

***Social Media for Learning in Higher Education***

***2015 Conference Proceedings***

**ISBN: 978-1-84387-394-5**

DOI: <http://doi.org/10.7190/SocMedHE/2015/4>

**Case Study**

**Using social media to promote deep learning and increase student engagement**

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**Abstract**

In this paper we discuss an intervention that was introduced at the University of Glasgow in order to address problems of scheduling face to face Peer Assisted Learning (PAL) sessions in the College of Science and Engineering (CoSE). Using Facebook groups, the authors have successfully implemented a Virtual Peer Assisted Learning (VPAL) model.

We begin by discussing the background to choosing VPAL as a model and Facebook groups as a method of delivery, and then set out our model in detail. We next present some recent student feedback and discuss the strengths and weaknesses of our model. We end by also commenting on the sustainability and transferability of this design.

## Introduction

The University of Glasgow is comprised of four Colleges, and operates on a College-entry system. In most cases, first year students study three subjects, which will sometimes span more than one College. There are many advantages to this system, such as the opportunity to study new subjects and/or to continue with subjects previously enjoyed. However, this also means that students often lack a sense of identity or belonging because of large class sizes. Also, because they do not specialise in their chosen degree subject until their Honours years, they are not “owned” by any particular subject for the first two years of their studies, and it is all too possible for students to feel invisible and not to know where to go if they have any questions or concerns about their studies.

A former colleague of ours, Lorna Love, held the position of Retention Officer for the College of Science and Engineering (CoSE) and was tasked with improving retention in the College. Peer Assisted Learning (PAL) seemed to be a plausible candidate, and face to face sessions were introduced for levels 1 and 2 students in Mathematics and Computing Science.

PAL is a generic name for several types of peer learning, and could be considered to be a type of co-operative learning (Spiers, no date). Common to all the varieties is the idea that students often learn by interacting with other students. For example, Topping and Ehrly define PAL as: “the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions” (1998, p.1).

A common model of PAL, used at the University of Glasgow in the CoSE since 2002, is one in which senior students hold regular face-to-face sessions which junior students can attend and get help with specific pieces of work and skills (Morrow, Stevenson & Boyle, 2012). Importantly, these senior students are seen as facilitators, and not as teachers, so the emphasis is on helping students to gain confidence and skills, rather than acquire knowledge (University of Glasgow, no date, see also Spiers, no date).

The attempts to schedule these sessions at the University of Glasgow proved to be a challenge. With no common timetable, it was very difficult to find times during the day when all students were free to attend and therefore attendance at the sessions was low. Evening sessions were not an option as so many of our students commute, and are loathe to remain on campus after 5pm – especially during the winter months. In addition, many students have other responsibilities such as part time jobs or caring duties (Ahmed & Honeychurch, 2015).

However, feedback from those who were able to attend the PAL sessions was positive, so we searched for an alternative. One thing we did know, as our university conducts a bi-annual survey

of incoming students, was that most (about 95%) of our students already used Facebook regularly, although respondents were not surveyed about how they used Facebook (Gardiner & Honeychurch, 2011; Honeychurch & McCluckie, 2014), and this seemed to be worth exploiting. So we instigated and semi-moderated Facebook groups for just level 1 Mathematics and Computing Science in the first instance.

## **Facebook Groups**

Facebook groups are used for small group communication and for people to discuss issues, post photos and share related content<sup>1</sup>. We chose a 'closed group' model whereby it is possible to search for the group on Facebook and see the members, but the posts are private. It is also possible to belong to the same group as individuals without having to be 'friends' on Facebook.

### ***The First Group***

The two members of staff who set up the first groups had Mathematics and Computing backgrounds so it made sense to start with level 1 groups for these subjects. These were set up to coincide with the start of the academic year 2011-12 and the groups were publicised by posting links on the course Moodle pages with many students joining later through word of mouth.

Initially our aims were very modest – we just thought that having a virtual space would be better than having nothing at all and were agnostic about any other benefits they might bring.

We have been surprised by the success of these groups. Students use them to share questions with each other, and VPAL sessions happen spontaneously – of invaluable help to students in step-wise subjects (i.e., subjects where the material in a lecture builds upon knowledge from previous classes), who are able to get help exactly when they need it, without waiting until campus based support sessions. Students share resources, ask questions about lectures, labs, the university, etc.. They also arrange to share taxis to facilities away from the main campus, organise face to face study groups, and generally support each other.

### ***Further Iterations***

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<sup>1</sup> <https://www.facebook.com/notes/facebook/facebook-tips-whats-the-difference-between-a-facebook-page-and-group/324706977130/>

Because the first groups were such a success, we gradually introduced more subject groups over the years and we now have groups for each subject year group in the whole of the CoSE. As a further step, three years ago (academic year 2013-14) we also introduced an Entrants' group for the College which students are invited, by email, to join just prior to starting at the University. Here they have the opportunity to 'meet' and chat with fellow Freshers (new students starting at the University) and members of staff (the two group moderators). We post a link to the new Entrants' group to the existing subject groups and invite senior students to join and contribute as much as they feel able to. The senior students' input is invaluable: they answer questions from junior students (which we're often unable to answer) helping to alleviate concerns from those beginning university, and continuing to help them throughout their university careers.

Once Freshers join the Entrants' group they can also find links to the relevant subject specific groups and join those. Again, senior students join the subject groups and provide help and advice throughout the year.

Each August, after resits and before registration, we roll over and rename the existing groups to reflect the new year of study and set up a new Entrants group and level 1 groups for each subject. Figure 1 shows this process and structure.

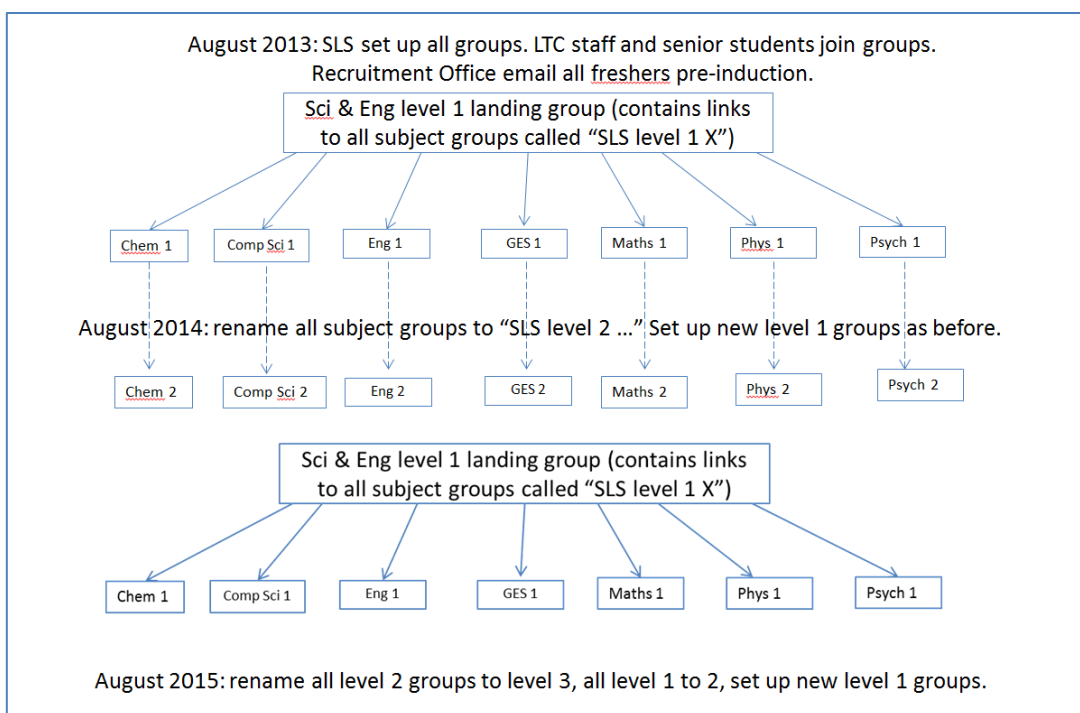


Figure 1: Process for roll over of new groups at the beginning of each academic year. Staff from Student Learning Service (SLS) set up the groups. Staff from the Learning and Teaching Centre (LTC) join groups and help to moderate them.

## Key Findings

### *Examples of Discussions*

In this next section we present examples of student questions and conversations in order to give a flavour of the learning communities that develop in our Facebook groups. We have anonymised all student names, but left staff names visible.

#### ***At registration***

Registration is always a busy time of year in the groups, with lots of questions from Freshers and reassurance from senior students. Here's a couple of posts from Freshers introducing themselves and looking for class mates:

Where is my theoretical physics crew? I did Phys/Maths/Astro.  
Timetable sample!  
I found someone who happened to take the same as I last year and he said they had to get a taxi from Astronomy to Maths or something, and that it was about £7 split between all those sharing.  
If this continues to be the set-up this year, I'd appreciate the contact of some non-murderous people doing the same classes for potential taxi-sharing! 😊

Hi guys, im studying chemistry, maths and physics in first year if anybody's looking for class mates in those subjects.  
But I'd just like to take the chance to say I'm here for anyone who feels a bit lost. I'm a bit scared about going to uni as its a really big change, and although I know I'll be fine others might not be. I'd hate for anyone, including myself, to feel left out, alone or worried so please if you see me around and you don't think im a crazy person after reading this feel free to say hello 😊

A reassuring response from a senior student:

It is a really big change for a lot of people, and totally human to be scared/nervous about it, but just remember nobody has to fend for themselves here, there's plenty of ways to meet people not least of which are all the societies available!

And a welcome message from one of the student society presidents:

Hi everyone, welcome to Glasgow Uni! Hope you'll have loads of fun here! I'm the president of the Astronomy Society here at Glasgow uni and I'd like to encourage everyone to come find the various student societies and maybe join a few of them at Freshers Fair 😊 Everyone is welcome, no matter what you are studying. Getting involved in societies is a great way to meet people and get more out of your time at uni. So come say hi, we'll have sweets and other cool things for you!

Here students get reassured that they have not missed registration (it had not opened at that time):



The screenshot shows a Facebook post from August 22, 2013, with three comments. The post text is: "Hello! I know there have been issues with registration but I'm still not sure if I should have received my password yet? Starting to panic a little now.. xD". The first comment, from a user with a blue profile picture, says: "I was starting to get worried that I hadn't heard from anybody about registration, but at least I'm not the only one!" (23 August 2013 at 22:02). The second comment, from a user with an orange profile picture, says: "I was feeling like that as well, so glad this facebook page exists or I would still be sitting here worrying x" (23 August 2013 at 22:03). The third comment, from Sarah Honeychurch, says: "That's what we're here for. Glad we're helping, and remember we're always here to stop you worrying 😊" (23 August 2013 at 22:59). The post has 4 likes.

A senior student introduces themselves and offers help to anyone who needs it:



The screenshot shows a Facebook post from a user with a blue profile picture, dated 16 August 2013. The post text reads: "Hi, I'll keep my introduction very short - I finished the first year recently and I had Mathematics, Statistics and Computing Science modules. If you have any questions about these subjects or anything else - let me know, either privately or below this post. 😊". Below the post, it says "Like · Comment". A notification bar indicates "Lorna Love and 4 others like this." and a link to "View 21 more comments".

The first comment is from a user with a red profile picture, dated 28 August 2013 at 18:00. The text says: "Hello 😊 I've read though everything you've been saying and I just wondered if you thought it possible for someone who didn't study computer science (or whatever the equivalent would be) in high school, to take computing science as the additional course we have to pick? 😊". It has one "Like" reaction.

The second comment is from Shazia Ahmed, dated 2 September 2013 at 12:38. The text says: "Hi [redacted], Lorna Love and Paul Mullen have answered a similar question in the Level 1 Comp Sci group. Here's the link if you would like to join <https://www.facebook.com/groups/163180403867836/> and have a look." Below this comment is a preview for a Facebook group titled "SLS Level 1 Computing Science 2013-14" with 114 members. The preview includes a group icon and the text "2 September 2013 at 12:38 · Like · 1 · Remove Preview".

The third comment is from a user with a red profile picture, dated 2 September 2013 at 21:26. The text says: "[redacted] thank you very much, I looked over it and it answered all my questions!". It has three "Like" reactions.

**“Where have I gone wrong?”**

A lot of posts, particularly in the level 1 maths group, are asking for hints about how to solve particular questions. It’s worth emphasising that these are requests to help with weekly formative homework, not with formal summative assessment – so we don’t consider this to be cheating in any way. Students are able to get help with these questions in labs, by attending maths drop in sessions (run by Shazia) or by asking lecturers in their office hours, and we see the Facebook groups as a welcome addition to these options.

11 April

I'm pretty confused over where to go next, vectors aren't my strong point. Have I messed up here or...?

3. Find the equation of the plane that contains the line

$$\frac{x}{-1} = \frac{y}{-2} = \frac{z+1}{1}$$

and is perpendicular to the plane with equation

$$x - 5y + 2z = 1.$$

Q3.  $\frac{x}{-1} = \frac{y}{-2} = \frac{z+1}{1}$ , Let  $\vec{a} = (-1, -2, 1)$  <sup>Dir. Vec</sup>  $A(0, 0, -1)$   
 $x - 5y + 2z = 1$  Let  $\vec{b} = (1, -5, 2)$   
 $\vec{c} = \vec{a} \times \vec{b}$   
 $\begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ -1 & -2 & 1 \\ 1 & -5 & 2 \end{vmatrix} = \mathbf{i}((-2)(2) - (1)(-5)) - \mathbf{j}((-1)(2) - (1)(1)) + \mathbf{k}((-1)(-5) - (1)(-2))$   
 $= \mathbf{i}(-4 - (-5)) - \mathbf{j}(-2 - 1) + \mathbf{k}(5 - (-2)) = \mathbf{i}(1) - \mathbf{j}(-3) + \mathbf{k}(7)$   
 $= \mathbf{i} + 3\mathbf{j} + 7\mathbf{k} = (1, 3, 7)$

Like · Comment

likes this. Seen by 204

(1,3,7) makes the equation  $x+3y + 7z = d$  and to find d you plug in (0,0, -1) if you rearrange your first x,y, z equation. (I think!)  
 11 April at 16:58 · Like · 2

Sorry if this is a stupid question, but how did you calculate A(0, 0, -1)?  
 11 April at 17:30 · Like

The first equations are  $x/-1, y/-2$  and  $z+1/1$ . This makes the equation  $x = -t, y = -2$  and  $y = t-1$  and so the point on that line is (0,0,-1) and this point would also lie I'm not really sure if this is correct its been ages since I've revised vectors  
 11 April at 17:32 · Like · 1

Cheers  
 11 April at 17:33 · Like · 1





## Clubs and Societies/Social events

The Facebook groups are often used to promote events run by student clubs and societies, and class reps use them to ask for feedback to take to staff-student meetings:

\*\*\*\* MORE TICKETS AVAILABLE /// IMPORTANT ANNOUNCEMENT \*\*\*\*


We are pleased to announce that we have confirmed a larger venue for this event and MORE TICKETS will now be released at 8PM TONIGHT (15th Feb).






   
1 hr

Hi maths people!

Help room tonight, 5-6pm in boyd orr 409. Please come with any questions about maths. Sorry for late post.

  
Maths and Stats Rep

   
11 February at 15:02

Geography and Earth Science Level 2 students : I'm looking for feedback (mainly about ES, but I'm happy to pass on any geography comments) about feedback from assessments, issues, and improvements, for both last semester and this semester, to pass on to the SRC. If you have any comments, please drop me a message on Facebook, talk to me at labs, or alternatively email me at @student.gla.ac.uk. Feedback will be given to the SRC on Friday 19th February. Thanks!

## **Feedback from Students**

At the end of the 2014-2015 academic year we surveyed the level 4 Mathematics and Computing Science students (two of the original groups we set up). We emailed a link to the online survey in a class email to ask the students about their experiences of using the Facebook groups. We also asked open ended questions about what they found most useful academically and socially, and provided a space for any other comments. A total of 100 students (around a third of the students in the groups) responded. On the whole this feedback was very positive. A selection is provided below.

## **Results and Discussion**

### ***What did you find most useful academically?***

Many students commented that they appreciated being able to see alternative perspectives on aspects of the course and talk to their peers about their courses. They also appreciated the senior students being group members as that gave opportunities to talk to them that did not exist elsewhere. Several comments mentioned the collaborative learning resources which were set up by one group of students and shared with the whole group, and also said that they found the groups were easier to navigate for information than Moodle (the VLE used at our university).

- “Getting other perspectives on topics. Collaborative exam solutions.”
- “It was good to see other people's viewpoints on more challenging issues of the courses.”
- “Being able to openly and transparently discuss matters relating to my course with other students who were in the same situation. Also, having members from senior years is a great advantage as it would be unlikely to get to ask them questions in real life, and their insight is generally helpful.”
- “Often a good way of finding information that is otherwise buried somewhere on Moodle. Can sometimes be helpful close to exam time when people post learning resources (e.g. shared Google Docs for completing past papers together) that wouldn't happen without the groups.”

### ***What did you find most useful socially?***

Many students said that they found the groups important from a social point of view as it was the only place that the whole year could join. Some also mentioned that they appreciated being able to talk to peers while off campus, and others said that they enjoyed the informality of the groups.

- “Almost all of my colleagues are there, making it the only place to easily communicate to all of my class.”
- “In 2nd-3rd year, learning who people are. In 4th year Computing, it brought more of a sense of being a class when we're all doing different course options.”
- “It's nice having a way to communicate with peers outwith campus.”
- “Just being to talk to people and crack a laugh.”

***Do you have any other comments?***

Several students used this space in order to thank us for providing the groups, and said that they had found them very helpful. Others went further and talked about the communities that had formed within these groups.

- “I am very grateful for the groups, I think our year was the first to have them and it really did help having people to talk to.”
- “I think these groups are helpful for most of the people and they should continue to exist and be supported by the university.”
- “A good way to create a community from a large cohort of students. Really good that it didn't become cluttered with trivia and non-group related matters.”

However, not everybody agreed, and a small number of students mentioned that they did not use the groups socially, or had not found them useful.

- “I wouldn't really use this group socially.”
- “Did not find it useful socially, though, I didn't even know that was what it was intended for.”

And, finally, there were some students who never joined the groups – either because they did not know about them, didn't like to use Facebook for their studies, or did not have Facebook accounts.

- “Didn't want to join them because I'm not interested in updates from my classmates, I use Facebook just for social events, messaging.”
- “Dear Shazia & Sarah  
It annoys me that I might be missing out on interesting discussions. I think that it is great to encourage learning and to discuss mathematics. However, I refuse to use Facebook. Moreover, I don't think Facebook is the correct place for discussing mathematics - University is the correct place. I don't want my university experience to become part of Facebook. Kind Regards Anon”

It's important to note that no essential material was posted to the Facebook groups that was not available elsewhere – so while we feel these students did miss out on a social opportunity, we feel this similar to students choosing not to socialise in a student union bar, and not analogous to them missing formal learning opportunities.

On the whole the experience has been a positive one, both for staff and students. This was a relatively simple way of engaging a large number of students and bringing them together as a group.

## **Summary**

We first experimented with using Facebook groups for VPAL because of logistical problems with scheduling face to face PAL sessions. Our aims were modest – we reasoned that having “virtual” groups would be better than nothing, would not do any harm to students, and so was worth an experiment. However, these groups have been a success in ways we had not envisaged. VPAL has turned out to be not a poor substitute for PAL, but has surpassed it. At the beginning of each new academic year our senior students are invaluable in the support and reassurance they provide for the Freshers, as each year progresses we see learning communities emerge with students able to get the help that they need at the time that they need it – without needing to wait for formal support sessions or even travel to campus in order to access it – an important consideration for all of our commuting students.

## **Key Benefits**

We think that one reason that our groups are such a success is because we are not academic members of staff. One of us (Shazia) provides maths support to undergraduates, the other (Sarah) is a learning technologist with no links to CoSE and so students are not afraid of being seen to ask a “silly” question,

as they might be with their lecturers. Many of the questions asked in the junior groups are actually about how to present answers in the correct form with appropriate terminology, and these are often seen to be matters too trivial to take to lecturers. However, correcting errors and omissions in knowledge are vital for step-wise subjects. It's also worth noting that, unlike verbal conversations, having to type questions into a chat forum forces clear articulation in order to elicit a useful response – and this itself is an important tool for learning. Non-native speakers also benefit from these groups as they can take all the time that they need to understand the conversations in the groups and also to shape their questions and responses. Likewise students who are quiet or shy in face to face situations can still find a voice in these groups and get equal attention.

When we first set up these Facebook groups we were concerned that they might prove to be a time sink. However, we were pleased to discover that most of the work is done by the students themselves. Although we keep an eye on conversations, particularly in the early weeks of the junior groups, in general students are good at responding to each other, and also to keeping conversations to appropriate subjects (this is not to say that all conversions are serious – but the level of jokes and banter is light hearted and subject specific – which is what being part of a learning community is about). Also, when Shazia replies to a post by one student, her reply is “liked” many times – making this type of interaction further reaching than the one-to-one sessions that students can also book with her (although we would not advocate replacing one-to-ones with Facebook conversations as these two models complement each other). We worried again when we extended the number of groups we had, but again our workload has not increased because of the supportive community spirit that has emerged.

### ***Sustainability and Transferability***

We have found that our model of using Facebook groups is scaleable by extending it to every level and every school in CoSE, and we've also found that it is sustainable without much staff intervention – because the supportive culture that we have nurtured means that junior students are helped by senior students, and as these juniors themselves progress through university they turn into supportive senior students themselves. This model is also transferable beyond Science and Engineering – at the beginning of this academic year we provided help and advice so that our College of Arts could adopt this model for their first year courses.

### **Recommendations**

For colleagues wishing to implement VPAL, we would recommend:

- Setting up the groups right at the beginning of the academic year
- Having more than one moderator in each group

- Making more effort to interact with students early to help 'establish' the group

## Conclusion

We remain convinced about the importance of peer assisted learning to many students, and believe that our "virtual" model is in many ways superior to face to face versions in that we are able to engage a larger number of students than would otherwise be possible. The emergent learning communities continue to exceed our expectations without being a drain on our workload.

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University of Glasgow Peer Assisted Learning (PAL) co-ordinators pack:

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