Students' perceptions of a UK physiotherapy student-led clinic.

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2023





RESEARCH ARTICLE



Students' perceptions of a UK physiotherapy student-led clinic

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Funding information

None to report.

Abstract

Background: Student-led clinics (SLCs) are a mode of delivery whereby students take responsibility for the delivery of a health service or intervention. SLCs for physiotherapy have a wide range of uses, including enhancement of learning, replacement of clinical placement hours and serving population and community needs. Evidence is emerging globally as to the outcomes of SLCs in physiotherapy, but little exists in the United Kingdom (UK) context. The purpose of this study was to explore student perceptions of running, leading and participating in a UK physiotherapy student-led neurological rehabilitation clinic.

Methods: A qualitative design using a focus group.

Findings: Four themes were identified relating to students' perceptions of SLCs associated with the learning environment, self-development, enhanced clinical skill development and reflections on experience at the SLC.

Discussion: The findings of this study suggest that physiotherapy SLCs in a UK context can contribute positively to student experience and skill development, particularly in relation to the learning environment, development of clinical skills, leadership and autonomy. Some aspects related to, for example, student induction and preparation could be further developed. Further research should explore if these findings are applicable in other countries where SLCs are less established.

Conclusion: Further research in the UK and globally related to SLC models in different courses and across varying stages is required. Exploration of the SLC as a viable form of clinical placement experience is also warranted.

BACKGROUND

Student-led clinics (SLCs) are widely established in undergraduate and pre-registration health curricula including physiotherapy. 1 Known as student-run, student-led groups or clinics, hereafter referred to as SLCs, such services undertake a mode of delivery whereby students take primary responsibility for the operational delivery of healthcare.³ This may be in the form of a clinic or a group,⁴ or as a health intervention, for example, for those with cardiovascular disease.⁵ Delivered in a uni or interprofessional format for pre-registration health

professionals, a recent scoping review found that the aims of SLCs for pre-registration education included enhancing the curriculum, providing clinical placement hours, which can be included as part of degree requirements, or for altruistic reasons.⁴ Other reported aims include providing a service for population health and well-being⁶ and promoting social enterprise. 7 SLCs are delivered in different settings including university, and health settings, and provide an increasing role in providing some of the necessary clinical placements and/or practice learning experiences essential for the development of professional skills.^{6,10}

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SLCs are increasingly becoming a model in physiotherapy pre-registration education¹¹; however, this is a developing area, with studies mainly published in the United States (US), Australia and Canada with few in Europe. 4 SLCs in physiotherapy provide a physical rehabilitation intervention,⁴ and whilst there are some similarities in the aims and design of SLCs for other health professions, there are different considerations to those SLCs delivered by, for example, nursing or medical students, which have an interventional or diagnostic focus. Physiotherapy SLCs in existence range from experiences that are integrated within and provided as part of the curriculum, provide clinical placement hours or are offered as extra-curricular volunteering opportunities. 4 SLCs for physiotherapy are designed to fulfil a variety of outcomes, including providing a clinical experience, 9 developing clinical skills, 12 meeting unmet population needs (altruism) 13 or providing an educational experience. 14 Globally, physiotherapy SLCs deliver services to a range of populations, including older people, underserved populations, those with neurological conditions and the general public.4

Globally, physiotherapy SLCs deliver services to a range of populations.

SLCs for physiotherapy have demonstrated some positive impact on patient outcomes in terms of quality of life and function. 15 Service user satisfaction outcomes are varied, with some service users reporting positive experiences in terms of quality of care, cost and location of service. 16 However, dissatisfaction with physiotherapy SLCs has also been reported, and may in some cases be attributed to poor communication, lack of supervision and increased time for appointments.¹⁷ The evidence reported for student outcomes in relation to participating in physiotherapy SLCs include; enriched learning through increased responsibility or independence, 14,15,18 enhanced development of clinical skills, 13,14 development of leadership and teamworking skills¹³ and serving the population.¹⁹ Evidence on student outcomes and perceptions of physiotherapy SLCs is limited; however, it is suggested that some students may experience barriers to being involved in SLCs where these are offered as a volunteering or extracurricular option, 20 and this delivery method may present a less inclusive and accessible option for those students who are unable to participate outside class time.

Whilst some evidence is reported with regards to the context of physiotherapy SLCs in terms of the populations served, much of this literature is in its infancy and is focussed on other educational, health and cultural environments outside the United Kingdom (UK).⁴ To date, there is a paucity of literature relating to physiotherapy SLCs,¹¹ specifically those in the UK. The aim of this study was therefore to explore student perceptions of running, leading and participating in a physiotherapy student-led neurological rehabilitation clinic in the UK.

2 | METHODS

2.1 | Ethical approval

The ethical approval was granted by the School of Health Sciences Research Ethics Committee at Robert Gordon University (SHS/18/37).

2.2 | Study context

Pre-registration physiotherapy students lead the SLC at Robert Gordon University for those with neurological conditions as part of scheduled module delivery. The clinic runs for two, 1-h-long sessions one afternoon per week for 12 weeks, with up to eight service users attending each clinic, totalling a maximum of 16 service users per week. A minimum of six students attend each clinic and are required to attend for six consecutive weeks to maintain continuity. Students are responsible for assessment of service users, goal setting, treatment, progression, note-keeping and handovers, as well as organisational aspects of the SLC such as appointment booking and scheduling. All students are always supervised by an experienced, qualified physiotherapist. The clinic operates using a 'circuit-based' model whereby service users take part in individual activities supervised and assisted by one or two students. Service users of all functional levels are eligible to attend on a referral basis.

2.3 | Study design

This qualitative study was informed by an interpretative phenomenology approach.²¹ Interpretative phenomenology allows for the indepth analysis of individuals' perceptions and lived experiences whilst acknowledging the researchers' involvement in the work²¹ and supports the exploratory nature of this research study. Consolidated criteria for reporting qualitative research (COREQ) guidelines²² were used to support the conduct and reporting of this research. In order to explore views in depth in a time-efficient manner and provide a supportive environment for participants, a focus group was employed.²¹ A semi-structured focus group topic guide was developed with open-ended questions to address the research aim. The topic guide was piloted in advance of the focus group with two student volunteers to test the usability of the guide. Minor amendments were made on the basis of the pilot. See Appendix A for the focus group topic guide.

2.4 | Participants and recruitment

A convenience sample of students from the stage two MSc physiotherapy (pre-registration) cohort of students (n=12) who led the SLC during one semester in 2019 were invited via email to participate in the study. The researcher (DW) offered interested participants further

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information on the study and answered questions. Four participants were recruited for the focus group, and all were known to each other. Written informed consent was obtained from each of the participants.

2.5 Procedure-focus group

The focus group took place immediately following the SLC block to minimise the likelihood of recall bias and was conducted face to face with four participants and two researchers in a quiet, private room on the university site. A researcher not directly involved in the design or delivery of the SLC (LB) led the focus group, and the other researcher (DW) took notes. Researcher DW, known to the students as a physiotherapy lecturer, had initially created the SLC, though was not responsible for day-to-day delivery. LB was a member of staff but not known to the students. The focus group took approximately 1 h and was audio recorded and transcribed verbatim using a de-identified format. The transcript was returned for participant checking, and no changes were requested.

2.6 **Data analysis**

Thematic analysis of the transcribed interview data followed the method developed by Braun and Clarke.²³ Researcher DW led the thematic analysis and first familiarised themselves with the data by reading and re-reading the focus group transcript. The transcript was imported into NVivo Version 11.0 (QSR International PTY Ltd., Doncaster, Victoria, Australia). Using an inductive analysis approach, the data were scrutinised line by line to generate initial codes aligned with the objectives of this study. New codes were created as new concepts were identified. Codes were labelled on the transcript, with a total of 38 codes identified. Codes were then refined and collated into subthemes and themes. Throughout the analysis process, analyst triangulation involved regular discussion with the second researcher (KC) to enhance the credibility of the findings. Credibility was enhanced as the researcher (DW) had been involved in the creation and running of the SLC as well as the use of a field journal by all researchers. However, consideration was given to the fact that DW was involved in the development of this model of student learning and could bias the outcomes. Therefore, to avoid confirmation bias and enhance rigour, a clear audit trail of discussions, questions and decisions was kept.²⁰ Confirmability was optimised using member checking and the use of the field journal. Reflexivity was maintained by ensuring the inclusion of all relevant codes during analysis.²¹

FINDINGS

3.1 Participant demographics

Four students (out of a total of 12 students involved in the clinic) from the stage two MSc physiotherapy (pre-registration) programme who

had taken part in the SLC participated in the focus group. All participants were female. Table 1 lists the four themes that were identified from the data, along with their sub-themes and illustrative quotes. These themes were: (1) learning environment; (2) self-development; (3) enhanced (clinical) skills development; and (4) reflections on experience.

3.2 Learning environment

In this theme, participants noted the impact of the SLC environment on their learning. This included sub-themes relating to an enhanced real-life learning experience, time and space for learning, and a supportive yet challenging environment.

3.2.1 Enhanced real learning experience

This sub-theme considers the SLC environment. Working with real patients and the impact on learning through applied means had a positive impact on the students' learning. Participants clearly value the SLC as an environment to extend their learning and deliver effective patient care.

3.2.2 Space and time for learning

Participants noted the SLC provided space to allow them more freedom to learn with, from and about their patients. They noted that this differed from a traditional clinical placement environment, where they may at times experience much closer supervision and be working with patients who are not 'their own'. Participants also noted a positive experience where they did not feel like they were being assessed all the time.

3.2.3 Time

Participants considered that the SLC gave them more time with patients than they would usually experience in other clinical environments, and this allowed for more frequent contact and subsequently more consistent practice time and opportunities to develop skills. The frequency of seeing one or two patients over an extended period of time was favoured and again referred to as unusual in comparison to their traditional clinical experiences, where they indicated they would likely see patients on fewer occasions, for example, once or twice.

3.2.4 Supportive yet challenging

Participants noted that they were often challenged because of the more independent approach to patient assessment and treatment and reported that they had to frequently problem solve. However,

TABLE 1 Themes, sub-themes and illustrative quotes.

Themes	Sub-themes	Illustrative quotes
Learning environment	Enhanced real learning experience Time and space for learning Supportive yet challenging	'Anything working with patients is good experience' (P3), further supported by P2 who noted that this was 'more than you can learn in the classroom' 'Most classes or on placement you have your supervisor right there so its you feel like you are assessed all the time whereas at the distance they [supervisors] are there if you need them if there's a problem for support but you are not being assessed.'(P1) 'Its great to have help there to know like if I'm doing something totally off the walls like they are going to jump in but its also its, like at the end of the dayyou're leading' (P4).
Self-development	Leadership and autonomy Organisational skills Lifelong learning	 ' you still have the autonomyemand I guess I don't knowto build your confidence and work as an autonomous practitionereh which was really good' (P1). 'someone else was able to step up and step in and take care of one of my patients when I maybe had two and be able to jump in and intermingle so everyone was really communicating well to sort of alternate the patients' (P2). 'I think we all have the attitude of we are all continuously learning all the time even after qualifying everything is a continuous learning experience' (P1).
Enhanced (clinical) skills development	Transferable skillset Individualised treatments Communication	'I think it takes being in front of a patient and having to think on your feet to realise how much you actually do know it sinks a lot into place about your skills' (P4) 'Dealing with quite complex patients I was a lot better able to use that information in a setting where I'm actually working with a patient rather than just reading about it' (P2) 'I think communication was a big one for me there were a couple of patients what were not standard communication so like picking up non-verbal cues and things and like finding new ways to explain things a few different times' (P2)
Reflections on experience	Better understanding of service users Improvements to SLC	'its more like each little thing you are doing actually impacts that person's life on a day to day basis and I think I've got so much more of a grasp of like how much of an impact you can make even if its not going to come out on data analysis' (P4) ' I think I would have definitely prepared better if I would have had a week to have met the patient and then plan from there' (P4).

Abbreviation: SLC, student-led clinic.

participants did note that they had assistance when required and felt reassured that they would always be working within safe limits due to the supervision in place at the SLC.

3.3 | Self-development

This theme identified that participants noted they developed leadership skills, organisational skills and a new focus on lifelong learning.

3.3.1 | Leadership and autonomy

All participants felt the SLC allowed them to develop leadership skills and that they were autonomous in their practice as far as was reasonably possible for their stage of learning.

This was nice to really take charge of that [patient treatment] and carry it through

(P2).

Participants noted that this allowed them to further develop their confidence with patient interactions and clinical skills overall.

3.3.2 | Organisational skills

Participants reported developing skills in organisation, especially related to working as part of a team and planning for others' patients.

3.3.3 | Lifelong learning

Lifelong learning was a factor that emerged for participants across the SLC experience, and they could see both the importance of this and the development of skills across time.

One participant alluded to the fact that this encouraged an evidence-based and individualised approach to practice.

Knowing what is the best exercise and the best evidence for therapy for those patients ...

(P3).

3.4 | Enhanced (clinical) skills development

This theme reflected aspects related to the transferability of skills, conducting individualised treatments and developing communication with this group of patients.

Transferable skillset 3.4.1

There was agreement amongst participants that they had become aware of their transferable skills and the ability to adapt to different situations in real time using skills from different clinical experiences. The SLC appeared to facilitate recall from other classes and clinical experiences.

3.4.2 Individualised treatments

Participants reported that the SLC supported the ability to individualise patient treatments and adapt the knowledge they already have to different patients. This was particularly noted to be the case with exercise prescription and the use of equipment.

3.4.3 Communication

Participants noted that the SLC enabled the development of communication skills with this particular group of patients, who require adapted communication approaches to ensure inclusive and effective rehabilitation.

3.5 Reflections on experience

In this theme, participants expressed their reflections based on their experience, which identified two sub-themes related to their understanding of patients and suggestions for improvements to the SLC.

3.5.1 Better understanding of patients

Participants noted aspects they had not previously been aware of, such as what is important to the patient in terms of their life, making treatment fun and engaging, and the importance of rapport and interaction with patients in sessions.

There was also an awareness of the lack of rehabilitation on offer to patients generally and, therefore, the importance of the SLC as a service.

> ... there's not really classes or services out there to encourage them to keep going once that's [rehab] all done.. so that's really how valuable our service is to them and how much they appreciate our ... our efforts as well, that was a big thing...

> > (P2).

3.5.2 Improvements to the SLC

Participants noted some of the developments in the SLC that could be implemented to improve the overall learning experience.

These included a more formal induction/detailed preparation for the clinic and a more structured initial patient assessment session.

All participants were unanimous that a longer period of time (more weeks) at the SLC would have been beneficial for their overall development of skills and confidence.

DISCUSSION

This study aimed to explore students' perceptions of leading and running a SLC for patients with neurological conditions, and to our knowledge, this is the first study to explore this in a UK context.

Overall, the study found that participants had favourable perceptions of the SLC, with key themes identified as the learning environment, self-development, enhanced clinical skills development and an enhanced understanding of patient needs. Participants did note some improvements that could be made to the SLC to further enhance learning. Although based on a small sample, these findings provide an important contribution to the body of knowledge in this area.

4.1 Learning environment

Our findings that physiotherapy students valued the real-world environment of the SLC and perceived that the format positively impacted their learning are in keeping with previous studies, 14,15,24 which noted positive perceptions of clinical skills development, confidence and the learning environment. Therefore, it may be surmised that the real-life experiences provided by SLCs could facilitate students' linking theory to practice. The space for learning noted by the participants afforded them autonomy in their interaction with patients and is in keeping with findings, noting that this was a key facilitator for developing clinical reasoning.¹⁴ The support to develop autonomy may be an important factor to consider for future supervision models as well as building capacity for patient-facing student learning experiences. However, it is important to note the stage of students in the context of this study and that these outcomes may not be applicable to less senior students. The findings demonstrate that the space and time available for problem solving in the SLCs are valued by students and are more prominent factors than in traditional clinical placements, which was also reported in a study of a student-led rehabilitation clinic in Canada. 14 The findings related to the positive impact of the learning environment concur with an SLC study with occupational therapy (OT) students that found this contributed to improved clinical skills,²⁵ indicating that this model could be successful for other health professions in providing a real-life situated learning experience for the development of clinical skills.



Physiotherapy students valued the real-world environment of the SLC and perceived that the format positively impacted their learning ... the space and time available for problem solving in the SLCs are valued by students.

Our findings suggest that the lack of formal assessment associated with this physiotherapy SLC model was valued by students, all of whom had experienced the more common continuous assessment mode whilst on clinical placements.²⁶ Whether students are assessed on their performance as part of a SLC may be an important factor in influencing their perceptions of this experience. In this study, students were not assessed as part of their SLC experience, yet they noted the perceived development of skills in a number of areas. Skill development was not quantitively measured in this study, and therefore this cannot be verified objectively, but it is important to consider nonetheless.

On traditional clinical placements, physiotherapy students are normally supervised during patient contact in a 1:1 or 1:2 model,²⁶ and although new models are emerging, they are still in their infancy. Participants noted that the 4:1 supervision model in this SLC gave them sufficient space and yet a safe environment for practice, which agrees with research investigating SLCs as a placement by Heales et al.²⁷ and Mosely et al.,²⁴ with the latter operating a 10:1 model of supervision. The findings of this study and the study by Mosely et al.²⁴ would support the premise that a successful and productive learning environment in the form of a SLC can be created with lower ratios of qualified staff to students than is the norm for traditional clinical placements.

4.2 Self development

Consistent with the findings of other studies, 9,15 participants in this study reported that the SLC model facilitated the development of their leadership skills. This is in keeping with the findings of a SLC peer assisted model,²⁸ where the development of leadership skills was attributed to the inclusion of later-stage cohorts in their study. As our participants were also at a later stage, it is possible that SLCs may facilitate leadership skills development in more senior students only. Leadership is one of the key pillars of practice for health

professionals²⁹ and should be developed across all stages of a physiotherapist's career. It is therefore of considerable relevance to begin to nurture the development of leadership in pre-registration education in order to enhance graduate attributes. Therefore, the SLC may be a suitable environment for such applied leadership skill development for physiotherapy students. This is further supported by studies involving interprofessional learning models^{30,31} that have consistently noted the development of leadership skills as a key outcome, indicating that the SLC model may be a good method of developing leadership skills within and across a variety of different pre-registration healthcare professions.

The SLC may be a suitable environment for ... applied leadership skill development.

Enhanced clinical skills development 4.3

Participants reported that the SLC afforded them the opportunity to further develop and enhance their clinical skills and individualise patient treatments. One of the primary goals of many SLCs is to develop clinical skills.⁴ This study found that students perceived the SLC as contributing to the development of their clinical skills, which agrees with research by Heales et al., 27 who investigated factors affecting student satisfaction in an Australian student-led physiotherapy clinic, and a study conducted with physiotherapy students in a student-led pro bono clinic in the US.¹⁸ Other studies have supported this finding with objective improvement of clinical performance scores for individual physiotherapy students participating in SLCs. 32

Students perceived the SLC as contributing to the development of their clinical skills.

Students reported developing further skills in indvidualising treatment and delivering person-centred care (PCC). PCC is a central tenet of physiotherapy practice, 33 and the opportunity to work in the SLC appears to have provided an opportunity for students to put PCC into practice by individualising treatments as well as understanding what matters to patients. This may perhaps be attributable to the time they had to spend with patients and the number and/or nature of return visits, which may make the development of PCC more feasible in the SLC setting than in a traditional clinical placement environment.

Whilst there is a paucity of literature on physiotherapy SLCs for those with neurological conditions specifically, the findings of this study concur with those from another study investigating SLCs for neurological patients led by OT students in terms of developing clinical skills, clinical reasoning and autonomy. These findings suggest that the learning environment, in particular the time allocated to working with service users, is conducive to supporting the development of complex clinical reasoning and deeper learning for pre-registration health students when working with those with neurological conditions.

4.4 | Reflections on experience

The findings also demonstrated that participants perceived the SLC to have a positive impact on individual patients and identified participants' increased awareness of the lack of rehabilitation services for such patients, indicating a degree of altruism amongst participants. This is in keeping with findings from two studies of physiotherapy SLCs, which, although conducted in different cultural contexts, namely, Canada³⁴ and the US,¹⁹ indicate a universality in students' perceptions of and motivation for rehabilitation for those in need. Many SLCs aim to serve population needs as a key aim.⁶ To date, this has been less evident in a UK context, but our findings suggest that students perceive this as a relevant aim.

We identified a need for further support for students' learning in a SLC in the form of a more developed induction, further preparation for note-keeping, and the general running of the clinic, which is in keeping with research that identified the need for further student training prior to participating in a SLC in a community setting.⁹

4.5 | Study strengths and limitations

This study is the first to investigate physiotherapy student perceptions of a student-led neurological rehabilitation group in the UK context. The qualitative nature of the study allowed responses to be probed, therefore gaining greater clarity and depth over other methods of enquiry. However, several limitations need to be considered.

This study is limited to a small sample drawn from one SLC at one university and one stage of students. Therefore, it is unclear to what extent the experiences of other students participating in SLCs at other stages of their programmes or at other universities may be similar to those reported in this study. The stage of students relative to their perceptions and experiences also needs to be considered, and as such, the findings of this study cannot be generalised to students in different cohorts or stages of their studies. Participants all self-selected to take part, and so it is important to recognise that their experiences may have been influenced by their motivation to take part. However, it would have been unethical to recruit participants in any other way. Despite these limitations, the findings are generally congruent with previous research in other contexts. Participants recruited were all

female, illuminating a possible gender bias; however, the study findings are largely in line with previously published work. Therefore, the study adds valuable knowledge to the field by demonstrating findings from other contexts related to students' perceptions of SLCs, namely, clinical skills development, a positive learning environment, and the development of leadership skills and autonomy, which appear to be applicable to a UK setting. It must be noted that the authors are involved in the education of students; however, steps were taken to minimise bias, namely, the interviewer was not known to the study participants and the interviews were conducted outside the SLC setting. Methods to enhance rigour, such as member checking and

independent coding, were implemented by the authors.

4.6 | Implications

Although SLCs have been well established to date in physiotherapy, there is a paucity of literature on the outcomes of participation in such clinics. This paper presented the findings of a study about a physiotherapy SLC. In doing so, improvements for future clinics were able to be identified. Where this study differs from other SLC studies is that the findings from this study will add to the knowledge base about SLCs in general and specifically for the physiotherapy discipline. It has provided a model framework that can be extended and implemented by other clinical teachers.

Findings from this study will add to the knowledge base about SLCs.

5 | CONCLUSION

This study has explored student perceptions of a neurological rehabilitation SLC in a UK context. The findings have demonstrated that SLCs could be a valuable adjunct for skills-based learning for physiotherapy students and may complement the existing suite of clinical and applied learning experiences within pre-registration curricula in the UK. In addition, the study suggests the SLC model of supervision may assist with the development of graduate attributes such as leadership and autonomy, which are important for the future development of the profession. Improvements can be made to the student experience in the form of a more developed induction and preparation for the learning experience. Although these outcomes relate specifically to the experiences of the participants in this study, they may be attributed not only to other physiotherapy students but more widely to other pre-registration healthcare students. Whilst SLCs are in their infancy in the UK, early indications are that outcomes reported in other countries could be transferable to the UK context.

AUTHOR CONTRIBUTIONS

Donna Wynne was responsible for the conception and design of the work, data collection, analysis and drafting/revision of the article. Kay Cooper contributed to the research design, drafting and critical revision of the article. Both authors agree on the final version for submission.

ACKNOWLEDGEMENT

The researchers would like to thank Laura Binnie (Robert Gordon University, School of Health Sciences) for conducting the focus group.

CONFLICT OF INTEREST STATEMENT

The authors report there are no competing interests to declare.

ETHICAL APPROVAL

The ethical approval was granted by the School of Health Sciences Research Ethics Committee at Robert Gordon University. Reference number: SHS/18/37 (year 2018).

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How to cite this article: Wynne D, Cooper K. Students' perceptions of a UK physiotherapy student-led clinic. Clin Teach. 2023;e13603. https://doi.org/10.1111/tct.13603

APPENDIX A

Table One: Focus Group Topic Guide

- 1. What is your overall experience of your involvement in the SLC?
- 2. What have you learned?
- 3. Can you share thoughts about any impact of your learning?
- 4. Have you identified learning needs as a result of or since your involvement in the SLC? If so, what are they?
- 5. Have you suggested any enhancements to the SLC-pre/during/after class?
- 6. What is your experience related to supervision in the SLC?
- 7. What are your thoughts about undertaking the SLC in relation to your stage in the course?