1520 Health students, 121 Teams channel meetings, what could go wrong…Running an engaging interprofessional education session in the Covid-19 pandemic

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Summary

Interprofessional Education (IPE) is defined as

> *"occasions when members or students of two or more professions learn with, from and about each other to improve collaboration and the quality of care and services" (The Centre for the Advancement of Interprofessional Education [CAIPE], 2016).*

The program at Keele takes students from across the health faculty and encourages engagement in tasks where they work collaboratively as a multi professional team. Addressing this need for collaborative practice early in the training of healthcare students is essential, with graduates entering a career where they are working alongside a breadth of different professionals. Too often when significant healthcare incidents are investigated it is failures in communication and interprofessional working which are cited as significant contributing factors. Providing opportunities to break down traditional segregation in how we teach our healthcare students in higher education, is incredibly important to build familiarity, understanding and good practice in our future healthcare professionals (Foronda et al., 2016). The inclusion of IPE is now recognised as a requirement by most professional bodies governing healthcare education. The first stages of the IPE program are delivered as whole faculty cohorts in November (IPE 2- ~650 year 2 students) and February (IPE1 – ~830 Year 1 students); the pandemic restrictions would therefore make delivery of this in its usual format, of in person small group collaborative working, impossible. The IPE committee felt strongly that to abandon the session completely was not an option as it is an important opportunity for students to start building communities and experience multi professional peer learning. Instead, a new approach was needed on a large scale with both students and staff remotely online.

This brought with it significant concerns around engagement, accessibility and the opportunity for creative collaboration. A confounding factor was the lack of placement activity for both cohorts, year 1 having had no clinical placement experience before and year 2 having a disrupted first year, depriving them of contextual experience of roles and responsibilities of healthcare professionals. Any innovation had to be designed and implemented within only 3 months before the November session. The development of this was the responsibility of an interdisciplinary committee of academic members from the representative schools in the IPE program. The committee has part time administrative support but no dedicated IT support and received no extra funding to develop an approach. The online session had to be effective but simple enough to be implemented and managed by the team, use only

already available technology and work on a large scale. Importantly in the design the online approach had to continue to meet the learning outcomes and take into consideration the positive elements from previous IPE evaluation

Description of the project

For successful IPE, students must engage with the task and with each other; the process cannot be a passive, didactic one but instead has collaboration between students at its core. A range of studies show that students rate the characteristics of different professional groups differently, which suggests that these students hold stereotypical views; nurses tend to be rated more highly for caring, but less competent, while medical students are seen as more competent, but less caring (Foster & Macleod Clark, 2015). These stereotypical views of other professions can impede their collaboration to the potential detriment of patient care in the future (Patel Gunaldo et al., 2020). Based on the contact hypothesis, when students work with students from other healthcare professions, unhelpful stereotypical attitudes can be attenuated (Michalec et al., 2017) which makes collaboration between students an essential component of IPE. The Covid-19 pandemic has shown that never has the need for cohesive, collaborative working in healthcare been more essential.

Typically, the sessions for both IPE1 & 2 are large scale and ambitious, bringing together students and staff from across the breadth of health programs, and running typically 60+ small groups (10-14 students) simultaneously in rooms across the campus. The multi-professional groups have a series of case based interactive discussion tasks. Over the last year elements of gamification have been included in these sessions to provide a safe experiential setting to explore roles and responsibilities in healthcare and encourage group cohesion and engagement. This had significantly enhanced students' positive responses to IPE1 and their understanding of healthcare roles (Aynsley et al., 2022). Across the university Covid-19 restrictions made it impossible for most in person activities to run, and through necessity, many of these were replaced with asynchronous material or more didactic forms of delivery. Because IPE necessitates students working together, a replacement activity consisting of students working independently, or receiving content didactically was not adequate. Engagement, accessibility and opportunity for collaboration were all incredibly important in designing any initiative to replace traditional IPE.

Restricted to using the IT platforms we had in house, Microsoft Teams was the basis for both IPE 1 & 2 sessions. The students were divided into multi- professional groups with a facilitator and assigned a private channel. This space provided a place for the students to interact both synchronously and asynchronously. One of the conditions of the contact hypothesis is that individuals have equal status and can find common ground (Allport et al., 1954). A few days before the activity facilitators posted welcome messages in the channels and encouraged students to reply, introducing themselves and the course they were studying. On the day students joined calls started by their facilitator and used informal ice breaker activities to encourage discussion in the groups. All of the links to resources were available in the files section of the student channels and used programs which could be opened on any device. Following completion of the activities students and facilitators were asked to provide feedback.

The overall aim of IPE1 is to introduce the roles of different professional groups and the importance of communication in teamwork. A plenary video was produced to introduce students to the topic and played to the small groups at the start of the activity, this provided consistency between groups as many of the facilitators are not healthcare professionals or IPE committee members. As an icebreaker activity, groups were given a quiz with questions around roles and language used in healthcare – acronyms, picture round, who am I. This was included to give students the opportunity to become comfortable communicating with the group to enhance engagement in the subsequent tasks. Task 1 was a game-based activity with students choosing what they would do and who would do it at a series of stages through a fictional case. Task 2 uses real life clinical cases from serious incident investigations into maternal failings at Morecombe Bay (Kirkup, 2015) and failings at Stafford hospital in the Mid Staffordshire NHS Foundation Trust (Francis, 2013) and asks the students what they would do at each stage in a patient's care before they compare the actual outcome where failings occurred. The aim of all of these activities is to further increase student awareness of the professional roles in the complex co-ordination and communication of healthcare teams as well as ethical issues that can arise in patient care when interprofessional working is not effective. All of the tasks were designed to encourage students to share their discipline specific knowledge with the wider group to solve the challenges. Altogether 829 students participated from 7 professional groups (biomedical science, medicine, midwifery, nursing, pharmacy, physiotherapy & radiography). All three activities were built using Microsoft Sway with students working sequentially through tasks with links out to additional resources and embedded media.

The IPE2 session was comprised of two main activities. Firstly, the students were given information for a fictional UK town with a population of around 10,000 people. Using a formatted excel spreadsheet to record their decisions, each group had to discuss which health professionals they wanted to employ to serve their population and how many of each they wanted. Accompanying this activity were some questions to encourage the students to reflect on why they had chosen to spend their budget in the way they had and how it helped address the needs of the local population. After designing their healthcare system, the theoretical town was flooded and the group had to respond to a series of emergencies, deciding which professionals they would send who were within reach and what decisions they would make when attending. This disaster walkthrough was built using Microsoft Forms with branching questions and pathways depending on the decisions students took. This provided a scaffold for progression through the task with prompting questions to engage the students in discussion.

Before each IPE day briefings were given to the staff facilitating as many of them had not been involved in the planning. To ensure all facilitators were confident written guidance and a live briefing were provided, this was recorded for those who couldn't attend. Briefing sessions allowed time for facilitators to become familiar with the activities and platforms used and the opportunity to ask clarifying questions. The role of the facilitator in IPE sessions was important to keep as we moved online. In situ the facilitators guide conversation, ask prompting conversations and move around the room sharing their professional experiences. Within a single large room several facilitators from different professional backgrounds would be assigned providing a breadth of professional perspectives. Moving online a single facilitator was assigned

one or two groups to monitor. They were asked to introduce the sessions, keep the students on task and prompt discussion where needed.

Evidence of engagement and effectiveness

Students and staff for both IPE1&2 were given questionnaires immediately after completing the session which consisted of Likert style questions (Table1).

	Strongly Disagree	Disagree	Agree	Strongly Agree
The day was well organised				
My team was well organised and worked well together				
The communication in my team was excellent				
I enjoyed the IPE day				
I believe that the role of my profession was respected/valued by the group				
We experienced barriers to communication within our team				
We overcame barriers to team working				
After the IPE day I know more about the role of other healthcare professions in patient care				
I felt able to challenge or question the views of others within my team				
I didn't understand the educational value of the IPE experience				
I improved my professional knowledge by problem solving in my team				
I did not learn anything from the day that I will take into my practice				
The IPE day allowed me to explore any issues that might arise in interprofessional working.				

Table 1: Questionnaire used for IPE1 & 2 evaluation. Students were invited to respond to each of the statements through an online Microsoft forms questionnaire.

IPE2 ran first and of the students who participated 198 responded to the questionnaire. In addition to the questions asked to both cohorts the year 2 students were also asked to compare the digital experience to the in-person experience of IPE the previous year. Preference for online or in person was divided, with 28% preferring online, 37% in person and 35% viewing it equally. The students were encouraged to engage with their cameras on in the video call, if possible, although several were unable or chose not to. The majority of students contributed to the tasks in some form during the session, verbally, typing in the chat box or by adding comments to collaborative documents. When run in person the students are gathered around an A0 printed town

map and share printed resources. Online access to the map and resources to make decisions was much more effective for access, allowing students to view these things independently and give them time to decide what they wanted to contribute to the discussion. This supported more reluctant students in building their confidence and engaging with the task. Several groups chose to nominate a lead who shared their screen whilst others viewed things independently and contributed discursively. Whilst the different mechanisms for contributing online supported some students in their engagement it also allowed others to sit with their microphones and video off and not contribute. While in some contexts this peripheral engagement can be legitimate, IPE requires that all students actively contribute to enable learning and this is one area that needs to be addressed with clear guidelines going forward. 95% of students felt the day was well organised and 88% enjoyed the activities, these are encouraging as enjoyment in a task greatly enhances engagement. 61% stated they encountered barriers to communication in their team. In IPE these can be misunderstandings between professionals or issues with the structure of the task, however 91% said that they overcame barriers to teamworking. The change to online did not detract from the aims of the session with the vast majority of students agreeing that they understood more about health professionals, increased their professional knowledge and learnt things that they would take into practice.

Following IPE1 473 students responded to the evaluation. The same questions from the IPE2 evaluation were used, with the addition of two qualitative questions: Is there anything that you have learned today that you will take into your own practice both now and in the future? And is there anything that you would like to comment upon about IPE 1? As with IPE2 only a small minority of around 10-12% disagreed in response to each of the Likert questions. The students enjoyed being able to work with other health faculty members and were generally positive towards the content and way the tasks were delivered, however some struggled with the online format and felt there was variable engagement by group members in conversation. Some tutors also expressed this and it is something that could be addressed by clear ground rules at the start of the session which are consistent across all IPE groups. Although the online format interfered with some elements of personal interaction compared to previous in class IPE1 sessions, staff found the students to still be engaged overall in each of the three tasks. In some instances, tutors reported needing to move students along from previous tasks in order to complete everything. Similar to IPE2 the students chose to use the full variety of communication methods on teams. The students communicated online either verbally or using the chat function. The latter method seemed to encourage those less confident in speaking in class to engage and contribute their thoughts, knowledge or experiences. It was clear that students gained an understanding of the importance of teamwork and interprofessional communication in providing patient care. The real cases provided clear consequences when communication and interprofessional working were not effective and student discussions reflected their appreciation of this.

A minority of students were unable to open some of the embedded features, this could have left them feeling unable to fully engage and cause segregation in the group, however in all instances the groups found a way to work together and overcome these issues, sharing screens or having a spokesperson to read out information. Having the tasks in one single place through the Sway document was beneficial in terms of delivery and ensuring that groups only had one link they needed to follow but did

encounter issues with some device compatibility which would need to be addressed. Using structured questions to walk through the tasks was an effective approach to keep the students engaged and focused on the task whilst encouraging discussion.

Reflections on the project

As with many large-scale education initiatives, IPE has had to steadily evolve over the years it has been running. As student cohorts increased, staff moved on and time available to spend on IPE became increasingly difficult in each course's curriculum, these factors impacted negatively on the experience for students. In response to these challenges sequential changes had been introduced in the development of IPE with a focus on implementing engaging and interactive sessions and providing safe spaces for students to discuss and challenge ideas. The pandemic put the success of these activities under threat, a predominant worry with the move to online for the committee was that anything delivered this way would suffer from the lack of in person interaction and modification of the existing tasks to a digital environment would not be fit for purpose. The sheer scale of the task in managing students and staff unfamiliar with technology and coordinating this remotely was itself daunting, however from student and staff evaluation the outcome of this approach has been broadly positive and it is evident from the evaluation that the reworked sessions still meet the aims of IPE. Using online methods to deliver teaching were evidently unlikely to suit all students but this disparity is often also found with in person teaching as well. Following the delivery of both IPE1 & 2 it has become clear that managing student expectations and group dynamics is key achieving the level of engagement needed for a successful online session. For students who were unconfident speaking aloud the online facilitated approach was clearly beneficial, allowing them to contribute through written means, where previously they may have felt intimidated in person working with a group of strangers. Being digital also allowed student groups access to a wealth of information online which they could research and apply to decisions they were making in relation to the tasks. Several groups accessed governing body guidelines and care pathways to better their understanding and apply this knowledge to the task they were working on. Previously when student groups reach the limits of their knowledge they have disengaged with the task presented to them in the room or been superficial in their response to questions asked by facilitators so this was a significant improvement in their engagement with elements of the day.

The management and administration of the days was fraught with small issues and needed a considerable amount of effort from the leads to set up the Teams rooms and add the students and facilitators, ensuring everyone knew where they were going. Worry and uncertainty about the sessions was predominantly from facilitators, with concerns around how to access the spaces and feeling uncertain working in a digital environment. Many of these concerns were reduced by the February session when facilitators had been working for nearly a year in an online remote environment. Students in comparison seemed to have little issue accessing and working online and were quite familiar and comfortable with this approach. For both days the administrator and a member of the committee acted as a helpline using Teams Chat to try and trouble shoot issues. Organising the large student groups and keeping an eye on so many synchronous channels was taxing but similar issues with students in the wrong place and staff not sure where resources are, would also occur in person with people

running across campus to find their session, late due to carparking issues and working in unfamiliar rooms. Interestingly the move to online didn't provide more logistical problems just different variations on existing issues. Online these problems were in fact quicker and easier to resolve, checking student lists and dropping into ongoing Teams calls to support groups with issues.

On reflection it is reassuring that students were overwhelmingly positive in their responses, particularly around the objectives of IPE. The IPE committee's own reflections on the success of the approach were mixed. It was recognised that for the constraints in which IPE was run it was a huge success to deliver the sessions online, with students predominantly engaging at much the same level or a higher level than they would have done in situ, however there was a general feeling that students lost opportunities for community-building and the intangible social interactions and conversations which occur in person. One of the main objectives of IPE is to break down negative stereotypes towards professions. The activities explore professional roles and are designed to need experience from a range of professionals to complete. Running it online the easy access to information eroded this collective knowledge facet of the task and the tutors of several groups found that the students confident to engage were the medical students and nurses and other professions allowed them to take the lead losing their professional voice. In person it is easier for facilitators to address this imbalance when it arises, and this is something we would need to address moving forward with the project. Although still facilitated, the online sessions had only one tutor per group rather than a mix of professionals supervising several groups in the same room. This meant we lost different professional perspectives and role models for the students. This could be addressed by pairing up professionals to look after several channels and offer their varied perspectives. Whilst some students chose to not use cameras and needed more prompting than others to engage online, this has also previously been seen in person, with students challenged for being on their phones, leaving the room and delaying in returning. Having the guided questions and structure to work through the activity was a real asset as it gave the students and facilitators a scaffold to start discussion and engage with the task. Left without this it could be very daunting for individuals to offer opinions or start a discussion. These questions were deliberately structured to be open ended, and the forms allowed students to capture the discussion for their later reflection after the day.

Follow up and future plans

The IPE program was experiencing strain before the pandemic, with increasing student numbers, administrative demand and restrictions with space on campus. Following our experience of running IPE online this year the decision has been taken to continue with online delivery in the next academic year, with slight alterations. Incoming Year 1 students will be allocated to groups in the first semester and given a private Teams channel, with a member of the IPE committee assigned, to encourage communication and familiarisation with their group members before embarking on the IPE1 session. It is hoped that this space will give students an opportunity to familiarise themselves with the technology and meet their peers in the group. This sense of belonging and being a team will hopefully enhance confidence and give them the opportunity to engage more fully in the February session. Clear ground rules for group etiquette will be shared with the facilitators during the briefing with students actively

encouraged to use webcams and contribute verbally at some point during the session. Facilitators will be advised to give students who are not contributing a gentle nudge to try and draw them into conversation and be more active in balancing contribution from group members at the start of the session to give quieter students the opportunity to engage.

Although the focus of our innovation was our healthcare faculty the aims and approach in this project are applicable across a breadth of subjects. As universities continue to experience issues with space and capacity the push to adapt more hybrid ways of working is evident and using innovative effective and engaging approaches to digital aspects of education are essential. It is however of utmost importance that these approaches are still fit for purpose and meet the aims that the original session was intended for. Any use of digital or online should be accessible, engaging and fit for purpose rather than a replacement for when in situ is too difficult. It is important not to take what has been delivered in person and put it online without considering how students and staff will interact with it. From this project a series of recommendations would be:

- Ensure facilitators are briefed and have had time to use the technology
- Use guided questions/clear structure to scaffold any activity and encourage discussion
- Provide a named contact for on the day support to deal with minor issues, who can be contacted and respond immediately.
- Keep the IT approach simple so it facilitates and doesn't detract from learning.
- Encourage participants to use their cameras where possible to promote a more cohesive group discussion and sense of belonging.

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