

Problem Definition

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Problem Definition

This module will support your understanding and use of the Problem Definition Tool from the DIY Toolkit. You should look at the Problem Definition Template which can be found on page 40 of the [DIY Toolkit](#), before working through the module. You will find it helpful to have a printout of the Problem Definition Template with you while you work through this module.

You might think that problems tend to define themselves, and it is exploring the consequences and looking for solutions that should be the focus of your energies. To some extent this is true. However, what we are suggesting here is a more detailed and systematic interrogation of the problem than is usually undertaken.

The Problem Definition Tool guides you to define a problem analytically, exploring it from different angles and helping clarify your priorities by focusing on key critical issues. Using the tool to compare several problems, for example with different projects within your organisation, can highlight common issues that you weren't previously aware of. What at first seems to be the entire problem can often turn out to be just a symptom of a deeper and more complex issue.

This module discusses why a methodical approach to problem definition is important, and supports you in carrying out a detailed problem definition for yourself. As with many of the DIY tools, problem definition benefits from a team approach to bring different perspectives and understanding.

Learning outcomes

After studying this module, you should be able to:

- describe when it is useful and appropriate to spend time on a detailed definition of a problem (SAQ 1)
- recognise and understand the steps in defining a problem (SAQ 2)
- complete a problem definition analysis for a problem that you face (SAQ 3)
- revise or reframe a problem to make it manageable and solvable (SAQ 4).

1 When to conduct a detailed problem definition

The Problem Definition Tool works both to open a problem up and to help define the wider context and associated issues involved. It examines the evidence and the assumptions underlying the problem. Such a detailed examination can sometimes lead to the problem being completely reframed.

At the very least, the tool will lead to a more rigorous and critical definition, captured in a statement that is both explicit and succinct. A problem definition set out in one well-formulated sentence is very valuable: something that addresses the central elements of the issue.

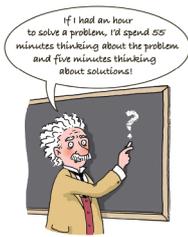


Figure 1: Einstein is said to have understood the importance of defining a problem.

Activity 1

 Allow around 20 minutes for this activity

As the cartoon in Figure 1 above shows, Einstein is reported to have said, 'If I had an hour to solve a problem I would spend 55 minutes thinking about the problem and five minutes thinking about solutions.'

- How do you feel about this quote?
- Can you think of an example when this approach would have saved you time and resources?

Make some notes in answer to these questions in the text box below.

Provide your answer...

Discussion

The quote is a powerful one. I can think of several instances in my work when I thought I understood the problem but soon ran into difficulties when trying to solve it. This was because I was addressing the *symptoms* rather than the underlying *cause*. For example, I might repeatedly correct a student's inaccurate referencing in an assignment, when actually the *cause* is that the student doesn't understand why, when and how to reference. I was only addressing the *symptoms*. So, the problem is not that they need support in polishing their referencing, but that they need to understand why, when and how to reference. This requires a very different response from me to support the student.

2 Steps in problem definition

The quote attributed to Einstein is meant to get us to think before we act, and to think deeply. But how often do we do this? How frequently does the need to be seen to bring about results drive us to compromise on what we know is best practice?

Activity 2

 Allow around 10 minutes for this activity

We are all busy people, often working to tight deadlines. In order to engage effectively with the Problem Definition Tool, you will need to acknowledge some of your current practices. Read the following statements and think about how familiar they are to you. Have you said them out loud to others or silently to yourself, or heard similar from others around you?

- The sooner the project starts, the sooner it will be finished.
- A rough understanding of the problem will do because we can work out the detail as we go along.
- We have to see the problem clearly, which means keeping it tightly controlled.
- There's no point unpacking the problem because it will change.
- The more we unpack the problem, the more we won't be able to solve it.
- If we look too deeply we won't just have one problem, but many problems.
- Defining the problem too closely can bring competing factions out fighting.
- We have the resource for fixing this problem, so let's set about fixing it.
- Some things are better left unknown/unsaid.

Discussion

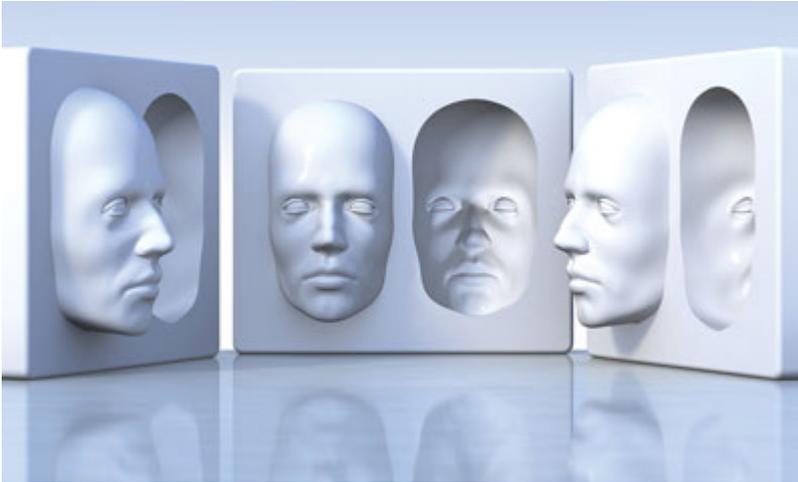
It is very likely that at least some of these statements were familiar to you. We are often in a hurry to get things done, and can easily fall into time-pressured decisions. The Problem Definition Tool helps us to spend time on really understanding an issue before we leap into trying to solve it.

The flow chart in Figure 2 below shows the questions you need to ask to systematically define the problem, which we will now look at in detail.



Figure 2: Flow chart of problem definition tool

2.1 What is the key issue you are trying to address and why is it important?



The same thing can appear differently from different perspectives

This is where you can begin to 'open up' the problem as you currently understand it. You can either work individually or in small groups – here we will refer to groups, as problem definition benefits from a multi-stakeholder input.

The groups should be drawn from stakeholders who are engaged in working with the problem, for example, partners and beneficiaries. To make the discussion manageable, introduce a small set of key criteria by which an issue can be unpacked and assessed. For example, ask the groups to summarise the key issue in no more than ten words, then identify five key concepts that underpin the problem and list five reasons why the problem is important. This will make the activity more focused. It will also give you a standardised way to compare several different responses.

Key point

The people who help to articulate the problem definition should be those who are engaged in and/or have an interest in resolving it.

Your groups will not be starting from nothing; there will be concepts used that might be more contested than you expect. For example, if your work involves working with disability, how do the groups understand this concept?

There can be many different understandings, but asking each group to provide working meanings of key concepts will ensure that everyone is aware of the contested issues. It might be possible to then agree a shared perspective, or to understand why the problem needs to be examined from each of the contested perspectives in turn by all stakeholders working together.

2.2 Who is it a problem for?

Identifying who is affected by – and is affecting – the problem can be another useful way of looking at the issues involved. A 'stakeholder analysis' can give a picture of interests, values and tensions among stakeholders. It can also help to redefine or modify the

problem because the *real* problem may be different from what was initially thought. The stakeholder analysis diagram in Figure 3 below should help you to do this. You might find it useful to use the People and Connections Map (page 68 of the [DIY Toolkit](#)) or the Personas Tool (page 74 of the [DIY Toolkit](#)) to start and support discussions here. This will help to ensure that everyone participates in the process.



Figure 3: An example of a stakeholder analysis diagram

This step will enable you to capture, compare and discuss different viewpoints on the problem. It will give you a better understanding of the problem, the values and interests of stakeholders and the potential conflict in those interests. Exploring these tensions is good, as it allows the problem to be unpacked. (Note that you are not trying to *reconcile* any stakeholder differences within this process, just to *identify* them as part of your problem definition.)

2.3 What social/cultural factors shape this problem?

The importance and visibility of social and cultural factors can be easily underestimated. Multi-stakeholder group work can expose hidden social and cultural barriers or assumptions that could potentially undermine activities to address the problem. Case Study 1 below investigates how social and cultural factors were an important dimension in explaining the low number of women who give birth in health facilities in Ethiopia.

Case Study 1: Problem definition in Ethiopian healthcare

In Ethiopia, delivery in a health facility is low amongst pregnant women. The government initially responded by increasing the number of health facilities in the country. But delivery in a health centre continued to be low. Redefining the problem revealed that it was not just one of accessibility and the supply of health services. Deeper social/cultural factors were at play; the problem was about demand from women.

Pregnant women did not go to health centres because of the bad things they heard about the facilities, such as insensitive treatment. The government responded by introducing a programme of respectful maternal care, where women choose their own birthing position, can bring birthing companions and can conduct their own coffee ceremony that welcomes the baby. These changes are shown in the poster depicted in Figure 4 below, which has helped change attitudes to giving birth in a health facility and increase the number of women that do so.

(Adapted from: Childs and Fawssett, 2015)

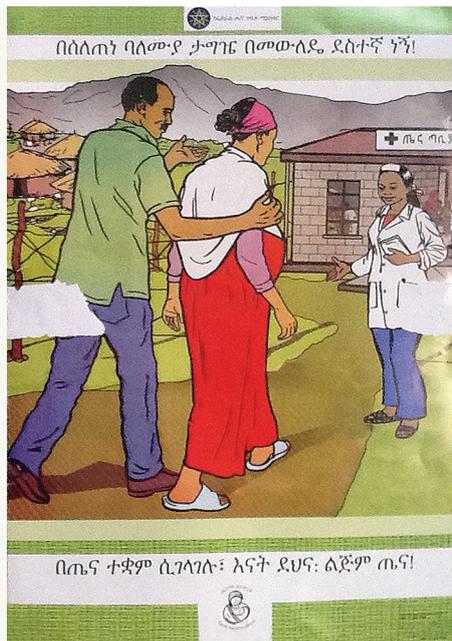


Figure 4: Poster encouraging women to give birth in health facilities in Ethiopia

2.4 What evidence do you have that this is worth the investment?

It is important to consider your issue in terms of the investment of time and resources needed and the outcomes expected. Moreover, you need to consider whether the evidence for your problem definition is reliable and complete.

In Case Study 1: Problem definition in Ethiopian healthcare, the evidence that women did not give birth in a health facility was reliable, but incomplete; accessibility and the supply of health services were only part of the problem, demand from women was a more core issue. Case Study 2: Asking the right questions, below, picks up the issue of data gathering, this time focusing on child mortality rates in Ethiopia. It explains how the initial data collection approach was flawed, leading to inaccurate data, and how this was revised to include a more culturally sensitive approach to interviewing women.

Case Study 2: Asking the right questions

Asking a mother how many of her children have died failed to gain an answer that matched the child-mortality statistics. Netsanet, an interviewer in the data-collection programme, relates his experience:

In some rural areas you can ask a mother ‘How many kids have you had?’, ‘How many kids have died?’ She might tell you three or four have died, for example, but she is often not including the newborns that died. This is because they don’t see a newborn as dying; they see a newborn as ‘being lost’. So they don’t count it. It is a cultural practice in some areas. So you have to ask how many kids have died and how many have you lost.

This demonstrates that getting at the evidence you need requires careful questioning that takes account of how informants understand your questions.

(Adapted from: Childs and Fawssett, 2015)

This example demonstrates that a problem definition is not only about defining the key issue you are trying to address, but also examining the evidence base of the problem. If you need to evaluate evidence in greater detail, you might benefit from looking at the Evidence Planning Tool which can be found on page 10 of the [DIY Toolkit](#).

Evaluating whether addressing the problem is worth your investment, in terms of time, resource and expected outcomes, is a challenging task. To establish this, you might ask:

- Does the problem align with the strategic vision of your organisation?
- Are the perceived benefits greater than the costs?
- Can the beneficiaries and benefits be clearly identified?

2.5 Can you think of this problem in a different way? Can you reframe it?

This final question pulls all the information you have gathered so far together. You are likely to have a lot of information at this point, some of it contradictory. Reflecting on this information and answering the three key questions below can help you capture what you have learnt from this process.

1. Have you captured the viewpoints and interests of all stakeholders?
2. Can you organise the material in a way that helps you understand the problem more thoroughly and provides a guide for action?
3. Do you have enough information to revise or reframe the problem?

Case Study 3, below, is an example of how a problem was reframed.

Case Study 3: Reframing the Problem

Samwarit undertook a problem definition of Ethiopia's achievements in reaching Millennium Development Goals (MDGs) 4 and 5: cutting child mortality rates (MDG 4) and maternal mortality rates (MDG5). Ethiopia reached its target for cutting child mortality rates two years ahead of schedule, in 2013. However, progress with cutting maternal mortality rates has been disappointing. At this point, Samwarit had conceived the problem to be 'how to cut maternal mortality rates.' However, after carrying out a problem definition exercise, she reframed the problem.

What the tool helped to reveal was that the improvements in reducing child-mortality rates applied to children dying between the ages of one month and 60 months, but neonatal mortality rates (children dying before one month) have not dropped in line with these. Moreover, the factors that lead to neonatal deaths are very similar to those that cause maternal deaths, which are different from those that cause child deaths.

For these reasons, although MDG 4 groups all child mortalities together, Samwarit reframed the problem, regrouping maternal and neonatal deaths as one problem, and child deaths (defined as between one and 60 months) as a separate problem. (Adapted from: Childs and Fawssett, 2015)

3 Complete a problem definition of your own

To support you in unpacking your own problem definition, Case Study 4, below, is an example from the DIY Toolkit Case Studies of the Problem Definition Tool in action. Here, Natalya and Zhanna, working for the United Nations Development Programme (UNDP) used the tool on a project to advance gender equality in Armenia. (You can read the full case study about Natalya and Zhanna's project at web.archive.org.)

Case Study 4: Bringing diverse stakeholders together to define a problem

Problem

We brought together over 50 project beneficiaries – diverse stakeholder representatives – for the first time: women in local government; regional authorities; village mayors; NGOs and journalists. We expected a big challenge with facilitating a multi-stakeholder group to work in collaboration on issues of local governance.

Problem identification

What are the key issues they [the stakeholders] face in today's local governance?

Why and how we used the tool?

We used the Problem Definition Tool to give stakeholders a helpful framework to express and prioritise the problems that they experience.

The workshop was scheduled over 1.5 days (11.5 pure workshop hours in total).

We were careful to identify key stakeholders, as well as UNDP and its partners' staff as facilitators. We knew that it would be effective to have people that know the issues more deeply and can be skilful in their response.

We ran the problem definition session for 1 hour, 15 minutes. We had divided the audience into five groups and on rotation asked them to identify existing problems in five thematic areas of the local democracy:

- challenges in electoral processes at the local level for candidates
- interaction between Village/City Mayor and *Avagani* (community council)
- collaboration between local government and central/regional authorities
- interaction and work of local government with constituency
- partnership of local government with civil society, inter-community organisations and media.

To avoid duplication and find as many issues as possible, each group was asked to only add new issues when they were passed the list from the previous group. At the end of the exercise, we asked the group to vote for one priority issue in each field. This revealed five issues, and we asked people to join a conversation about the one they felt most motivated by. The most topical five were:

- lack of ideological debate during local elections
- limitations in *Avagani*: formation, capacity, proper understanding of role and functions
- lack of constructive cooperation between local government, civil society and mass media: lack of formats, existing stereotypes
- low engagement of residents in decision-making processes, apathy among people, insufficient efforts by local government

- insufficient communication between *Avagani* with regional and central government over the community issues.

We used the Problem Definition Tool to go deeper into each issue as shown below.

What is the key issue?	We asked the group to describe the issue clearly in 2-3 sentences.
Who is it a problem for?	We asked them to focus on primary and secondary target groups that could be affected by a solution.
What social/cultural factors shape this problem, and What evidence do you have that this is worth the investment?	These stages were extremely useful for the group to work through.
Can you think of this problem in a different way? Can you reframe it?	With the final column we had some trouble explaining what was required to reframe issues. Instead we focused on looking at the issue from a wider angle.

Results of using the tool

The Problem Definition tool helped to analyse issues much smarter and more deeply. It helped diverse stakeholders find consensus on shared experiences.

(Adapted from: Harutyunyan and Harutyunyan, 2014)

Activity 3

 Allow around 40 minutes for this activity

It's likely that you're working through this module because you have a problem that you want to think about in more detail. Use the Problem Definition Template to work through your problem. You should think of this as a first draft that will help you to structure a more participatory exercise including other stakeholders later.

Discussion

The Case Studies should have given you a clear direction on completing a problem definition for yourself. It can be helpful to do this activity alone in order to work through your own thinking first, and perhaps identify who else needs to be included in the full exercise later. However, be aware of the risk in making assumptions that you take forward and share as fact!

4 Revise or reframe a problem to make it manageable and solvable

In the process of revising or reframing your problem definition, you have identified who the problem is a problem for, or who it most affects. These individuals, or groups, will be the beneficiaries if a resolution to the problem is found. Revising or reframing your problem definition will also have been useful in outlining the extent of the problem; discovering what is part of the problem and what is not. This is likely to make the problem more ready for resolution.

Activity 4

 Allow around 20 minutes for this activity

Beyond defining and perhaps resolving the problem, can you think of any other benefits that the Problem Definition Tool might bring? Make some notes in answer to this question in the text box below.

Provide your answer...

Discussion

Using the Problem Definition Tool can unite stakeholders around a shared understanding of the problem. It can bring people together so that they feel involved and valued, and it can release resources to resolve the problem. This is shown in Figure 5 below.



Figure 5: The added benefits of the Problem Definition Tool

Summary

This module has described when it is useful and appropriate to spend time on a detailed definition of a problem. It has outlined the questions to ask, and supported you in undertaking your own problem definition. It has encouraged you to be prepared to revise and reframe your problem in order to make it manageable and solvable.

Self-assessment questions

SAQ 1

When is it advisable to use the Problem Definition Tool? Make some notes in answer to this question in the text box below.

Provide your answer..

Answer

It is advisable to use the Problem Definition Tool when you need to both open a problem up – presenting it in a way that can be examined from a number of angles – and to define the wider context and associated issues involved.

SAQ 2

Drag and drop the following problem definition questions into the correct order.

What is the key issue you are trying to address and why is it important?

Who is it a problem for?

What social/cultural factors shape this problem?

What evidence do you have that this is worth the investment?

Can you think of this problem in a different way? Can you reframe it?

Match each of the items above to an item below.

Step 1

Step 2

Step 3

Step 4

Step 5

SAQ 3

In the text box below, draft some tips for completing the Problem Definition Tool from your experience of this – you completed a Problem Definition Template in Activity 3

– and from what you have learnt from the case studies (think in particular about ‘Case Study 4: Bringing diverse stakeholders together to define a problem’).

Provide your answer...

Discussion

These were the tips that emerged from ‘Case Study 4: Bringing diverse stakeholders together to define a problem’:

- Participants should try to provide a tangible example for the reframing column.
- Limit the size of groups to five or six people for similar workshops. (The researchers in the case study were working with groups of ten to 12 people and they found it difficult to capture everyone’s input in the allocated time.)

SAQ 4

Which of the statements below are **true**? (Note that you’ll need to uncheck all the boxes in order to make the ‘Reveal answer’ function work.)

- The tool moves you away from looking at the problem in a linear way.
- The tool makes stakeholders feel involved and valued.
- The tool can only help articulate what you already know.
- The tool brings stakeholders’ understanding of the problem together.
- The tool unpacks the problem into many different problems.
- The tool places some boundaries around the problem giving clarity on what, and what not to consider.

End of Module Quiz

Congratulations, you have now reached the end of this module! We hope that you have enjoyed it, and have learned useful skills.

End of Module Quiz

This quiz allows you to work towards your badge for *DIY Learn: Problem Definition*. To achieve your badge, you must answer six out of eight questions correctly.

- You can try each question three times.
- There is no limit to the number of attempts you can have to take the whole quiz.
- If you answer fewer than six questions correctly, you will need to start again if you want to earn your badge.

Don't worry if you are not successful first time, as you will be able to attempt the quiz again in 24 hours.

You need to enrol in this course before you can attempt this quiz which you can do by clicking on the Sign up / Sign in button at the top of this page.

[End of module quiz](#)

When you have finished the quiz, click on 'Next' to review your 'Summary of attempt'. Once you are happy with your answers, click 'Submit all and finish'. Once you have finished this quiz you will be redirected back to this page.

Don't forget there are another nine modules to choose from which you can find on the [DIY Learn home page](#)

References and acknowledgements

Inspired by: Julier J., Kimbell L. (2012) Problem Definition. p30. In: [The Social Design Methods Menu](#).

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Figure 4: Photo of Ethiopian Healthcare Poster: © Federal Democratic Republic of Ethiopia Ministry of Health

Childs, M and Fawssett, S. (2015) 'Study of Ethiopia's achievements in meeting Millennium Development Goals 4 and 5: cutting child and maternal mortality'

[Unpublished]

Harutyunyan, N. & Harutyunyan, Z. (2014) 'Bringing diverse stakeholder groups together to find solutions in Armenia', *DIY Toolkit*, 2 April [Online]. No longer available at <http://diytoolkit.org/casestudies/bringing-diverse-stakeholder-groups-together-to-find-solutions-in-yerevan-armenia> (Accessed 30 October 2015), but accessible at web.archive.org.

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