



Celebrating 9 Years of Peer-Supported Learning Groups at UL: Insight and

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Outline

- ❑ What is PSLG & why
- ❑ Programme implementation & development
- ❑ Evaluating the effectiveness of the PSLG
- ❑ Our new study & survey for evaluating the PSLG
- ❑ Study results and analysis
- ❑ Conclusions



What is PSLG ?

- ❑ **PSLG: Peer-Supported Learning Groups** – It is UL's adaptation of the SI and PAL models
- ❑ Proactive academic assistance programme, which targets difficult modules
- ❑ It fosters cross-year support between students on the same course
- ❑ It encourages students to support each other and to learn co-operatively under the guidance of students from the year(s) above.



Why PSLG ?

- ❑ Poor Grades, relatively high failure and drop out rates
- ❑ Efficient & cost effective support scheme for historically difficult modules/courses
- ❑ Develop group work ethics and promote active learning
- ❑ Enhance student-student and student-faculty communication
- ❑ Develop essential study and other personal/professional skills
- ❑ Set up a structured student support & development system at Department & College levels



PSLG Development in UL - 1

- ❑ Initiated during AY2001-02 as a pilot programme (based on SI model) catering for 2 modules over 2 Semesters
- ❑ Currently, PSLG is the mainstream tutoring model in the ECE Department and targets 4/5 modules per Semester
- ❑ Targets 1st, 2nd, 3rd and 4th year modules led by undergrad and postgrad leaders
- ❑ Departmental 'Student Support Centre' set up in 2003 – location for PSLG sessions; currently offering a range of students support activities besides PSLG
- ❑ In Sept 2008: a regional Peer Supported Learning Centre (PSLC) was set up - SIF II Funding



PSLG Development in UL – 2

- ❑ In Sept 2008: a regional Peer Supported Learning Centre (PSLC) was set up - SIF II Funding

- ❑ This academic year: we implemented **14** different PSLG programmes catering for more than **1400** students across UL's four faculties:
 - ✓ Science & Engineering;
 - ✓ Business
 - ✓ Art, Humanities & Social Science
 - ✓ Education & Health Sciences



Evaluating the Effectiveness of the PSLG - 1

❑ Standard evaluation tools

- ✓ **Regular observations** of PSLG sessions, followed by debrief meetings with observed leaders
- ✓ **Qualitative assessment:** formal feedback obtained from students and faculty members
- ✓ **Quantitative assessment:** analysis of academic performance of tutored students in targeted modules/subjects



Evaluating the Effectiveness of the PSLG - 2

- ❑ This year we conducted a new study of the effectiveness of the PSLG to complement previous stools
- ❑ Our aim was to gain an insight into students' actual experiences and perceptions of the PSLG and, hence:
 - identify means for improving the way PSLG is currently conducted
 - enhance its outcomes, benefits and students participations
- ❑ Main instrument of this study was a **survey** of PSLG tutees using a purpose-designed questionnaire



The Survey - 1

- ❑ Consisted of a mixture of 20 closed, open-ended and open response-option questions/statements
- ❑ Questions were designed to elicit responses in relation to four issues:
 - a) Reasons students attend the PSLG sessions, what motivates them to attend, and influence on their attendance rates
 - b) Effectiveness of the PSLG as perceived by students regarding enhancing subject knowledge, grades, social life and development of study/transferrable skills
 - c) To what level above perceptions reflect students' expectations
 - d) Students' satisfaction with their PSLG leaders and how this relates to their perceptions in (b) above
- ❑ None of the questions were tested before - context of about 20% of questions was adapted from our usual formal feedback forms.

The Survey - 2

- ❑ Survey focused on 4 engineering and business modules for which PSLG was delivered during last Autumn Semester:

Module Name/Code	Discipline	Level	Total Number of Enrolled Students
Electrical Science I (EE4101)	Electronic/Computer/Robotic Engineering	1 st Year	159
Circuit Analysis I (EE4113)	Electronic Engineering	2 nd Year	19
Digital Signal Processing (CE4817)	Computer & Electronic Engineering	4 th Year	32
Principles of Accounting (AC4001)	Accounting & Finance	1 st Year	478

- ❑ The survey was conducted and administrated by the PSLG coordinator during in week 11 of our 13-week teaching semester



Results & Discussion

- ❑ We surveyed **114** students from the **258** PSLG registered students; i.e. **44%** of targeted students
- ❑ Statistically, this gives the survey an error level of about **5.5%** and a confidence level of just over **90%**
- ❑ Distribution of surveyed students:
 - **66%** engineering versus **34%** business;
 - **73.68%** first-year versus **26.32%** higher years
- ❑ Responses were analysed in conjunction with our usual quantitative evaluation data, and data/information collected during our formal observations of PSLG sessions



Students Participation versus How They Heard About the PSLG - 1

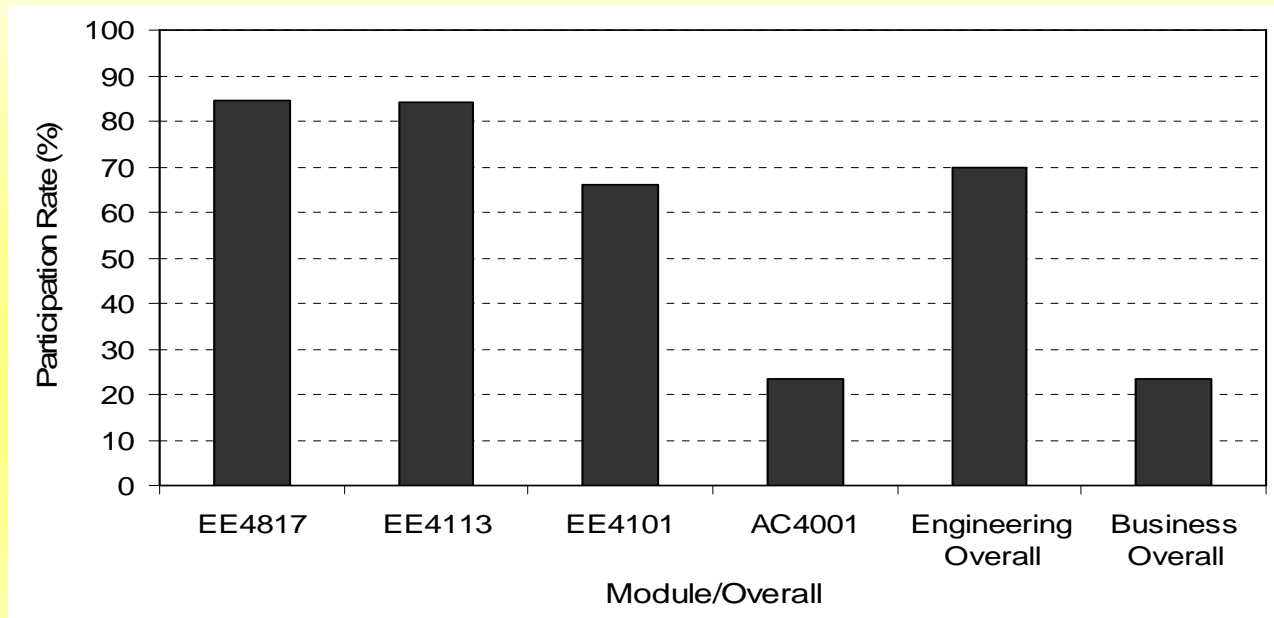
Means of hearing about PSLG sessions

Module	Heard about PSLG for their Module by/from/during (% of respondents)			
	Email	TA/Tutor/ Tutorials	Lectures/ Lecturer	Friend/Colleague
Overall	42.59%	10.18%	36.12	6.48%
EE4817	7.14%	0%	78.57%	14.29%
EE4113	12.50%	62.5%	25%	0%
EE4101	40%	12%	46%	2%
AC4001	66.70%	13.89%	8.33%	11.1%



Students Participation versus How They Heard About the PSLG - 2

- Students' participation rates in PSLG per module and overall



- Would have liked to have attended more sessions: **58.88%** Yes (**59.20%** engineering vs **52.94%** business).
- Reasons for Not being able to attend more sessions: **20%** due to timetabling clashes - figure rising to about **27%** for larger classes



Reasons For Attending PSLG Sessions

Reason for Attending	% of Respondents				
	Overall	Business	Eng	1 st Year	Higher Years
a) To get a good grade in this module	94.74%	94.73%	94.73	93.4%	100%
b) To meet people from the same course and make new friends	13.16%	21.1%	9.21%	14.29%	8.7%
c) To work and learn in smaller groups	40.35%	44.74%	38.16%	40.66%	39.13%
d) To develop specific skills in organising and processing information, communication, study, presentation, group work and critical thinking	8.77%	10.53%	7.89%	9.89%	4.34%
e) Other	9.65%	2.63%	13.16%	8.79%	13%



Have Your Reasons for Attending the PSLG Been Fulfilled - 1

- How helpful were the PSLG sessions: mean rating was **4.32** (with **0.86** SD) on a scale of 1 – 5 with 5 being very helpful
- How the PSLG sessions have assisted the students in the following areas:

Statement	% of Respondents		
	Overall	Business	Engineering
I believe will achieve higher grade in this module	69.30%	55.25%	70.32%
Enjoyed meeting/working with people & have made new friends	28.07%	31.58%	23.32%
PSLG has helped me understand the more difficult content of this module	84.42%	81.58%	72.37%

Have Your Reasons for Attending the PSLG Been Fulfilled - 2

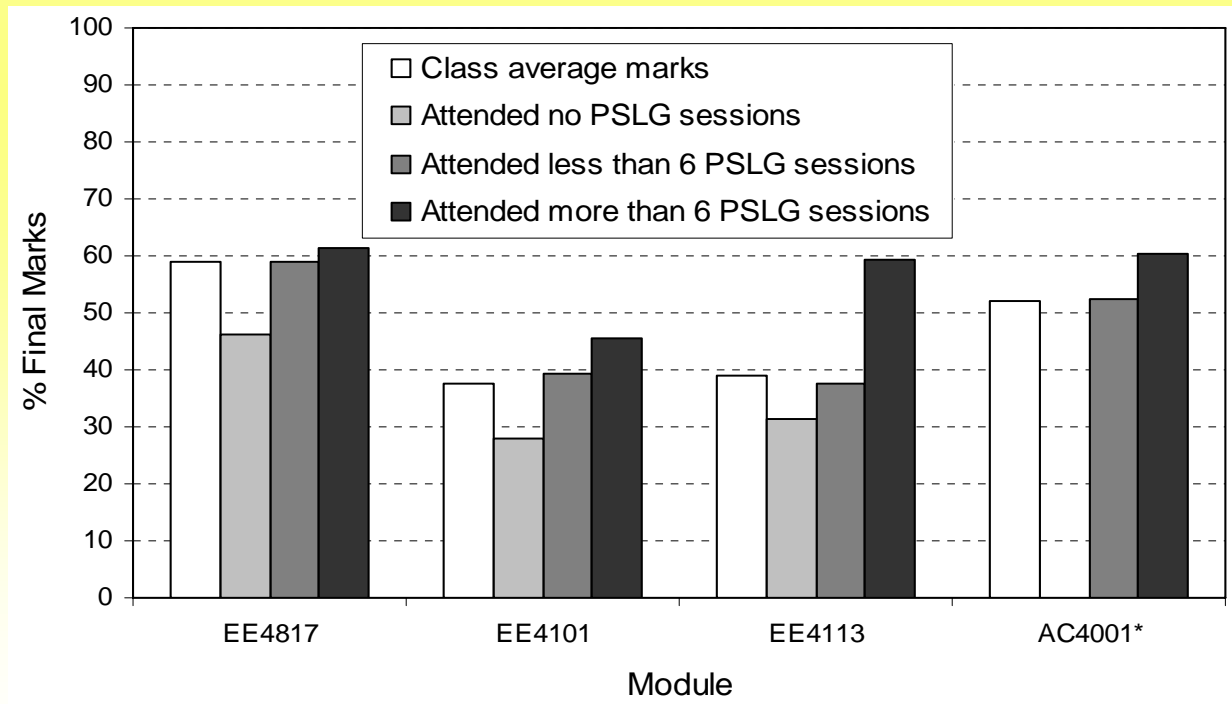
- Correlation between reasons for attending and corresponding fulfilment level:

	Pearson Correlation Coefficient (r)				
	Overall	Business	Eng	Small Classes	Large Classes
To get a good grade in this module versus I believe I will achieve higher grade in this module	0.72	0.58	0.78	0.83	0.68
To meet people from the same course and make new friends versus Enjoyed meeting/working with people & have made new friends	0.67	0.75	0.57	0.5	0.69



Reasons for Attending & Perceived Helpfulness of the PSLG: Data Analysis & Discussion - 1

- ❑ The PSLG is highly perceived to be effective in assisting students in improving their grades/passing their exams
- ❑ Comparison of average marks scored by PSLG and non-PSLG students:



Reasons for Attending & Perceived Helpfulness of the PSLG: Data Analysis & Discussion - 2

- ❑ Engineering students showed more confidence in achieving good grades in their PSLG modules as compared to business students
- ❑ This could be attributed to two inter-related factors:
 - a) PSLG has been running for engineering modules for a number of years - seen by students and leaders as 'tried and tested'
 - b) Lecturers/TAs of engineering modules met regularly with PSLG leaders and were continuously involved in guiding them
- ❑ ~ 28% of respondents indicated that PSLG sessions assisted them in meeting/working with colleagues and making new friends
- ❑ Of above, 67% marked this issue as their one of the main reasons for attending the sessions and



Reasons for Attending & Perceived Helpfulness of the PSLG: Data Analysis & Discussion - 3

- ❑ Interesting observations:
 - ~75% of business students attended PSLG to meet/work with colleagues and make new friends, and also felt that they did so, compared to only about 57% on the engineering side
 - Majority of the learning activities used in the PSLG sessions were focused on problem solving
 - There was a clear difference between how problem solving is utilised in engineering as opposed to business studies
 - In engineering: problem solving is commonly associated with 'mathematics problems' and small individual design projects
 - In the case of business, problem solving approaches are commonly associated with case studies



Reasons for Attending & Perceived Helpfulness of the PSLG: Data Analysis & Discussion - 4

- ❑ Not many students initially thought of the PSLG sessions as a means for developing their study and transferrable skills
- ❑ However, students' rating of the extent their involvement in the sessions contributed to developing of specific skills provides different reading:

Skill	Mean Score (Standard Deviation)				
	Overall	Business	Engineering	Small Classes	Large Classes
Organising & Processing Subject Material	3.56 (1.11)	3.58 (0.95)	3.68 (1.09)	3.77 (1.05)	3.55 (1.05)
Problem Solving Skills	3.88 (0.88)	4.00 (0.86)	3.96 (0.86)	3.99 (0.79)	3.98 (0.90)
Communication Skills	3.30 (1.11)	3.53 (1.06)	3.43 (1.14)	3.60 (1.16)	3.31 (1.06)
Study Techniques	2.92 (1.16)	3.16 (1.22)	3.03 (1.21)	3.19 (1.28)	2.94 (1.01)
Presentation Skills	2.82 (1.19)	3.05 (1.14)	2.99 (1.26)	3.18 (1.30)	2.84 (1.14)
Group Work	3.50 (1.10)	3.68 (0.93)	3.63 (1.13)	3.80 (1.09)	3.49 (1.04)
Critical Thinking	3.60 (1.06)	3.55(1.13)	3.68 (1.03)	3.70 (1.05)	3.60 (1.06)

Reasons for Attending & Perceived Helpfulness of the PSLG: Data Analysis & Discussion - 5

- Correlations between students' ratings of the PSLG contributions to the development of various skills:

	Organising & Processing Subject Material	Problem Solving Skills	Communication Skills	Study Techniques	Presentation Skills	Group Work	Critical Thinking
Organising & Processing Subject Material	1.00						
Problem Solving Skills	0.54	1.00					
Communication Skills	0.53	0.54	1.00				
Study Techniques	0.46	0.46	0.71	1.0			
Presentation Skills	0.48	0.46	0.71	0.75	1.0		
Group Work	0.49	0.49	0.60	0.51	0.60	1.0	
Critical Thinking	0.65	0.59	0.58	0.54	0.52	0.58	1.0



Students Perceptions of PSLG Effectiveness & Uniqueness - 1

- Summary of perceived strengths of the PSLG sessions:

Strength	% of Respondents				
	Business	Engineering	Small Class	Large Class	Overall
Enhance understanding	18.42%	18.42%	39.13%	13.18%	18.42%
Working in small groups	47.37%	32.88%	17.39%	42.84%	37.71%
Tutor Knowledge	23.68%	17.11%	21.74%	18.68%	19.30%
Practical work	2.63%	11.85%	4.35%	9.89%	8.77%
One-to-one tutoring	4.26%	1.32%	0.00%	3.30%	2.41%
Better opportunity to ask questions	26.32%	21.04%	8.70%	26.37%	22.80%
Group discussions	6.26%	2.63%	0.00%	4.39%	4.01%
Exam focused	0%	5.27%	0.00%	4.40%	3.51%
No Opinion	2.63%	7.89%	17.39%	3.29%	6.14%



Students Perceptions of PSLG Effectiveness & Uniqueness - 2

- How would you describe PSLG sessions to future students

Description	% of Respondents
Social	23.81%
Promote knowledge & self-learning	23.81%
Helpful	96.83%
Good	34.92%
Like a study group	9.67%
Exam focused	1.59%

- 99%** of all respondents would recommend the PSLG sessions to other students, and **20%** would consider working as PSLG leaders

What the Students Thought of Their PSL Leaders

- ❑ Did you have sufficient contact with your leader: **78.85% Yes**, **3.85% No**, with **17.31%** had no opinion
- ❑ How do you rate your leader's subject knowledge, effectiveness, organisation and motivation skills:

Question	Mean Score (Standard Dev.)
How knowledgeable do you think your leader(s)/tutor(s) was of the module	4.50 (0.72)
The PSLG leader was organised and prepared for every session.	4.56 (0.76)
The PSLG leader encouraged student participation and group work	4.67 (0.67)
How effective was your PSLG leader(s) in helping you to learn	4.36 (0.85)



Conclusions - 1

- ❑ This study and associated student survey have given us valuable insights into students' experiences and perceptions/expectations of the PSLG

- ❑ The findings have helped us infer a number of ideas to enhance the way the PSLG is currently conducted with regards to:
 - ✓ ways of promoting PSLG between students, leaders and teaching staff
 - ✓ There is a need to adopt a clear focus on how to explicitly include the development of specific study/transferable skills in PSLG sessions
 - ✓ PSLG sessions to commence in Week 1 instead of Week 3, with the first few sessions utilised to focus on skills development activities
 - ✓ To address the scheduling of PSLG sessions & timetabling clashes, we are currently considering: a) adding the PSLG sessions to the central scheduling system; b) mainstreaming the PSLG programme within UL.



Conclusions - 2

- ❑ The survey was particularly effective in complementing our usual quantitative evaluation data
- ❑ However, on reflection, the findings of the survey could have been further enhanced in many ways:
 - ✓ Accuracy of the survey could have been further enhanced by increasing the number of surveyed students
 - ✓ Sharpen the focus of the questions and balance the design of the survey in terms of the number of open-ended and closed questions
 - ✓ Cross-check students' responses with their actual grades/marks and attendance patterns
 - ✓ Complement this survey with a similar and simultaneous one for the PSLG leaders



Thank You for Listening

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4th PAL Symposium - GMIT