AN INSIGHT ON FINAL YEAR MEDICAL STUDENTS' VIEW ON INTERACTIVE ELEARNING

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TEACHING UNDERGRADUATE ANAESTHESIA

- Final-Year Students attend a 2-week module
  - 40 weeks of Medical & Surgical clinical attachments
  - Split into 16 groups of 7-10 students
- Difficult to cover syllabus & Essential topics often missed
  - Suitable clinical cases not always available

TEACHING UNDERGRADUATE ANAESTHESIA

- E-learning used to supplement clinical teaching

- Introduced two types of Virtual Patient on course
  - Summer 2006:

    Formative Assessment Case Studies (FACS)
  - Summer 2008:

    Story-line Virtual Patient (VP)

What is a VP?
Virtual Patient

- "specific type of computer program that simulates real-life clinical scenarios; learners emulate the roles of health care providers to obtain a history, conduct a physical exam, and make diagnostic and therapeutic decisions"

Association of American Medical Colleges

What is a VP?
Virtual Patient

- Many formats described:
  - Interactive clinical cases (FACS)
  - Anatomical Virtual Patients
  - Longitudinal Virtual Patients (Storyline VPs)

What is FACS?
Formative Assessment Case Studies

- Short interactive cases
  - 20-30 min to compete
- Usually focus on a single topics
  - e.g. Peri-operative management of Diabetes

What is FACS?
Formative Assessment Case Studies

- Network of interlinking web-pages
  - A series of decision steps (n= 9-13)
- Student progresses by answering questions correctly
  - Mostly MCQ about the case scenario
- Feedback for wrong selections (i.e. Formative)

FACS Administration

Student Management
Case Management
Admin Management
Results
Admin Log

Change Password

Help

Logout

Welcome Lester!
System Administrator

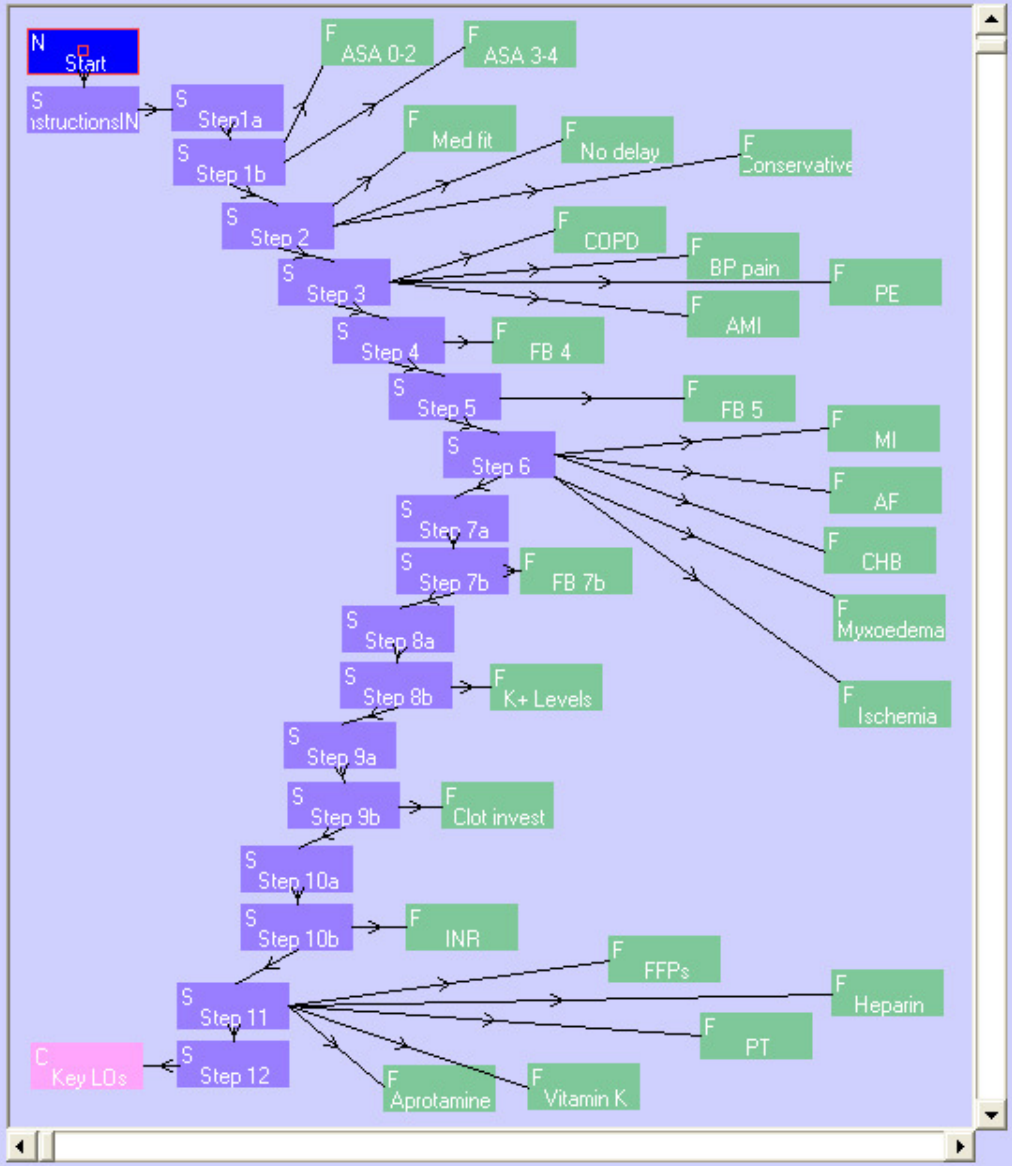
5/14/2009 2:41:33 PM

FACS v1.0.47

Case Management

Cases - Add Case - Delete Case

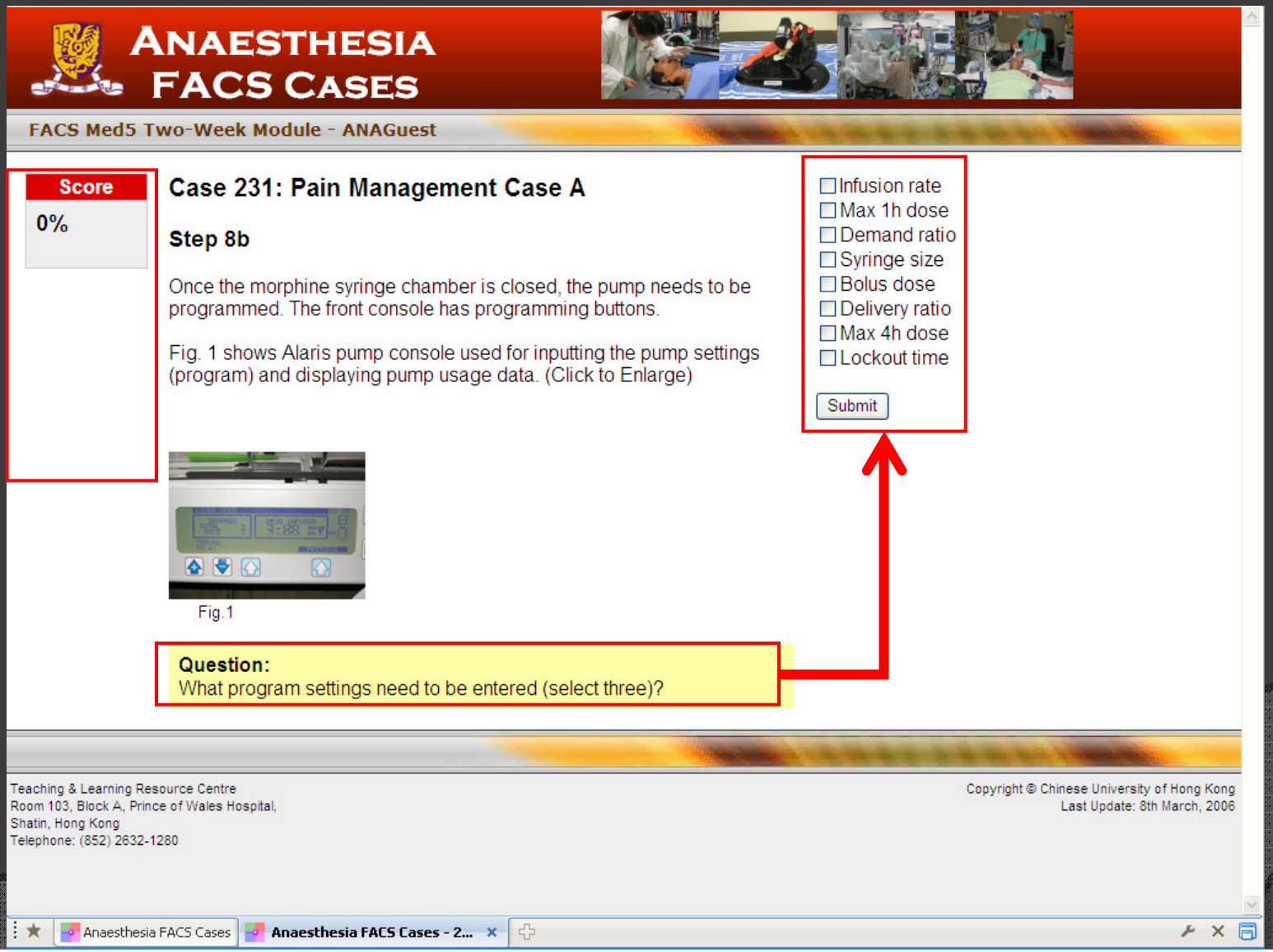
Check | Duplicate | FACS Graph v1.0.61



Start	
Case ID	157
Case Name	Laboratory data
Category	Anaesthesia
Description	An elderly woman has a traumatic hip fracture. <font color=blue>To be done in week 1
Activated	☑

- ☐ Workshop Group
- ☐ Surgery C - Group 4
- ☐ Group 8
- ☐ Surgery B - 8AB
- ☐ Surgery B - 8CD
- ☐ Guests
- ☐ Test
- ☐ Med5210WBSA
- ☐ DemoGroup
- ☐ Virtual AE
- ☐ Workshop Virtual AE
- ☐ ENT - Med 5
- ☐ Public
- ☐ Traditional Chinese Medicine
- ☐ FACS Tour
- ☐ Student Result Logging
- ☐ ORT

Example of FACS Web-Page: *Typical Decision Step*



Storyline VPs

- An illness takes place over days / months / years
  - Condenses important clinical events into a story
  - Viewed independent of time
  - Provide an overview of the case from beginning to end
- 2005-2008 Teaching Development Grant

Example of Storyline VP Web-Page:

- Lack of research as this field is relatively new
- Available researches are mainly on how it was implemented
  - Not a lot of information on the students' opinion
- What are the students' opinion toward this new type of learning?

What we did

- From July 2009 to April 2010, we gave 134 med5 students 9 FACS and a storyline VP during their 2 weeks module
- After the module, an E-survey was sent out
  - **21** agreement items
- Students' access record to the E-Learning site was also used

Survey

- Time spent?
- Location?
- How do they view the exercise?
- Enjoyable?
- Compare between the 2 type of VP?
- Has the exercises improved their skills?

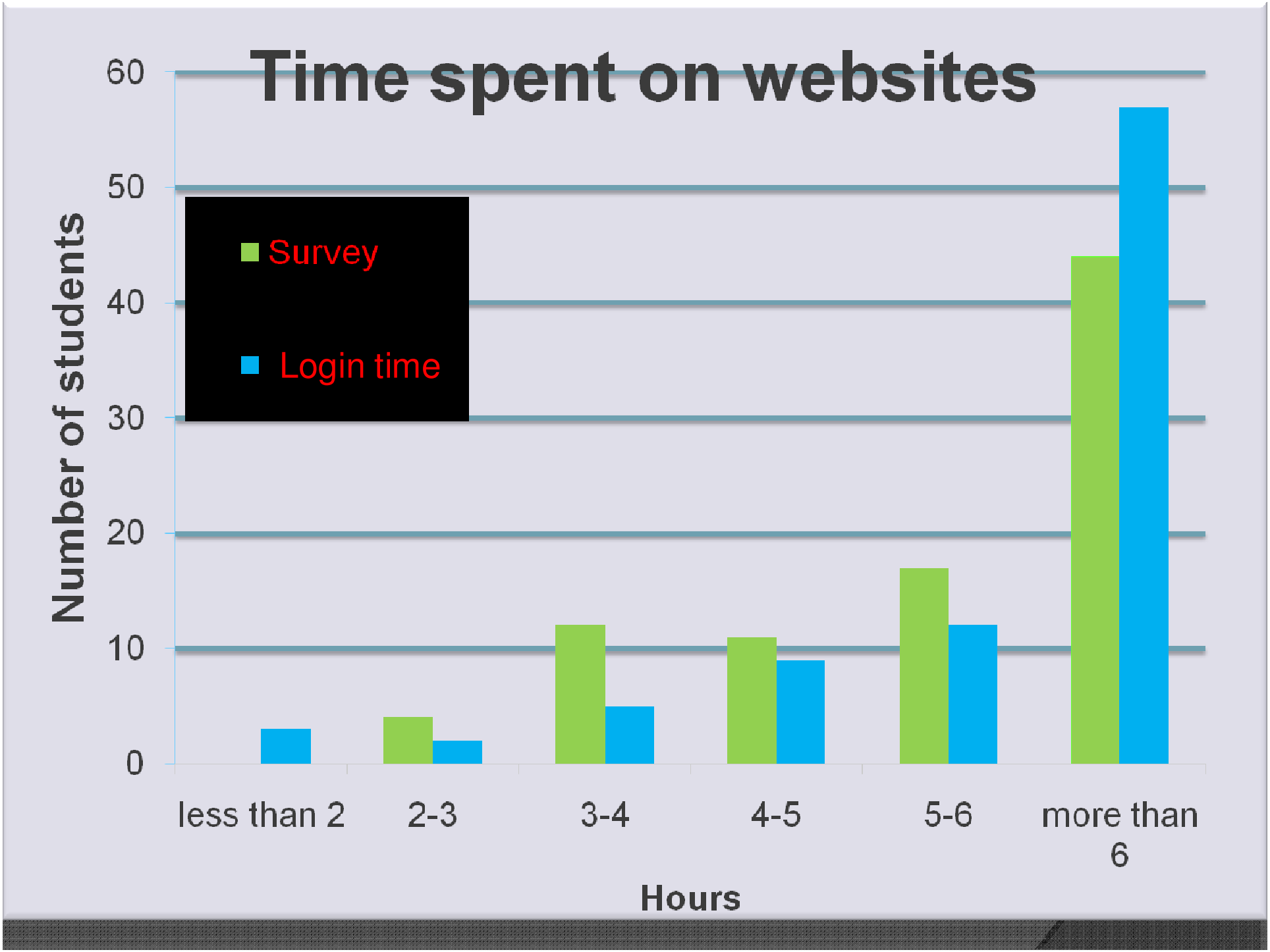
Result

- 70% (n=94) replied the survey

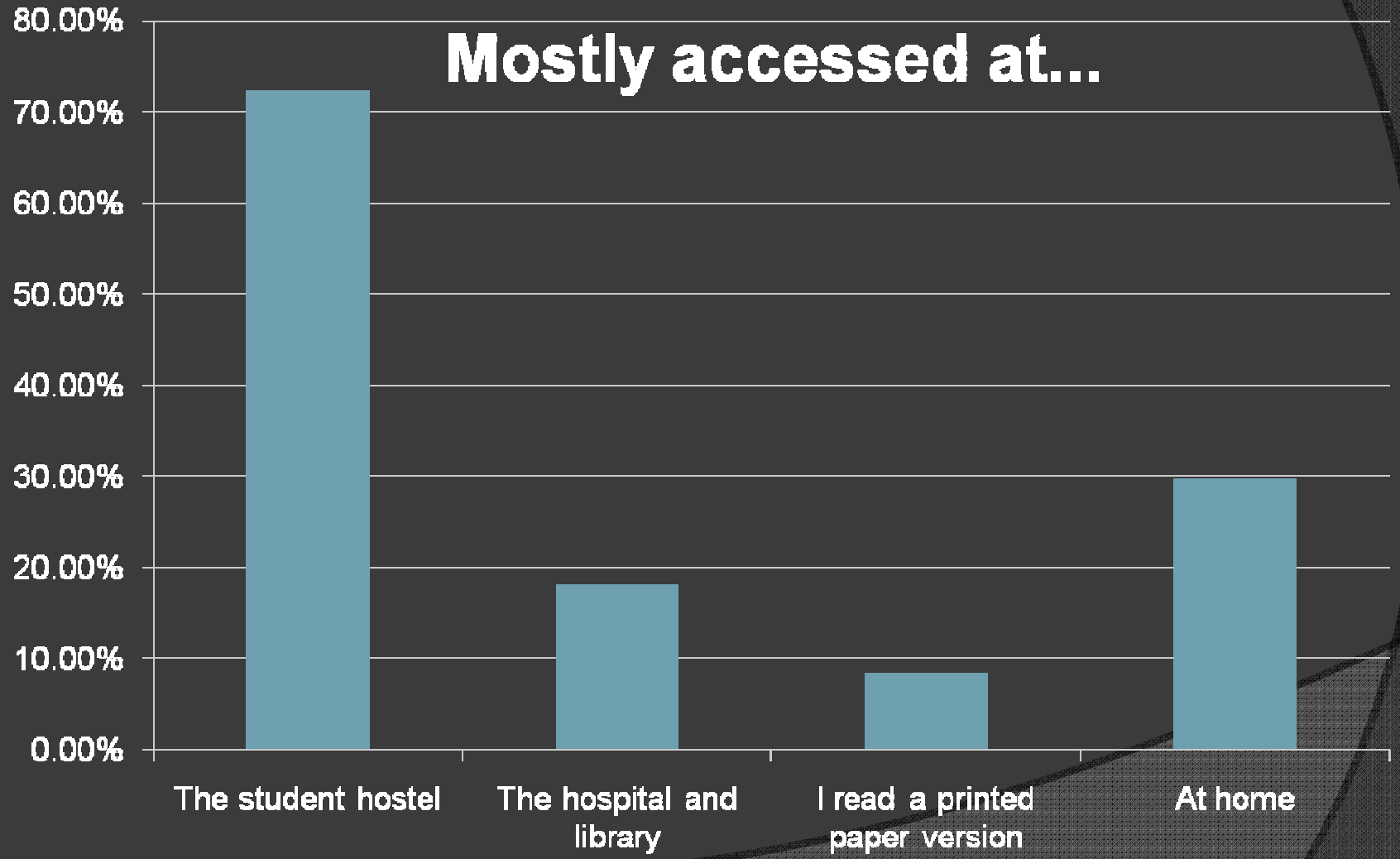
From log in time in database:

- 100% of students had used FACS
  - Median: 5 hours [3.5 – 7.5 hours]

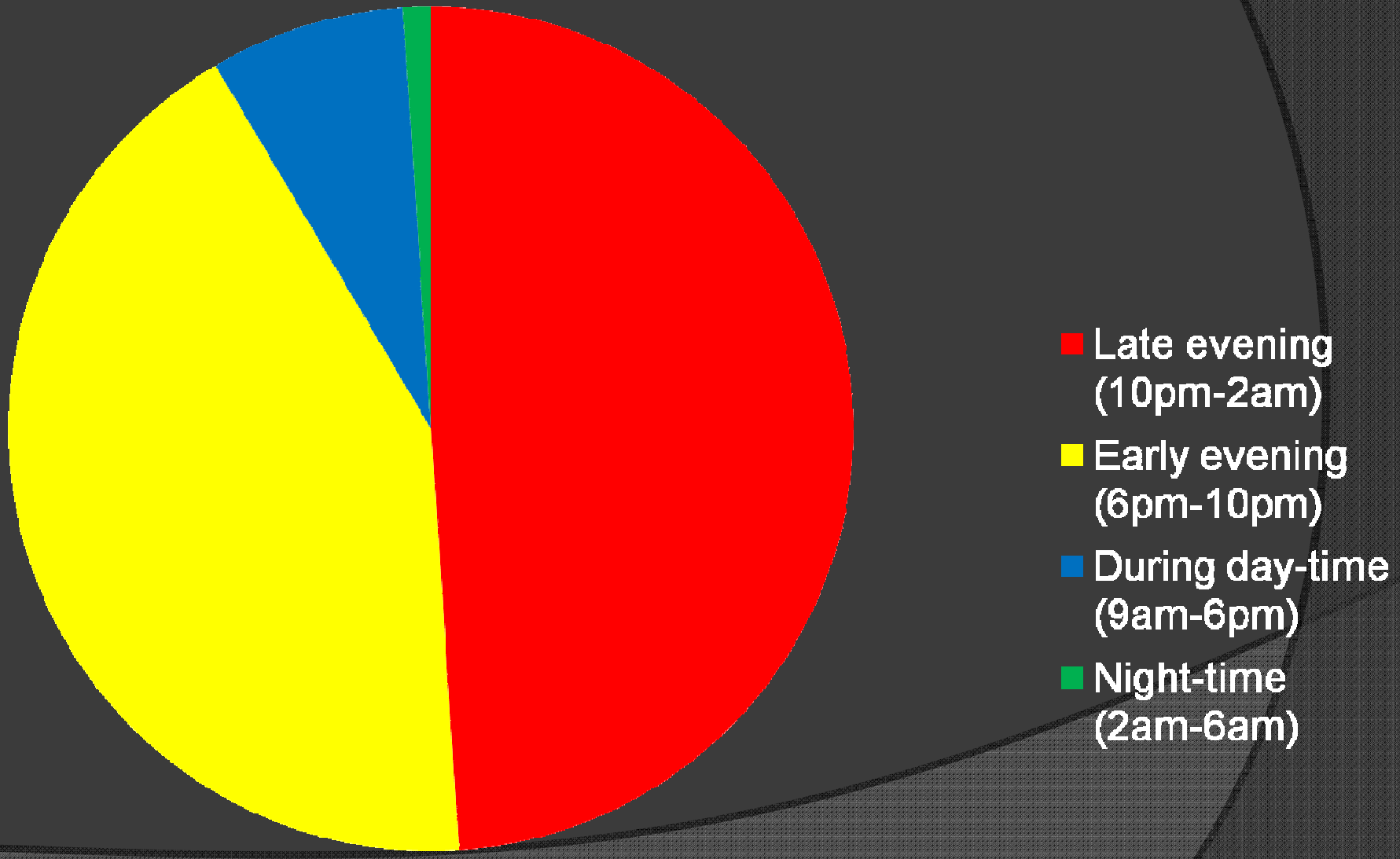
- 86% (n=113) used VP
  - Median: 3 hours [1-4.25 hours]


Time spent on websites
Number of students
60
50
40
30
20
10
0
Survey
Login time
less than 2
2-3
3-4
4-5
5-6
more than 6
Hours

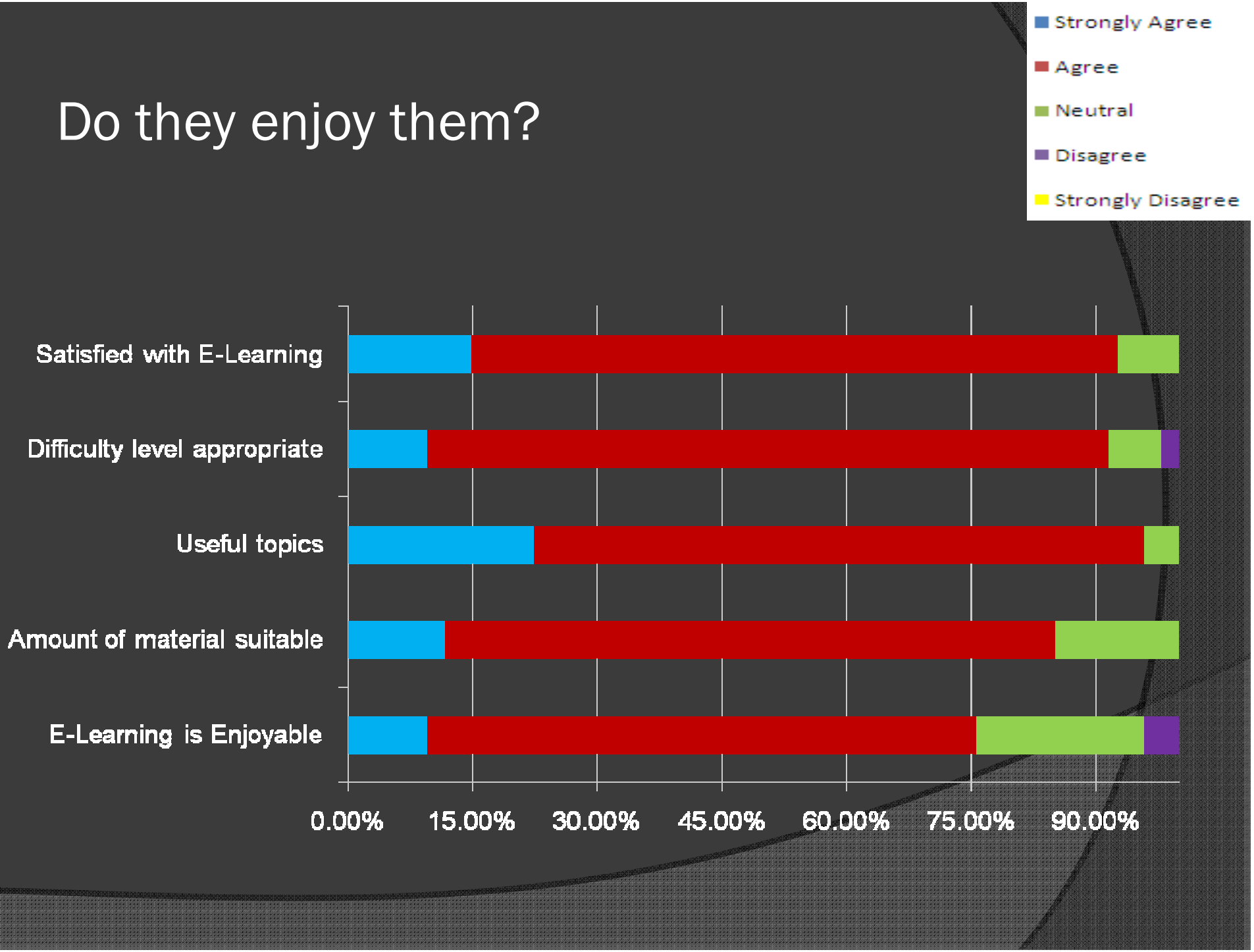
Where and how have they been using the exercises?



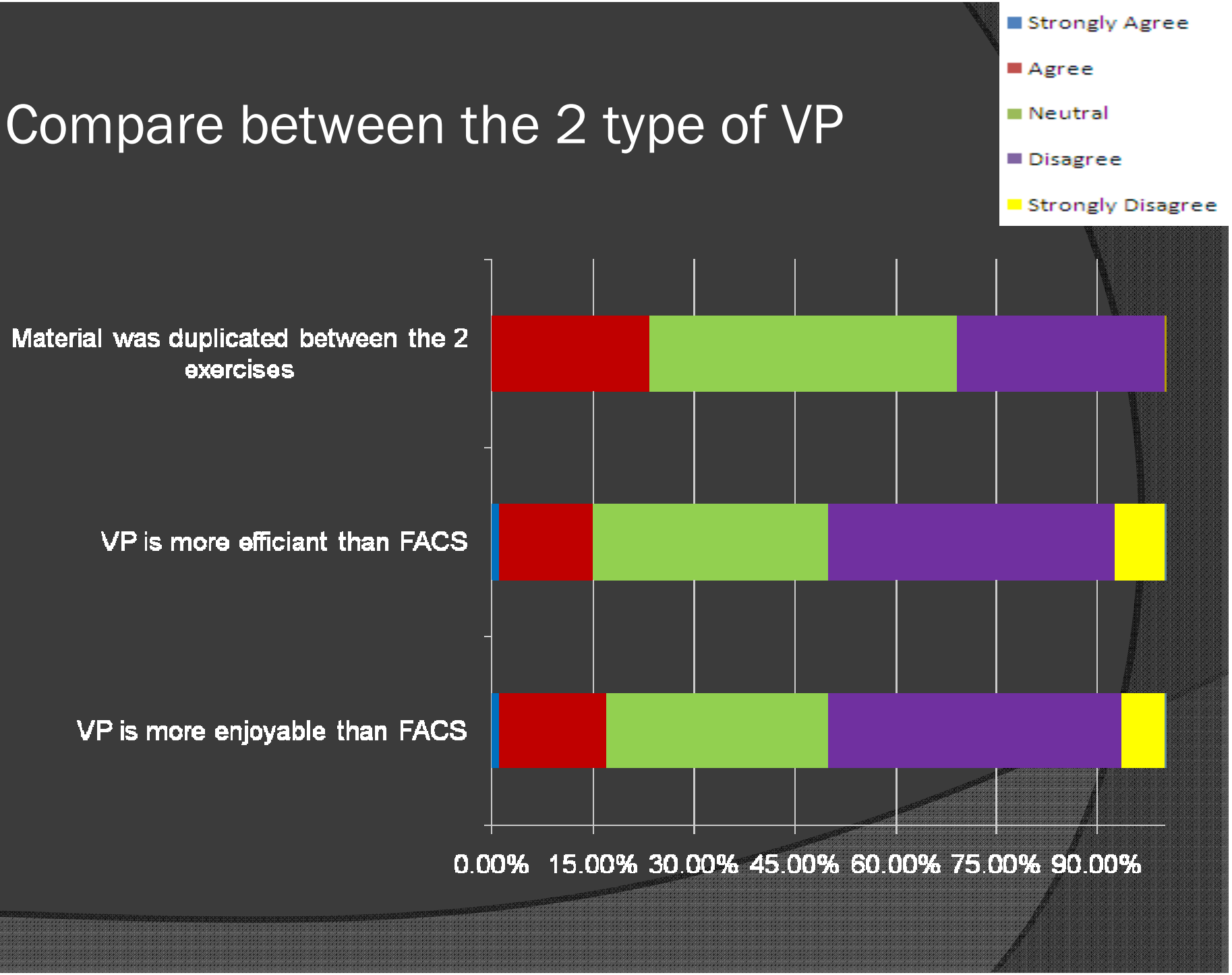
When do they use it?



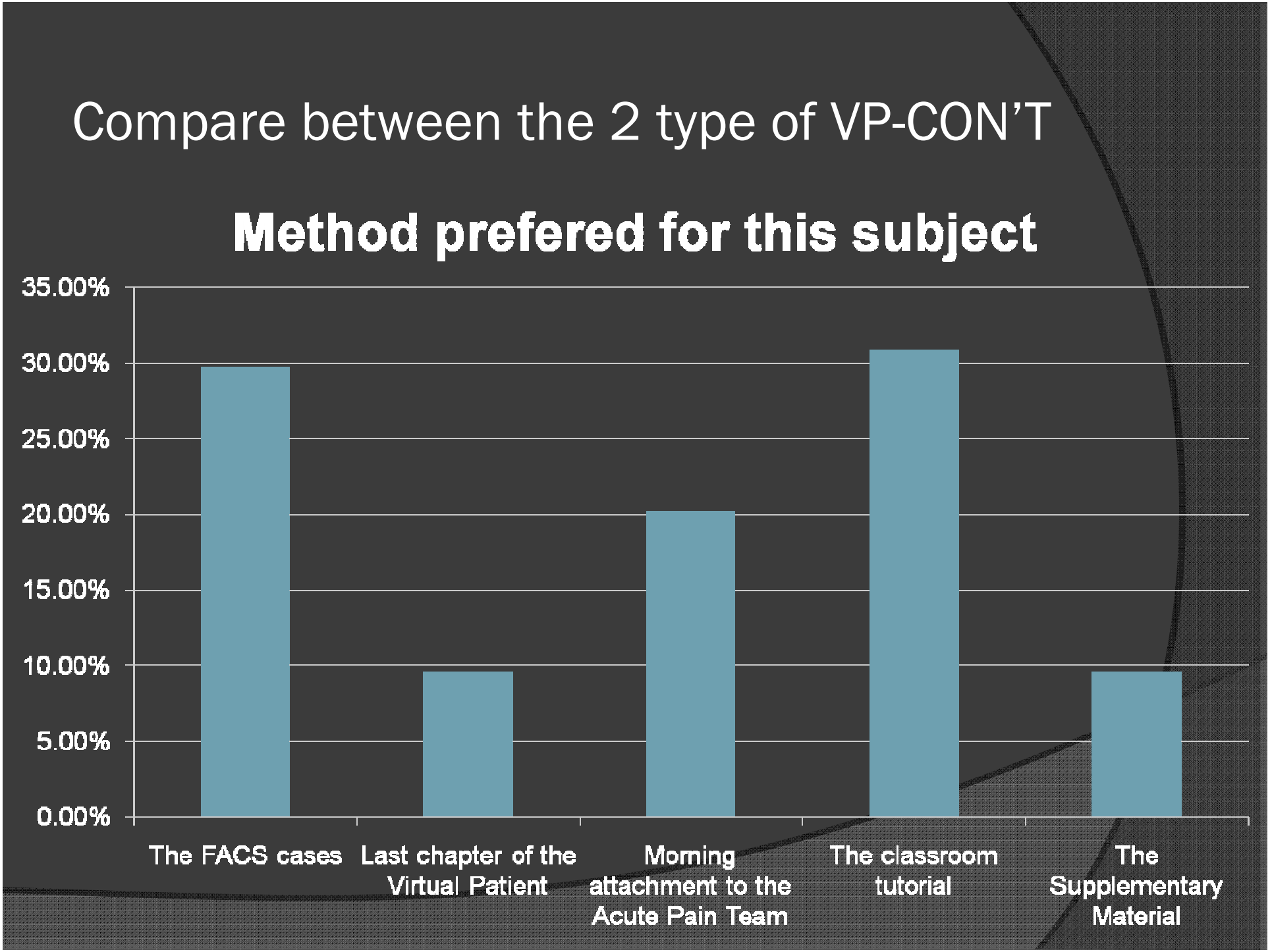
Do they enjoy them?



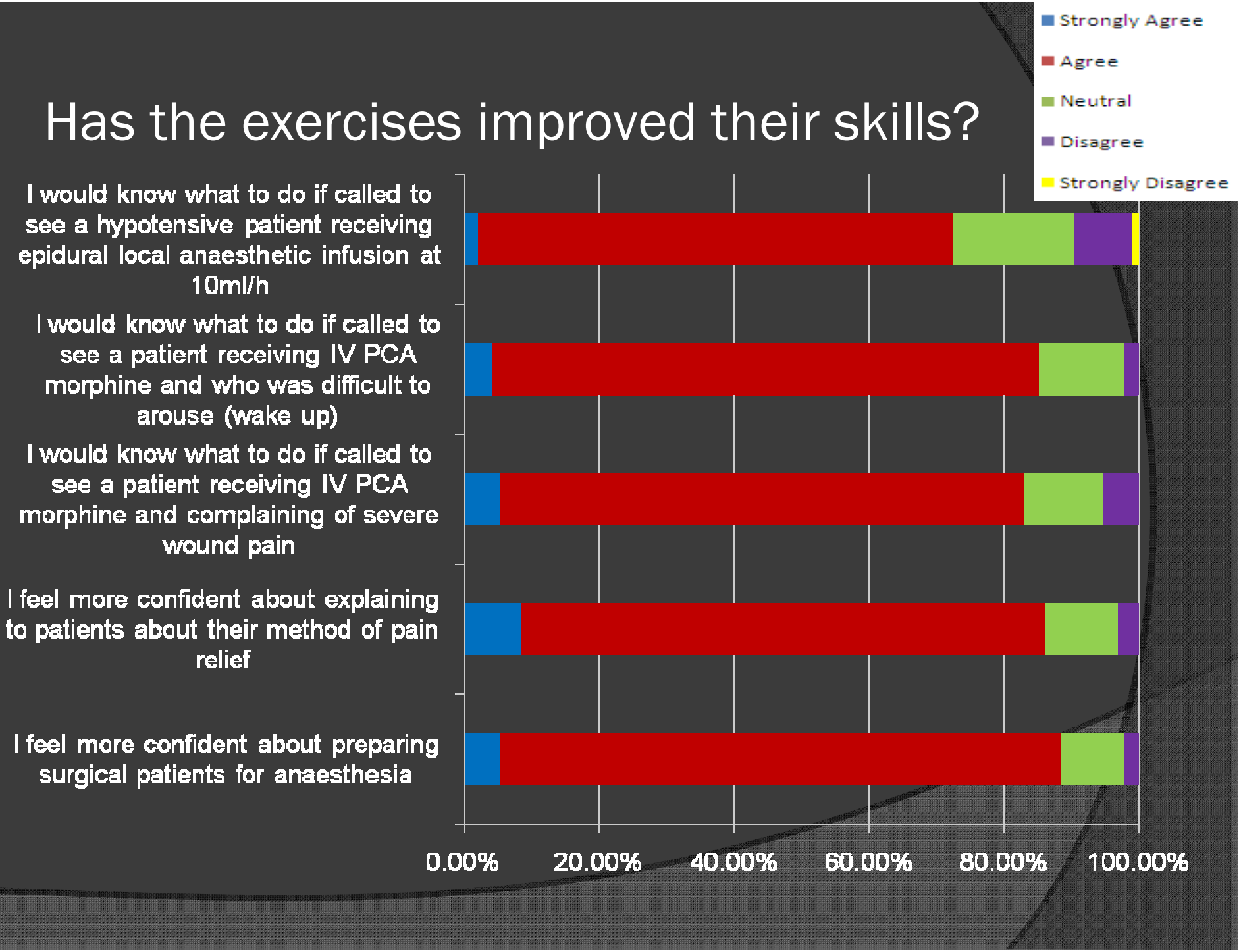
Compare between the 2 type of VP



Compare between the 2 type of VP-CON'T



Has the exercises improved their skills?



Conclusion

- The students enjoyed the addition of the E-Learning material
- FACS is more preferable than the storyline VP
- The exercises improved their confident for their future work

THANK YOU!

Questions?