

LTC15D079

Title: *Review of the Peer-Assisted Learning Project and recommendations for the future*
Author: Caroline Sauverin
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Issue

The Peer-Assisted Learning (PAL) project is a three-year project which started in January 2013, and is due to finish at the end of the 2015-6 academic year. This is a review of the project, and sets out a number of options regarding the future of peer-assisted learning at UEA.

Recommendation

Members are invited to consider the options and endorse the recommendation that the scheme continues with support through the Learning Enhancement Team.

Resource Implications

The project was funded by an anticipated reduction in dropout across the University which the scheme was expected to deliver. The continuation of the scheme would require a budget, which currently is accounted for within the Learning and Teaching Service's overall budget.

Risk Implications

Low

Equality and Diversity

Continuation of the scheme may have a positive impact on students with protected characteristics.

Timing of decisions

If the scheme is to continue beyond 2015-6, a decision is needed at this meeting to enable the publicity and recruitment associated with delivering the scheme in 2016-7 to commence in early February.

Further Information

Caroline Sauverin, Head of LTS, Systems c.sauverin@uea.ac.uk,

Background

The three-year Peer-Assisted Learning (PAL) project started in January 2013, and is due to finish at the end of the 2015-6 academic year¹. The PAL project, endorsed by the Employability Executive and ETR, was funded through an anticipated increase in student retention, as reported to LTC:

<https://portal.uea.ac.uk/documents/6207125/7725693/divideriltc11d093.pdf/d768163a-e14d-4735-9863-e15a17f39647>

and recorded in the minutes:

<https://portal.uea.ac.uk/documents/6207125/7726192/lcmins270612.pdf/fdc60724-4e4f-4b2b-b2ba-56c50ac7d80e>

PAL is a systematic process whereby 2nd and 3rd year UG students support the learning and academic development of 1st year students on particularly difficult 1st year modules by serving as PAL mentors. They work in pairs to run PAL sessions. They are supported in their role by a member of academic staff (normally the module convenor of the module being supported), a PAL officer in each School (normally a PGR student, sometimes a PGT student), with administrative support from LTS. PAL officers and mentors are recruited following HR processes, fully trained and paid to carry out their duties. In addition, the three-year project had a PAL Champion (Anne Guyon, on a 0.5 FTE buyout from the School of Health Sciences, up until 31 December 2015) to set up, promote and lead the scheme. The mentees attend the PAL sessions voluntarily, and the sessions are confidential and conducted in a safe environment, where peers can answer questions that students may not feel comfortable raising in more formal settings.

There have been 4 phases of the roll-out of the project, and each completed phase reported to LTC:

Phase 1 23 October 2013:

<https://portal.uea.ac.uk/documents/6207125/7728212/lc13d005dividere.pdf/baccf65a-9fa0-487f-a86f-7ac04cd55ab0>

Phase 2 25 June 2014:

<https://portal.uea.ac.uk/documents/6207125/7728335/lc13d091.pdf/8136e59d-5c55-46a9-91a1-f5e3d5bb382d>

Phase 3 24 June 2015:

<https://portal.uea.ac.uk/documents/6207125/9294209/lc14d229dividern.pdf/7d9c731b-aebc-4a1e-85c7-d911b0fa8fe0>

The 4th phase is continuing this academic year.

Has PAL been effective?

Evaluation of the project has been carried out in a number of ways. Anne Guyon has written three reports at the end of the first three phases, which include the results of surveys of the participants' views. In addition, the Business Intelligence Unit has provided some quantitative data for performance and retention for those students involved in Phase 3 (Appendix 1). The views of Heads of School were sought through a series of meetings with Anne Guyon, PAL Champion, and these are summarised in Appendix 3. In addition, participants' views were collected at a recent Phase 4 reflective meeting (Appendix 4).

1. Anne Guyon and Georgios Papadopoulos, in ECO, studied the impact of the scheme in three Schools, DEV, NBS and MED, funded by a Teaching Fellowship. The full report

¹ Funding for admin support was extended from December 2015 to June 2016 to allow for the completion of the 2015-6 activity. The academic lead during this period will be the ADTP; the PAL Champion role is not continuing beyond December 2015.

is available in Appendix 2A and 2B Georgios found that there seemed to be a positive impact for DEV, which was perhaps partially driven by positive selection, no impact for NBS (or small positive impact for students who attended many sessions) and no impact for MED. However, he found that there were some limitations/issues with the provided data particularly with the attendance records. Georgios concluded that PAL would be effective if i) the mentors and officers are selected very carefully to ensure that they engage with PAL, ii) mentees need to understand that attendance is very important if they want to see tangible benefits and iii) success may depend on the nature of the module, with support for more demanding modules having higher impact.

2. From Anne's Phase 3 report, the participants' evaluations can be summarised as:

Mentees- 46% of mentees responded, of which 60% indicated that PAL had improved their experience at UEA. This equates to 175 students. It is concerning that 40% of those responding did not feel that PAL had improved their experience at UEA. The qualitative data is very supportive of the scheme.

Reasons for not attending included that it did not fit with students' learning style, some preferred to seek advice from other sources, whilst others felt it was putting additional pressure on students who already felt over-committed.

Mentors- the support for the scheme from the mentors was very high, with over 90% of respondents (also 46% response rate) reporting that they benefited from being a mentor.

Officers - the response rate for officers was 60%, with 100% of them stating that they had benefitted from the role.

Only four of the 14 module convenors involved in PAL provided feedback, and for some questions, only two convenors provided a response, so not much can be concluded from the convenors' responses.

3. Business Intelligence Unit's report

The Business Intelligence Unit has provided some quantitative data for performance and retention for those students involved in Phase 3 (Appendix 1). The figures indicate that there is a small decrease in dropout rates among students who attend PAL sessions. The figures should be treated with caution, as the number of students attending PAL sessions is generally a small proportion of the whole cohort. In terms of performance at the end of year one, there is an indication that attending PAL sessions has a positive effect.

4. Schools' Views

The PAL Champion met with Heads of School in Autumn 2015 to discuss their involvement in the scheme (Appendix 3). Some Schools are very supportive of the current scheme (CHE, CMP, DEV, HSC and MED). Others were concerned about low attendance and/or were already offering successful buddy schemes which met the needs of the students.

5. PAL mentor/mentee views

Views were gathered at a reflective meeting on 8 December 2015 and are included in Appendix 4.

Costs and Participation

The details of the delivery in participating Schools is included in the Phase reports, and a summary, along with the costs, is given below:

Phase	Date	Number of Schools	Number of Modules	Number of Mentees	Total cost (projected, for 2015/6)
1	Jan – June 2013	5	7	160 (approx.)	59,409
2	2013/4	11	13	272 (approx.)	95,615
3	2014/5	9	13	631	98,796
4	2015/6	5	10	957	95,170
Total		30	43	2020	348,990

In addition, there are indirect costs in terms of delivering training (CSED, DOS, SU colleagues) and management of the scheme (LTS managers).

Discussion

The PAL Champion's conclusion following Phase 3 was that the majority of students who participated in PAL in 2014-5, in whatever role, have benefited from the experience. She summarises that 'PAL has the potential to be a truly positive force within UEA with the encouragement of faculty and administrative services'.

There were some areas for improvement highlighted in the report;

- Issues around timetabling at times when mentees and mentors were both available. This is particularly the case for nursing students.
- Lack of structure and organisation with sessions
- Lack of support from within Schools and lack of attendance in some Schools.
- Communications

The University approved funding for a three year project to get a PAL system up and running, and has spent nearly £350,000. The scheme has not expanded in the way that was originally envisaged. Some Schools did not engage with the scheme at all, in some cases preferring to keep to their own local buddy system. However, in a few Schools, and in one in particular, there has been enthusiastic engagement with the scheme. For the other participating Schools, there has been low take up and/or attendance at the PAL sessions dropped off as the semester has progressed. Some students undoubtedly benefit from the scheme, with an indication that it has prevented at least one student dropping out (qualitative data from mentee evaluation).

In terms of measuring success, it is very difficult to conclude whether or not the scheme has helped with retention and improved academic performance. Georgios' study suggests that it doesn't, but the BIU data indicate that the cohort of students participating in the scheme have better attainment and better retention than those that didn't participate, but these may be self-selecting students. The scheme probably helps with students' employability, with the work experience of the mentors and officers enhancing their CVs and has helped with students' Skills Award validation. However, the counter argument is that there are other initiatives in place to enhance employability.

When the PAL Champion spoke with Heads of Schools last semester, five were keen to continue. The estimated cost of this would be in the order of £90,000 per year in direct costs, with additional hidden costs in terms of academic leadership from within the participating Schools, management of the admin support, finance admin and contribution to the training from the ADTP, the LET team and CSED.

Any centrally-supported scheme which involves paying students necessarily involves a significant amount of administrative support associated with the recruitment and payment of the mentors and officers, training, timetabling sessions, ensuring attendance is monitored, and ensuring that the paid students fulfil their obligations. Although there is now a strong administrative support structure in place, it is a significant cost. The PAL champion was appointed for three years, to develop and promote the scheme. It is not expected that this role would continue, with interested Schools taking more of an academic lead in any future scheme, along with a central lead (a proposed model is discussed in the options below).

It is disappointing that more Schools did not participate and that more students did not benefit from the pilot. Given this position, LTC needs to consider the costs and benefits of continuing the scheme, either in its present format, or in some other guise. Early discussions with the Learning Enhancement Team (LET) have indicated that they would be interested in picking up the reins and developing peer-assisted learning initiatives across the University further, and the budget may be better used to run a different model through LET. One of the benefits of the move to LET would be a more coordinated approach to the learning enhancement support given to students, so that PAL does not operate in isolation from the other University initiatives already in place.

Options:

- a. (Recommended) To continue the scheme for the five Schools which expressed an interest for a further year ie for 2016/7, start recruitment of mentors and officers now, with the delivery of the scheme in the Autumn (mainly) and Spring semesters 2016/7. The admin support, which currently comes from the Learning and Teaching Service, would move to the Learning Enhancement team, with effect from 1 August 2016:
 - i. Continue with the PAL administrator role (0.5 FTE), for a fixed term of two years, to June 2018, to manage the key processes including the recruitment and training of the officers and mentors, issuing and processing contracts, organising and assisting at training, liaising with the Schools to establish the number and distribution of the PAL sessions, timetabling the PAL sessions, supporting the PAL officers and supervising the monthly pay claims.
 - ii. Continue with the PAL Admin Assistant (0.2 FTE) to schedule and add PAL sessions to student timetables, monitor and record attendance data and process monthly payroll claims, for a fixed term period to 31 December 2016 initially, during which time a review of future requirements and where this was best supported from would take place.
 - iii. The PAL Champion role would not continue. Instead, academic leadership would come from the Academic Director of Taught Programmes for the remainder of this year, and the LET team would recruit a part time (0.5 FTE) PAL Tutor, to take over the leadership and academic coordination of the scheme, to commence on 1 August 2016, or shortly after, initially on a fixed term 2-year basis.
 - iv. The PAL Tutor would review the scheme, with a view to expanding it and/or finding alternative methods of promoting peer support initiatives across the University.
 - v. The budget of £95k currently sitting with LTS would move to LET for the new financial year, and would be sufficient to cover the estimated cost of delivery to the five Schools, including the admin and LET Tutor support, student payroll costs, consumables and some contingency to review and expand the initiative.

OR

- b. To continue with the scheme for the five Schools which expressed an interest for a further year, with admin support coming from LTS. The participating Schools could take on more ownership of the scheme, help with recruitment of officers in their Schools, and be involved in training. Central academic leadership would come from the ADTP. With a new ADTP expected for next academic year, he or she will be concentrating on more mainstream activities, and there is a risk that this scheme will stagnate or gradually dwindle over time. (A move to LET as set out in option A is expected to ensure the future for peer mentoring initiatives, in some form or other, over time).

OR

- c. To disband the scheme, without any further central support for peer mentoring in this way. Schools interested in continuing with peer-assisted learning could continue at a local level. The admin team would ensure everything was left in a state that it could be dusted off at a future point and the admin roles would come to an end in June. There would be no central recruitment for the next phase. The current year (2015/6) would be seen out, with the Academic Director of Taught Programmes taking over leadership from the PAL Champion. This option would not be recommended, as the knowledge and expertise built up over the last 3 years would be lost, and the potential to expand the scheme and coordinate with other LET initiatives would be lost too.

Recommendations:

1. The 2015/6 Phase 4 is completed, with the Associate Dean for Teaching and Learning leading on evaluation and reporting.
2. The Scheme moves to a post-pilot stage, initially with the 5 Schools which have expressed an interest to continue (CHE, CMP, DEV, HSC and MED).
3. In moving to the post-pilot stage, the administrative support and budget would move to the Learning Enhancement Team from 1 August 2016 lead by a new PAL tutor, as set out in Option a above.

Attachments

Appendix 1– BIU retention/progression stats

Appendix 2A and Appendix 2B - Georgios Papadopoulos' Teaching Fellowship report

Appendix 3 – summary of PAL Champion's discussions with Heads of School, Autumn 2015

Appendix 4- Students' views at reflective meeting December 2015

APPENDIX 1

Peer Assisted Learning: Business Intelligence Unit data on retention & performance

Continuation / dropout

The data below has been supplied by the Business Intelligence Unit since all 2014-15 progress boards have been completed

Continuation / dropout figures (first degree population, Year 1)

Peer Assisted Learner	Student Block Src		Continue	Dropout
No	1U	Student count	2181	75
		% of total student count	96.7%	3.3%
Yes	1U	Student count	448	10
		% of total student count	97.0%	3.1%

School detail:

	Peer Assisted Learner	Student Block Src		Continue	Dropout
AMA	No	1U	Student count	155	6
			% of total student count	96.9%	3.8%
	Yes	1U	Student count	11	
			% of total student count	100%	
CHE	No	1U	Student count	13	2
			% of total student count	86.7%	13.3%
	Yes	1U	Student count	26	1
			% of total student count	96.3%	3.7%
CMP	No	1U	Student count	103	7
			% of total student count	93.6%	6.4%
	Yes	1U	Student count	7	
			% of total student count	100%	
DEV	No	1U	Student count	50	2
			% of total student count	96.2%	3.8%
	Yes	1U	Student count	53	

			% of total student count	100%	
ENV	No	1U	Student count	55	
			% of total student count	100%	
	Yes	1U	Student count	53	1
			% of total student count	98.1%	1.9%
HSC	No	1U	Student count	249	15
			% of total student count	94.3%	5.7%
	Yes	1U	Student count	152	8
			% of total student count	96.2%	5.1%
MED	No	1U	Student count	74	
			% of total student count	100%	
	Yes	1U	Student count	71	
			% of total student count	100%	
NAT (attend CHE)	No	1U	Student count	18	
			% of total student count	100%	
	Yes	1U	Student count	9	
			% of total student count	100%	
NBS	No	1U	Student count	147	3
			% of total student count	98%	2%
	Yes	1U	Student count	30	
			% of total student count	100%	
PPL	No	1U	Student count	210	7
			% of total student count	96.8%	3.2%
	Yes	1U	Student count	5	
			% of total student count	100%	

These figures indicate that there is a small decrease in dropout rates among students who attend PAL sessions. The figures do however need to be treated with caution as the number of students attending the PAL sessions is generally a small proportion of the whole cohort. In addition influencing factors such as motivation (e.g. strong / weak students) have not been

taken into consideration. However the effect of PAL on student retention appears to be positive rather than negative.

Stage average for Level 1 first degree qualification aim – overall

Peer Assisted Learner	Stage Av	Stage Av count
No	62.0	2126
Yes	67.2	379

School level

Faculty	Dept	Peer Assisted Learner	Stage Av	Stage Av count
FMH	HSC	No	69.3	287
		Yes	72.0	148
HUM	AMA	No	60.0	154
		Yes	64	11
	PPL	No	59.7	203
		Yes	66.2	5
SCI	CHE	No	59.0	24
		Yes	69.2	36
	CMP	No	62.8	109
		Yes	71.6	7
	ENV	No	62.5	52
		Yes	62.7	53
	NAT (CHE)	No	72.5	18
		Yes	73.4	7
SSF	DEV	No	60.9	50
		Yes	64.5	52
	NBS	No	59.0	145
		Yes	59.4	30

Again these figures need to be treated with caution for the same reasons as stated above, however there is an indication that attending PAL sessions has a positive effect on student performance at Stage 1.

Title: *Measuring the Impact of PAL on Students Performance: evidence from DEV, MED, and NBS*
Author: Georgios Papadopoulos
Date: January 2016

Issue

This document provides a final report on a UEA Teaching Fellowship (2013/14) project that attempts to evaluate the impact of Peer-Assisted Learning (PAL) on students' performance using students' data (performance in exams, attendance, demographics, etc.) from three UEA Schools, DEV, MED and NBS.

Recommendation

To provide a final report to be considered by the members of LTC panel

Resource Implications

NA

Risk Implications

NA

Equality and Diversity

NA

Timing of decisions

NA

Further Information

Georgios Papadopoulos, office tel: 01603597532, email: G.Papadopoulos@uea.ac.uk, Arts 3.48, ECO, UEA

Background

PAL was introduced in UEA in 2012 and in 2014/15 academic year was implemented in 13 core 1st year modules across 9 UEA Schools. However, up to 2014/15, evaluation of PAL's impact on students' outcomes has only been based on self-reported feedback from students and mentors who have participated in PAL. Therefore, the author of this report and the PAL Champion, Anne Guyon, submitted a UEA Teaching Fellowship application, proposing an investigation of the impact of PAL, using more objective outcomes of academic performance, such as summative assessments and exams. This application was successful and therefore the proposed project was executed using data from three contrasting UEA Schools, DEV, MED and NBS. This report, together with a series of detailed appendices, provides the final results of this project.

Discussion

Results on PAL attendance:

We first find that patterns of PAL attendance are very different across the three Schools. PAL attendance is quite poor in NBS and DEV, as around 30%-35% did not attend any sessions. Moreover, from those who attended at least one session, more than 40% attended only 1-3 sessions out of the 10-12 provided sessions. In MED the picture is quite the opposite, as all MED students attended at least one session and most of them maintained a very good attendance rate.

Results on impact of PAL on students' performance:

We find that:

- a. For **DEV**, there is a positive relationship between attending PAL sessions and performance in DEV summative assessments, a relationship that is the strongest for the test in the module that implements PAL, and for students who attend 5 sessions or more. However, we cannot exclude the possibility that these results are partially driven by a potential positive selection of more motivated students into PAL.
- b. For **NBS**, it seems that students who attended only few sessions performed worse in the summative assessments of all three NBS modules than students who did not attend any sessions. This relationship persists even after controlling for observed differences between students, although it is in general statistically insignificant. Moreover, interestingly, those who attended above 60% of PAL sessions had similar performance to those who did not attend any PAL sessions in the module that implemented PAL, but worse performance in the two modules that did not implement PAL. So, it may be that in NBS, weaker students tend to attend more PAL sessions. Students who only attend a few sessions get no benefit out of it, but the weaker students who attend many sessions get a benefit, but only for the module that implements PAL.
- c. For **MED**, we find that attending an extra PAL session has absolutely no effect on either of the available exams, a Knowledge Exam and OSCE. In addition, the only variables that have a consistent (mild) impact across the two exams are, being male (negative) and the number of unauthorised absences (also negative). Thus, it seems that differences in students' characteristics, including differences in PAL attendance, do not have an explanatory power on MED students' scores. MED students seem to come from a more homogeneous group of very good students who would perform very well with or without PAL.

However, the results above must be treated with caution, since the PAL attendance data provided for NBS and DEV were not complete, while for DEV, a variable for general students' attendance, which could work as a proxy for students' motivation, was not provided.

Attachments

Appendix 1 provides a discussion of the main results.

Appendix 2.1 provides a detailed description of the available data

Appendix 2.2 provides detailed results on PAL attendance

Appendix 2.3 provides detailed results on the impact of PAL attendance on performance

APPENDIX 1: Discussion of Main Results

Evaluating the Impact of Peer-Assisted Learning on Students' Marks

By Georgios Papadopoulos, *School of Economics, UEA*

Summary of Results

This project evaluates the impact of Peer-Assisted Learning (PAL) on students' performance using data from first year students of three UEA Schools, DEV, MED and NBS, for academic year 2014/15.

We first find that patterns of PAL attendance are very different across the three Schools. Although PAL attendance in NBS and DEV is quite poor, MED students attended at least one session and most of them maintained a very good attendance rate.

Moving to the relationship between PAL attendance and performance we find that for **DEV**, there is a positive relationship between attending PAL sessions and performance in DEV summative assessments, a relationship that is the strongest for the test in the module that implements PAL and for students who attend 5 sessions or more. Unfortunately, we cannot exclude the possibility that these results are partially driven by a potential positive selection of more motivated students into PAL. For **NBS**, it seems that students who attended only few sessions performed worse in the summative assessments of all three NBS modules than students who did not attend any sessions. Moreover, interestingly, those who attended above 60% of PAL sessions had similar performance to those who did not attend any PAL sessions in the module that implemented PAL, but worse performance in the two modules that did not implement PAL. So, it may be that in NBS, weaker students tend to attend more PAL sessions. Students who only attend a few sessions get no benefit out of it, but the weaker students who attend many sessions get a benefit, but only for the module that implements PAL. Finally for **MED**, we find that attending an extra PAL session has absolutely no effect on either of the two available exams. In addition, the only variables that have a consistent (mild) impact across the two exams are, being male (negative) and the number of unauthorised absences (also negative). Thus, it seems that differences in students' characteristics, including differences in PAL attendance, do not have an explanatory power on MED students' scores. MED students seem to come from a more homogeneous group of very good students who would perform very well with or without PAL.

However, the results above must be treated with caution, since the PAL attendance data provided for NBS and DEV were not complete, while for DEV, a variable for general students' attendance, which could work as a proxy for students' motivation, was not provided.

1. Introduction

Peer-Assisted Learning (PAL) is a student-led support scheme, where first year students (mentees) form groups in which students in higher years (mentors) provide pastoral and academic support by sharing their experiences and skills they have gained in previous years. Its main objective is to ease the transition of new students into university and to enhance their learning experience and engagement, which in turn improves their performance. Although PAL is usually attached to one core module/course, it is believed to have broader benefits.

Many studies have investigated the effect of PAL on students' outcomes for several universities (see, Blanc et al., 1983, Topping, 1988, Parkinson, 2009, Huynh et al., 2010, Ning and Dowing, 2010, Malm et al., 2012, Meling et al., 2012, Stock et al., 2013, to mention only a few). As PAL is typically *not compulsory*, some students choose not to attend the PAL sessions. Most of the studies above find that students who choose to attend PAL sessions (we will call them the *treated* students) perform better than students who do not.

If students were randomly assigned into PAL, this comparison would reveal the *causal* impact of PAL, but unfortunately this is not the case here. Firstly, it may be that more *motivated* students tend to attend more PAL sessions than the less motivated ones. But more motivated students would on average perform better even in the absence of PAL. Thus, a potential positive relationship between attending PAL and performance could be partially attributed to higher motivation. On the contrary, it may also be that academically *weaker* students tend to attend more PAL sessions because they feel they get more benefits out of it. According to this, if a statistical analysis finds no effect, there may still be a positive effect because in the absence of PAL the weaker students would perform worse. In econometrics literature, these two problems are examples of what is known as *selection bias* (see, for example, Angrist and Pischke, 2014). Some of the studies above still found a positive relationship even after trying to control for selection bias¹, mostly by controlling for observed differences across treated and non-treated students, but no study has yet provided a very convincing story.

2. Brief Description of the PAL Project

PAL was introduced in UEA in 2012 and in academic year 2014/15 was implemented in 13 core 1st year modules (we will call them the *treated* modules) across 9 UEA Schools.² For UEA however, PAL's evaluation has only been based on self-reported feedback from students and mentors who have participated in PAL. Therefore, this PAL project seeks to investigate the impact of PAL, using more objective outcomes of academic performance, such as summative assessments and exams.

Individual data from most of 1st year students across three contrasting UEA Schools (NBS, DEV, MED) have been collected.³ More specifically, this information includes: a) students' performance in summative assessments of both treated and non-treated modules, b) students' attendance in PAL, c) other students' characteristics (such as general attendance, entry qualifications and other demographics). **Appendix 2.1** provides a detailed description of all the information collected and used in this study (this includes, average scores and distributions in different summative assessment of both treated and non-treated modules, description of the variables used across the three Schools, and summary statistics of students' characteristics across the three Schools).

¹ There are several statistical strategies that deal with selection bias, such as, Regression Analysis (see, Kennedy, 2008), Propensity Score Matching (see, Rosenbaum and Rubin, 1983), Instrumental Variables and Differences-in-Differences (see, Angrist and Pischke, 2014). However, for these strategies to be successful, very rich data information is required and a very carefully specified statistical framework.

² There are several people involved with PAL at UEA. Firstly there are the PAL mentors, mostly second or third year students (typically one or two mentors per PAL group). PAL Officers, usually PhD students, are hired to supervise PAL mentors (each officer usually oversees 3 to 4 groups). Finally officers are overseen by two PAL administrators and the PAL Champion, who all work on a part-time basis.

³ Ideally, we would like to have data on all 9 Schools, but this would require a big team of research assistants who would help with collection of data.

3. Analysis of PAL Attendance

Before looking at the impact of PAL on performance, it is important to understand some features of PAL attendance across the three Schools. A detailed analysis is provided in **Appendix 2.2** (please pay attention to the notes of each figure/table). First of all, from figures 2.2-1 to 2.2-4 we can see that attendance patterns are very different across Schools. All MED students have attended at least one session and most of them maintain a very good attendance rate. But for NBS and DEV the picture is very different, as for NBS and DEV 30% and 35% respectively have not attended any sessions. Moreover, from those who attended at least one session, around 47% and 41% for NBS and DEV respectively attended only 1 to 3 sessions. In addition, although 70% of all NBS students attended the 1st PAL session, attendance dropped at a very fast rate (see figure 2.2-4). By session 5, attendance dropped by around 50% points. For DEV, the picture is quite different. The first session was attended only by 25% of the students, a proportion that went up to 40% in session 4 and then dropped again, in general fluctuating around 30%.

Now a major question to ask is: “does PAL attendance depend on characteristics of the students”? To investigate this question, a series of regression models was run (see Tables 2.2-2 to 2.2-4) which reveals the following. For DEV (Table 2.2-2), students who entered the School with better qualifications than the ones required for an offer, tend to attend more PAL sessions than the ones who have the “standard” or lower qualifications, holding the other variables in the model constant. Those who are born in 1995 attend more sessions than those born below or above this year, and finally, overseas students tend to attend fewer PAL sessions than home students. There is also weak evidence that living far from campus slightly decreases attendance, and no evidence that males attend fewer sessions than females.⁴ Based on these results there may be a *positive* selection of students into PAL. That is, perhaps more motivated students attend more PAL sessions. Unfortunately, a variable for general students’ attendance⁵ that could be used as a proxy for motivation and therefore would help me investigate the issue of positive selection further, has not been provided yet by the DEV LTS hub (see section 5).

The picture is quite different for NBS (see Table 2.2-3). Firstly, students’ entry qualifications, year of birth, gender and distance from campus seem to have no impact on attendance. It is very interesting though that contrary to DEV, overseas students attend significantly more sessions than home students. In addition, NBS students attend around 15% points more sessions than student from other department who enrolled in the NBS module that implements PAL. Finally, as expected, there is a strong negative relationship between the number of absences in compulsory NBS sessions, such as seminars or labs, and attendance in PAL.

Finally, for MED (see Table 2.2-4), it seems that there is no relationship between attendance and any of the available students’ characteristics, apart from a negative relationship for males. Most students attend most PAL sessions, regardless of their characteristics. This high attendance of PAL sessions in MED may be due to the PBL approach taken in MED, and the fact that students are already used to learning in teams.

⁴ There is a negative relationship, which is however statistically insignificant. Nevertheless, males are slightly less likely to ever attend a PAL session than females (being female increases the probability of attending at least one sessions by 0.18% points).

⁵ That is the no. of absences in any DEV compulsory session, e.g. seminars, a variable that is available for NBS.

4. Analysis of impact of PAL sessions on Performance

So, we have seen that PAL is not well attended in DEV and NBS, but very well attended in MED. But still, are there any benefits to these few students that tend to attend more PAL sessions? All detailed results are provided in **Appendix 2.3** (please pay attention to the notes of each figure/table). Before discussing the main results, it is important to note that all students' marks come from assessments that took place after the last PAL session provided. Otherwise, the estimated results of the impact of PAL on these assessments would be biased in unknown directions.⁶

Let's start with DEV, where we look at the impact of PAL on 6 summative assessments across 3 first year modules, 2 for the *treated* module DEV1 (that is, the one that implements PAL) and 2 for each of the 2 non-treated modules DEV2 (autumn) and DEV3 (spring) (see results Tables 2.3-1 and 2.3-2). In a nutshell, we find that there is a positive relationship between attending PAL sessions and performance in DEV summative assessments. This relationship is the strongest for the Test of DEV1, for which we would indeed expect the strongest impact of PAL, and for students who attend 5 sessions or more. But is this relationship driven by differences in the characteristics between treated and non-treated students. Actually we find that this relationship remains almost intact even after controlling for students' characteristics (and most importantly for the fact that PAL attendance is better among "more qualified" students). We also find that this relationship persists for the Analytical Report of DEV3, which was submitted around 3 months after the last PAL session.⁷ This may mean that not only has PAL positive impacts that persist overtime, but it also helps students with different modules. However, we unfortunately cannot exclude the possibility that these results are partially driven by the positive selection of more motivated students into PAL. General attendance on compulsory session would be a reasonable proxy for general motivation, but this variable has unfortunately not been provided.

For NBS, the picture is again quite different. Here we only use the final exams of 3 NBS modules, NBS1 which is the treated module, NBS2 and NBS3 (see results in Tables 2.3-3 and 2.3-4).⁸ Without controlling for differences between treated and non-treated students, we find that all students who attend PAL sessions perform worse in the NBS1 exam, but the difference is not statistically significant. This could mean that either, if there is an impact this is negative, which is highly unlikely, or that in NBS, perhaps weaker students attend more sessions (*negative* selection). Nevertheless, almost the same relationship holds even after controlling for students' differences, apart from the fact that the difference between those who attend many sessions (above 60% of total PAL sessions) and those who attended 0 sessions becomes almost zero. Moreover, it seems that students who attend between 21% and 40% are those who perform the poorest. So, is there not any impact of PAL in this case? Interestingly, we see that students who attended above 60% of PAL sessions actually performed significantly worse in NBS2 exam and worse (although statistically insignificant) in NBS3⁹. So, a plausible explanation here could be the

⁶ For example, consider the following extreme case. Suppose that before the assessment no-one attended PAL, but after the assessment students who performed really better decided to attend PAL for the rest of the period. Then it would appear that it is PAL that caused this difference, although PAL has absolutely no effect in this case.

⁷ Note that the sample size is different between model (1) (DEV1) and model (5) (DEV3). However, running a regression of (1) using only the sample from (5) shows that the impact of PAL on DEV1 test becomes even stronger.

⁸ For NBS1 there were also 2 short tests with a weight of 10%. However, these were online tests that students took from home. Therefore, it is questionable whether scores of these tests represent students' quality, and therefore they are not used in this study.

⁹ Note that many of the results here are not statistically significant because of the small samples, as in NBS2 and NBS3 we have only 138 and 122 observations respectively. This does not allow precise estimation (large standard errors). Running NBS1 (1) regression using NBS3 (3) sample again provides very similar estimates for NBS1 results, although less precise. This means that the differences in the estimates between (1) and (3) are not driven by differences in samples.

following. In NBS weaker students tend to attend more PAL sessions. Students who only attend a few sessions get no benefit out of it, but the weaker students who attend many sessions get a benefit, but only for NBS1.

Finally, for MED we only have two exams, a Knowledge Exam and OSCE. We find that attending an extra PAL session has absolutely no effect on either the Knowledge Exam or OSCE, without or with other control variables. However, we do not know what would be the case in total absence of PAL, since we have no students who attended zero sessions. In addition, we note that the only variables that have a consistent (mild) impact across the two exams are being male (negative) and the number of unauthorised absences (also negative). Thus, in general it seems that differences in students' characteristics, including differences in PAL attendance, cannot be used to predict MED students' scores. MED students seem to come from a more homogeneous group of very good students who would perform very well with or without PAL.

What about other estimation strategies? Here we mostly use OLS and comparisons of PAL effect across different modules.¹⁰ Nevertheless, the most widely method for policy evaluation is *Instrumental Variables* (IV) estimation. However, for this method to provide reliable estimates, we need an *instrumental* variable that has a strong impact on PAL attendance and no impact on students' performance.¹¹ In this analysis I have used the information on how far from campus students live. I expected that since PAL is not compulsory, students who live further would be less willing to attend. However, unfortunately, we find that this variable has no impact on PAL attendance and therefore cannot be used.¹² *Propensity Score Matching* (PSM) has also been used, but this method is more appropriate for dichotomous policy variables. That is, either attended or not attended PAL. Thus, if we use this method, we have to assume that attending 1 or 9 PAL sessions is exactly the same, a totally inappropriate assumption.¹³

5. Data Limitations and Conclusions

So, to sum up, it seems that there is a positive impact for DEV, which is perhaps partially driven by positive selection, no impact for NBS, or small positive impact for student who attend many sessions, and no impact for MED.

However, there are some limitations/issues with the provided data that may reduce reliability of the results. Firstly, and most importantly, getting the information of students' attendance in PAL sessions, the most important variable for the project, has been really challenging. This is mainly because the PAL team does not currently have an official/formal system to collect this information.¹⁴ Although I believe all people involved in PAL knew about the on-going project and

¹⁰ Actually comparison of scores between modules that implement PAL and modules that do not implement PAL is a "loose" application of the Differences-in-Differences identification strategy.

¹¹ Actually, it can only have an impact on performance through its impact on PAL attendance.

¹² This can be because most 1st year students live on campus, and therefore the distance is counted as zero. Thus, there is very little variability in this instrumental variable. Moreover, we cannot exclude the possibility that distance from campus may affect performance through other channels as well. As an example, think of less wealthy students who tend to live further from campus together with other people, since accommodation there is cheaper. But coming from "poorer" backgrounds may have an impact on performance, either positive or negative.

¹³ Note that using this method, again shows a positive impact for DEV, a negative but insignificant impact for NBS and absolutely no impact for MED. A further problem with this method is that it provides reliable estimates only under the *selection on observables* assumption. That is, selection into PAL depends only on variables that are observed by the researcher. If this is the case, both PSM and OLS provide reliable estimated. However, in our case we are mostly concerned about *selection on unobservables* such as motivation bias, as students' motivation is not observed. In this case, and in the absence of experimental designs, IV estimation is the only reliable method, given a valid instrument is available.

¹⁴ The current system is as follows. PAL mentors need to keep attendance logs. PAL officers are responsible for contacting mentors to get this information and record it appropriately. This information then goes to PAL admin team who collate all data in files separated by School.

the importance of getting complete information of PAL attendance, the information I have from NBS and MED is still incomplete.¹⁵ Thus, for NBS, we had to drop all observations for students of 3 PAL groups because the PAL officers only provided information of 6 or fewer sessions. Since allocation of PAL groups is random, we hope that the same estimated patterns of the impact of PAL on performance would hold for the students of these 3 groups as well, but we cannot be sure. If this is true, the only consequence in our estimates is loss of precision, as we lose around 100 observations.¹⁶ For MED, we only use the PAL attendance information from the autumn semester, as data from the spring semester were not provided. We hope that the PAL attendance patterns of MED students in the spring semester followed the patterns of autumn. If this is the case, we expect that our estimates would be similar but a bit more precise, since there would be more variation in the PAL attendance variable. Finally, for DEV, although it is the only School that provided me with the full PAL records, there is no variable for general students' records, which could work as a proxy for motivation. Inclusion of this variable is expected to reduce the positive relationship, but we do not know to what extent.

So, is PAL actually effective? It can surely be, but this depends on several factors. Firstly, the PAL mentors/officers team needs to be selected very carefully to ensure that they engage with PAL and really do it to help younger students. Secondly, students may need to understand that although non-compulsory, attendance is very important if they want to see tangible benefits. If more students engage in these sessions, it is highly likely that the generated dynamics will produce more benefits. Finally, it may also depend on the nature of the module and the students. For example, it can be highly effective in demanding modules, such as DEV1, but less effective in modules that most students would do well with a bit of studying anyway, such as NBS1 (note the unusual distribution of the exam scores in this module).

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¹⁵ It is highly unlikely that NBS data will not be provided, as PAL officers failed to collaborate properly with the PAL mentors for three groups. For MED, two out of the three officers told me that they could give me the information once they are back from their medical electives, but I am still waiting for this information.

¹⁶ That is, with more observations we would get smaller standard errors. This observation comes from econometric theory, which states that estimates precision depends on 4 elements. Sample size, variation of the independent variable, variance in the error term (higher error variance lowers precision) and correlation among independent variables (high correlation also lowers precision).

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APPENDIX 2

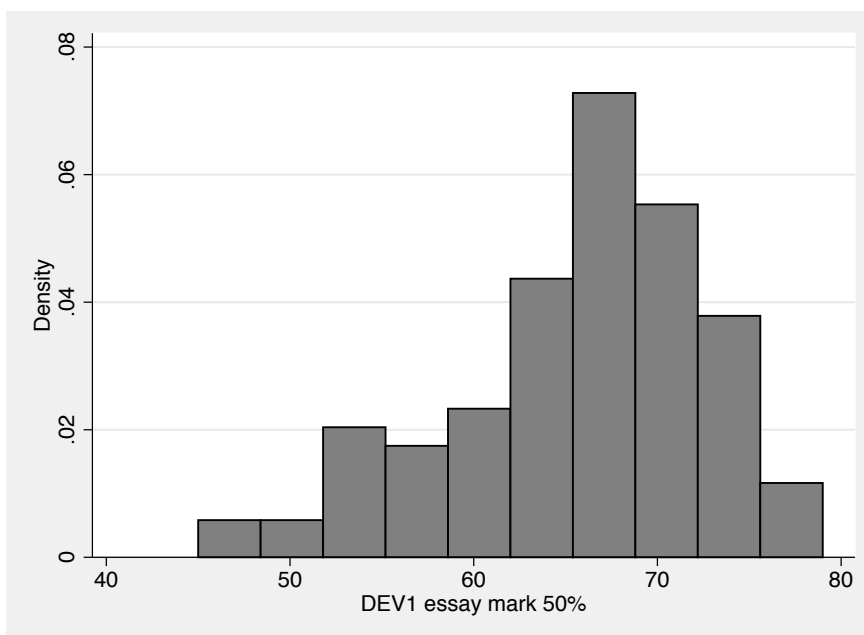
2.1. Descriptive Statistics of Sample

Table 2.1-1. Descriptive Statistics of DEV summative assessments

Dependent Variables	Obs	Mean	Std. Dev.	Min	Max
DEV1 Essay (treated)	101	65.86	7.17	45	79
DEV1 Test (treated)	101	54.80	18.16	17	96
DEV2 Evidence Report	99	63.68	5.76	42	82
DEV2 Group Project	101	65.75	2.92	59	70
DEV3 Analytical Report	73	69.62	9.74	43	82
DEV3 Report	73	60.86	12.70	22	82

Notes: 1) Zeroes are excluded, since this usually means no submission or not taken the assessment. 2) DEV1 is *Introduction to Development Studies*. This is quite intensive 40 credits module that only runs through the autumn semester. DEV2 is *Evidence in Development* (20 credits, autumn), and DEV3 is *Introduction to Economics of Development* (20 credits, spring).

Figure 2.1-1. Distribution of DEV1 Essay Scores



Note: The percentages on the horizontal axis denote the weight of the assessment

Figure 2.1-2. Distribution of DEV1 Test Scores

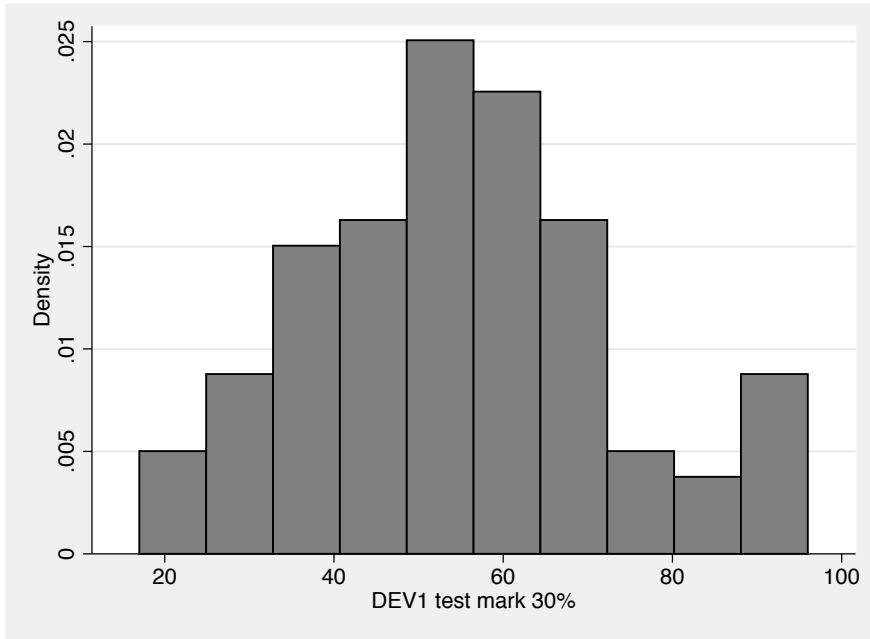


Figure 2.1-3. Distribution of DEV2 Evidence Report Scores

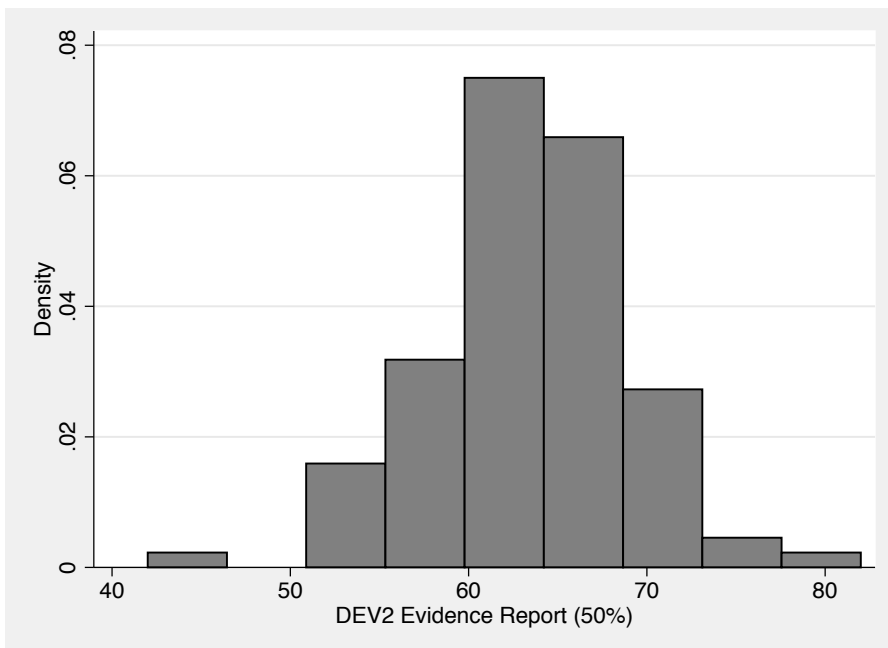


Figure 2.1-4. Distribution of DEV2 Group Project Scores

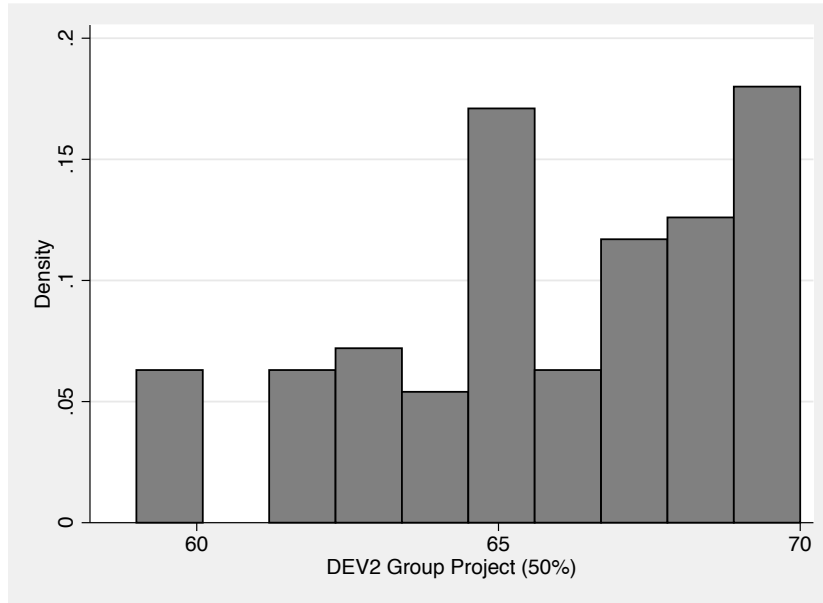


Figure 2.1-5. Distribution of DEV3 Analytical Report Scores

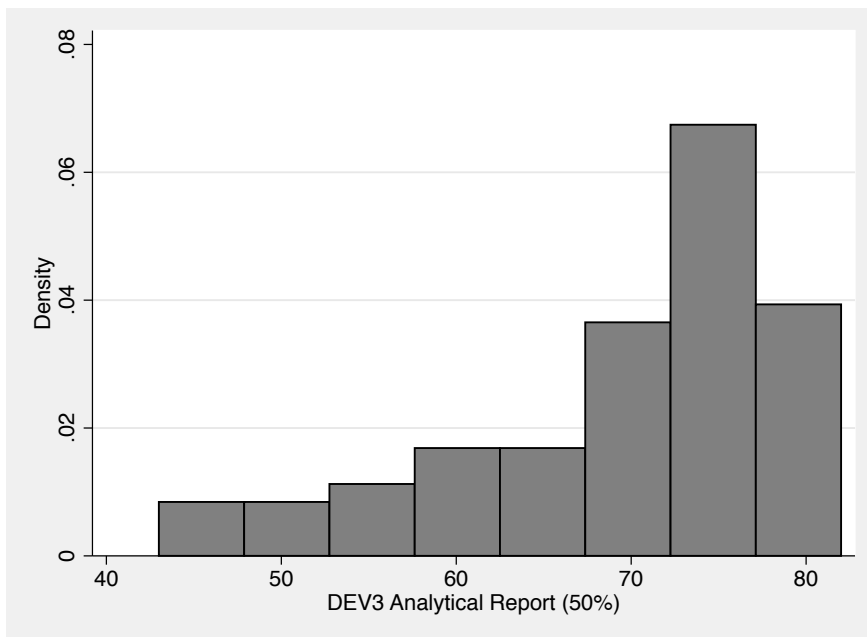


Figure 2.1-6. Distribution of **DEV3 Final Exam Scores**

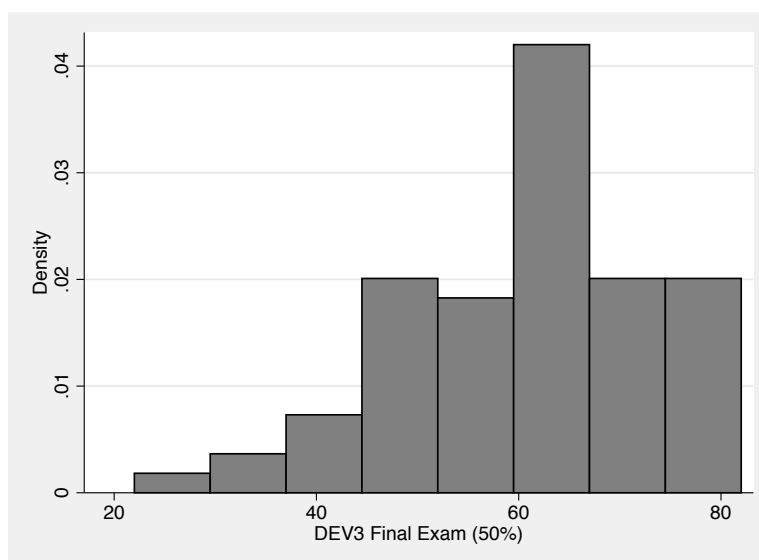


Table 2.1-2. Descriptive Statistics of DEV students' characteristics

Independent Variables	Description	Obs	Mean	Std. Dev.	Min	Max
PAL Attendance	Number of Attended PAL sessions	103	2.13	2.30	0	9
Attended PAL	=1 if attended at least 1 session, =0 otherwise	103	0.65		0	1
Male	=1 if Male, =0 if Female	103	0.26		0	1
Overseas	=1 if Overseas, =0 if Home	103	0.13		0	1
<u>Entry Qualification</u>	Entry Qualification of student relative to standard offer of DEV ¹⁷					
<i>below (-1)</i>	=1 if qual below standard offer, =0 oth.	103	0.42		0	1
<i>standard</i>	=1 if qual equal standard offer, =0 oth.	103	0.14		0	1
<i>+1</i>	=1 if qual 1 above standard offer, =0 oth.	103	0.16		0	1
<i>+2</i>	=1 if qual 2 above standard offer, =0 oth.	103	0.13		0	1
<i>+3</i>	=1 if qual 3 above standard offer, =0 oth.	103	0.17		0	1
<u>Year of Birth</u>	Student's year of birth					
<i>1993 or below</i>	=1 if born in 1993 or before, =0 otherw.	103	0.13		0	1
<i>1994</i>	=1 if born in 1994 , =0 otherw.	103	0.12		0	1
<i>1995</i>	=1 if born in 1995 , =0 otherw.	103	0.37		0	1
<i>1996</i>	=1 if born in 1996 , =0 otherw.	103	0.39		0	1
Off_campus	=1 if lives off campus, =0 if on campus	103	0.17		0	1
log of dis foot	log of distance on foot from campus (given that lives off campus)	17	3.54	1.52	0	6.84

¹⁷ For example, let's say NBS in general accepts student who have AAB in A-levels. If a student actually gets AAB in their A-levels, they will get a *standard* offer. However, there are students who have better qualification and some with worse (for example, some schools go through a clearance process if they do not meet their targets).

Table 2.1-3. Descriptive Statistics of NBS exams

Dependent Variables	Obs	Mean	Std. Dev.	Min	Max
NBS1 Exam (treated)	213	77.14	18.00	15.5	100
NBS2 Exam	207	50.28	13.90	7	82
NBS3 Exam	124	57.81	10.87	28	78

Note: 1) Zeroes are excluded, since this usually means that the students did not take the exam.
 2) We exclude all obs that belong to the three NBS PAL groups for which we only have data for 6 PAL sessions or below.
 3) NBS1 is *Introduction to Financial and Management Accounting* (20 credits, year long), NBS2 is *Introduction to Business* (20 credits, year long), and NBS3 is *Economics for Business*.

Figure 2.1-7. Distribution of **NBS1 Final Exam Scores**

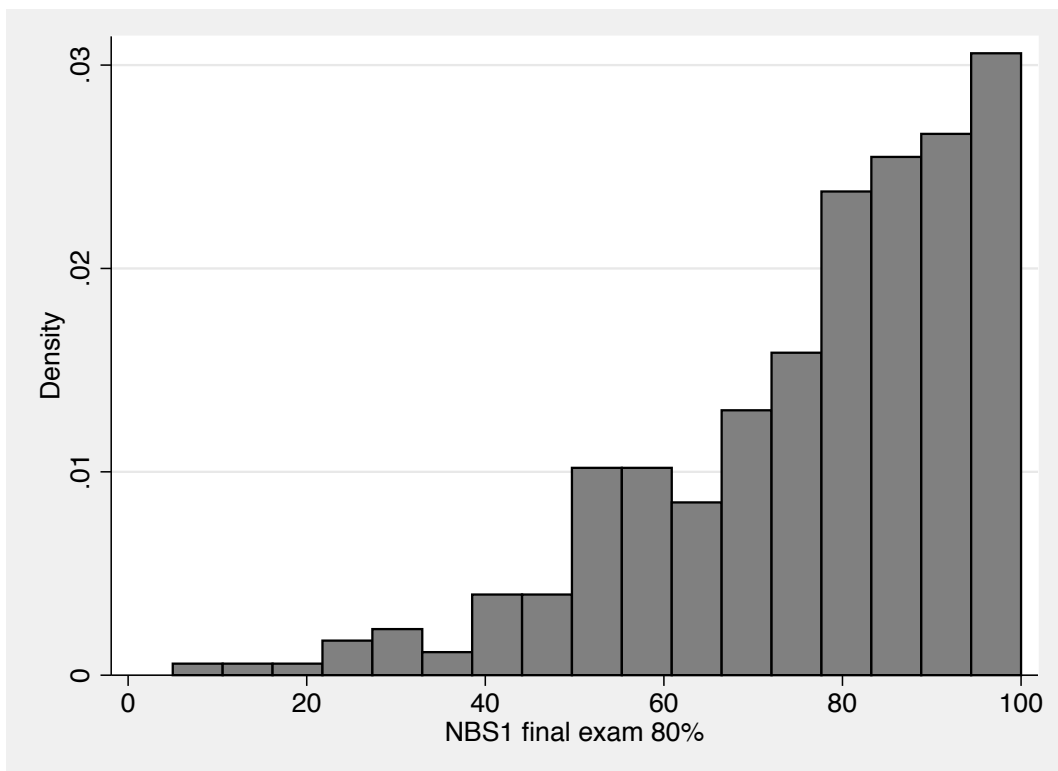


Figure 2.1-8. Distribution of **NBS2 Final Exam Scores**

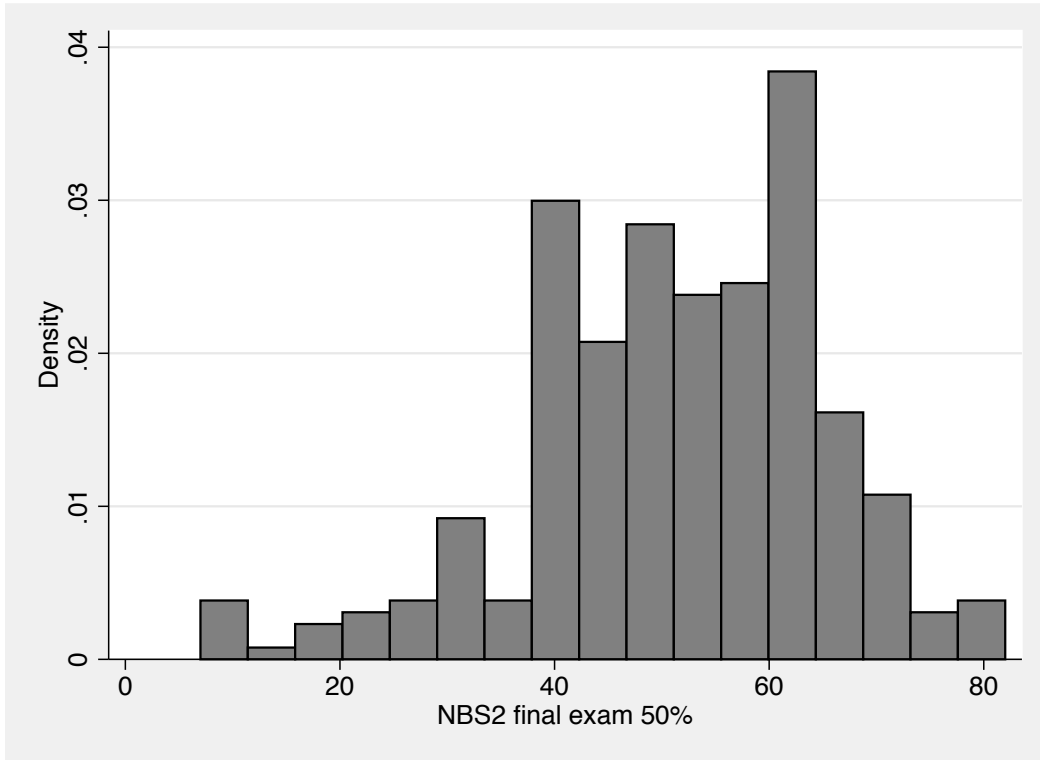


Figure 2.1-9. Distribution of **NBS3 Final Exam Scores**

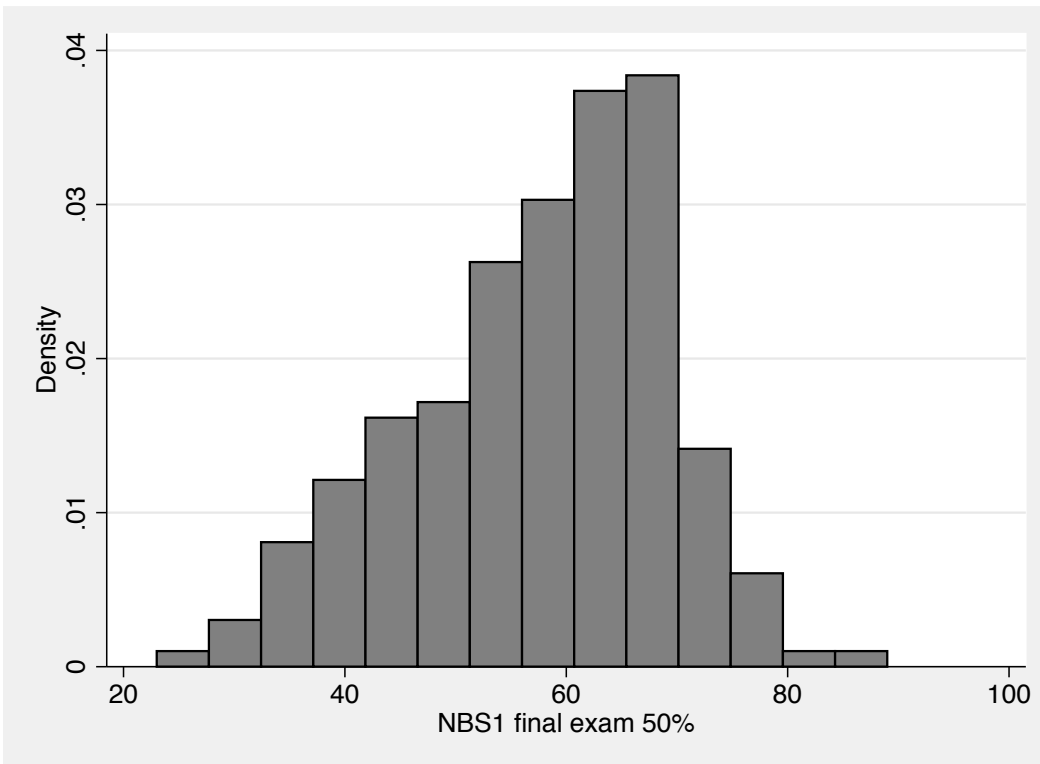


Table 2.1-4. Descriptive Statistics of NBS students' characteristics

Ind . Variables	Description	Obs	Mean	Std. Dev.	Min	Max
PAL Attendance	Number of Attended PAL sessions	219	2.32	2.69	0	12
Attended PAL	=1 if attended at least 1 session, =0 otherwise	219	0.70		0	1
Male	=1 if Male, =0 if Female	220	0.63		0	1
Overseas	=1 if Overseas, =0 if Home	220	0.44		0	1
<i>Entry Qualification</i>	Entry Qual of student relative to std offer of NBS					
-3	=1 if three qual below standard offer, =0 oth	216	0.74		0	1
-2	=1 if two qual below standard offer, =0 oth	216	0.83		0	1
-1	=1 if one qual below standard offer, =0 oth	216	0.25		0	1
standard	=1 if qual equal std offer, =0 oth	216	0.27		0	1
+1	=1 if qual one above std offer, =0 oth	216	0.88		0	1
+2	=1 if qual two above std offer, =0 oth	216	0.60		0	1
+3	=1 if qual three above std offer, =0 oth	216	0.17		0	1
<i>Year of Birth</i>	Student's year of birth					
1993 or below	=1 if born in 1993 or before, =0 otherwise	218	0.12		0	1
1994	=1 if born in 1994, =0 otherwise	218	0.30		0	1
1995	=1 if born in 1995, =0 otherwise	218	0.35		0	1
1996	=1 if born in 1996, =0 otherwise	218	0.22		0	1
Off_campus	=1 if lives off campus, =0 if on campus	220	0.39		0	1
log of dis bus	log of distance on foot from campus (given that lives off campus)	84	2.96	1.83	0	6.40
absences	No. of absences from any NBS compulsory sessions	218	11.72	9.44	0	45
abs_NBS1	No. of absences from NBS1 compulsory sessions	218	2.47	2.72	0	14
abs_NBS2	No. of absences from NBS2 compulsory sessions	214	0.83	1.22	0	6
abs_NBS3	No. of absences from NBS3 compulsory sessions	128	2.46	3.08	0	14
<i>School</i>						
CMP	=1 if CMP student, =0 otherwise	218	0.10		0	1
ECO	=1 if ECO student, =0 otherwise	218	0.17		0	1
MTH	=1 if MTH student, =0 otherwise	218	0.24		0	1
NBS	=1 if NBS student, =0 otherwise	218	0.50		0	1

Table 2.1-5. Descriptive Statistics of MED summative scores

Dependent Vars	Description	Obs	Mean	Std. Dev.	Min	Max
exam_total	Written Knowledge Exam	170	66.62	5.91	47.22	81.41
osce_mark	Objective Structured Clinical Examinations	170	80.52	4.45	65.16	90.73

Figure 2.1-9. Distribution of **MED Written Knowledge Exam**

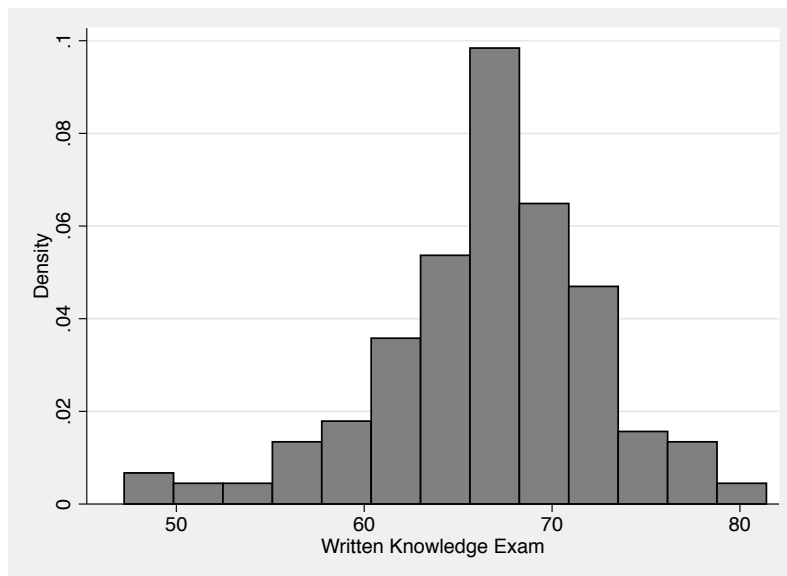


Figure 2.1-10. Distribution of **MED Written Knowledge Exam**

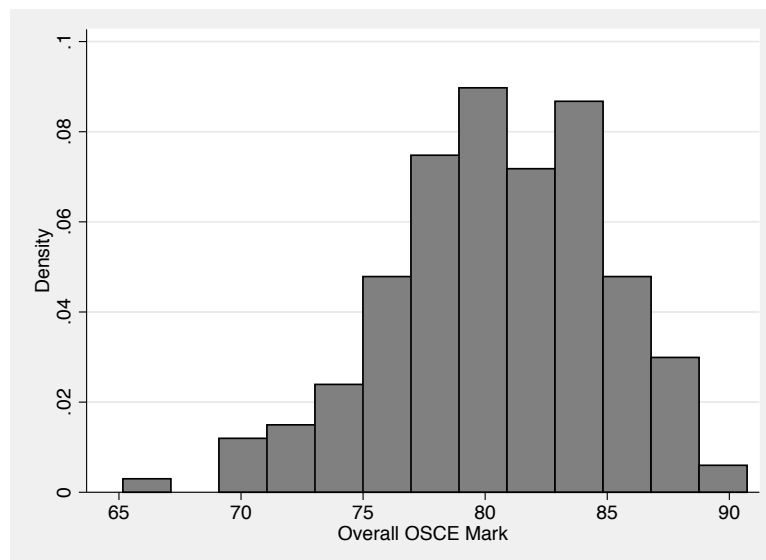
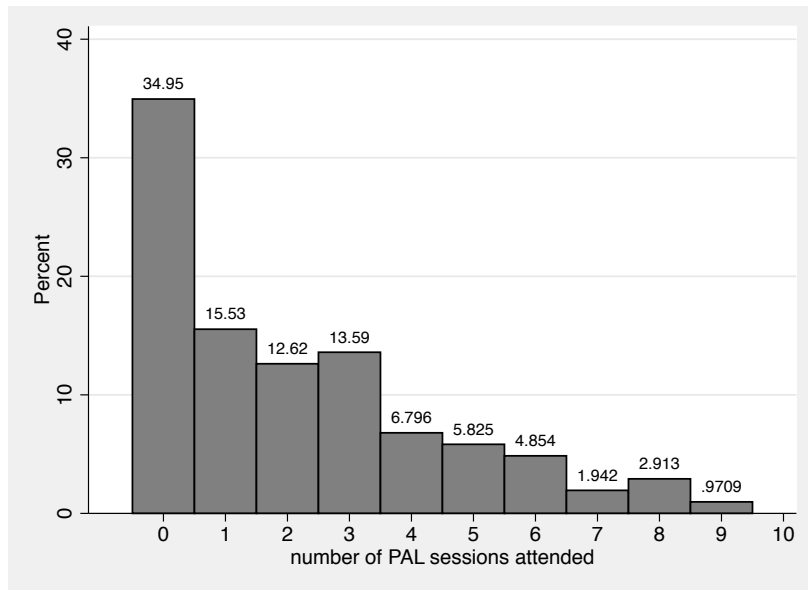


Table 2.1-6. Descriptive Statistics of MED students' characteristics

Ind . Variables	Description	Obs	Mean	Std. Dev.	Min	Max
PAL Attendance	Number of Attended PAL sessions	163	4.28	1.29	1	7
male	=1 if Male, =0 if Female	169	0.44		0	1
overseas	=1 if Overseas, =0 if Home student	169	0.08		0	1
<u>Entry Qualification</u>	Entry Qualification of student relative to standard offer of MED					
standard	=1 if qual equal std offer, =0 oth	169	0.38		0	1
+1	=1 if qual one above std offer, =0 oth	169	0.27		0	1
+2	=1 if qual two above std offer, =0 oth	169	0.09		0	1
+3	=1 if qual three above std offer, =0 oth	169	0.12		0	1
foundation	=1 if taken foundation year, =0 oth	169	0.14		0	1
<u>Year of Birth</u>	Student's year of birth					
1993 or below	=1 if born in 1993 or before, =0 otherwise	169	0.18		0	1
1994	=1 if born in 1994, =0 otherwise	169	0.14		0	1
1995	=1 if born in 1995, =0 otherwise	169	0.38		0	1
1996	=1 if born in 1996, =0 otherwise	169	0.30		0	1
Off_campus	=1 if lives off campus,=0 if on campus	169	0.08		0	1
log of dis bus	log of distance on foot from campus (given that lives off campus)	35	2.76	1.48	0	5.78
absences	No. of absences from MED sessions for any reason	172	2.69	2.54	0	18
unauthorised absences	No. of unauthorised absences from MED sessions	172	1.40	1.34	0	8

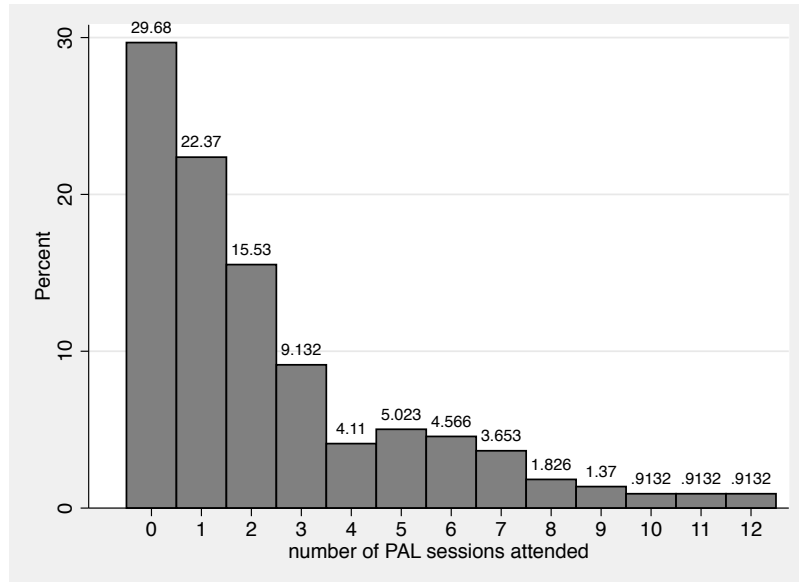
2.2. Results of PAL Attendance

Figure 2.2-1. Distribution of PAL Attendance for **DEV**



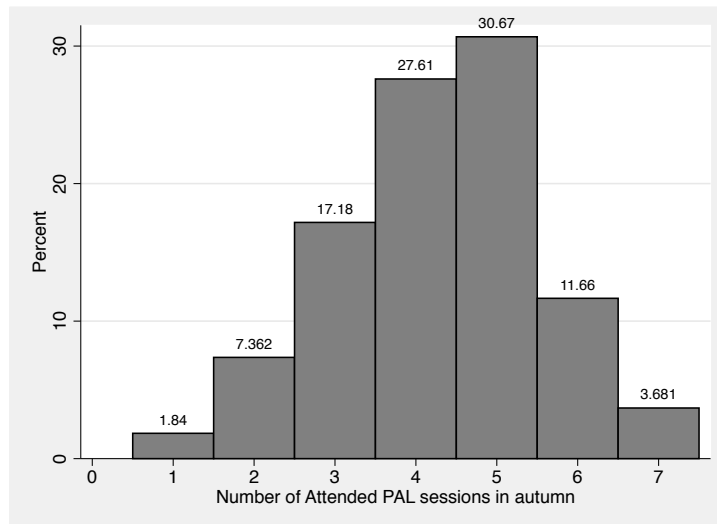
Note: DEV offered 10 sessions in the autumn semester. Students were separated in three groups (see, Table 2.2-1). PAL was also offered in the spring semester, but all students were put in one group. This is because, attendance in PAL dropped a lot by the end of the autumn semester. The information of spring semester is not used because of reliability issues.

Figure 2.2-2. Distribution of PAL Attendance for **NBS**



Note: NBS offered 12 sessions over both the autumn and spring semesters. Students were separated in nine groups. However, for three groups the PAL officers only provided data for 6 sessions or below. This means that the PAL attendance information for these groups would be highly mis-measured, and therefore it has been decided to exclude these groups from the analysis (so the histogram above is without these 3 groups). Note also that for 2 groups I only received the information for the first 10 sessions. This however should not generate a problem, as it is very likely that very few students attended the last two sessions.

Figure 2.2-3. Distribution of PAL Attendance for MED



Note: MED offered a maximum of 12 sessions over both the autumn and spring semesters. Students were separated into 10 groups, according to their Problem-based Learning (PBL) groups that are randomly formed at the beginning of the autumn semester (but are based on their timetables). Note that some groups offered fewer sessions, because of different students' placements or other student activities that kept them off campus. More importantly, apart from 2 groups, the MED officers did not provide the attendance logs for the Spring semester. Thus, in this study I only use the PAL attendance in the autumn semester. This is data on the first seven sessions.

Figure 2.2-4. No. of PAL Attendees over Total No. of Students by Session Number

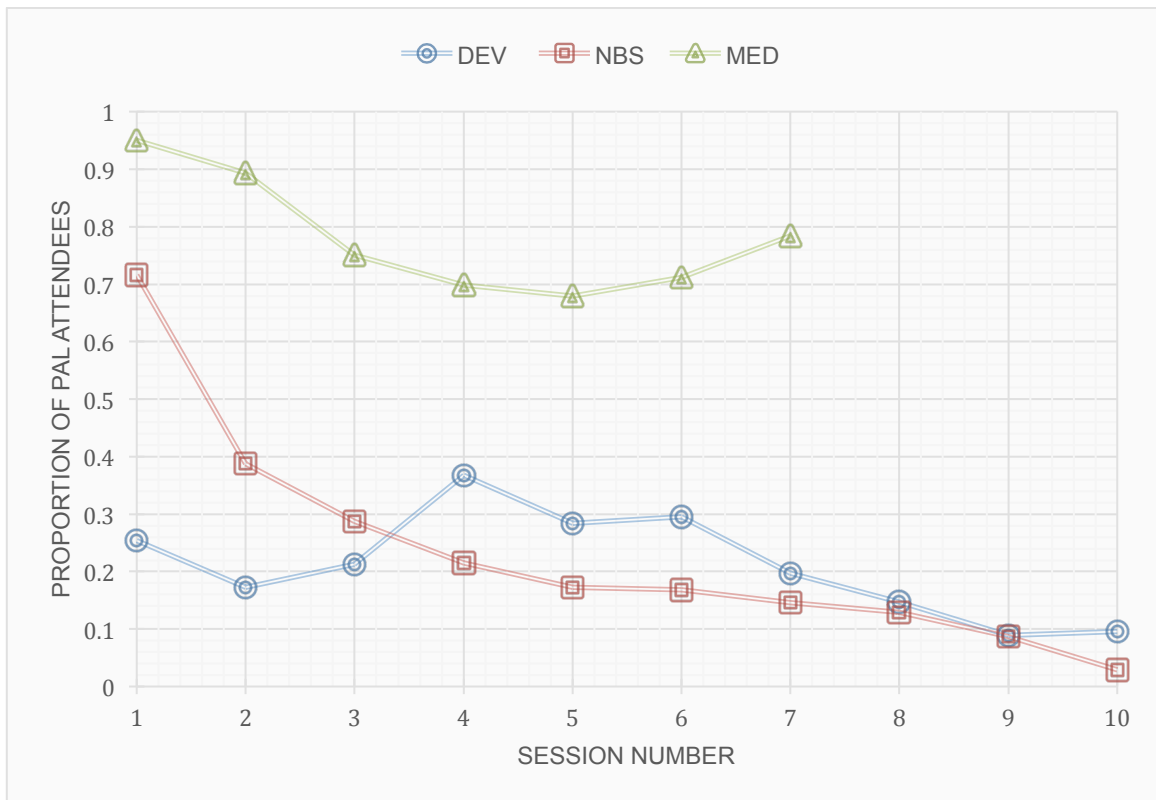


Table 2.2-1. Average Number of PAL Attendees per PAL Group

Group ID	Mean	Std. Dev.	Freq.
DEV			
1	1.53	1.96	36
2	2.94	2.62	33
3	1.97	2.14	34
NBS			
2	2.77	2.35	31
4	2.89	3.78	38
5	2.68	3.01	34
6	2.00	2.71	35
8	1.87	2.04	38
10	1.88	1.86	42
MED			
1	4.40	0.68	20
2	3.74	0.99	19
3	4.05	1.43	19
4	5.50	0.69	20
5	3.85	1.18	20
6	2.94	1.20	17
7	4.50	0.97	10
8	4.20	0.79	10
9	4.16	0.83	19
10	6.44	1.01	9

Notes:

- 1) For DEV and NBS the PAL groups are randomly assigned, while for MED they are based on the PBL groups.
- 2) Although the PAL groups were effectively randomly allocated, there are still some sizeable differences in the average attendance across groups. This may reflect for example the fact that mentors of particular groups put more effort into their “teaching” than others, or that the students of some groups created more solid bonds. However, a regression analysis of performance on dummies for the different groups does not reveal any statistically significant relationships, even after controlling for observed characteristics of the students. That is, there is not statistical evidence that students of groups with better attendance perform better than students of groups with worse attendance.

Table 2.2-2. **DEV**: Effects of Students' Characteristics on PAL Attendance

<i>DEV</i>	Probit (APE's)	P-value	Poisson (APE's)	P-value
Male	-0.175*	0.098	-0.410	0.413
<i>Entry Qualification</i> (Baseline: -3, -2 or -1)				
standard	0.144	0.249	0.806	0.200
+1	0.027	0.843	0.613	0.248
+2	0.117	0.407	2.663***	0.001
+3	-0.025	0.870	1.734***	0.008
<i>Year of Birth</i> (Baseline: 1995)				
1993 and below	-0.266	0.105	-1.996***	0.000
1994	-0.141	0.359	-1.839***	0.003
1996	-0.146	0.141	-1.791***	0.000
Overseas	-0.253*	0.086	-0.991**	0.021
Off Campus	0.430***	0.000	6.115	0.132
log of Distance	-0.258**	0.012	-0.548*	0.080
N	103		103	
Pseudo R2	0.137		0.188	

Notes:

1) The outcome variable for the Probit model is a dichotomous variable for attending at least one PAL sessions. That is, =0 if attended zero PAL sessions, =1 otherwise.
The outcome variable for the Poisson model is the number of PAL sessions attended.

2) For Poisson model the p-values are robust to misspecification of the data generation process

3) *, **, *** denote 10%, 5%, 1% level of significance respectively. That is p-value<0.01, <0.05 and <0.10, respectively. This is always the case for all regressions in this report.

4) APE's stand for Average Partial Effects. That is, the approximate impact on the outcome variable for a unit change on the independent variable, holding all other characteristics in the model constant. See below for examples on interpretation. As Probit and Poisson are non-linear models, it is always important to report APE's since the actual estimated coefficients do not have an interpretation of partial effects. On the other hands, this is not necessary for OLS (see Table 2.2-3), since the estimated coefficients are already the partial effects.

5) For categorical variables, one group is always excluded, called the baseline group. For example, for Year of Birth, the baseline group is "born in 1995". Then the estimates of the remaining groups are interpreted relative to the baseline group. For example, for the Poisson model, being born in 1994 is predicted to decrease the average attendance by around 1.8 sessions, holding the other characteristics constant (hoc), an estimate that is highly statistically significant. Or for the Probit model and dummy Male, males are about 0.18 % points less likely to attend at least one PAL session than females, hoc.

6) Some categories are often grouped together. For example, we have grouped everyone born on 1993 or below in one dummy variable. This is done to ensure that each category has enough observations so that their impact on the outcome variable can be estimated reasonably precisely.

Table 2.2-3. **NBS**: Effects of Students' Characteristics on PAL Attendance

NBS	Probit (APE's)	P-value	OLS	P-value
Male	-0.037	0.531	-4.549	0.171
Entry Qualification	0.002	0.898	0.909	0.335
<i>Year of Birth</i> (Baseline: 1995)				
1993 & below	0.142*	0.058	11.876**	0.033
1994	-0.020	0.775	-1.583	0.656
1996/7	-0.063	0.405	-3.660	0.353
Overseas	0.129*	0.055	14.735***	0.000
Off Campus	0.120	0.193	5.048	0.291
log of Distance	-0.027	0.266	-0.668	0.491
Absences	-0.009***	0.003	-0.354***	0.009
<i>School</i> (Baseline: NBS)				
CMP	0.012	0.906	-16.634***	0.000
ECO	0.128**	0.049	-11.535***	0.002
MTH	-0.380***	0.001	-14.334***	0.003
Constant			23.177***	0.000
N	217		217	
Pseudo R2	0.253		0.313	

Notes:

1) Entry Qualification is treated as continuous in this model. It is an index taking on discrete values from 1 to 6, where 1 is qualification equal to -3 and 6 is qualification equal to +3. The estimates are of this variable are very insignificant for NBS regardless of whether we include it as an index or as categorical dummies.

2) For the OLS model, the outcome variable is the percentage of attended PAL sessions. The interpretation of the coefficients is as follows. For example, for variable Absences, having an extra absence is predicted to decrease PAL attendance by 0.35 % points, hoc. Or, for dummy ECO, students from the School of Economics attend 11.5 % points fewer PAL sessions than students from NBS, hoc. The estimated constant, or differently, the intercept, is the predicted percentage of attended PAL sessions, holding all other variables at value equal to zero (that is for a Home, NBS male student, who is born in 1995, lives on campus, has 0 absences and an entry qualification of zero (the latter is not meaningful here, since the lowest value of the Entry Qualification variable is one).

3) For OLS the p-values are robust to heteroskedasticity

4) The Pseudo R2 is the actual R2 for the OLS model. That is the proportion in the variation of the outcome variable explained by the independent variables. The R2 is not defined for non-linear models, but the Pseudo R2's are constructed in a way so that they approximate this figure.

Table 2.2-4. **MED**: Effects of Students' Characteristics on PAL Attendance

MED	Poisson (APE's)	P-Value
Male	-0.341**	0.011
<i>Entry Qualification</i> (Baseline: Standard)		
+1	-0.268	0.302
+2	-0.162	0.686
+3	-0.291	0.505
Foundation	0.132	0.780
<i>Year of Birth</i>		
1993 & below	-0.183	0.452
1994	-0.634	0.042
1996	-0.122	0.426
Overseas	-0.560	0.151
Off Campus	-0.332	0.695
log of Distance	-0.036	0.817
Absences	-0.076	0.174
N	161	
Pseudo R2	0.0082	

Notes:

- 1) For MED, the minimum value for the Entry Qualification variable is 0; that is, qualifications that meet the standard MED offer. No student has been accepted with lower qualifications. However, there are some students who have done a foundation year in the MED School. Getting an acceptable mark in this foundation year is necessary to proceed to the first year.

2.3. Results of Impact of PAL Attendance on Performance

Figure 2.3-1. **DEV**: Scatterplot of Performance in DEV1 Test by No. of PAL Sessions Attended

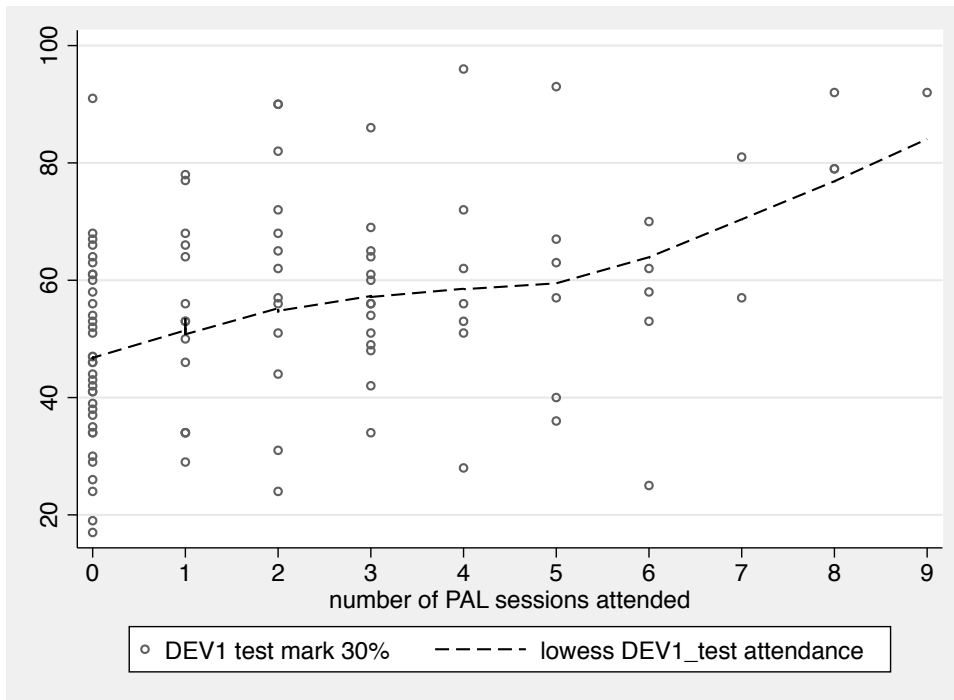
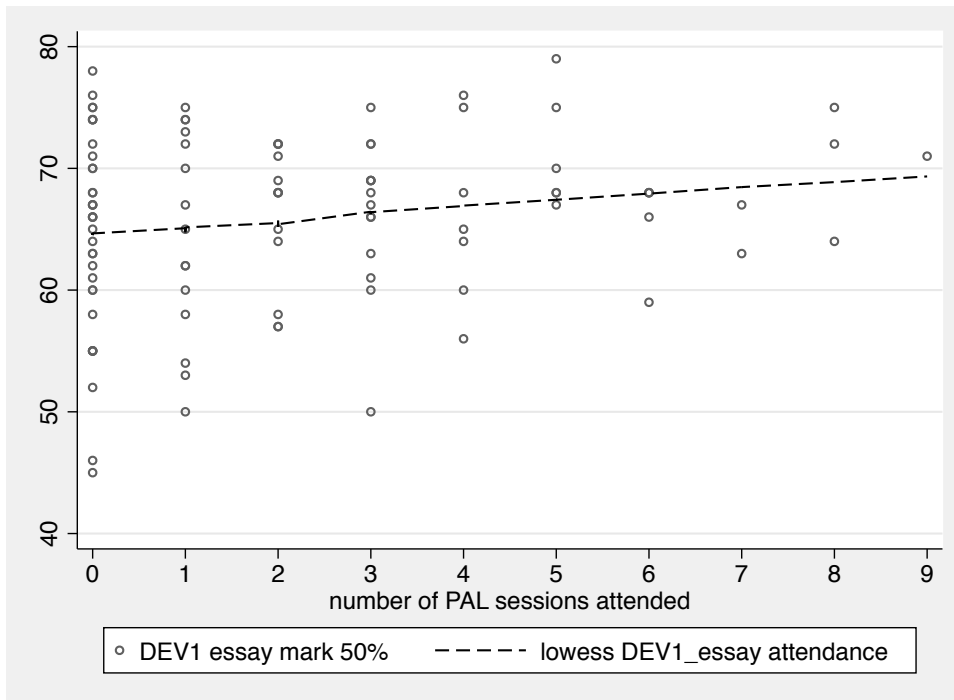


Figure 2.3-2. **DEV**: Scatterplot of Performance in DEV1 Essay by No. of PAL Sessions Attended



Note: The lowess smoothing is a non-parametric estimation that fits many *local weighted regressions* of the outcome variable, here the score on the test or essay, on the independent variable, here the number of attended PAL sessions. Essentially, the lowess line can be seen as a smoothed fitted line around the observed values. Please see Stata help for details.

Figure 2.3-3. **DEV**: Scatterplot of Performance in DEV2 Evidence Report by No. of PAL Sessions Attended

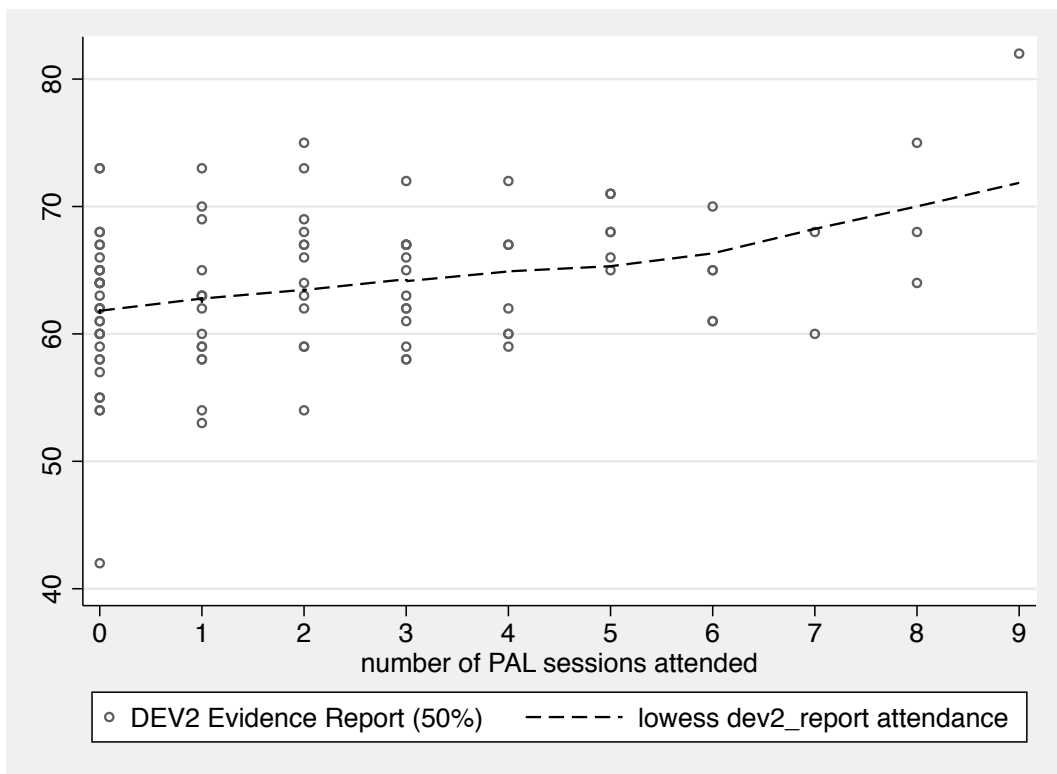


Figure 2.3-4. **DEV**: Scatterplot of Performance in DEV2 Group Project by No. of PAL Sessions Attended

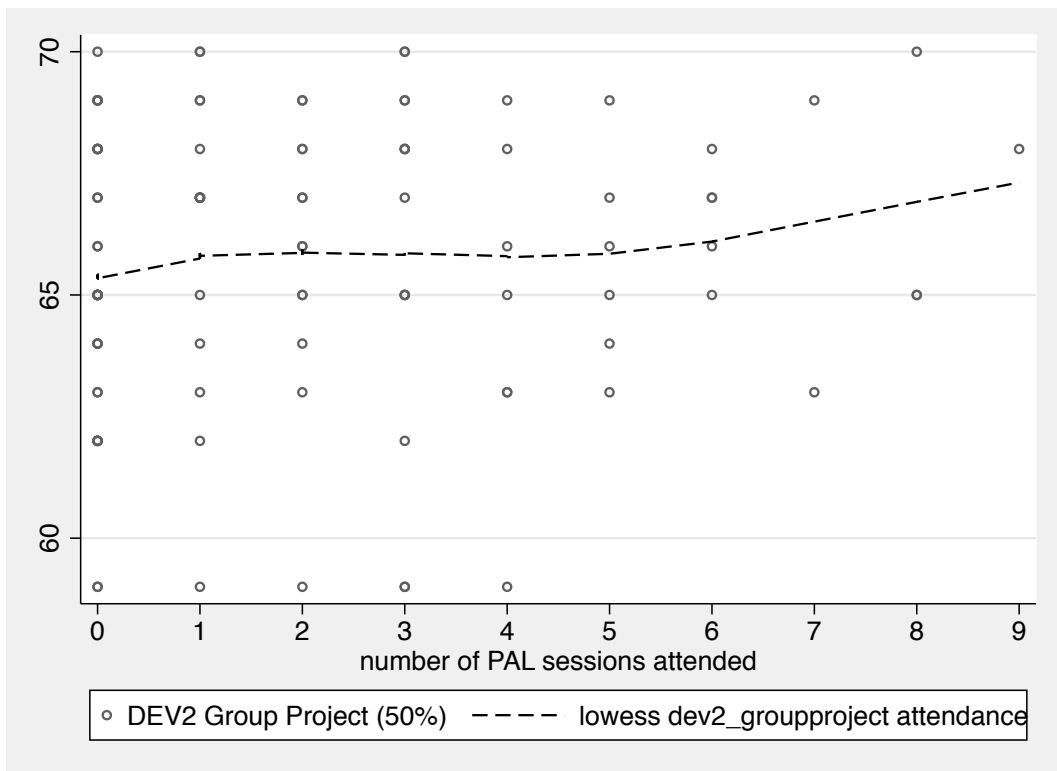


Figure 2.3-5. **DEV**: Scatterplot of Performance in DEV3 Analytical Report by No. of PAL Sessions Attended

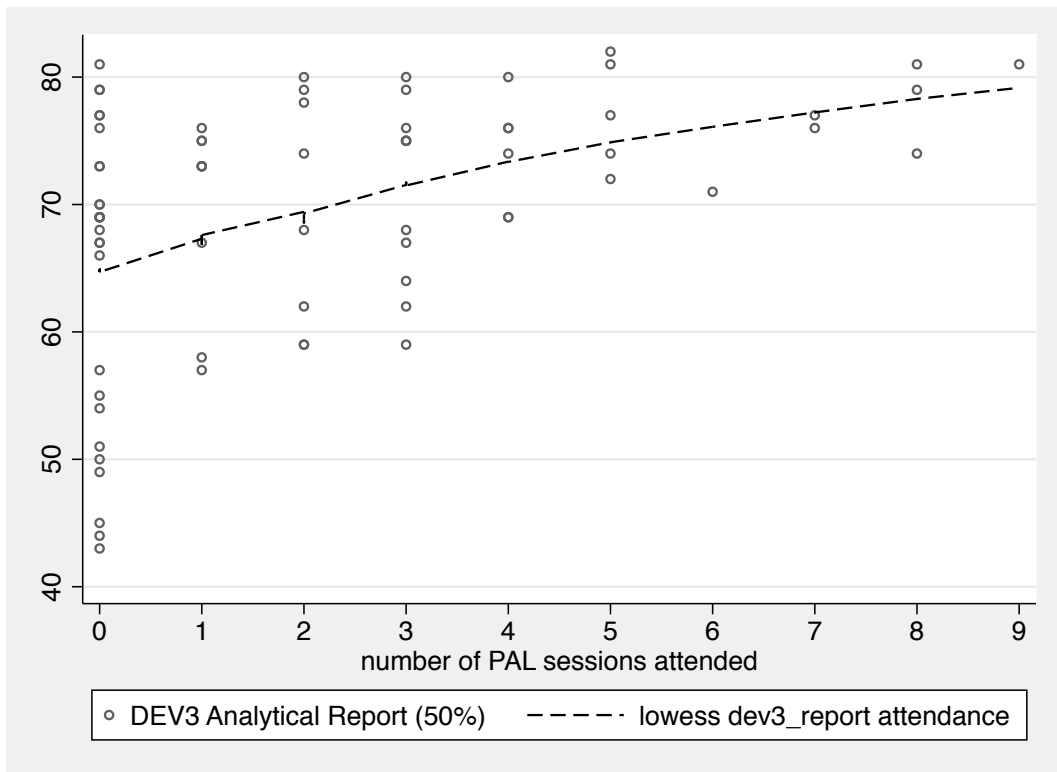


Figure 2.3-6. **DEV**: Scatterplot of Performance in DEV2 Final Exam by No. of PAL Sessions Attended

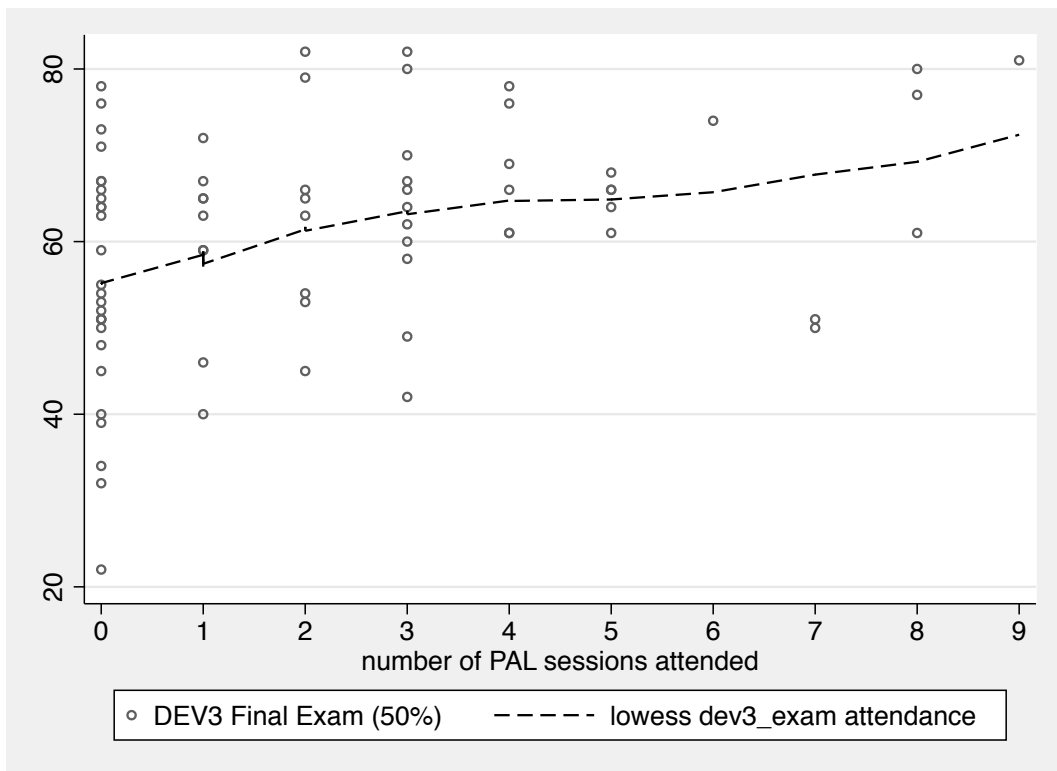


Table 2.3-1. **DEV**: OLS regression results of DEV summative assessments on PAL Attendance, without controlling for students' differences in their characteristics

	(1) DEV1 Test	(2) DEV1 Essay	(3) DEV2 Evidence Report	(4) DEV2 Group Project	(5) DEV3 Analytical Report	(6) DEV3 Exam
<i>Attendance in PAL</i>						
<i>(baseline: Attended 0 sessions)</i>						
Attended 1 or 2	10.04** (0.026)	2.92 (0.271)	1.57 (0.302)	0.73 (0.327)	5.06* (0.094)	6.17 (0.114)
Attended 3 or 4	10.98** (0.011)	3.38 (0.209)	2.04 (0.147)	0.23 (0.805)	7.30** (0.010)	10.17*** (0.008)
Attended 5 or more	18.16*** (0.001)	5.84** (0.024)	5.71*** (0.001)	0.95 (0.178)	12.38*** (0.000)	11.40*** (0.005)
Constant	46.78*** (0.000)	62.86*** (0.000)	61.82*** (0.000)	65.34*** (0.000)	64.70*** (0.000)	55.19*** (0.000)
Sample Size	101	101	99	101	73	73
R squared	0.13	0.05	0.11	0.02	0.21	0.14

Notes:

- 1) Robust for heteroskedasticity p-values in parentheses. The same for the rest of the regressions.
- 2) Here the constants for a particular assessment is the average score of this assessment in the sample for the baseline groups, which is No Attendance

Table 2.3-2. **DEV**: OLS regression results of DEV summative assessments on PAL Attendance, controlling for observed students' differences in their characteristics

	(1) DEV1 test	(2) DEV1 Essay	(3) DEV2 Evidence Report	(4) DEV2 Group Project	(5) DEV3 Analytical Report	(6) DEV3 Exam
<i>Attendance in PAL</i>						
Attended 1 or 2	9.77** (0.014)	2.98 (0.266)	1.64 (0.322)	0.59 (0.460)	7.17** (0.039)	7.52* (0.078)
Attended 3 or 4	8.78** (0.031)	1.61 (0.490)	1.64 (0.316)	0.24 (0.801)	6.18** (0.024)	9.58** (0.023)
Attended 5 or more	12.65** (0.027)	4.57* (0.051)	4.82*** (0.007)	1.16 (0.102)	11.00*** (0.001)	7.39* (0.061)
Male	-10.92*** (0.005)	-4.46* (0.092)	-1.24 (0.399)	-0.22 (0.777)	-0.98 (0.725)	-1.59 (0.651)
<i>Entry Qualification</i>						
Standard	0.25 (0.957)	4.27 (0.150)	1.90 (0.396)	0.07 (0.935)	4.28 (0.207)	0.13 (0.983)
+1	1.58 (0.731)	3.43 (0.265)	0.61 (0.695)	0.29 (0.759)	7.68** (0.031)	4.00 (0.458)
+2	10.91** (0.048)	1.99 (0.363)	2.6 (0.116)	-0.5 (0.599)	9.53** (0.020)	13.84*** (0.006)
+3	14.56** (0.017)	3.2 (0.250)	2.19 (0.200)	-1.26 (0.201)	7.57** (0.029)	9.34* (0.052)
<i>Year of Birth</i>						
1993 or below	-4.6 (0.367)	-7.22 (0.196)	1.56 (0.357)	-1.35 (0.214)	-6.92** (0.049)	-3.82 (0.437)
1994	-3.86 (0.462)	0.85 (0.748)	1.52 (0.425)	1.38 (0.144)	-3.03 (0.397)	-7.88 (0.159)
1996	0.94 (0.802)	1.18 (0.511)	-0.19 (0.903)	0.57 (0.411)	-0.03 (0.991)	-4.08 (0.246)
Overseas	-6.92 (0.124)	-0.15 (0.959)	-0.58 (0.659)	0.33 (0.691)	0.81 (0.750)	-1.67 (0.750)
Constant	48.50*** (0.000)	63.09*** (0.000)	61.08*** (0.000)	65.38*** (0.000)	61.94*** (0.000)	55.31*** (0.000)
Sample Size	101	101	99	101	70	72
R squared	0.34	0.2	0.18	0.09	0.36	0.26

Note: For categorical variables, the baseline categories are as in Table A2-2.

Figure 2.3-7. **NBS:** Scatterplot of Performance in NBS1 Exam by No. of PAL Sessions

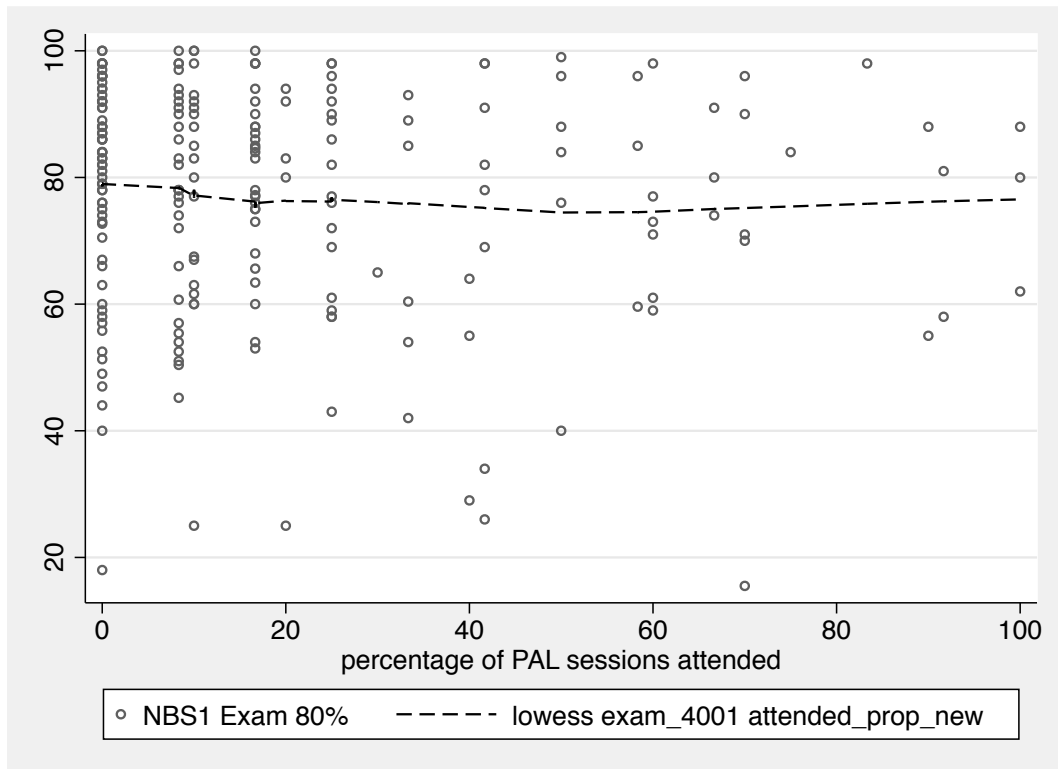


Figure 2.3-8. **NBS:** Scatterplot of Performance in NBS2 Exam by No. of PAL Sessions

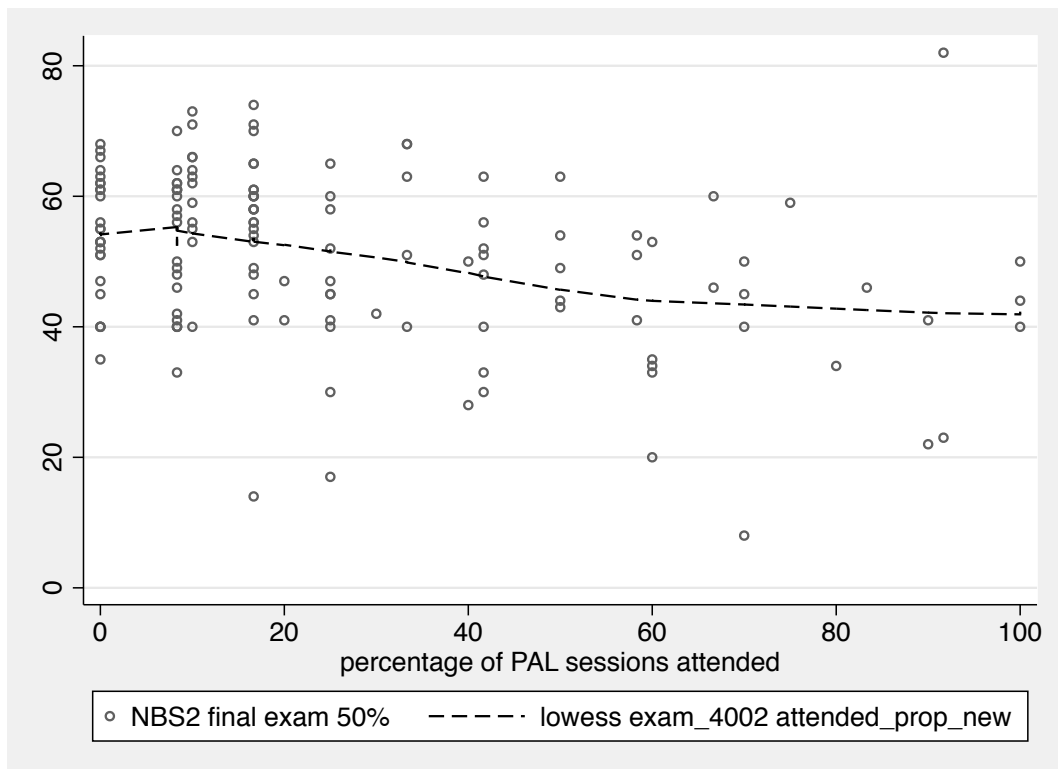


Figure 2.3-9. **NBS**: Scatterplot of Performance in NBS3 Exam by No. of PAL Sessions

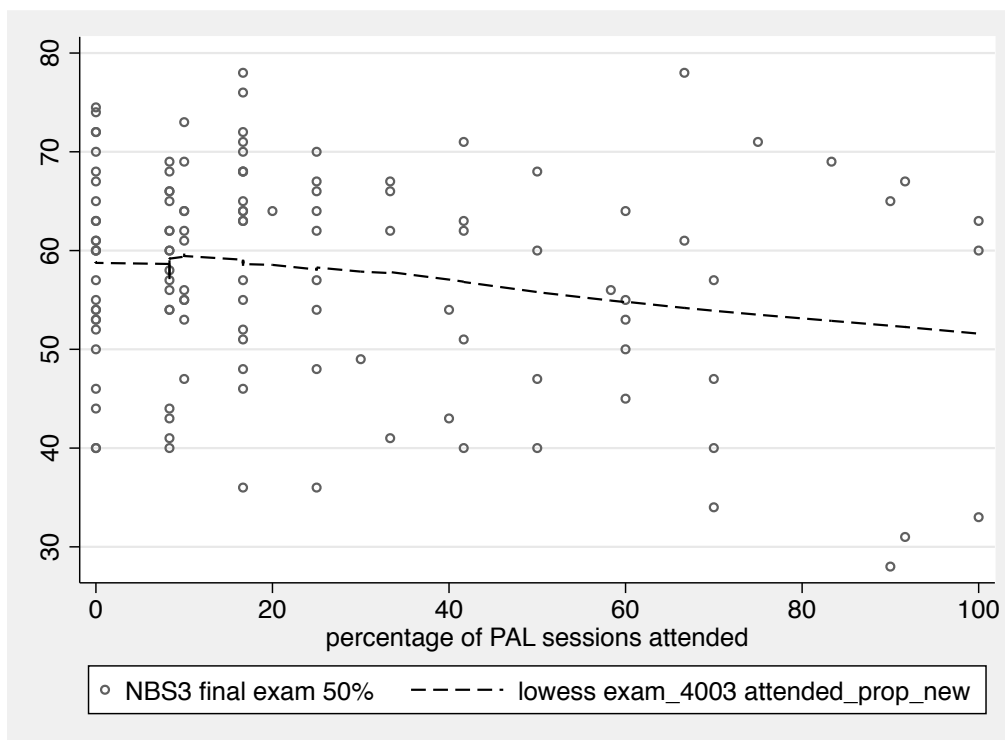


Table 2.3-3. **NBS**: OLS regression results of NBS exams on PAL Attendance, without controlling for students' differences in their characteristics

	(1) NBS1 Exam	(2) NBS2 Exam	(3) NBS3 Exam
<i>Attendance in PAL</i>			
1%-10%	-1.92 (0.569)	1.02 (0.696)	-0.76 (0.761)
11%-20%	0.57 (0.871)	0.80 (0.794)	3.02 (0.316)
21%-40%	-6.31 (0.135)	-6.51* (0.080)	-2.21 (0.498)
41%-60%	-3.37 (0.490)	-9.30*** (0.003)	-3.83 (0.222)
60%-100%	-3.58 (0.496)	-11.27** (0.016)	-5.23 (0.263)
Constant	78.97*** (0.000)	54.40*** (0.000)	58.83*** (0.000)
Sample Size	213	139	123
R squared	0.02	0.14	0.05

Note: In these regressions PAL attendance is represented by the categorical variable, Proportion of Attended PAL sessions. For example, someone who belongs to 21%-40% category has attended between 41% and 60% of all PAL sessions. Excluded group is again students who attended zero sessions. We use the attendance variable in proportions, because the number of sessions across groups is not the same, as we have 10 sessions for 2 groups. The results are very similar if the number of attended sessions is used instead.

Table 2.3-4. **NBS**: OLS regression results of NBS exams on PAL Attendance, controlling for observed students' differences in their characteristics

	(1) NBS1 Exam	(2) NBS2 Exam	(3) NBS3 Exam
<i>Attendance in PAL</i>			
1%-10%	-1.53 (0.614)	0.61 (0.811)	-1.84 (0.478)
11%-20%	1.35 (0.721)	2.23 (0.445)	1.44 (0.625)
21%-40%	-5.85 (0.191)	-4.57 (0.202)	-3.12 (0.316)
41%-60%	-3.08 (0.533)	-5.62 (0.112)	-5.13 (0.182)
60%-100%	-0.90 (0.876)	-9.55** (0.034)	-6.06 (0.197)
Male	-1.95 (0.460)	-0.47 (0.822)	-0.55 (0.784)
<i>Entry Qualification</i>			
-1	0.12 (0.976)	3.53 (0.350)	7.56** (0.023)
standard	2 (0.595)	-0.74 (0.856)	3.17 (0.345)
+1 of +2	0.98 (0.820)	-2.66 (0.492)	5.92* (0.099)
+3	4.4 (0.331)	0.92 (0.847)	0.97 (0.805)
<i>Year of Birth</i>			
1993 or below	-4.15 (0.359)	7.42* (0.055)	3.71 (0.387)
1994	0.48 (0.855)	0.77 (0.771)	-0.37 (0.883)
1996	0.43 (0.902)	4.04 (0.116)	0.94 (0.702)
Overseas	2.88 (0.361)	-8.67*** (0.002)	0.85 (0.734)
<i>School</i>			
CMP	18.43*** (0.000)		10.15*** (0.000)
ECO	12.48*** (0.001)	-0.36 (0.889)	
MTH	19.37*** (0.000)		
Absences	-0.49*** (0.006)	-0.19* (0.092)	-0.29** (0.014)
constant	74.10*** (0.000)	56.94*** (0.000)	56.61*** (0.000)
Sample Size	211	138	122
R squared	0.24	0.32	0.22

Notes: For categorical variables, the baseline categories are as in Table A2-3. For Entry Qualification though, it is having qualifications -1 or -2.

Figure 2.3-10. **MED:** Scatterplot of Performance in MED Written Knowledge Exam by No. in PAL Sessions of autumn semester

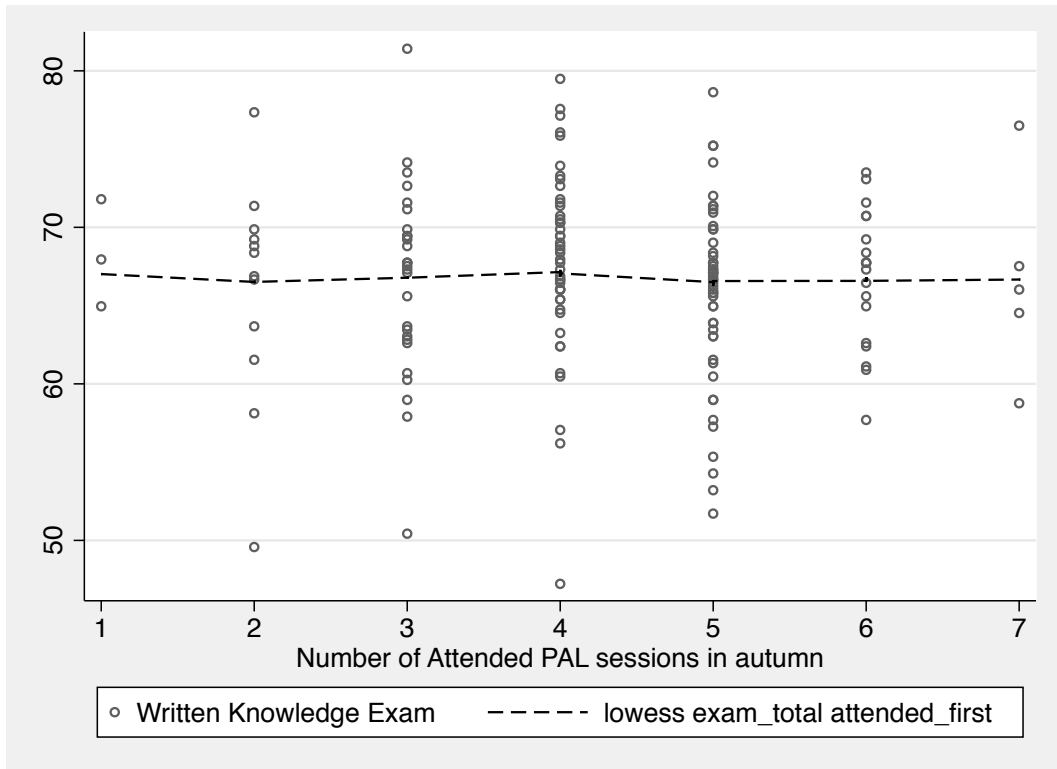


Figure 2.3-11. **MED:** Scatterplot of Performance in MED OSCE by No. of PAL Sessions in autumn semester

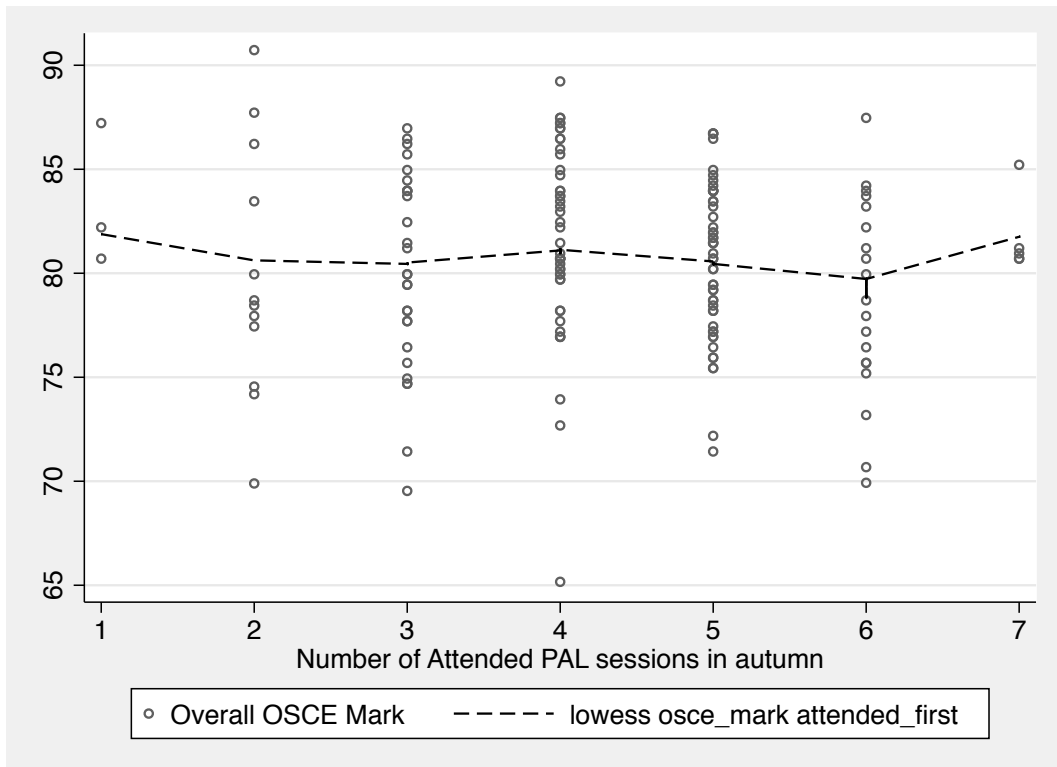


Table 2.3-5. **MED**: OLS regression results of NBS exams on PAL Attendance, controlling for observed students' differences in their characteristics

	(1) Knowledge Exam (no controls)	(2) OSCE (no controls)	(3) Knowledge Exam (with controls)	(4) OSCE (with controls)
<i>Attendance in PAL</i>				
<i>(baseline: attended 1 or 2 sessions)</i>				
3	0.23 (0.907)	-0.5 (0.633)	-0.39 (0.829)	-1.27 (0.349)
4	1.51 (0.384)	1.06 (0.495)	0.56 (0.736)	0.40 (0.795)
5	-0.64 (0.648)	-0.06 (0.960)	-1.69 (0.268)	-1.05 (0.480)
6 or 7	0.37 (0.825)	-1.21 (0.557)	-0.62 (0.704)	-2.03 (0.363)
Male			-1.48* (0.056)	-0.74** (0.037)
<i>Entry Qualification</i>				
+1			3.42** (0.011)	0.38 (0.519)
+2			1.7 (0.116)	-0.17 (0.905)
+3			0.62 (0.563)	-1.85* (0.060)
Foundation			-0.34 (0.816)	-0.02 (0.989)
<i>Year of Birth</i>				
1993 or below			0.11 (0.943)	1.42 (0.108)
1994			-1.5 (0.501)	0.29 (0.849)
1996			-1.47* (0.094)	0.85* (0.054)
Overseas			0.49 (0.727)	-1.01 (0.343)
Unauthorised Absences			-0.72* (0.083)	-0.95*** (0.006)
Constant	66.41*** (0.000)	80.62*** (0.000)	68.42*** (0.000)	82.76*** (0.000)
Sample Size	162	162	160	160
R squared	0.02	0.03	0.15	0.15

Notes: 1) Robust for heteroskedasticity and PBL specific serial correlation p-values in parentheses.
2) For categorical variables, the baseline categories are as in Table A2-4.

APPENDIX 3

Heads of Schools Meetings – Progress

PAL Schools

School	Date of meeting	Attendance at meeting	Criteria				Comments
			HoS support	PAL link person	% attendance (1+ sessions)	SSLC support	
AMA	21.9.15	Mark Jancovich + AG	Yes	MC	31.5%	Consultation recommended	Disappointing attendance to date. Would like to try different models of PAL and establish with FTM students before extending to other departments
CHE+PHA	5.10.15	Mark Searcey	Yes	MC	91%	Consultation recommended	The school is supporting of PAL for CHE students and would consider extending to PHA students in the future
CMP	5.10.15	Vincent Moulton	Yes	MC	No data	Consultation recommended	There were some difficulties retaining an officer in CMP resulting on absence of attendance and evaluation records. The school feels a small number of students really benefit from PAL with a positive effect on retention
DEV*	4.9.15	John McDonagh, Ed Anderson + AG	Yes	MC	90.8%	To be consulted – Officer to attend	Although attendance has been variable running sessions on an introductory module in Semester 1 and optional modules in Semester 2 is working well.
ENV	4.9.15	Kevin Hiscock	Yes	SA	70%	Consultation recommended	Attendance was initially very good and tailed off. KH agreed that greater promotion within the school is needed. PAL is not attached to a specific module

HSC	29.9.15	Val Lattimer	Yes	MC for each programme	Nursing: 83% OT, PT, SLT: 61.7% Paramedics: 16.6%	To be consulted	The School is very keen to continue with PAL as a valuable source of support for academic and clinical learning
MED*	28.9.15	Richard Holland + AG	Yes	MC	50%	Consultation recommended	The school is fully supportive of PAL and keen to continue. Attendance has been very good and there are considerable benefits to mentees, mentors and officers in terms of academic, clinical and professional development.
NBS*	2.10.15	Paul Dobson	Doubtful	MC	18.5%	Consultation recommended	The HoS expressed concern re low take-up, variable evaluation and low profile of PAL within the school.
PPL	21.9.15	Lee Marsden	Possibly in the future		3%	To be consulted	Attendance has been low in schools (LCS + PSI) prior to formation of PPL. Attendance by PPL students very low. Currently the school offers a successful 'buddy' scheme which may be meeting the needs of the students

*Teaching Fellowship schools

Key:

MC Module convenor

SA Senior advisor

Non-PAL Schools

School	Date of meeting	Attendance at meeting	Criteria		Comments
			HoS support	SSLC support	
BIO	14.9.15	Tamas Dalmay, Mark Coleman + AG	Possibly in the future	To be consulted	TD and MC felt that PAL has the potential to be a useful addition to student support in BIO, although there are a number of factors to take into consideration, including complexity of first year module combinations on different programmes.
ECO	14.9.15	Enrique Fatas, Duncan Watson + AG	Possibly in the future	Consultation recommended	In principle the School would be interested but it would be contingent on the programme being funded by the University rather than the School.
HIS	14.9.15	Cathie Carmichael + AG	Possibly in the future	Consultation recommended	CC felt that MA students, the majority come from the UG programmes, would be better suited as mentors as 2 nd year UG programmes are very intense.
LAW	7.10.15	Peter Kunzlik	HoS generally supportive of adopting PAL in the future	Consultation recommended	PAL could complement other buddy schemes within the school
SWK	14.9.15	Gill Schofield + AG	Possibly in the future - GS to discuss with SA + TD.	Consultation recommended	GS felt that PAL could be a valuable addition and a possibility to add to student support services in SWK.

Key:

SA Senior Advisor

TD Teaching director

PAL PHASE 4 REFLECTIVE MEETING SUMMARY – 8th December 2015

What worked well?	How else can we promote PAL to first years in the Spring semester?	What could work better?	Any other ideas about PAL	Blackboard Feedback – Timesheets and Attendance
<ul style="list-style-type: none"> • Having mixed methods of communication. • Communication with officers/mentors via email to arrange meetings etc. • Mentee active engagement in sessions. • Good quick responses from PAL admin support team. ☺ • Sharing of personal experiences, things that have worked well. • Mentors showing initiative and flexibility. • Enthusiastic mentors. • Mentee appreciation. • Mentors doing evaluations after each session not just at end of semester. • Mentors meeting up with module conveners to clarify things and any changes. • Practical sessions worked well. • Good support from the school (MED). • Communication between mentors, sharing good practice. • Timetabling of sessions – encourages students. • Good feedback to officers from mentees. • PAL sessions starting in 1st & 2nd week, catches first years early. • Attendance improving since last year, (DEV, CHE, NBS). • Good support from PAL officers. 	<ul style="list-style-type: none"> • PAL promo team! • Mentors and Mentees to go into lectures together. Or in groups across schools. • PAL making appearances in lectures. • Going back to lectures a second time a few weeks later. • Recap term 1 lectures. • Constant reminders about existence of PAL. • Show about university the positive feedback from autumn semester. • Contact/email mentees with weekly session plans/descriptions. • Talk about future work to expect with mentees. • Mix fun with serious content and extra curriculum content. • Utilise the PAL video. • Making 1st session compulsory. • First year PAL mentees to speak to first years. • Make introduction very clear as students are already bombarded with lots of information in the first week. Those giving the presentation should prepare well & perhaps have mentees/mentors on hand to share their experiences of PAL. 	<ul style="list-style-type: none"> • Meetings with module leads. • Ensuring lecturers know what PAL is providing and the dates of the PAL sessions. • First PAL session compulsory, followed by timetabled sessions. • Overall plan for term. • Practical training for mentors. • Paramedics require their own Mentors. • Some confusion as uploading attendance logs – but also need to send to Officers. • Communication with mentees such as the picking up of emails. • Better promotion on application day for PAL. Stressing benefits of PAL, create facebook page, emailing all students before 1st PAL session. • Combine some groups together so more people to sessions and more Mentors in each session group to help discuss various areas at one time. • Try to keep PAL sessions to one room allocation. • Interviews; mentors or involve past officers in the recruitment process. • Refine the online submission tools, allow officers to see if attendance data has been submitted by mentors. • Less gap between Lectures and PAL sessions. 	<ul style="list-style-type: none"> • Extending through the full year, especially the exam period. • Weekly email, facebook to mentees. • Formal feedback from mentees to mentors. • Expand to other modules and years (good for particularly challenging modules). • Opportunities for mentors to visit another group to see different practices. • Encouraging more feedback. • Ensuring all first PAL sessions across schools are compulsory. • Keep PAL going in the UEA. • For Med ensuring when a session is booked it appears on timetables. • Attaching Pal sessions to lectures/seminars weekly. • School/Mentor (& lecturers) review meeting to share ideas. • Pre-enrolment/fresher's info to include PAL. • PAL at open days. • Getting 1st years to help promote PAL. • Inter school collaboration. • PAL buddy scheme, mentors buddied up with small group of mentees. • PAL not given enough importance, so make some sessions as attendance compulsory. 	<p><u>WHAT IS GOOD?</u></p> <ul style="list-style-type: none"> • Timesheets better than last year. • Attendance sheets easier as all online. • Staff access to Blackboard • Blackboard been easy and good. <p><u>WHAT HAS NOT BEEN GOOD?</u></p> <ul style="list-style-type: none"> • Filling in the attendance student details (can it be automated?). • Having to enter '0' in sp/sheet <p><u>IMPROVEMENTS?</u></p> <ul style="list-style-type: none"> • Use attendance recording instead of xls. • To be able to email students from blackboard. • Turn off notifications but still send.

<p>cont. - What worked well?</p> <ul style="list-style-type: none"> • Anne, Vicky and Julie are always there via email, phone to give advice and address any issues. • PAL officers monthly meetings. • Having timesheets and attendance submitted online. • Mentors like flexibility to organise time of sessions with their group for when MED/Paramedics timetables can work together. • Quiz revision sessions. • Mixed year mentors. • Facebook groups between mentors & mentees and a general page. 	<ul style="list-style-type: none"> • Promote PAL on TV screens around campus/ in UEA buildings. <p>cont. - How else can we promote PAL to first years in the Spring semester?</p> <ul style="list-style-type: none"> • Posters with 'your first year PAL Officer is.....email to find out when your next PAL session is'. Could be useful way of get information out there, and able to ask questions prior to going to a session. • Get lecturers to endorse/recommend/promote PAL during lectures, making sure they know what PAL will be doing in the sessions and any information they would like referred to. So if students are having trouble with one subject they can be advised to email their PAL mentors to have topics discussed during PAL sessions – also feedback to lecturers on what mentees are asking to be discussed. 	<p>cont. - What could work better?</p> <ul style="list-style-type: none"> • PAL sessions in varied time slots, not having them at the same times each session. • Access to mentees timetables & rooms (Data protection issues). • Quality control mentors. • More feedback to mentees • Mentees to be given a loose outline for sessions for the term. e.g. 1st introductory, 2nd taught subjects, 3rd revision. • Liaise with lecturers to provide resources to help with PAL. • The training is long and not that helpful really. • Too many mentors in MED, 1 per PBL group (so put 2 PBL groups to make 1 PAL group with 2 mentors is plenty), would save PAL a great deal of money. • Mentors in MED need to be paired in the same year group as well to help with timetabling – officers could help with arranging this. 	<ul style="list-style-type: none"> • Feedback review session for mentors/officers. <p>cont. - Any other ideas about PAL</p> <ul style="list-style-type: none"> • Timetabling sessions helps. • Schools for 2nd/3rd years – timetables too much, finding time between clashes, PAL given more importance. • PAL intro week, difficult for certain schools but perhaps transition weeks? • Communication to be mentee led. • Remove 'optional' from timetabled sessions, first 3 sessions should be compulsory. 	
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Although the work we did in our PAL sessions was helpful, what I valued most was having Second/Third Years telling us "how it is", and reassuring us that we are on track and doing well. The first term can feel a bit overwhelming, and to get to know students in other years who have been there already, and survived, was encouraging!
First year SLT mentee

'I have thoroughly enjoyed my PAL Mentor role this year and truly believe that PAL can be of great value to every single student at UEA. Being a PAL mentor has been incredibly rewarding as not only have the Mentee's engaged so well in our sessions but they have also been so appreciative of our efforts and regularly inform us of how helpful and reassuring we have been. Being a Mentor has also been of great benefit to me as preparing for each session has enable me to revise different topics from the first year of the course and refreshed my memory on key parts of the course content. In additional the experience has enabled me to greatly improve my leadership and organisational skills which will be of great benefit to me when I become a qualified Occupational Therapist. Overall the PAL process has most definitely been a positive and memorable experience.'

Third year OT mentor

I wasn't able to attend many PAL sessions in my first year due to placement commitments but I've really enjoyed being a PAL mentor and I think that I've had the opportunity to develop skills that will be invaluable. I think that PAL is a really great way to connect the year groups and encourage the first years who may be overwhelmed when they first start the course and I feel that those in the years above are in the best position to offer that support. It would be a shame if PAL wasn't available to future first year students as I think there are numerous benefits for mentors and mentees alike.

3rd year SLT mentor

PAL has been extremely helpful to attend throughout the first term of my first year. It provides a friendly, safe place for new students to discuss anything that's troubling them, or anything they're unsure about - that can be academic or more personal, e.g. dealing with stress - and have an opportunity to discuss it with peers on their course, as well as older students who have been through similar things and may have advisable ways to deal with it. It's really reassuring to find out you're not the only one struggling with a certain topic or aspect of the course, and together you can work to figure out a method of understanding or revision technique.

As a cohort, we don't always get a chance to talk to everyone as we're separated in seminars, and obviously busy working and listening in lectures, so this is a nice opportunity to talk to others in the group you don't normally get chance to. It's also a more relaxed environment compared to lectures or seminars with lecturers, so you feel less self-conscious drawing people's attention to your weaknesses. It provides a break from the more intense sessions, which is very gratefully received at times! We can email our mentors at any time as well as talking to them in session, which is good if you have a question, because I don't like to bother lecturers too much. It also acts as a good summary session at the end of the week to come together and outline the key learning points for that week and identify any areas you need to go over. I like how it brings all the years together as well, as you get to know a wider range of people and build a support system for yourself, and you can find out what's in store for you next year and the year after, e.g. details of placements and modules. I've truly found PAL really beneficial, and I think it's definitely worth keeping going as I'd love to continue with it for the rest of my first year, and would be keen to become a mentor next year in order to consolidate my own learning and support the younger years.

1st year SLT student

I was the PAL mentor for speech and language therapy students for 2014-2015. I found this such a beneficial experience and it has provided me with so many transferable skills which I think have benefited me in my job and will continue to do so in the future. I learnt how to facilitate rather than teach, I found the sessions helpful to revise my own knowledge and found the whole process really rewarding.

2nd year SLT student

PAL has enabled me to grow as a person into a more confident and comfortable individual around colleagues, without putting on a mask with a false personality

2nd year nursing student

PAL has really helped demystify any queries I had when I was a mentee in my first year of Nursing. Currently, being a mentor myself has been a great experience since it has expanded my communication and presentation skills. The mentees themselves have given us positive feedback which keeps us motivated to continue forward and keep PAL running in the future to help new students next year too.

2nd year nursing student

I am currently a PAL mentor and was a mentee last year. I would definitely support the PAL mentoring service. Especially within my field of study - nursing- it has been a major for of support for first years. Entering university and a course as demanding as nursing can be a daunting thing and just having that peer support is really encouraging. It also helps build relationships between peers from different years and generally support the ethos of UEA.

2nd year nursing student

I am in EBL group 5 with Emily and Jill, i can confirm that the majority of my EBL group have attended and found their input as 2nd years really useful. The vital info they pass on to us and reassurance they give us is so important not only for us as first years and with our first pieces of work but also with the silly little worries that everyone has. For example will we have the same facilitator for the entire year? How do we navigate blackboard? How do we find the placement folder? What do you say when you call your very first placement, do you call, do you email or do you just present yourself? We are also able to email them for advice which is fantastic with the nature of our course, being on placement. Emily and Jill have been so helpful to us with regards to academic advice but also everything else the list is endless. I personally have found it very beneficial, i really hope it continues for future students.

1st year nursing student

I would like to say that I have found the PALs to be very helpful in my learning experience both by being someone that we feel we can talk to and ask questions. As they have just completed their first year, as well as are able to accept advice from in a discussion based manner. They were able to give us tips and advice which I feel are helping me (at this moment) with my work and therefore I feel they are a commodity that we as a course cannot afford to lose.

1st year nursing student