IMPACT Program Content Description

The IMPACT program was divided into three main blocks: “Getting to the Core of Impact”, “Talking to Stakeholders and Iterating”, and “Bringing it all Together”. Within each block meetings were once per week, with several weeks between blocks.

Below is a representative schedule of the sessions, followed by a brief description of how each session ran.

	IMPACT Program Representative Schedule		
	Discussion Topic	**Session Activity**	**Assignment for Next Session**
Session 1	Introduction to IMPACT, introduce storylines for next week	Impact Statements in small groups	Draft Impact storyline
Session 2	How to break a storyline onto slides for next week	Storyline Presentations, medium size groups (max 6 each)	Uupdate storyline and break into slides
Session 3	How to talk to stakeholders. Converting storyline points to visuals.	Storyline review on slides in small groups (4 max each); discuss who a stakeholder would be	Draft impact case and list stakeholders
Session 4	Plans for the next month	Review Cases in small groups of 2 or 3, 30 min rewrite, meet in different groups	Update impact storyline and case; meet with stakeholders
Several week break; meet with stakeholders and update statement, storyline, case			
Session 5	Group discussion on stakeholders and other issues from break	Storyline in word format in small groups	Update impact storyline and case
Session 6	How to do a self-introduction	Self introductions in small groups.	Update self-introduction and practice with case
Session 7	General discussion	Pairs of Fellows present to each other	Update impact storyline and case
Several week break; update statement, storyline, case			
Session 8	Points on making visuals in slides	Self introduction and case presentations ; 6 max per group	Update impact storyline and case
Session 9	none	1:2 Fellow:Faculty meetings to review case presentations	Update impact storyline and case
Session 10	None	Practice Case Presentations ; 3 groups of about 4 per group	Final case presentation practice
Session 11	Panel Case Presentations		

__Block 1: Getting to the Core of Impact__

Block 1 consists of 4 meetings. Each meeting starts with a short overview of some general concepts, with the bulk of the time spent in group discussion work. Each week progresses to a more expanded discussion of the Fellows’ projects.

Session #1: Overview of the Program and Impact Statements:

In the first meeting, we have introductions, discussed the meaning of “impact”, and the overall goal of the IMPACT program. We then define an impact statement as 1-3 sentences capturing the main aspects of the work; what the problem was (sometimes not explicitly stated as it can be inferred), what was found, how things will be different because of the results.

General guidelines are given; an impact statement should be understandable to any professional (scientist, physician, etc), should avoid jargon, and be specific but not detailed. We give examples to guide the Fellows.

We introduce Impact Statements by asking the Fellows to turn to each other and tell each other what they do. Many end up stating something along the lines of I’m working on improving “x” in this device, or measuring the change in “y” with intervention “z”. We then ask them to consider whether what they understood why the other person’s work may be important, in order to have them recognize what is lacking in typical statements.

The Fellows are given 10 minutes to draft impact statements, and the remainder of the first session is focused on smaller group discussions and iterations on those statements.

The Fellows are given the assignment to update their impact statements, and write drafts of impact storylines for discussion the following week. An Impact Storyline is a logical progression of points conveying most if not all of the elements of the "case"; what problem was being addressed, how the problem was approached, what was found, and how it would lead towards impact. An example storyline is given to guide them.

Session #2: Impact Storylines

During this session, in groups, one person presented the storyline and others asked clarifying questions. The Fellows are asked to state what they heard, and are encouraged to start to ask questions before the faculty do. The goal is to give them confidence to speak up, and get in the mode of asking questions, which should then help their own cases by asking themselves the same type of question. The discussion time is spent clarifying and focusing on the important aspects of the project rather than fixing the sentences.

We ask that the Fellows consider the main "parts" of the storyline, i.e. what the problem is (e.g. is prostate cancer the problem? What specifically about prostate cancer is the problem?); how it is proposed to be, or was, addressed (e.g. if a technique was developed, what was the technique? what specifically were the findings?); how will it lead to impact (e.g. what would a researcher or clinician actually (specifically!) do?) However, at this point most of the questions center around what the "real" problem was that was being addressed. For example, if the problem was stated as image quality being poor, we would discuss why the image quality mattered, e.g. what was the diagnostic problem requiring the image. Much of the time would be spent getting through jargon that most people in the group did not understand.

The issue of what audience is being addressed was also important to discuss at this stage. The audience was one similar to IMPACT participants, i.e. a general scientific audience, but also that the basic flow that is developed as part of this process can later be expanded in different parts for a particular audience as needed.

As in the impact statements, we stressed that storylines needed to be specific, but not detailed. And, that all would probably swing back and forth between too general and too specific / detailed as one hones in on the crucial points.

To prepare for the next session, we asked the Fellows to split their storylines onto slides for a powerpoint presentation. This was a way of iterating the storyline, while preparing for the conversion of those storyline points to visual slides. By putting the storyline on slides, goal is to get into the mindset of 'what is the main point I want to make on this slide", setting up for session 4.

Session #3: Stakeholders and Impact Storylines:

Stakeholders:

During session 3 we discuss "stakeholders"; broadly defined as those who might be affected by, interested in, care about, has knowledge related to, or may utilize the outcomes of the Fellows' research. We made it clear that it was not the next person in the lab or collaborators they already worked with. The lecture covers how to prepare for a meeting with stakeholders, and tips on how to ask questions to best elicit the information needed. We remind the Fellows that the main goal is to get information from the stakeholders, rather than to give information about their work.

We note that stakeholder discussions per se are "n=1" (or 2 or 3 or 4…); The point of the stakeholder discussions is to know what to look into further, not to use it as "evidence" or "proof".

To help the fellows prepare to meet stakeholders, the faculty work with the Fellows to formulate questions, identify contacts, and use the program's credibility to approach individuals that they might not otherwise interact with. Through this process fellows discern how their initial conception of their work missed several crucial points, and discover tacit assumptions in need of validation.

We recognize that the Fellows won't be able to get all the answers during the time frame of IMPACT. Rather the goal is to delineate the questions that the Fellows need to look into further in order to ensure the best chance for impact, and to get experience asking these types of questions.

Impact Storylines:

We then split into smaller groups to discuss storylines. We ask the Fellows to consider what assumptions they are making about the problem they are trying to solve; e.g. assuming a given patient would be willing to have surgery; if resolution in microscopy is improved, a biologist will use it to get more information, etc. What assumptions are being made about the approach / solution; will it solve the problem? Is it viable? Appropriate in context? e.g. is the surgery tenable given the medical condition of the patient; will your resolution improvement be sufficient for the questions being asked, and so on. We also ask that during the discussions, they identify specific people to talk to as stakeholders (e.g. what particular type of cardiologist – in private practice, specializing in one area, rather than just a cardiologist).

Further direction is given at this point, as Fellows have more experience with the discussions; Fellows often assume that making something better (more precise, more quantitative, faster, etc.) is intrinsically valuable. We encourage them to articulate specifically how that improvement will enable something that is not possible with current approaches.

The assignment for the following week was to start to convert the points on the slides into visual slides, to create an "impact case" (a more standard slide presentation). The reason we want to start to add visuals is that when people add visuals, they tend to get very complex quickly, and it's good to catch that early in the process and iterate it out. Also many times when actual data and schematics are utilized, one realizes that what was said in words wasn't quite right. And/or sometimes it's easier to 'say' something with a visual, and then when the visual is presented one realizes how it can be said it in a bullet point more easily.

Session 4: Impact Cases:

The powerpoint presentations are presented in larger groups, giving the participants a chance to see more of the presentations. We make a point to go back to making sure the specific core problem (not the technical problem) was clear, what was done relative to that problem, and how this will lead to impact (not next steps).

Similar to not focusing on the words per se in the statements or storylines, we did not focus on the slides per se in terms of presentation style, rather what each slide conveyed conceptually.

As an assignment for the break between blocks 1 and 2, we asked the Fellows to update their impact statements, storylines, and Cases, and to try to contact and meet with several stakeholders.

Block 1: Summary:

By the end of Block 1, the expectation is that Fellows and faculty have formed strong relationships, have foundation to think more deeply about the core of the work, and why it matters. They should also have a number of questions to look into during the break from our regular sessions.

Block 2: Talking to Stakeholders and Iterating

Block 2 consisted of 3 meetings, also spaced weekly. Here we integrated feedback that the Fellows had received from stakeholders, and updated impact storylines and cases iteratively. We also held a session on "self-introductions".

Session #5: Catching up and Impact Storylines:

With all participants together, we have a group discussion on how things went with stakeholder interviews over the break, and general updates on how everyone spent the break.

We then break into smaller groups to review the storylines again, in bullet format.

No assignment is given for the following week, but the expectation is that the storyline and case will be updated for the week after.

Session #6: Self-introductions:

The panel presentations at the end of each cohort semester gives us an opportunity to coach the Fellows on introducing themselves. We hold a session on Self-Introductions, with the goal of having the Fellows each have a way to introduce themselves before their research presentation, but also as a way of having them get comfortable with any type of self-introduction, whether that be before a presentation (either self-intro or giving information for a moderator to introduce the individual), during a networking event, round table meetings, and so on. The range of self-introductions is very wide, and is very situational, but getting used to doing this and coming up with examples will make it much easier when an appropriate situation arises.

Similar to introducing impact statements, we start the discussion on self-introductions by asking the Fellows to introduce themselves to each other. We then ask how many said something along the lines of: "I'm A, I'm a post-doc at X in the department of Y, doing Z". We then discuss how many people will you remember if you hear that 20 times at a given meeting? How many people will remember you?

Preferably, after a self-introduction, people who meet you would say: "S/he is the one who…" A self-introduction should be memorable, associate you with your work, and provides an opening for further interaction.

Types of comments within self-introductions could be: One's personal motivation for work / project (but not necessarily personal information per se), a catchy phrase, or a personal story. We caution that the self-intro should not end up being about the work; rather getting the audience to know the speaker and/or piqued to hear about project. In other words, the goal is not to give an intro OF the talk itself, don't give details on what the study is about, but something to make the listener want to listen to what the talk is about, e.g. what got the Fellow interested in that area of research, or what circumstances might have led to that particular collaboration, etc. Generally the Fellow ends up (by the last meeting) making a slide with some visual representing the introduction to catch the audience's interest before the title slide.

Session #7: Impact Cases:

The last session in this block has larger groups, with each fellow present a self-introduction and Case, with approximately 15 minutes for discussion for each. The discussion is along the lines of what points need clarification.

The assignment for the break was to update the Case, and Fellows are encouraged to contact faculty and/or peer mentors and/or each other for iterating their presentations.

Block 2: Summary:

By the end of Block 2, the bulleted storyline and powerpoint are converging to a logical and consistent flow, the Fellows have some experience in working with self-introductions, and also have had a chance to consider differing viewpoints from their stakeholders and other IMPACT participants (faculty and Fellows).

Block 3: Bringing it all together:

For Block 3, three meetings spaced one or two weeks apart are utilized to focus on a presentation of each project. Here we spend some time discussing slide presentations, but still mostly from the perspective of whether a given visual best represents the point one is trying to make rather than being particularly catching visuals (although those two things generally are compatible goals).

Session #8: Practice case presentations.

Here the Fellows practice the case presentations in groups of about 8 Fellows and 6 faculty.

Session #9: Individual meetings:

The format for this session was 1:2 Fellow:Faculty meetings, where we spent 30 minutes individually with a Fellow, that Fellow then has 30 minutes to update the presentation, and then meet with a different faculty pair for 30 minutes. This format allows for quick iteration and two sets of input for different ideas of how to polish the presentation content and delivery.

Session #10: Final self-introduction and practice presentations:

Here the fellows are able to practice their self-introductions and presentations for timing and final suggestions from the group.

Session #11: Panel Presentations

The final meeting consisted of 5 minute presentations by each of the Fellows to a panel of faculty who had not been involved during the semester. This panel presentation gave the Fellows an opportunity to demonstrate their work and celebrate their accomplishments together.