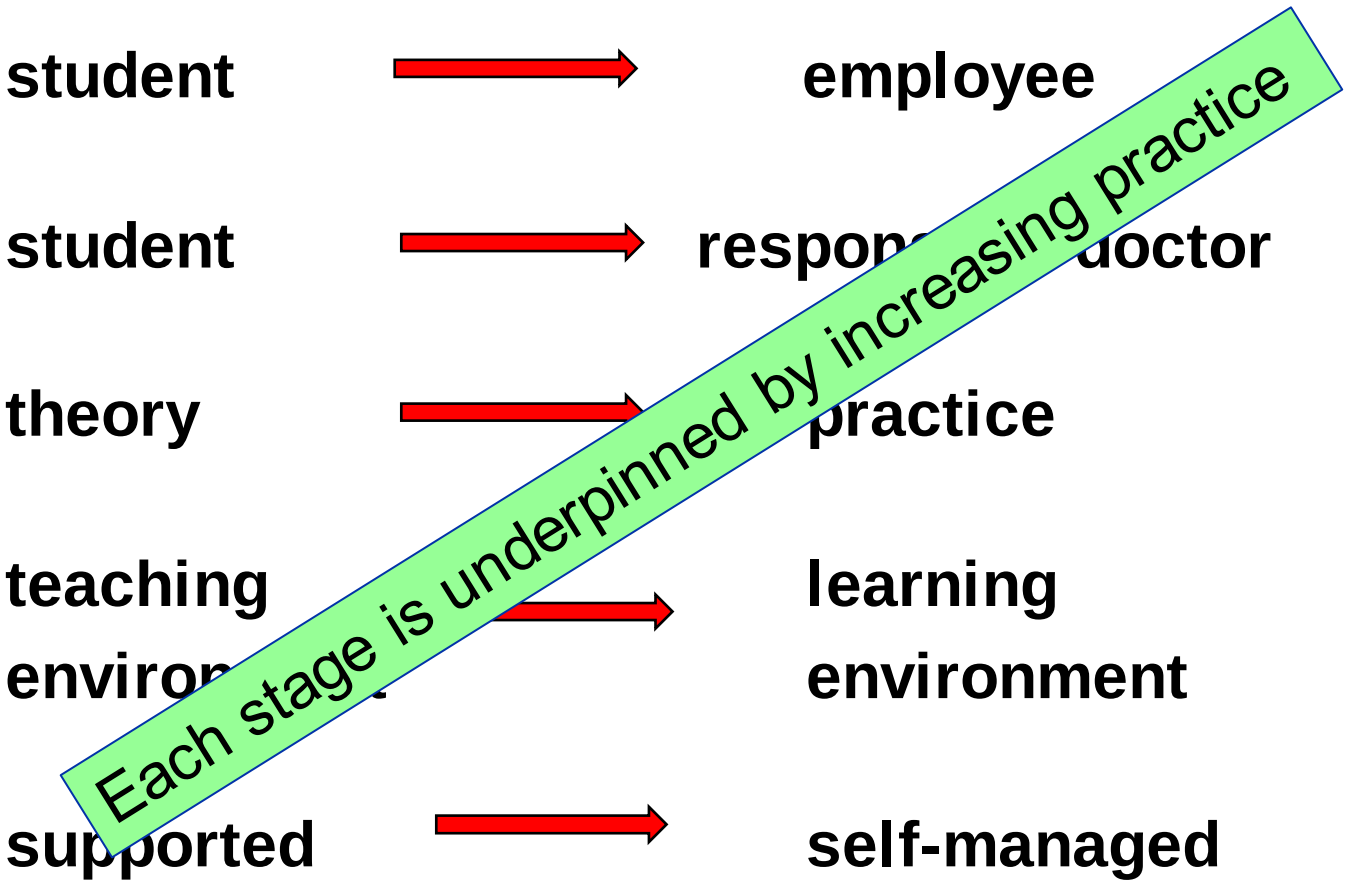
LEARNING IN A PROFESSION:
Induction into professional practice by a series of transitions



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THE STORY OF THE PLAY

Peripheral participation with limited responsibility

Gradually becomes

Central participation with full overall responsibility

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SITUATED LEARNING

The process of professional education depends on eventual immersion in the context of practice

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INDIVIDUALITY CHARACTERISES A PROFESSION

How does that happen?

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INDIVIDUALITY

Students and doctors are individual in their thinking:

- Because experience is different.
- So information in memory **becomes** organised in different ways.

- No correct way of thinking about a case.

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SOME EVIDENCE…

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DIFFERENT IDEAS ABOUT CASES [N=15]

	ACTUAL DIAGNOSIS:				
	CASE 1: IBS	CASE 2: Hypertrophic pulmonary osteopathy	CASE 3: Alcoholic cirrhosis	CASE 4: Inguinal hernia	∑
Consultant	17	43	19	17	96
Senior Reg	18	21	21	20	80
Junior Reg [SHO]	18	25	22	18	83
3rd year student	18	28	16	30	92
1st year student	16	26	20	26	88

- Similar levels of shared thinking per case
- Case specific thinking

- **What** is thought by different groups is different: depending on experience of applying knowledge

DO EXPERIENCED CLINICIANS USE MORE KNOWLEDGE?

EXAMPLE:

A man of 53 says he has suffered a heart attack.

What questions, investigations, physical examination would you use to follow up and manage this?

Who uses most knowledge?

- **1st year students?**
- **3rd year students?**
- **Junior Reg?**
- **Senior Reg?**
- **Consultants?**

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DIFFERENT ITEMS REQUESTED PER GROUP [15 per group]

	CASE 1: Crohn's	CASE 2: Epilepsy	CASE 3: Arthritis	CASE 4: MI
Consultant	70	59	62	62
Senior Reg	84	61	97	74
Junior Reg	68	60	73	64
3rd year student	62	65	77	78
1st year student	49	41	20	51

- Process of accumulating and applying knowledge to practice
- Once exams are finished, the knowledge base is pruned & tuned

DO ALL GROUPS USE THE SAME INFORMATION?

Within each case separately:

- 100% agreement on only one item [ECG for MI]
- 75% agreement for 2% of items
- 50% agreement for 3% of items

All maximum levels of agreement were at Junior Reg [SHO] level.

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WHY DOES THIS HAPPEN?

It's all about your memory structure

Are individual

Tailored t… clinic…

…come more appropriate with experience

Do no… elab… …perience

Become better organised

Acquiring the knowledge base and applying it to practice are essential

- ★ **Efficiency**
- ★ **Speed**
- ★ **Effectiveness**

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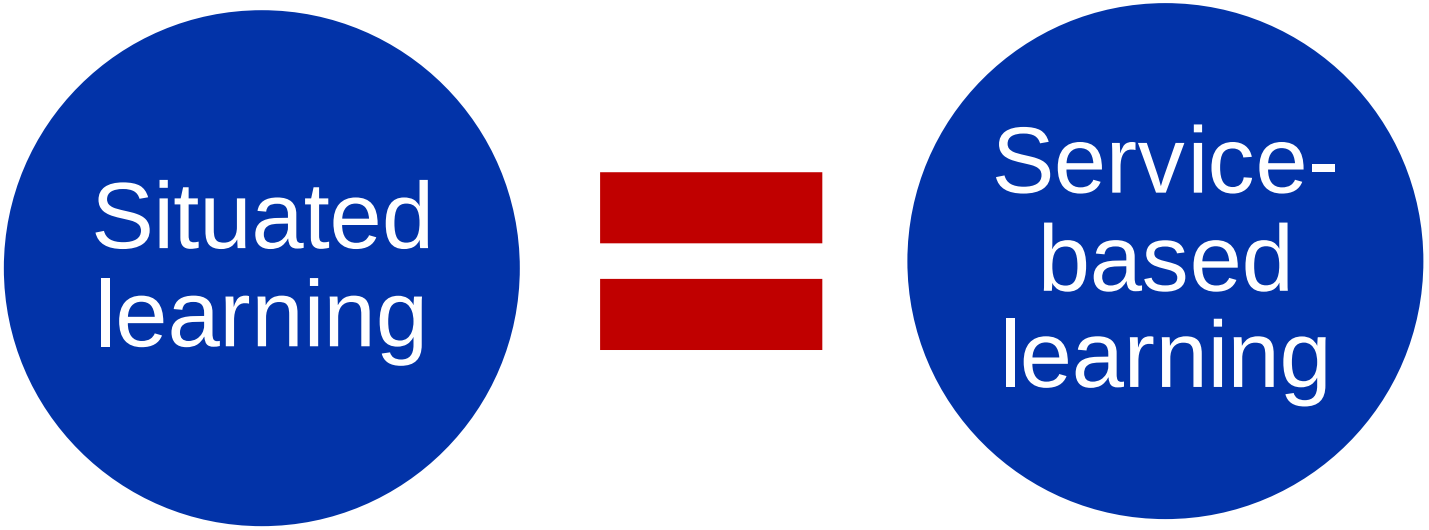

- Learning for professional induction is a social process
- Learners participate in communities of practitioners
- Learners acquire knowledge, skills, fluency, professional values and attitudes.

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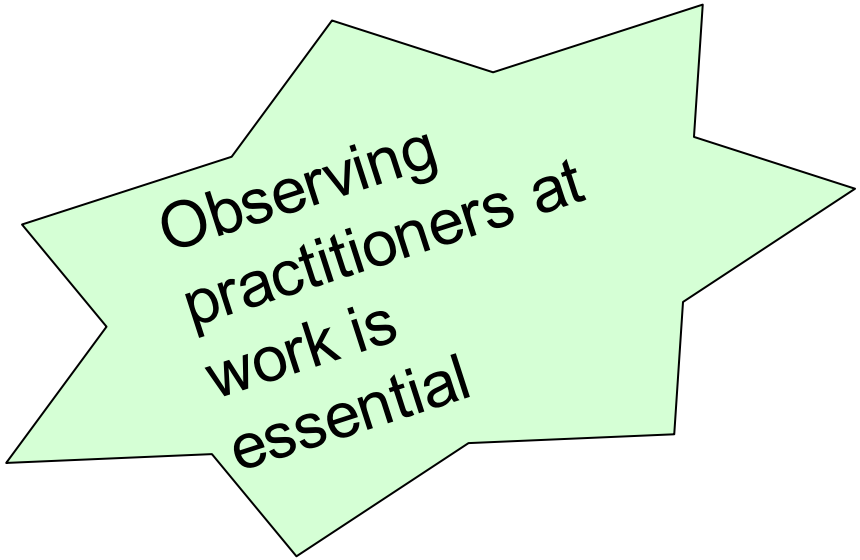
THE NECESSITY OF CONTEXT

- There are crucial inductive relationships between experienced practitioners and the learners in terms of:
  - Activities
  - Identities
  - Artefacts
  - Knowledge
  - Practice
  - Values



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TACIT KNOWLEDGE

- Some knowledge cannot be codified and taught but only transmitted through training and personal experience

'We know more than we can tell'

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THROUGH THE COMMUNITY OF PRACTICE:

PATTERNS OF COMMUNICATION

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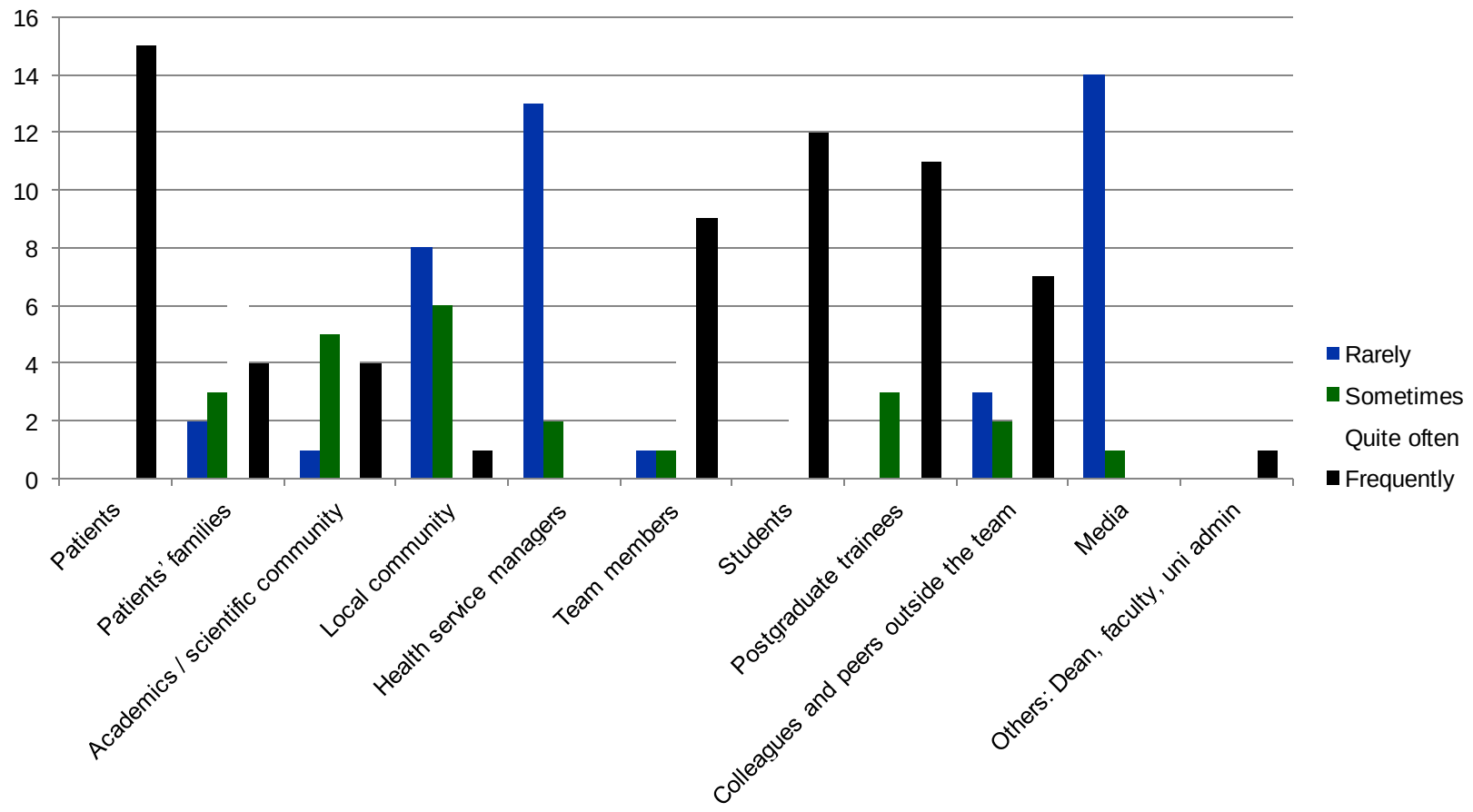
STUDENTS



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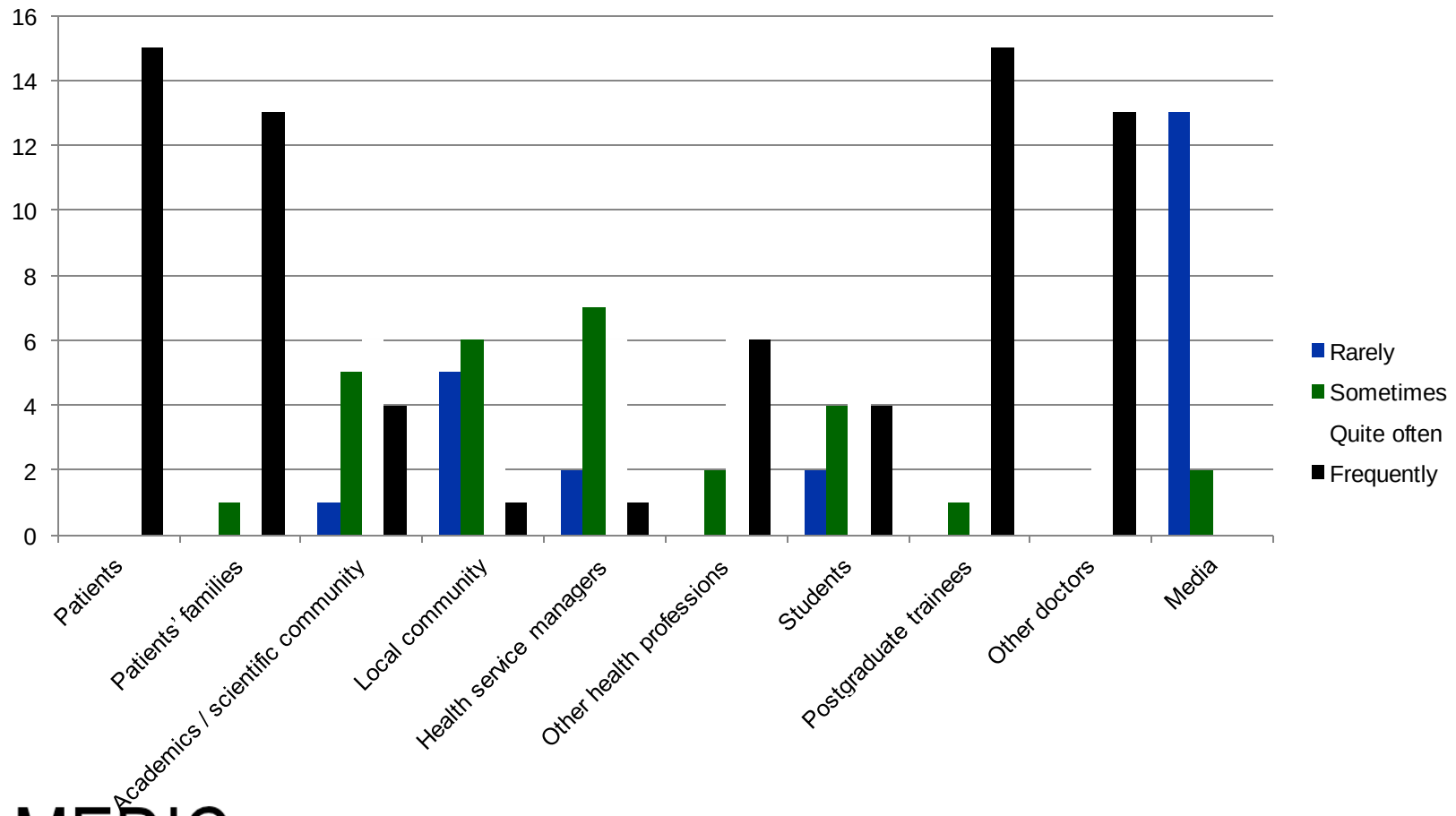
SPECIALTY TRAINEES



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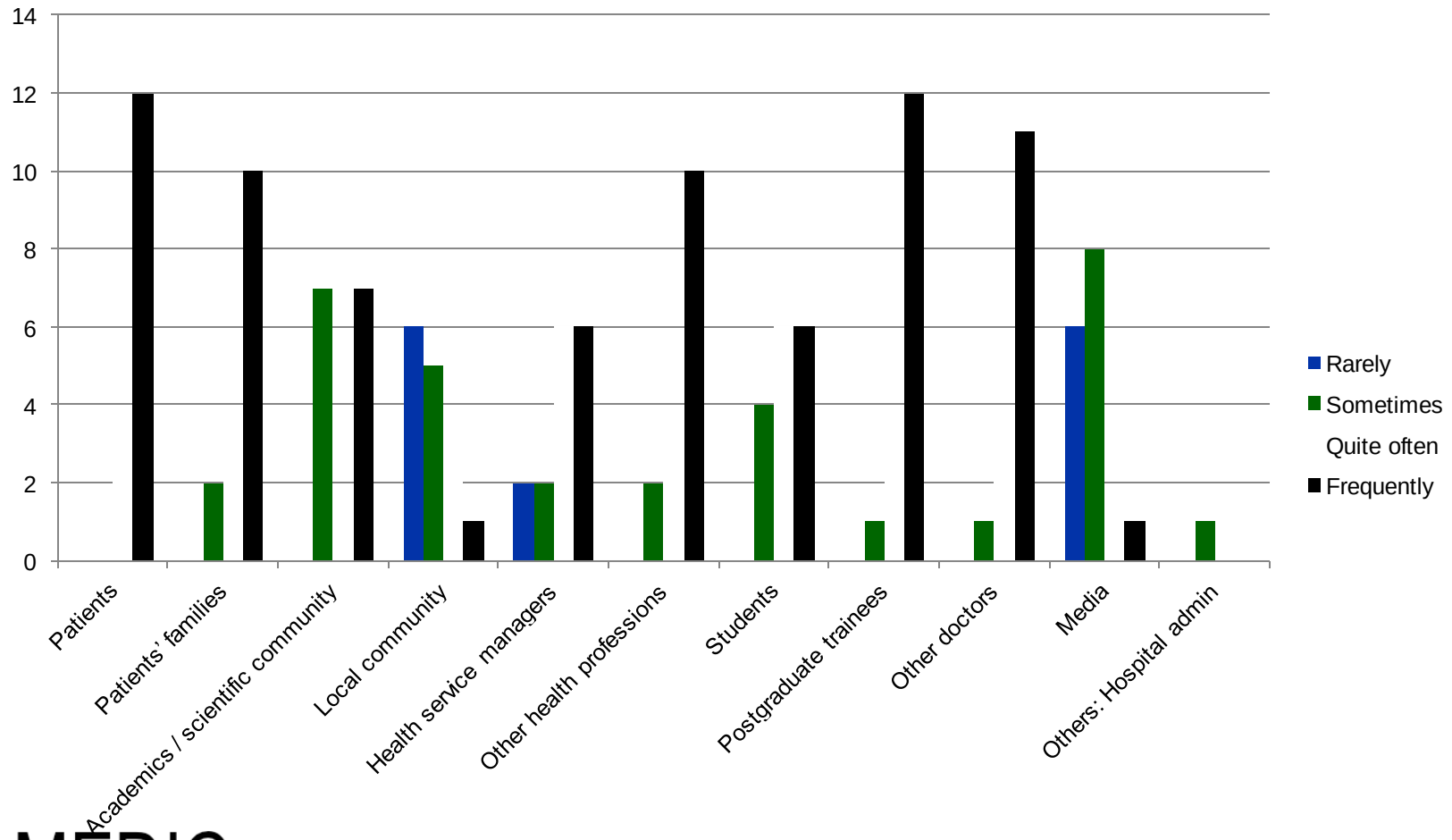
CONSULTANTS



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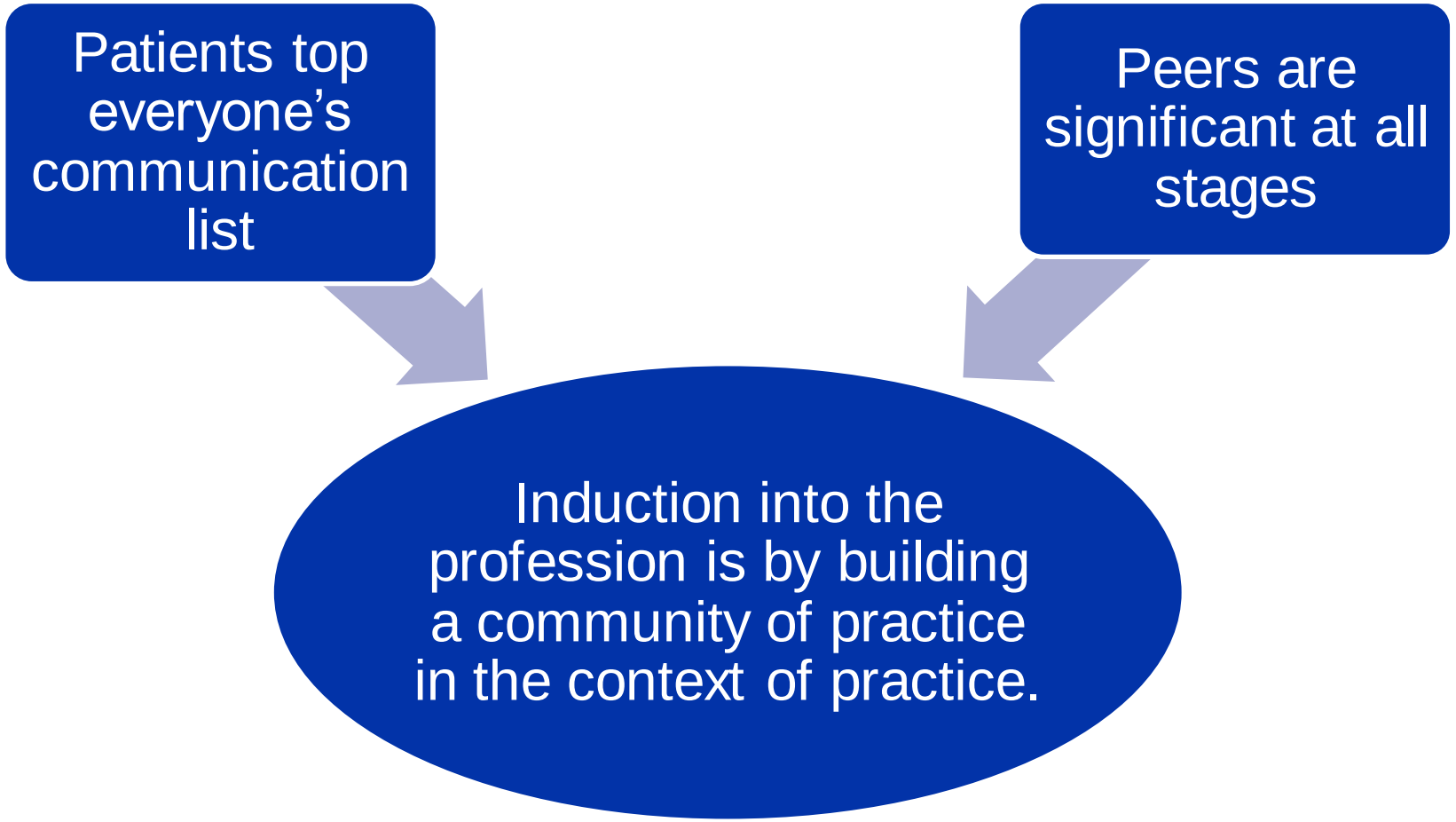
WHAT DOES THIS SHOW?



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PROFESSIONAL EXPERTISE

- Made up of a large body of knowledge and long application of that knowledge to practice.
- General agreement that expertise in any given field requires c. 10 years of concentrated practice.

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HOW DOES PRACTICE WORK?

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CHARACTERISTICS OF LEARNING FROM PRACTICE 1

Learning by doing	Teaching by doing	Experience of seeing patients	Using knowledge and skill
Building up personal knowledge and skill	Bite-size learning from ‘bits and pieces’	Discussing patients	Using knowledge stored in memory
Managing patients	Learning from supervision	Having errors corrected	Receiving feedback

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CHARACTERISTICS OF LEARNING FROM PRACTICE 2

Making teaching points during the course of service	Presentation and summarising	Listening to experts' explanations	Observing experts working
'Picking things up'	Role models	Charismatic influences	Learning from teamwork interactions
Learning clinical methods from practice	Hearing consultants thinking aloud	Being questioned about patients, thought & actions	Thinking about practice and patients

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Macdonald 1997

ONE MORE THING……

Professionalism is ultimately learned from role models in practice…..

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IMPORTANT FEATURES OF PROFESSIONAL LEARNING

- clinical work and responsibility
- close senior-trainee relationship
- feedback on performance
- appropriate role models

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THIS IS…..

Situated learning

allowing controlled

legitimate peripheral participation

in

communities of practice

for the transmission and development of

tacit learning and tacit knowledge

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REMEMBER THE STORY OF THE PLAY

Peripheral participation
with limited responsibility while
the knowledge and skill base
is built

Gradually becomes

Central participation
with full overall responsibility

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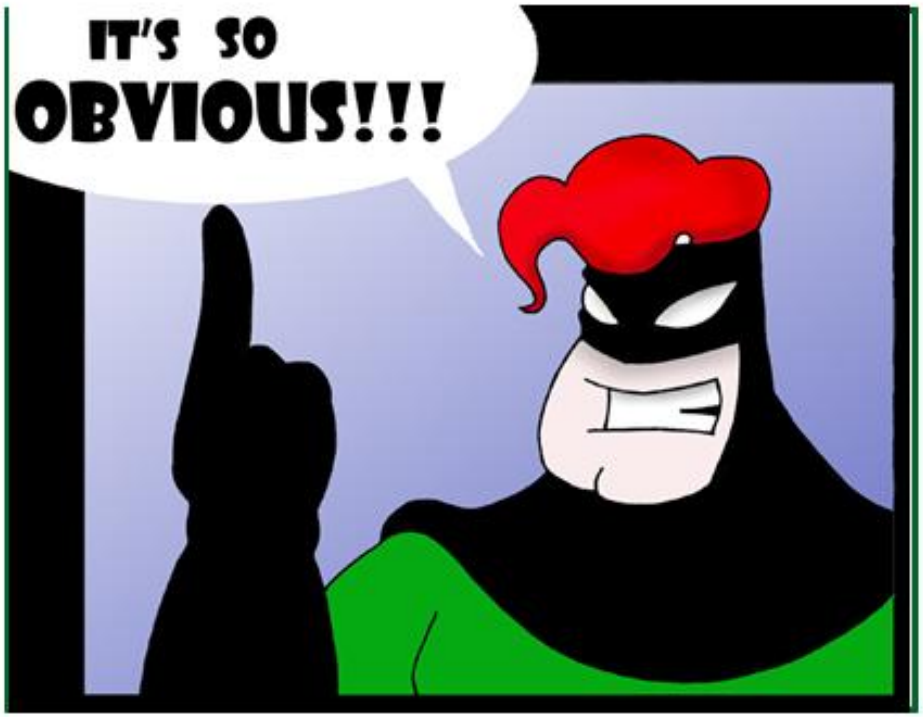
AND SO COMPETENCE IS GUARANTEED



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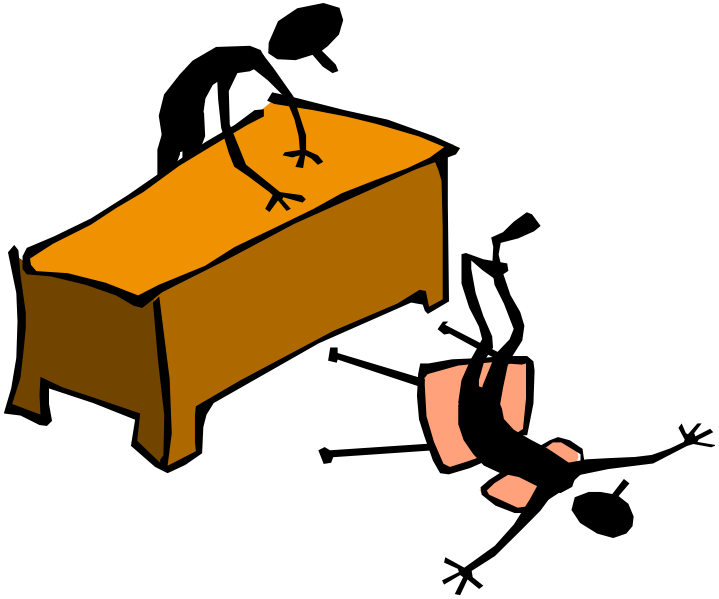

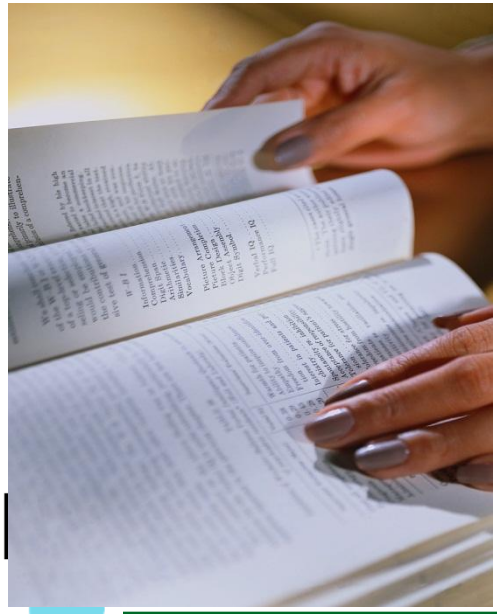

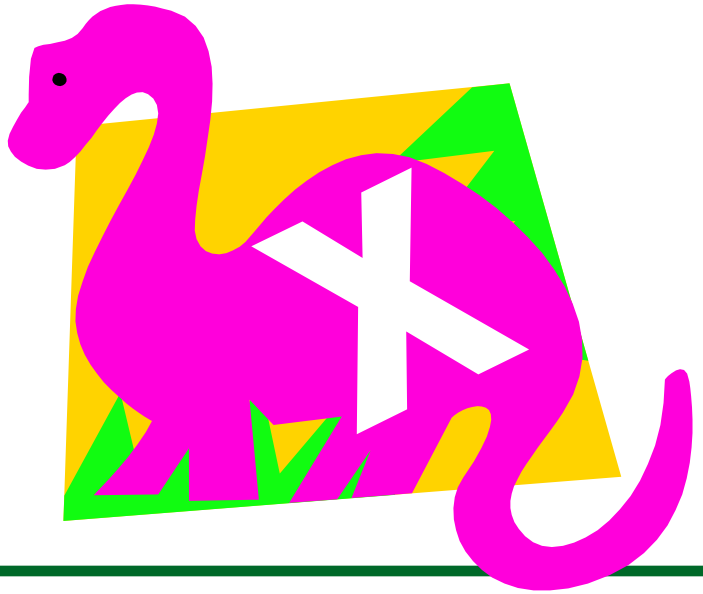

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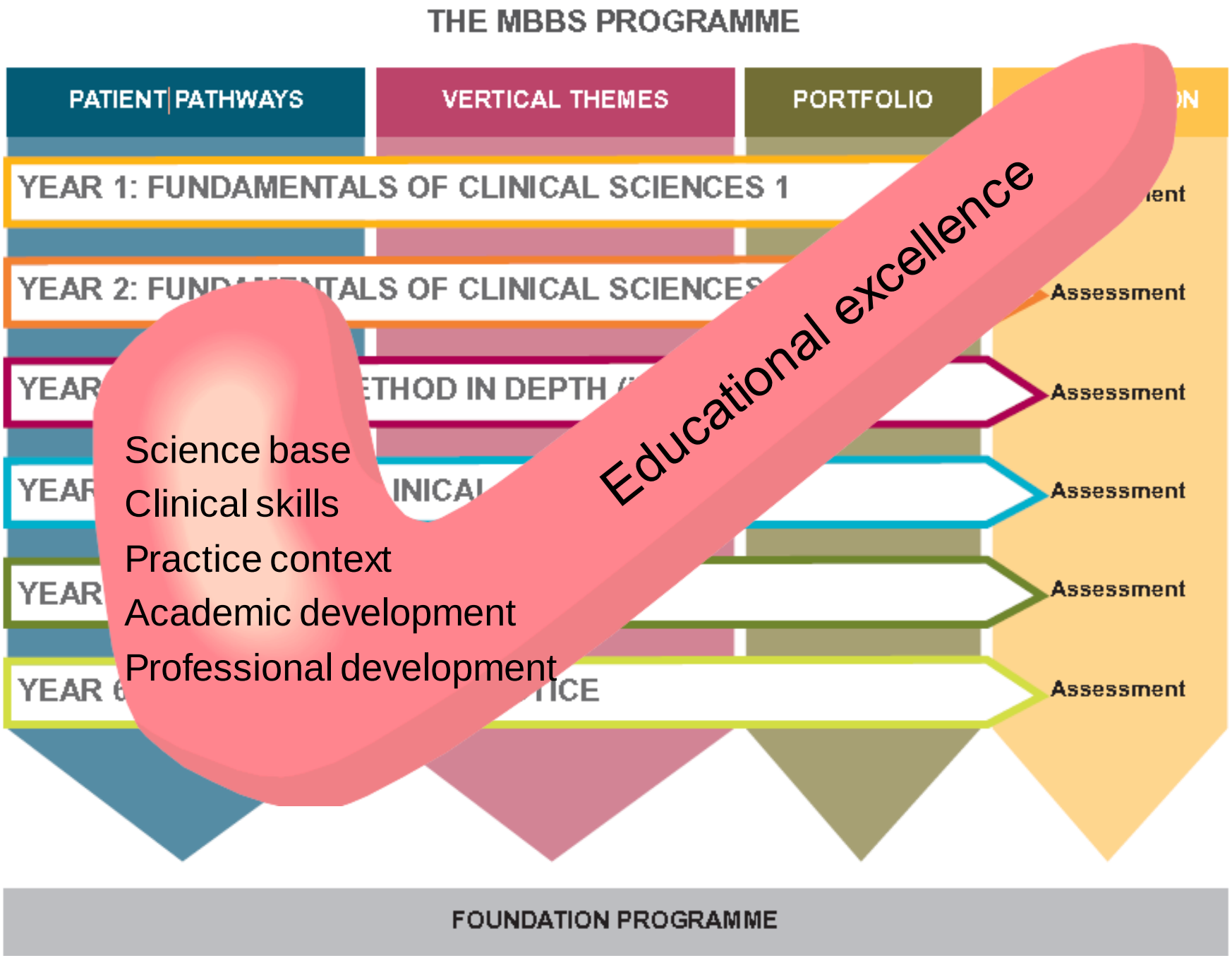
THE MBBS PROGRAMME
PATIENT PATHWAYS
VERTICAL THEMES
PORTFOLIO
YEAR 1: FUNDAMENTALS OF CLINICAL SCIENCES 1
YEAR 2: FUNDAMENTALS OF CLINICAL SCIENCES
Assessment
Assessment
Assessment
Assessment
Assessment
Science base
Clinical skills
Practice context
Academic development
Professional development
Educational excellence
FOUNDATION PROGRAMME