Maree O'Keefe

Collaborating across boundaries: A framework for an integrated interprofessional currciculum

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Collaborating across boundaries

A framework for an integrated interprofessional curriculum

Final Report, March 2015

Collaborating across boundaries: a framework for an integrated interprofessional curriculum

National Teaching Fellowship

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The University of Adelaide

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List of Acronyms

ALTC	Australian Learning and Teaching Council
ALTF	Australian Learning and Teaching Fellows
CAIPE	Centre for the Advancement of Interprofessional Education
HERDSA	Higher Education Research and Development Society of Australasia
HWA	Health Workforce Australia
IPL	Interprofessional Learning
LTAS	Learning and Teaching Academic Standards
OLT	Office for Learning and Teaching
TLO	Threshold Learning Outcomes

Executive Summary

The ability to learn and work collaboratively is one of the most commonly cited generic graduate attributes. Although important across higher education, there is a particular need for healthcare disciplines to embrace interdisciplinary/collaborative learning due to far-reaching changes to current and emerging community healthcare needs. These include a strong focus on models of healthcare delivery that are built around collaborative interprofessional practice.

Although widely supported in principle, engagement with interprofessional learning (IPL) in Australian higher education healthcare curricula is typically achieved through activities peripheral to, rather than integrated with, the core curriculum. Fully embracing IPL represents a deep shift in thinking for many academic staff. There is a need to act beyond traditional boundaries and disciplinary silos to embrace a more pluralistic understanding of healthcare and health education. Within this context, the aim of the fellowship was to develop a model for an integrated IPL curriculum, taking into consideration existing academic staff knowledge, skills and attitudes.

The institutional activities of the fellowship focussed primarily on the disciplines of dentistry, medicine and nursing. A number of other health discipline groups were also engaged at different points during the fellowship, especially during the program of national workshops.

Information was collected through key informant interviews, staff and student workshops and consultation with national experts. Fourteen deans, program directors, and leading academics at one institution were interviewed regarding their perceptions of IPL, the benefits and risks of incorporating IPL into the core curriculum, and staff professional development requirements. Qualitative thematic analysis was conducted on the interview transcripts to identify key themes.

Through institutional and national workshops together with expert consultations, common models of IPL were described and an evaluation framework for achieving more integrated and sustainable high quality IPL within health profession curricula was developed.

The fellowship achieved the following outcomes:

- A description of common models of IPL
- A framework for comparative evaluation of different models of IPL in terms of both pedagogy and utility, to support achievement of more integrated and sustainable IPL
- A contribution to national and international dialogue and debate around IPL, with successful piloting of the framework in six Australian universities
- A formal report describing the models and framework as a resource for other institutions seeking to enhance IPL within health profession curricula

The following recommendations are made:

1. A range of models for delivering IPL should be used, including single and multidisciplinary activities
2. Selection and combination of IPL curriculum models should reflect the level of student learning outcomes expected at different points within the curriculum
3. Selection and implementation of any IPL curriculum model/s should consider the quality of the student learning experiences and the resources available, including

staff capacity to deliver a quality curriculum

4. Professional development should include development of staff knowledge of interprofessional practice and skills in facilitating and demonstrating collaboration

5. Individual institutions should agree and promote their own definition of IPL that is then reflected in the selection and combination of IPL curriculum models

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Chapter 1: The Context for this Fellowship

The ability to learn and work collaboratively is one of the most common generic graduate attributes across Australian universities (Oliver, 2011). Within higher education settings, interdisciplinary learning activities offer a range of opportunities for students to hone their collaborative capabilities. However, even at a logistic level there are significant challenges associated with developing interdisciplinary curricula that have hampered such innovation. Broad engagement of academic staff in interdisciplinary curriculum development has also proven difficult. Although these challenges are shared across higher education, currently there is a particular need for healthcare disciplines to more proactively embrace interdisciplinary collaborative learning.

Australian healthcare academics are navigating an increasingly complex external environment. In addition to higher education reform, there are far-reaching changes to healthcare education and training approaches in response to current and emerging Australian healthcare needs (Health Workforce Australia, 2011). These reforms can and will have an impact on university teaching programs. In particular there will be a much greater emphasis on interdisciplinary collaboration and learning 'with, from and about each other' [more commonly referred to as interprofessional learning (IPL) in Australia] [Centre for the Advancement of Interprofessional Education (CAIPE), 2002].

A key goal for IPL is collaboration across disciplines with a focus on improving health (World Health Organization, 2006). Although widely supported in principle, engagement with IPL in Australian healthcare curricula is typically achieved through activities that are peripheral to, rather than integrated with, the core curriculum (Henderson & Alexander, 2010). Prevailing academic staff 'knowledge, misconceptions, beliefs and attitudes' towards the value of IPL can also undermine effective student learning (Alexander et al., 2012). Fully embracing IPL represents a deep shift in thinking about learning and teaching for many academic staff. There is a need to think and act beyond traditional boundaries, to move beyond the concept of disciplinary silos and to embrace a more pluralistic understanding of healthcare and health education. There is a need also to embed IPL as a core integrated curriculum component to enhance sustainability (Dunston et al., 2009). Nationally, momentum is building to establish a more coordinated approach to IPL curriculum development (Interprofessional Curriculum Renewal Consortium, 2013).

As a key outcome of the Learning and Teaching Academic Standards project (LTAS), common learning outcomes for Australian healthcare graduates were identified (O'Keefe et al., 2011). Although these learning outcomes are contextualised within individual disciplines according to their specific disciplinary traditions, practices and technical expertise, very importantly, they are a set of shared learning outcomes that have provided further evidence of the value of greater collaboration across disciplines in health profession student education.

The aim of this fellowship was to develop a model to embed IPL in the core health curriculum, with a particular focus on academic staff knowledge, skills and attitudes; and to promote the model and engage in national dialogue on development and implementation of integrated IPL curriculum more broadly.

Chapter 2: Outcomes and Impacts

2.1 Outcomes the fellowship was designed to achieve

The fellowship was designed to achieve the following outcomes:

- A description of common models of IPL
- A framework for comparative evaluation of different models of IPL in terms of both pedagogy and utility, to support achievement of more integrated and sustainable IPL
- A contribution to national and international dialogue and debate around IPL, with successful piloting of the framework in six Australian universities
- A formal report describing the models and framework as a resource for other institutions seeking to enhance IPL within health profession curricula

There was a particular focus on the following fellowship program aims:

- Identifying educational issues across the higher education system and facilitating approaches to address these issues
- Showing leadership in promoting and enhancing learning and teaching in higher education and exploring new possibilities
- Devising and undertaking a significant program of activities that will advance learning and teaching in Australian higher education
- Stimulating strategic change
- Fostering national and international collaboration and collegial networking for shared research, innovation and good practice in learning and teaching

2.2 How the fellowship uses and advances existing knowledge

This fellowship did not attempt to 'reinvent the wheel', as the challenges associated with implementing IPL are already well described (McKimm et al., 2010, citing many authors). Rather, it took specific advantage of a unique opportunity at the University of Adelaide to 'mainstream' an IPL curriculum that was an integrated, rather than aggregated, approach to the formation of future doctors, dentists and nurses. In so doing, previous evidence and experience was both heeded and built on.

Fellowship activities were designed to support high impact strategic change in relation to the promotion of IPL in curriculum innovation meeting national priorities for the quality assurance of academic standards and health workforce education innovation and reform.

2.3 Factors critical to success

The activities of this fellowship specifically addressed a critical challenge in contemporary health profession education, with the outcomes providing practical approaches to implementation that were of immediate usefulness and value to the institution. These activities included staff workshops that specifically focussed on breaking down disciplinary silos and assisting staff in negotiating change. The outcomes included pragmatic approaches to facilitate the implementation of recommendations already made by scholars in the field. The outcomes were also of considerable value across the sector nationally.

The development of a framework for achieving a more integrated and sustainable high quality IPL was welcomed by many academics within the faculty. Linking the fellowship activities with key institutional priorities ensured buy-in and engagement. The value of this approach was reinforced through the engagement of academics nationally in the series of workshops conducted as part of the dissemination strategy. In each case, the national workshops were intentionally designed in collaboration with local academic leaders to be aligned with the local 'hot issues' in IPL.

The 'whole of faculty' approach taken in the fellowship ensured high visibility across the institution. In addition, through the active involvement of key members of the Australian Learning and Teaching Fellows (ALTF) network and other relevant scholars in fellowship activities, existing partnerships and networks were strengthened and new opportunities identified.

2.4 Factors impeding success

None of the factors discussed below proved to be major impediments to the achievement of the fellowship outcomes. Indeed, they were all predictable from the wealth of experiences described within the literature and anecdotally, and in fact represented the challenges and underlined the acute need within the sector for fresh thinking, on which this fellowship was crafted.

As will be evident in other sections of this report, there is no common understanding of what actually constitutes IPL. Such divergent understandings of IPL, together with a lack of agreement on its core purpose and intent, and the lack of a compelling rationale to which all could agree has in many instances led to unrealistic and inconsistent expectations of what IPL can deliver (see Chapter 4).

A further challenge related to the lack of clearly defined benefits to assist in elaborating arguments for greater prominence and resources. It also became clear that there was no one optimal model for achieving more integrated and sustainable high quality IPL.

Nationally, varying levels of existing collaborative networks across and within institutions played an important role in determining the degree to which fellowship outcomes could be disseminated using consistent approaches, and where more sophisticated and tailored approaches were needed. Where well-functioning institutional networks were in place, dissemination and engagement was facilitated and effective. Where pre-existing networks were not well developed, engagement and dissemination was slower.

More specific challenges identified included the concerns of the smaller health professions around losing their identity, and the need to accommodate specific disciplinary clinical supervision obligations in relation to clinical skills and competencies.

2.5 Extent to which this approach can be used in other contexts

Although the fellowship activities were situated in medicine, dentistry and nursing, the outcomes are relevant to interdisciplinary teaching within the broader Australian higher education context. Fellowship outcomes addressed academic staff attitudes to IPL and developed a framework to guide and support change with national applicability through the practical application of policy within the day-to-day context of the university environment.

The framework is a simple tool to guide curriculum development so as to achieve maximum pedagogical value for whichever IPL models are achievable within prevailing resourcing and staff capacity constraints.

In promoting awareness of the framework for implementing an integrated IPL curriculum nationally, close attention was paid to the translation of key messages and outcomes for a more general higher education audience. Engagement with the ALTF and Discipline Scholar networks, together with existing communities of scholars, assisted and enabled this

outcome.

Fellowship outcomes were presented to a broad cross section of higher education scholars and practitioners through national workshops and conference presentations. A consistent theme among attendees at these events was the similarity of the challenges associated with implementing interdisciplinary teaching and learning initiatives. Approaches developed through the fellowship had resonance with these wider higher education audiences.

Chapter 3: Approach and Methodology

The fellowship was conducted as a series of activities that intersected and reinforced each another. An action learning approach was used to maximise the benefit from each stage. Where appropriate, qualitative research methodology was employed with an underpinning theoretical framework drawing on activity theory providing a higher-level analytic lens (Engestom & Sannino, 2010). Over a 12-month period the following activities were undertaken: key informant interviews; consultation with national and international scholars, practitioners and experts; institutional staff and student workshops; national workshops and conference presentations.

3.1 Key informant interviews

To develop a clear and detailed understanding of the prevailing institutional level understandings of IPL and the current context of the individual degree programs, a series of key informant interviews was conducted at the host institution. Fourteen academic staff from the disciplines of dentistry, medicine and nursing were interviewed. This sample included deans, program directors and leading academics. In some instances individuals were interviewed alone, and in others, staff preferred to be interviewed together with another colleague. In one interview, three academic staff from two different disciplines were interviewed together at their request.

The interviews were conducted using a semi-structured format that explored understandings and perceptions of IPL, the benefits and risks of incorporating IPL into disciplinary core curriculum and staff professional development requirements. With participant consent, interviews were audio-recorded, transcribed and anonymised. Two coders (one being the fellow) undertook initial coding and thematic analyses independently. Broad themes were then compared and refined until consensus was achieved as to the outcomes.

3.2 Collaboration with national and international scholars, practitioners and experts

A significant component of the fellowship was continued liaison and discussion with national and international scholars, practitioners and experts and key stakeholders about the purpose and outcomes of fellowship activities. As a result of previous activity by the fellow as a discipline scholar with the LTAS project, a broad range of existing relationships were already in place with individual scholars and networks, such as the ALTF and the ALTC Discipline Scholars. The fellow was also frequently in touch with discipline leaders and key national bodies.

3.3 Institutional staff and student workshops and forums

Six institutional staff workshops were held to explore current understandings of IPL, to foster collaborative linkages and to encourage and support innovation. Faculty program directors, course coordinators and teachers from dentistry, medicine, nursing and oral health attended these half-day workshops. In each case the workshop format comprised varying combinations of presentations, interactive activities and feedback sessions. A particular focus was on current faculty activities that would lend themselves to a greater emphasis on IPL with the intent of maximally integrating fellowship activities with current faculty priorities. Included in these activities was consideration of current and future staff professional development needs in relation to supporting a more integrated model of IPL.

In addition, a student forum was held with students from medicine and nursing. These two disciplines were selected for participation based upon the contemporaneous trial of an integrated medicine and nursing student IPL simulation pilot activity. Student perspectives across a range of aspects of their learning were explored in relation to current experiences

of IPL activities and opinions regarding increasing the IPL content within their curricula.

3.4 National workshops and conference presentations

In addition to the institutional work to promote IPL and develop a model of embedding IPL into the core curriculum, the fellowship objectives included presentation of fellowship outcomes to a wider audience. To achieve this, a program of national and international conference presentation and a series of national workshops were embarked upon to disseminate and build on fellowship outcomes.

Table 1. Summary of fellowship workshops

Date	*Location*	*Purpose*	*Participants*
15 Aug 2013	Hobart	IPL and common learning outcomes in nursing	15
29–30 Aug 2013	Townsville	IPL and common learning outcomes across health disciplines	13 (Day 1) 24 (Day 2)
3 Dec 2013–12 Mar 2014	Adelaide	IPL and collaboration in medicine and nursing (5 workshops)	8–10 each workshop
3 Apr 2014	Adelaide	Student forum, IPL and collaboration	14
19 Jun 2014	Adelaide	Forum led by a panel of national experts	24
21 Aug 2014	Sydney	Present fellowship outcomes and pilot the IPL evaluation framework	19
11 Sept 2014	Melbourne	Present fellowship outcomes and pilot the IPL evaluation framework	17
18–19 Sept 2014	Townsville	Present fellowship outcomes and pilot the IPL evaluation framework	18
8–9/10/14	Newcastle	Present fellowship outcomes and pilot the IPL evaluation framework	23
16/10/14	Perth	Present fellowship outcomes and pilot the IPL evaluation framework	79
4/11/2014	Adelaide	Present fellowship outcomes and pilot the IPL evaluation framework	18

Chapter 4: Outcomes and Impacts

4.1 Key informant interviews

When asked specifically, interview participants found it very difficult to describe what IPL was. Descriptions ranged from an approach to developing skills in teamwork and collaborative activities, to a means to improve patient/client health outcomes. In each case the definition appeared personal and unique. Across all 14 interviewees there was little in common with the internationally cited CAIPE definition of 'learning with, from and about each other' (CAIPE, 2002).

Unsurprisingly, as a consequence of the lack of a commonly understood definition of IPL across the faculty, participants were unable to clearly state a rationale for implementing IPL, the associated learning outcomes or how it might be achieved. There was considerable focus on risks that ranged from tokenism and a 'tick box' approach to IPL through to the loss of professional identity within disciplines associated with the blurring of discipline boundaries. There was little confidence that interprofessional collaboration was currently a reality in some parts of the healthcare system.

Participants affirmed the importance of a more prominent role for IPL in health profession student curricula, and expressed support for embedding IPL into the core curriculum. However, a number of participants discussed the current need to keep IPL separate. The reasons for this related to resource constraints and the desire to pilot new initiatives on smaller groups of students before wide implementation. A prominent argument in relation to this perspective related to the importance of preserving disciplinary integrity and the need to 'contain' IPL so as to render the accompanying logistic arrangements manageable and to ensure quality control.

4.2 Collaboration with national and international scholars, practitioners and experts

Ongoing consultations and discussions provided critical guidance and feedback throughout the fellowship. Scholars and practitioners around Australia were contacted and in many instances face-to-face meetings also occurred. Discussions were held with academic scholars in Canada, the United States and New Zealand. Examples of the ways in which these collaborations shaped fellowship activities and contributed to fellowship outcomes included: contributions to the development of the fellowship workshop content, format and delivery; independent analysis of key informant interviews; discussion of theoretical perspectives; and the participation of an invited panel of national experts at the University of Adelaide Interprofessional Forum attended by key staff across all discipline areas.

4.3 Institutional workshops

Organisation of the themes identified through the key informant interviews indicated the different 'starting points' among academics in their understandings of IPL, the current need for IPL and the tensions at play. This information was then used to shape subsequent workshop activities to enable exploration of new solutions. In addition, different levels of staff knowledge, skills and attitudes in relation to IPL were identified that could be specifically addressed through subsequent professional development activities.

A consensus emerged early that the 'safest place to start' to embed IPL within the core curriculum was to focus on clinical skills training and simulation. From the outset there was a strong consensus that planning should be interprofessional and integrated across disciplines to model this approach for staff and students, and to 'walk the talk'.

A series of models were developed to describe common current approaches to IPL, with accompanying short worked examples of these models in action (Figures 1–4). These

examples were collaboratively refined through the workshops.

The student workshop provided strong endorsement for plans to increase the interprofessional content of the medicine and nursing curricula. Students were particularly supportive of increasing the opportunities for more informal learning activities.

4.4 IPL curriculum models

The following models for IPL curriculum were identified by participating staff and subsequently endorsed by participants in the national program of dissemination workshops.

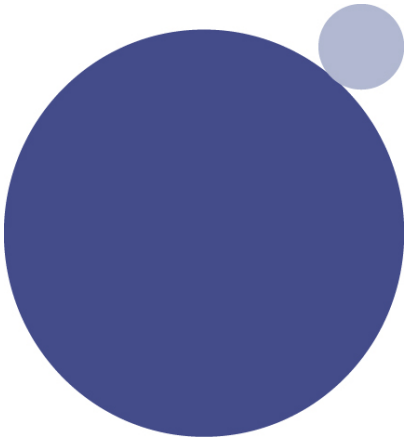

Figure 1 Unidisciplinary IPL activities

In this model, involving a single discipline curriculum, IPL is achieved through the delivery of content and learning activities that include the perspectives of other professions. These perspectives may be accessed directly; for example, by having teaching delivered by members of other professional groups and site visits, or indirectly, for example, by building case studies that include a focus on the roles of other healthcare professionals.

An advantage of this model of IPL delivery is that it is relatively simple to coordinate and deliver as only one timetable is required and some curriculum content can be delivered through digital platforms. It is also possible to include a wide range of potential interprofessional interactions as there is no need to be limited to those health professions that are represented within the local university and/or health service. In addition, teaching staff can be confident that students achieve individual discipline professional competencies.

A limitation of this model of IPL delivery is that it may lack some authenticity for students, as learning may be more theoretical and less grounded in their actual experiential learning activities. This model also risks perpetuating a unidisciplinary view of healthcare. Typically these forms of IPL are initiated as pilot programs on the periphery of the core curriculum of the participating discipline. However, once established, this model of IPL can be highly effective in delivering IPL learning outcomes that is both scalable and sustainable.

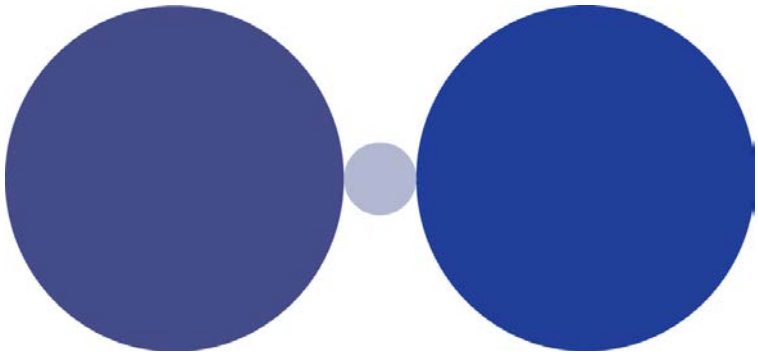

Figure 2 Multidisciplinary IPL activities

In this model, involving the curricula of two or more disciplines, IPL is achieved through activities that actively involve students and staff of participating disciplines. Learning activities are often scenario-based with or without simulation in some form of multidisciplinary clinical challenge. Another example of this model for IPL curriculum delivery is 'student-led clinics' where students from a number of different disciplines work together to plan (and sometimes deliver) patient/client healthcare. It should be noted that this is not a common curriculum content model.

An advantage of this model of IPL delivery is that it provides the opportunity for shared learning by students from a number of disciplines. Students work collaboratively towards a predetermined clinical goal, learn about each other's professions, expertise and scopes of practice. It can enable consideration of important human factors in collaborative healthcare practice and the complex dimensions of clinical leadership. These learning activities provide rich opportunities for debriefing and reflection that can then be used to improve performance in a repeat of the activity.

A limitation of this model of IPL delivery is that it is complex and resource-intensive to organise, and in some instances, to deliver depending on the technology required. This model of IPL can become vulnerable over time if recurrent resourcing is not available, leading to problems with both scalability and sustainability. As the model is based on a shared, interdisciplinary activity, a lack of clarity about resourcing responsibilities can also arise.

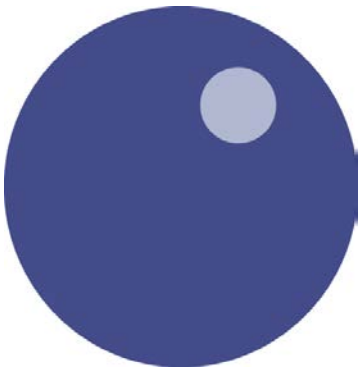

Figure 3 Embedded unidisciplinary IPL activities

In this model, IPL is achieved through learning activities within a single discipline curriculum that builds on, or refocuses, existing curriculum elements. Most commonly, these learning activities occur within student clinical placements. Unlike the unidisciplinary model described earlier, which may lack some authenticity for students, in this model student learning is grounded in the actual experiences of working in a clinical environment alongside healthcare professionals from other disciplines. There is no prescribed curriculum; rather, a set of learning outcomes that make the learning expectations explicit for students. Evidence of achievement of these learning outcomes can be collected within portfolios, reflective journals or other assessment tasks. Although represented as a single IPL component within this model for simplicity (small circle within the larger circle), in many instances there will be multiple embedded opportunities for IPL spread throughout the experiential clinical curriculum.

An advantage of this model of IPL delivery is that formal timetabling is not required. In addition, it is a component of the core curriculum. It is also possible to access a wide range of authentic interprofessional interactions.

A limitation of this model of IPL delivery is that it is dependent on the clinical service environment and, if interprofessional care is not strongly in evidence in the culture of the workplace, it can be difficult for students to gain the expected learning outcomes. It may also consider IPL from a particular disciplinary perspective so as to meet particular discipline competency requirements.

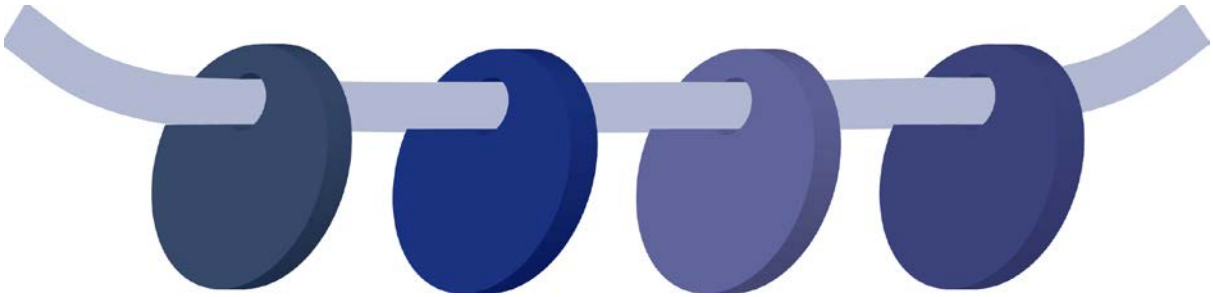

Figure 4 Embedded and connected IPL activities

In this model for IPL there is a connecting structural 'thread' between each of the individual health profession curricula, which are represented here as separate discs. This thread creates an alignment and connection of core curriculum content relevant to each individual curriculum to permit a greater understanding and knowledge of other disciplines as described in the embedded unidisciplinary IPL described above. This connection of content and learning activities across curricula can include any of the previously discussed IPL models. The connection created between each discipline in this model ensures that student learning is grounded within their own profession, while at the same time directly connecting with students from other disciplines. Although represented as a single IPL component (small circle within the larger circle), as with the previously described embedded unidisciplinary IPL model, in many instances there will be multiple embedded opportunities for IPL spread throughout the experiential clinical curriculum.

An advantage of this model of IPL delivery is that discipline-specific curriculum learning outcomes are achieved, while at the same time an interprofessional curriculum of learning activities is in place drawing on and linking the existing experiential learning activities of each of the participating disciplines. There is no limit to the number of individual disciplines that can participate in such an arrangement, with all participating disciplines being equal partners within a model that maintains disciplinary integrity. It also provides the opportunity for structured and scaffolded learning by students. Students learn together and in working collaboratively towards a predetermined clinical goal, and learn about each other's professions, expertise and scopes of practice.

A limitation of this model of IPL delivery is that it may be complex and resource-intensive to work across individual disciplines and maintain an effective extracurricular connection. However, this model for an embedded and connected IPL curriculum, in drawing on the advantages of all previously described models, provides compensation for many of the limitations identified with the previously described models.

4.5 A framework for achieving a more integrated and sustainable high quality IPL

The Faculty IPL Forum (mentioned in 4.2) was attended by key staff across all discipline areas (not only medicine and nursing) and an invited panel of national experts. Forum sessions included 'Challenges for teachers', 'Opportunities for serendipitous learning in clinical environments', 'Strategies to embed IPL' and 'Alignment with the national agenda'. Ideas were collated and synthesised. An agreement was reached to rebrand IPL within the institution as 'Collaborating for Patient Care'.

Key messages emerging included:

- A commitment by the faculty to a patient-centred approach to health to reinforce the relevance of IPL across all disciplines
- The importance of giving students opportunities to reflect on the definition of IPL and their personal understanding and interpretation of it
- The need to start IPL in the early years of the curriculum with a consistent approach that is ongoing throughout the whole curriculum
- The importance of highlighting existing IPL activities
- The need to improve IPL knowledge and skills across the faculty

It was acknowledged that considerations of the quality of student learning outcomes and the utility of curriculum approaches should inform decisions regarding the choice of IPL curriculum model/s. Curriculum approaches that are resource-intensive need to deliver high quality and essential student learning. Equally importantly, the quality of student learning experiences and outcomes need to be safeguarded where curriculum approaches that are more easily arranged and/or delivered are selected.

The outcomes of each phase of the fellowship were synthesised with the framework shown in Figure 5. Pedagogy and Utility emerged as key considerations. Pedagogy in this context is defined as the value to the student of the learning experience. Utility refers to the ease with which a particular IPL approach can be delivered in terms of resourcing and logistics, including staff capacity.

The framework can be used to plot current approaches to IPL and supports a comparative evaluation of different approaches within a single institution. The framework also permits analysis of potential new approaches to IPL, and in so doing provides a valuable quality assurance tool. Once plotted within a quadrant decisions can then be made about the quality of the student learning experiences or the likely impact of resourcing changes.

Use of this framework permits the assessment of likely trade-offs associated with increasing either the pedagogical value or the utility of each IPL activity to assist IPL curriculum planning and implementation. The framework was piloted across six Australian universities in five states (see Table 1) during the national workshop series (see Section 4.7).

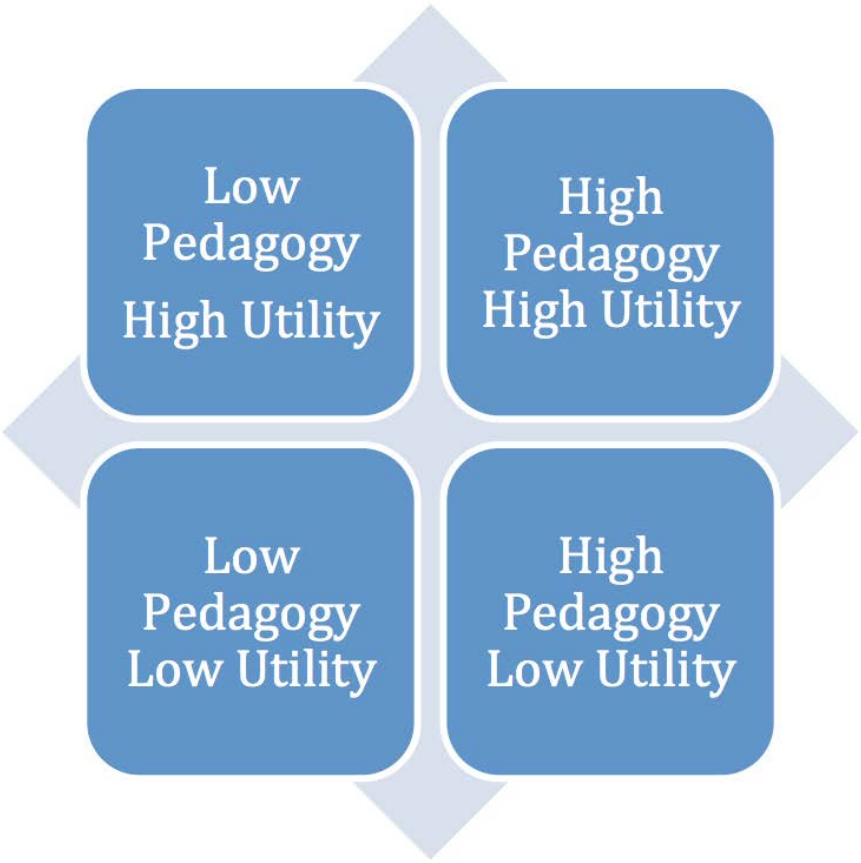

Figure 5. Institutional IPL evaluation framework. Once current models of IPL are identified within the institution, each of these models can then be 'plotted' according to the quality of the student learning experience and the associated organisational and resource requirements.

Low Pedagogy Low Utility

- Low quality student learning experiences and/or learning outcomes
- Complex to organise and/or resource-intensive and/or low levels of staff capacity to deliver.

Low Pedagogy High Utility

- Low quality student learning experiences and/or learning outcomes
- Straight forward organisation and/or low resource requirements and/or adequate numbers of skilled and experienced staff.

High Pedagogy Low Utility

- High quality student learning experiences and/or learning outcomes
- Complex to organise and/or resource-intensive and/or low levels of staff capacity to deliver.

High Pedagogy High Utility

- High quality student learning experiences and/or learning outcomes
- Straight forward organisation and/or low resource requirements and/or adequate numbers of skilled and experienced staff.

4.6 Academic staff knowledge, skills and attitudes

Deficits in staff knowledge of disciplines other than their own were identified, together with a real need to develop staff skills in collaboration and teamwork. The potential for further use of the Threshold Learning Outcomes (TLOs) as a vehicle to facilitate the sharing of experiences by staff and building understanding across disciplines to underpin a real experience of learning 'from, with and about each other' was acknowledged (O'Keefe et al.,

2011). Across the entire body of academic staff interacting with the fellow, only positive attitudes to IPL were encountered. Limitations in respect of existing staff capacity appeared largely related to knowledge and skills.

A key outcome of the fellowship for the hosting institution was the commitment by a group of academics across discipline areas to work together to refine and implement a more embedded approach to IPL using the approach developed in this fellowship. In making this commitment, and in the high levels of engagement shown throughout the project, teaching staff demonstrated that this commitment was not confined to planning, but was accompanied by a true intent to change practice.

Through the activities of the fellowship, benefits to students, staff, and the university were identified and highlighted. For those staff with little prior knowledge of IPL, the fellowship activities provided an excellent vehicle for professional development and overall staff capacity development. In making the challenges associated with implementing IPL more explicit within a framework, staff could begin to see solutions and work creatively to bring these to fruition. Importantly also some misconceptions were challenged and/or redressed.

The structuring of fellowship activities provided scaffolding for change to start, to ensure that real change followed the initial excitement and groundswell of support identified. A collaborative network was established that will continue to meet and work to realise the goals articulated within the fellowship workshops.

4.7 National workshops and conference presentations

A key goal of this fellowship was to build on existing knowledge and experience. This was the starting point for the development of faculty activities within the institution, informed and guided by advice from national experts, scholars and practitioners. Once this institutional work had been completed, it was important that local outcomes be shared and built upon. Alignment of fellowship activities with the national IPL agenda was always a high priority. In the final stages of the fellowship, the fellow conducted a series of workshops across Australia as previously described in Section 3.4. These workshops, structured around the fellowship IPL workshops developed at the University of Adelaide, were designed to share and elaborate the fellowship outcomes and to pilot the framework. Access to the skills and experiences of a wider range of academics permitted greater collaboration among academics nationally in working to progress the implementation of more integrated and sustainable combinations of IPL models.

In addition, fellowship outcomes were presented at one national and two international conferences:

- National IPE Forum, Sydney 1 May 2014
- HERDSA conference 2014
- ISSOTL conference 2014

4.8 Deliverables

The fellowship achieved the following outcomes:

- A description of common models of IPL
- A framework for comparative evaluation of different models of IPL in terms of both pedagogy and utility, to support achievement of more integrated and sustainable IPL
- A contribution to national and international dialogue and debate around IPL, with successful piloting of the framework in six Australian universities
- A formal report describing the models and framework as a resource for other institutions seeking to enhance IPL within health profession curricula

The following recommendations are made:

- A range of models for delivering IPL should be used, including single and multidisciplinary activities
- Selection and combination of IPL curriculum models should reflect the level of student learning outcomes expected at different points within the curriculum
- Selection and implementation of any IPL curriculum model/s should consider the quality of the student learning experiences and the resources available, including staff capacity to deliver a quality curriculum
- Professional development should include development of staff knowledge of interprofessional practice and skills in facilitating and demonstrating collaboration
- Individual institutions should agree and promote their own definition of IPL that is then reflected in the selection and combination of IPL curriculum models

Chapter 5: Evaluation, Dissemination, Linkages

5.1 Evaluation

Fellowship evaluation was structured around ongoing review of activities and achievement of outcomes as shown in the table below. The following assessments were monitored and data sources are indicated in brackets.

Evaluation	***Outcome***	***Evidence***
Process	Activities implemented and outcomes achieved in a timely manner Engagement with academic staff OLT reporting deadlines met	Timetable of activities Workshop attendance Timely reporting
Impact	Fellowship viewed as having a positive impact Attitudes and barriers to development and implementation are characterised and addressed Sector-wide engagement and dissemination	Workshop feedback survey Independent evaluator feedback Final report Meetings and ongoing dialogue with scholars Invitations to speak/conduct workshops
Outcomes	Framework for an integrated IPL curriculum agreed Final report	Final report submitted and endorsed

Progress in each of these three domains was monitored through the lifetime of the project. An independent evaluator was appointed at fellowship commencement. Regular meetings with the independent evaluator provided opportunities for feedback, suggestions and external monitoring of progress.

In terms of the process evaluations, the fellow met all internal and external timelines. The project impact was assessed in a number of ways, as demonstrated above. The level of participation and engagement by a broad cross section of academic staff in the interviews and the workshops was impressive and spoke to the importance of IPL across health curricula. Formal evaluation of the final institutional workshop provided evidence of positive impact (Appendix A). The number of national workshops conducted in the latter stages of the fellowship is further evidence of the perceived value of the fellowship nationally (see Table 1).

The level of consensus achieved within the host institution in relation to the embedding of IPL within the core curriculum guided by the framework demonstrated the relevance and need for the fellowship and the associated outcomes. Active dialogue between the fellow and the stakeholder network established through this fellowship continues.

5.2 Dissemination

To enhance the sustainability of the fellowship outcomes, the proposed activities were designed to support real change in healthcare curriculum delivery. The Faculty of Health Sciences had made a formal commitment to implement an integrated IPL curriculum in the early years of the medicine, dentistry and nursing degree programs. As a result, considerable preparatory work was already in place to embed and underpin the sustainability of the fellowship outcomes.

As delivery of real outcomes was a priority from the early stages of proposal development, there was active involvement of key stakeholders in proposal development and planning

through ongoing discussions with institutional representatives of medicine, dentistry and nursing, and external scholars. In previous work across healthcare disciplines in relation to academic standards the fellow had received excellent support from relevant councils of deans, professional accreditation agencies and leading academics nationally.

Ongoing dialogue with key stakeholders in higher education and professional accreditation councils established through previous national project work supported dissemination and promotion of outcomes more widely across the sector. The existing national profile of the fellow facilitated the promotion of the value and sustainability of the fellowship outcomes and the importance and usefulness of this fellowship.

Throughout the fellowship attention was paid to building the fellow's profile and dissemination of the fellowship outcomes. This was closely linked to the strategy of identifying and involving national scholars. Key elements were linkages with existing communities of scholars with relevant expertise and experience; translating fellowship outcomes into a general higher education context for audiences such as HERDSA and the ALTF; and fellowship promotion in association with the dissemination activities for the related 2010 OLT funded 'Harmonising higher education and professional quality assurance processes for the assessment of learning outcomes in health' (Harmonising) project (O'Keefe et al., 2014). Promotion of the fellowship was coordinated with additional Harmonising project dissemination activities, giving the fellowship immediate access to a national audience through these well-established and pre-existing networks.

5.3 Linkages

As has been described above, the approach taken for this fellowship placed considerable emphasis on continued liaison with individual leading discipline academics in the field, in addition to key stakeholder groups and networks. The fellow continued to work with colleagues whose work in IPL had direct relevance to the activities of the fellowship to assist optimal engagement of other scholars in the field.

In addition to these individuals the fellow also had direct linkages and collaboration with the following OLT projects/fellowships:

- Curriculum Renewal for Interprofessional Education in Health (Roger Dunston et al.)
- Capstone curriculum across disciplines (Nicolette Lee).
- Harmonising higher education and professional quality assurance processes for the assessment of learning outcomes in health (O'Keefe et al.).

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Appendix A

Faculty IPL Forum—participant evaluation

Twenty participants took part in the forum, with an evaluation response rate of 50 per cent. As part of the evaluation participants were asked for their level of agreement with a number of statements.

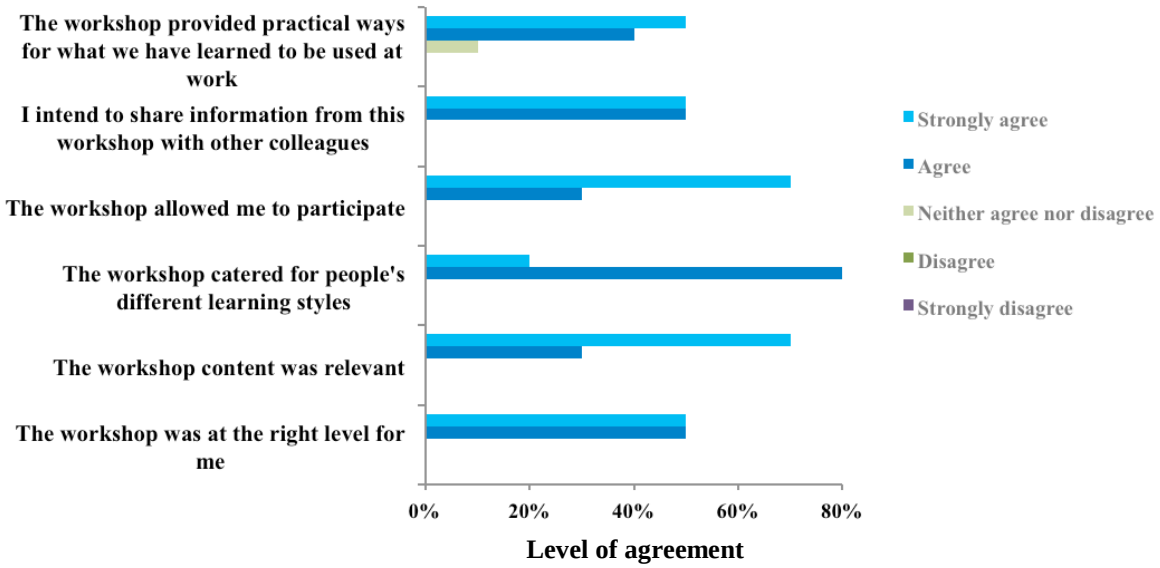

Figure 6. IPL Forum participant evaluation

Responses are shown as a percentage of total responses (n=10).

Participants were asked for a written response to the following questions:

1. What was the best part of the forum?

- *Role of IPL in curriculum development/its evolution*
- *Hearing others' experiences with IPP*
- *The presentations and discussion*
- *The interaction, also the small group size made it more conducive to participate*
- *All facilitators engage all participants and the environment created was ideal for all to take part*
- *Coming up with the IPL model*
- *Hearing from people who have experience with IPL in the Health Sciences and then considering how we could use this in our ventures into IPL in different areas of Health Sciences education*
- *The small group size and the interactive sessions. Great to be able to share ideas and discuss the concepts*

2. What was the least useful part of the forum?

- *Nil*
- *?*
- *N/A*
- *The national agenda*
- *None—although more likely to get people attending outside of marking times*

3. Do you have any additional comments?

- *Implementation of IPE/IPL in workplace*
- *Good to plan how we will be implementing IPP at the University of Adelaide*
- *It will be good to continue to grow IPL in faculty taking into account both learning, clinical and community settings where IPL can be diverse and share the learnings via a community of practice in faculty/website*
- *Thank you*
- *No*
- *The forum provided good speakers and valuable group activities*
- *Great*

Participants were asked to provide an indication of their knowledge about IPL prior to the forum.

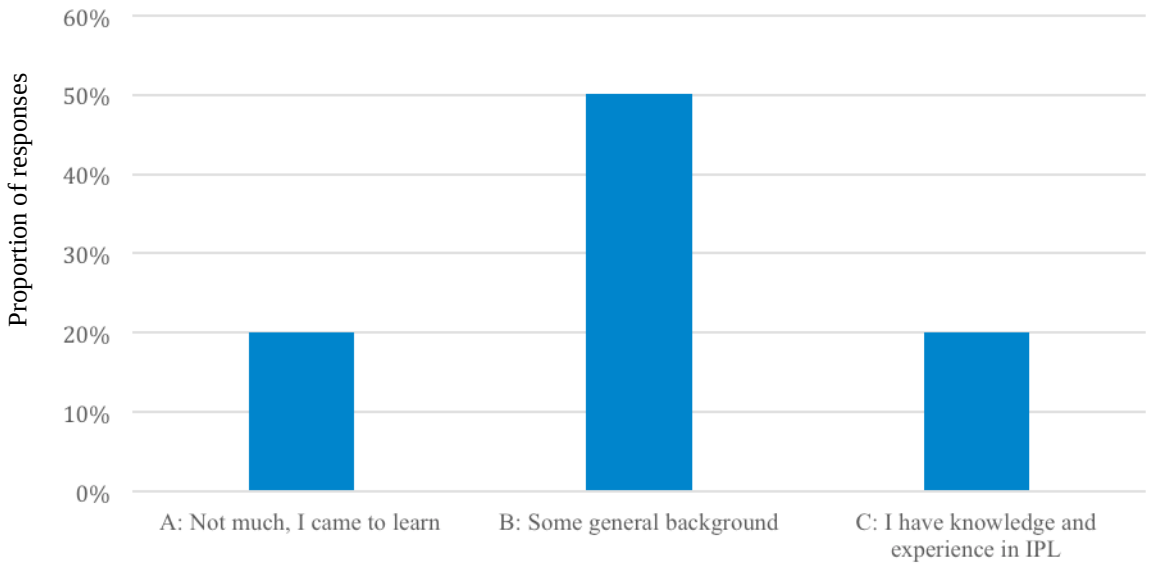

Figure 7. IPL forum participants' prior knowledge of IPL

Participant responses to the question 'Prior to this forum how much did you know about IPL?'(n=9)