

Application of chemical knowledge to the clinical understanding of medicines

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Liz Theaker (FMHS EBL coordinator)

Personal tutors in School of Pharmacy

- **Convert a first year UG Pharmaceutical Chemistry module taken by 190 students to EBL**
- ✓ **Promote student centred independent learning**
- ✓ **Generic skills (required by RPSGB and CPD): Team working, time management, databases, IT**
- **‘We are pharmacists, why do we need all this chemistry?’**
- **Facilitate the learning of ‘dull chemistry’ (Liz Theaker!) using a medicines-approach.**
- ✓ **Appreciation of the pivotal role that chemical knowledge plays in the use of medicines**

OUTLINE

- **27 Teams with 6-8 UG first year pharmacy students (personal tutorial groups)**
- **Team chose therapeutic area (e.g. cancer, heart attacks, depression, psoriasis) and 3 drugs from the BNF**
- **Research the therapeutic area**
- **Identify generic chemical properties relevant to medicines**
- **Literature retrival of chemical properties for the 3 drugs**
- **Appreciate how the chemical properties of the 3 drugs are related to their clinical effectiveness**

STUDENT SUPPORT

- **Tutorial on EBL and team working at CEEBL (Karen)**
- **Two tutorials with personal tutors**
- **Subject specialist question sessions in chemistry, drug metabolism/disposition, microbiology, pharmacy practice**
- **Written guidance on EBL exercise and poster preparation**
- **Numerous informal queries...**

STUDENT ASSESSMENT

1. E-mail: disease, drugs, team structure 5%
2. Report on therapeutic area 15%
3. Generic chemical properties 'list' 10%
4. Poster presentation (CEEBL) 20%
5. Final report 40%
6. Contribution to team (questionnaire) 10%

ALL STUDENTS PASSED: 63-87.5%



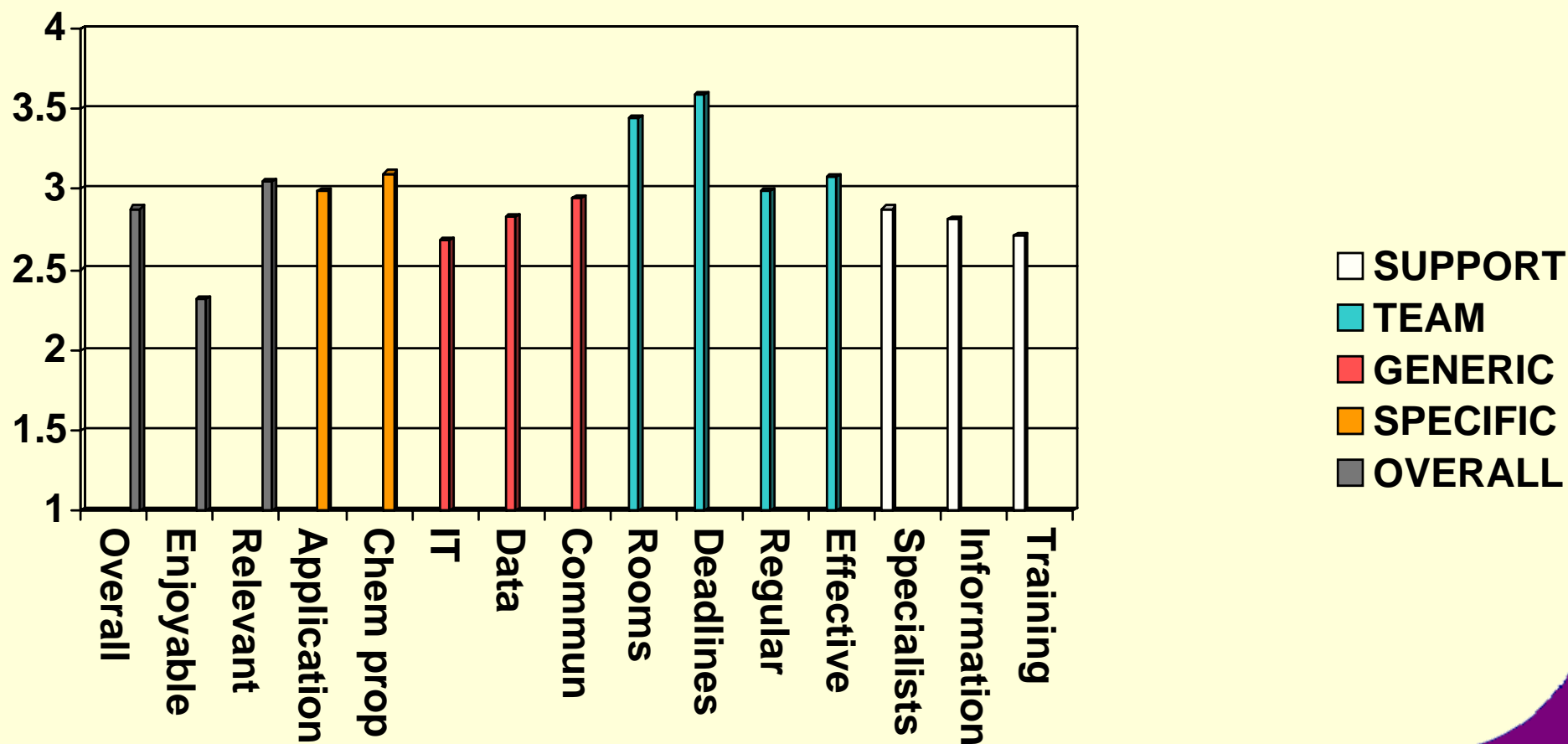






MODULE EVALUATION

- 124 questionnaires returned (65%)
- 15 questions: GOOD 4 3 2 1 POOR



EVALUATION-POSITIVE COMMENTS

- The EBL exercise enabled us to build on our team work skills and work together on a project that enabled us to learn information that is relevant to pharmacy.
- I believe this project should be carried on in the future as it is fun, informative and unique in its approach.
-met deadlines and made great relationships with group members.
- I like Easter eggs! Winning the group actually gave me a sense of pride.
- ...it has had a very positive effect on me as it has improved my interpersonal skills.
- The EBL exercise was really enjoyable....I feel that it is an effective method for learning.

EVALUATION-NEGATIVE COMMENTS

- I hate teamwork. EBL was never going to be my favourite.
- Some members of the EBL group have done no work, so the rest of us struggled to compensate for their lack of effort.
- Maybe naïve of me but I did not expect to encounter unmotivated and selfish people at the level of education.
- I feel that the EBL exercise was unsuccessful due to the selection of the teams.
- I think that group size (7) made it difficult for us all to work together effectively.
- It may have been useful if we had covered relevant materials in lectures prior to the tasks set.

PROPOSED IMPROVEMENTS

STUDENTS LACKED BACKGROUND MATERIAL:

Lectures will be in semester 1, with EBL in semester 2

GROUPS WERE PREASSIGNED AND TOO LARGE

Tutor group will form 2 teams (student selection)

- ***INITIAL EBL TRAINING COULD BE MORE RELEVANT:***

Specific information on the exercise will be included

- ***EBL WAS TIME CONSUMING FOR 20% OF MODULE:***

EBL exercise will contribute 80% to module

- ***CHEMISTRY SPECIALIST SESSIONS WERE CHAOTIC:***

Number and frequency will be increased

- ***SOME STUDENTS GOT A GOOD MARK FOR NO EFFORT:***

Each student will be responsible for a drug (personalised learning)