HI3

HEALTH INNOVATION
IMPLEMENTATION AND IMPACT

THEORETICAL REPORT

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Introduction

The purpose of HI3 – Health Innovation, Implementation and impact is to develop a functional training program on how to implement sustainable change in the healthcare system on a clinical level. European healthcare systems show significant gaps in the provision of healthcare (Council of Europe, 2016) and at the same time our health care system is under a considerable budgetary and societal strain (European Commission, 2017). In order to improve our provision of care, we need to devise a more efficient and sustainable healthcare system. Then it is essential to be able to implement change and monitoring the outcomes and at the same time numerous studies show that implementing the proposed changes in a health care setting remains fragmented, inconsistent and not efficient. Hence, there is a substantial need for the development of high-quality work-based VET in the healthcare sector that facilitate the process of implementing change in an efficient and structured way as well as being cost-efficient.

The need for ongoing training and development of health care professionals is highlighted in the Directive 2013/55/EU "Member States shall ensure, by encouraging continuous professional development, that health professionals are able to update their knowledge.. to maintain safe and effective practice". A key priority is the need to train healthcare professionals in how to implement change and monitoring the effect at clinical levels.

The main challenge is how to create a training program that can enhance these skills in healthcare professionals and healthcare students in a short space of time. The training has to be economically viable to implement and be able to reach a large group of members of healthcare staff or Non Governmental Organisations (NGO's). Therefore, the methodological design is to generate a 1-day training course that emphasis on addressing knowledge and skill deficits in this area. This is indeed a challenging task, especially since there is a plethora of methods and theories that address this topic. However, based upon the authors extensive experience in this field that a functional training material for a one-day training course has been generated.

This theoretical report is based upon the developed training modules. The purpose of the report is that it will be a compliment to the training material as well as providing additional knowledge for the trainer and trainee. It is on purpose that the theoretical report is not too extensive. It should be able to be read by anyone in a short span of time and provide useful information that can be applied in a straightforward way.

The long-term benefits will be that staff/students in the health care sector and NGOs will receive a training that will directly enhance their skill set and as a consequence will facilitate better health care provision for their intended target groups and in the same way make the health care system more efficient. With better implementation strategies that can ensure that improvement in health care provision will be more successful, because they know how to facilitate and monitoring change. This will then result in that patients will receive an improved timely access to affordable, preventive and curative health care of good quality, which is the aim of anyone that work in the healthcare sector.

Innovation on the bedside

Anyone who starts looking into the topic of healthcare innovation will soon stumble upon one of the great paradoxes of our time. Countries are directing massive amounts of spending to Healthcare R&D; in the US, it is only surpassed by the investment done in military defence research. Still, a visit to the local health care unit is sometimes like travelling back in time. For all the expensive medical treatments and equipment, many of the routines and processes are not as up to date. The Scientific Panel of Health (SPH) highlights the disturbing fact that health care costs are rising, but much of the resources are feared to be wasted (World Economic Forum. Value in Healthcare. https://www.weforum.org/projects/value-in-healthcare).

This is an essential point to make, as beneath these obsolete services in healthcare organizations around the world lies a vast room for improvement. It has been proven in practice multiple times that simple innovative changes (that appear so apparent when implemented) potentially drive substantial savings while simultaneously improving care for patients.

Definition of innovation

There are quite a few definitions of innovation in circulation. Healthcare innovation can be outlined as: “a set of behaviours, routines and ways of working, along with administrative technologies and systems, which are linked to providing or supporting health care, implemented in a planned way, and discontinuous with previous practice and perceived as new by a proportion of key stakeholders, and directed at improvement.” (Greenhalgh, Robert et al. 2007)

The most important aspects in that textual mass are:

- implemented in a planned way
- perceived as new by a proportion of key stakeholders
- directed at improvement

Planned implementation

The primary criteria for innovation thus become that it is implemented, which makes sense. To what degree and in what detail the implementation needs to be planned is not disclosed, but it must be a conscious effort. Some would argue that it matters little if the value is provided (in a novel way) by chance or by a plan, and in many cases, they would be right. In this particular case, however, we are dealing with introducing changes to how healthcare is delivered. This comes with potentially disastrous effects should things go awry, and thus planned implementations are to be prescribed.

Perceived as new

As for the second criteria; the innovation needs to be perceived as novel by a proportion of key stakeholders. This refers to the difference between whether something is “new to the world”, H-creative or “new-to-the-creator”, P-Creative (Boden 1998). It is important to recognize that a solution must not necessarily be new to the world in all its aspects, not only does this put an unnecessary heavy burden on the shoulders of the would-be inventors it is also a noted fact that to most unsolved problems encountered by man – and woman - there is known solution “somewhere else”.

Altshuller, the russian scientist studied some 200 000 patent applications in search for patterns, and is give the credit for the famous statement that 90% of all [design] problems have already been solved in other fields (Altshuller 1992). In many ways innovation is as simple as throwing a quick glance over the fence.

“Immature poets imitate; mature poets steal.”(Eliot 1920) A quote often given to Steve Jobs in slightly another wording. As we will see later the ability to combine existing parts in novel ways is a key driver in the creative act of bisociation (Koestler 1964). In a well cited book Brandt and Eagleman (Brandt and Eagleman 2017) builds on this notion and boils down all creative tools to be but flavors of only three main categories.

- Blend
- Bend
- Break

To drive the point home: These approaches all ground their effort in either changing, combining or deconstructing things that already exist.

Directed at improvement

The third criteria for our solution to be included in the ring of innovations is that it must be directed at improvement. The easiest way to ensure that a solution brings improvement is to solve a problem, and the more people that suffer under it, the worse they do it and the more often denotes the value that comes with solving it.

“Yet we shouldn’t confuse a great idea with where it came from. Truly useful ideas don’t arise from out of the ether or through fancy techniques like brainstorming or divergent thinking. The best ideas come in response to an important problem and thrive under constraints.” (Satell 2017)

The other way to approach the problem of how to improve something is to fulfill a need. Now unfilled needs are trickier to identify than unsolved problems, which by definition are annoying and sometimes even painful. Either way you look at it, the common denominator here is the human being that is either suffering from the unsolved problem or the unfulfilled need.

Almost 50 years ago “wicked problems” were coined to describe messy, ill-structured problems where information is incomplete, humans are involved and you can expect no single objectively correct answer (W. J. Rittel and M. Webber 1973).

The characteristics of a wicked problem (WP):

- There is no definitive formulation of a WP
- WPs have no “stopping rule”
- Solutions to WPs are not true-or-false, but rather good-or-bad
- There is no immediate and no ultimate test of a solution to a WP
- Every solution is a “one-shot operation”

- There are no criteria to prove all options have been considered
- Every WP is essentially unique
- Every WP can be considered to be a symptom of another problem
- There is no rule to determine the "correct" explanation of a WP
- Planner is liable for the consequences of the actions they generate

These kinds of problems pose a different challenge to us, where traditional algorithmic thinking taught in school will not suffice. We can also easily see that many of the dilemmas and situations that a health care practitioner will face daily, are indeed 'wicked'. Decisions on treatments are taken on less than full information, the outcome is not certain and there are unknown aspects that may or may not interfere with the procedure.

In a very influential paper, Paul Buchanan (Buchanan 1992) argued that it is quite possible to apply a structured innovative process, referred to as Design Thinking, in order to solve these wicked problems. The principles laid out by Buchanan, have since won widespread adoption and are today used globally, with large companies and organizations creating their own clones (Stanford d.school, IBM, Google, IDEO) and applied in fields like social innovation (Brown and Wyatt 2010) and health care (Cox 2015).

The related field of Human Centered Design should also be noted, it bears much resemblance with Design Thinking and if anything stresses the human as both ends and means of the innovation process, with typical activities as user empathy, purposeful design, rapid successive prototyping and iteration, integrating user feedback to generate feasible, desirable, and practical solutions (Salmon, Salmon et al. 2015).

The concept of Human Centered Design (Brown and Katz 2011) drives this notion all the way, it simply states that innovation starts with the understanding of human needs and "ends" in the successful implementation of a solution that fulfills the need, and that it is the human that decides about the successfulness.

It is clear for everyone to see how well this approach harmonizes with the everyday life in healthcare, and how this approach to service, process and organization innovation balances the traditional product innovation mentioned in the beginning of the chapter.

Summary of definition

But why does it have to be new? Surely it is enough if it delivers value and is working?

The short answer would be that it is definitely enough, being new is not a value in itself. However, as the world is changing the problems are too. Thus it follows that our solutions must change accordingly, not only to meet new problems but to handle old ones in a new and changed contexts.

So, by not inviting innovation into our organizations, we are sentencing them to a slow and painful asphyxiation, increasingly unable to meet the demands of the people they were once born to serve.

Design Thinking and the four balance acts of innovation

The model we refer to as DT is rather straightforward and simple, in fact many that are introduced to the concept will greet it with slight disbelief and wonder what all the fuzz is about. To start with understanding the problem, they will argue, is nothing more than common sense and does not need to be celebrated as innovation.

From a technical viewpoint this is totally correct, we all understand this but nevertheless many of us keep failing at doing it. The “secret sauce” however is not just to recognize the importance of understanding the problem, and it surely is not about knowing all the rules for brainstorming or how to draw up a User Journey. The most important knowledge for those who wish to unleash innovation and creativity in an efficient manner, is understanding the various forces that come to play and how to balance them. This is depicted in Figure 4: The Matrix of Frustration. We will look into some of the balancing acts in the following subchapters.

Wayfaring vs Transport

Anthropologist Tim Ingold (Ingold 2007) introduces the model of Wayfaring and Transport to depict two very different sides of human behavior, inspired by observations of the tribe Orochon in eastern Siberia.

When the hunting team leaves camp to locate and kill prey, they are wayfaring, looking for signs, constantly building knowledge and updating their plan as they go along. The path is not straight, but neither is it random. When the hunt is finished, the hunting team changes into transporters, now it is all about as quickly and efficiently move the meat back to the camp, and avoiding distractions.

When we set out to apply Design Thinking methodology, we will need to be both wayfarers and transporters. Whereas the latter is seldom a problem for students to adhere to it is much harder to persuade them to spend time as wayfarers.

Plattner, Meinel, Leifer (Meinel and Leifer 2011) builds on this, albeit they call the modes Hunter/Gatherers or Wayfinding/Navigation, and adds the rules:

1) Never go hunting alone (the Human rule)

2) Never go home prematurely (the Ambiguity rule)

3) Make it tangible / Take it home (the Re-Design rule)

These are all very good advice for teams running DT projects.

- Work in teams, and make sure to have just enough friction. Put effort into building trustful and generous constellations.
- Be courageous and dare to stay in the phase you are currently working in, most critical is to not enter ideation and solutions mode too early.
- Words are dangerous, they seem clear – yet easily misunderstood, for a team working with innovation it is recommended to instead work as much as possible with sketches and whatever is possible to illustrate ideas in the real world.

Divergent vs Convergent thinking

The idea of divergent and convergent system of thinking has been popularized by Guilford (Guilford 1956). It can be shortly summarized as two very different ways of thinking, both of them very important for innovative efforts as we will see shortly.

On the one hand there is the convergent production where we apply logical thinking to find **the best** solution from a large amount of facts. On the other hand, is the divergent creation of as **many solutions** or alternatives as possible from a single question or standpoint. The brainstorm is the typical divergent thinking process whereas the focusing down on which of the ideas to implement is an example of convergent thinking.

Both ways are crucial to an innovative effort, and although the divergent thinking model is traditionally interpreted as creative and innovative, there will not be any value implemented if the team cannot apply focused convergent thinking as well. (See the criteria 'planned implementation' in the definition section of this module.)

Owen (Owen 2007) divides in a similar way between two types of creative people, the makers and the finders. The maker will explore concepts through the act of creation, the finder on the other hand demonstrates his or her creativity through discovery and understanding.

Divergent production	Convergent production
• Generation of logical **alternatives** from given information, where emphasis is upon **variety**, **quantity**, and **relevance** of output from the same source. • Questions • Most solutions	• Generation of logical **conclusions** from given information, where emphasis is upon achieving unique or conventionally best outcomes. • Facts • Best solution

Figure 1: Divergence vs Convergence

Looking at models for design thinking there are a few things that really stand out, and the almost rhythmic use of switching between divergent and convergent thinking is one of

those. The Double Diamond developed at the Design Council in 2005 (Tschimmel 2012) explicitly illustrates this.

This approach resonates well with the overarching principles of HCD and DT where the actor is encouraged to “get out there” and live the experience (Brown and Wyatt 2010).

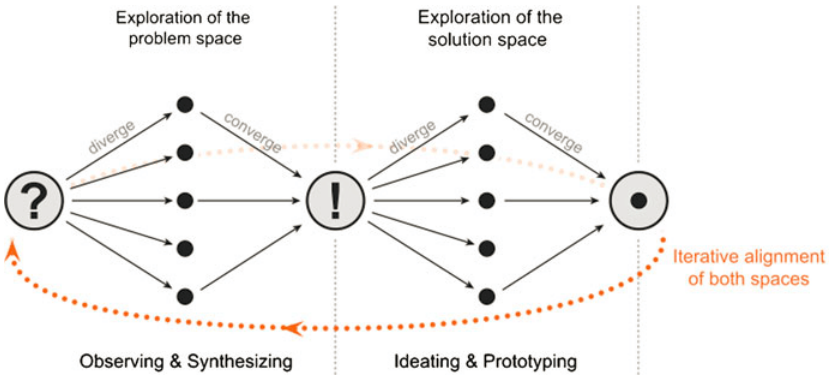


Figure 2: Double Diamond

Algorithmic vs Reflective thinking

One final principle we subscribe to is the notion of how our minds tend to apply patterns for efficient problem solving. Goofman (Goofman 1974) defined these patterns as frames, or schemas that we use to filter our perception of the world.

These patterns are very helpful in getting us through the everyday of a complex society. Through the application of taught solution-patterns we do not have to stop and contemplate as soon as we are fed a stimuli, we simply go along with what worked last time.

The brain is essentially running on battery and conservation of energy is key. Using filters and patterns allows the brain to give fast and efficient responses. This can be referred to as System 2 (conscious thought) and subtype Type 1 (Algorithmic thinking) (Frankish and Evans 2009)

For most adults it is easy to solve 8 * 6 = ? , as there is a functioning pattern for the solution. We don't spend time trying to figure out if there is any specific sort of answer or even if there are more than one. We will happily go with 48 as **the** answer. This is all well until we realize that there are situations when we need to search for as many answers as possible (compare divergent production above), in this scenario we are desperately needing to break free from our patterns of describing the reality.

We need to force our brain into Type 2 (Reflective thinking). This normally happens when the brain feels that things don´t add up, or when the existing patterns for solutions have been exhausted. Some people will find this uncomfortable and stick to known patterns rather than taking in the possibility that the world may indeed be more complex than they would like to think. We will look into how creative technics tap into this mechanism later on.

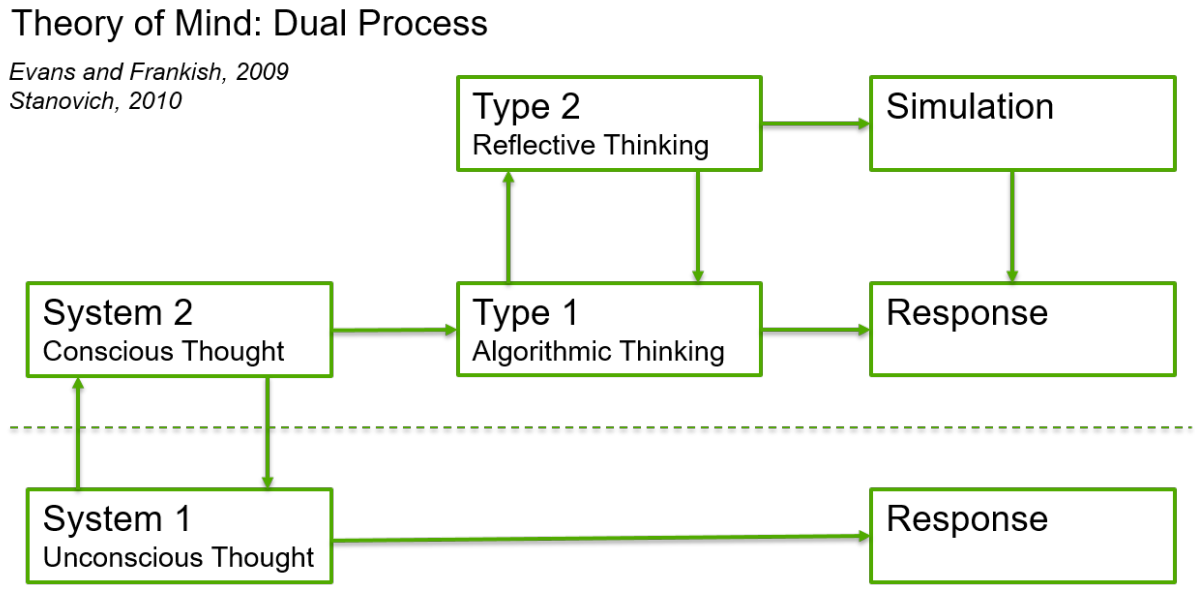


Figure 3: Theory of Mind: Dual Process

(Frankish and Evans 2009)

Being able to apply reflective thinking is a key characteristic of creativity, and thus it is important to address here. This requires trying to identify one owns frames and assumptions, or as Arthur Koestler (Koestler 1964) puts it:

"The prerequisite of originality is the art of forgetting, at the proper moment, what we know."

The Matrix of Frustration

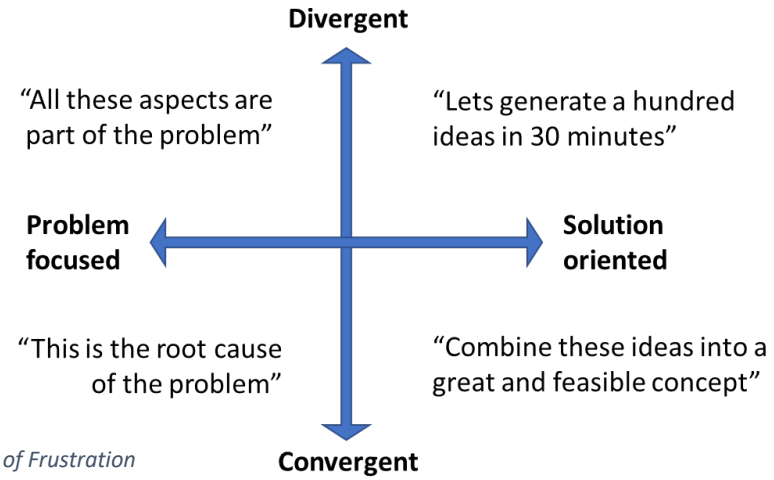


Figure 4: The Matrix of Frustration

In this model we try to show how to balance a team for innovative efforts. Starting in the upper left corner with grasping the whole picture, all aspects of the situation and the mechanics of the unsolved problem/unfulfilled need. This clearly calls for a free and divergent mindset focusing on the current situation.

Then in the bottom left the team applies converging mindset to zoom in on the very root of the problem or need that is to be fixed. It is about cutting away layers and being able to see beyond what people will tell you, and into the core.

Now with the insights gathered about the core of the problem, the team moves over to the solution part and once again applies a divergent thinking style. Typically manifested as a more or less traditional brainstorm. You need many ideas to have a good one, so this part is all about quantity and free spirits.

Finally, the team must apply a convergent mindset and from a massive number of ideas sift out a few that should be taken forward.

The model is named after the frustration that often is the case when a team attempts to pursue innovative projects without synchronizing their mindsets. A little bit exaggerated perhaps, but if you put the convergent problem-focused guy next to the divergent solution-oriented person you have a recipe for disaster. As we will discuss briefly, friction and diversity in a team drives innovation – but only once you have the team that is on the same page.

Putting it all together

Many authors (Spears 2016) (Brown and Katz 2009) will describe the innovation process as a series of well-defined and clearly divided steps inspired by Design Thinking principles. There will be different methods and tools to produce all but standardized outputs that are fed from one box into the next box in the process.

They will all be very keen to tell you that even if it looks like a process and it is taught as a process, it should not be mistaken for (you guessed it) a process.

Instead it is:

- A chaotic process (Braha and Reich 2003)
- A nonlinear process (Goldschmidt and Weil 1998)
- An approach (https://blog.prototypr.io/1-design-thinking-its-an-approach-not-a-process-fbdc339bf936)
- A toolbox (https://enigma.swiss/en/blog/design-thinking-not-process-toolbox/)
- A mindset (https://www.entrepreneur.com/article/310282)

The trick here is to understand that it is all of the above and none of the above, and it really comes down to balancing team dynamics. If you can get your team to shift between divergent and convergent, between wayfinding and transport, between being problem-focused and solution-oriented in a controlled and synchronized manner then you have a good shot at running an innovative operation. Once you can do that, you can execute a

design sprint as a step-by-step process ladder or just dive into it and apply tools and methods when needed.

Armed with this understanding of how the different mindsets play a role in the innovation effort, we will briefly discuss tools and techniques that can be of assistance.

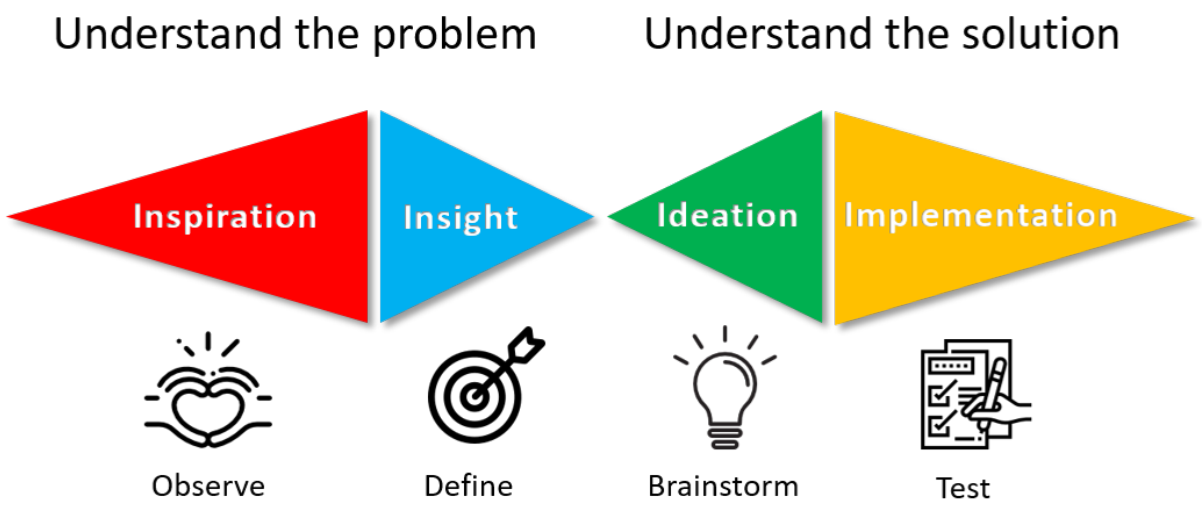


Figure 5: Mindsets of Innovation

The model

Above is depicted the model we use to structure innovation efforts. As is obvious, it draws heavily from the framework of Design Thinking discussed earlier. To be more specific, we have found much inspiration in the work of IDEO as described by Tim Brown (Brown and Katz 2009), where a system of overlapping phases are used; Inspiration, Ideation and Implementation. The mode above splits Inspiration into Inspiration and Insights to emphasize the need for both wayfinding/divergent and transport/convergent (Ingold 2007) (Guilford 1956) mode of thinking during the problem identification.

Another memorable way of looking it is as (Liedtka and Ogilvie 2011) define in a number of questions:

- What is?

- What if?
- What wows?
- What works?

Tom Kelley in his book The Art of Innovation (Kelley and Littman 2001) and very similar is (Carroll, Goldman et al. 2010) whose setup is used in classrooms of K-12 schools

- Understand
- Observe
- Visualize
- Evaluate and refine
- Implement

To sum it up, understand the actors in the situation. Observe them in real life to find out what makes them tick, what confuses them, what they like and hate, learn about latent needs not addressed and problems unsolved. Asking them right out seldom works (Fitzpatrick 2013).

Then ideate, generate ideas and possible solutions to the core problem. Kelley being a maker (compare Owens maker/finder (Owen 2007)) even calls this Visualize and mentions tools like storyboards and even body-storming, the art of acting out possible new services in real time. Using other means of expressing ideas than words make a lot of sense, as words are so heavily dependent on the listener's interpretation that sometimes the intended meaning gets lost in translation.

Then prototype or test the most promising solutions in a series quick iterations. Don't get too attaches to the first few tries; they are bound to change during the process. Put the prototype into the hands of users and watch them engage with it. Remember that this is not done to impress the user or sell the concept, but to observe and learn.

Which takes us back to the initial observation, where we observe and learn. The only difference being that we have iterated and produced a first shot at solving the problem or filling the need for the user.

Inspiration

To see what everyone sees, but from new angles.

The two leftmost phases, inspiration and insight may be tricky to clearly distinguish from one another. This is normally not a big issue; it seems when it comes to exploring problems and needs shifting between divergent and convergent thinking does not cause much conflicts in teams.

On the paper, the initial phase Inspiration calls for divergent thinking. In an article about design thinking in business schools the authors (Glen, Suciu et al. 2015) stress the relationship between observation and insight and how empathy bridges the gap. It is about gaining “unfiltered understanding of the user’s experience, abilities and constraints”. Get under the user’s skin or walk a mile in her shoes if you will. Remember the Wayfinding analogy (Guilford 1956), it is very relevant here.

Typical tools used in this phase

- Interviews
- Field studies
- Diaries

Insight

If observation is a continuous activity, something we can and should learn to do much more of, then the Insight building is more of a conscious effort. A convergent pursuit of the root cause. You must not address the symptoms of the problem but the core.

To refer to the model of the Dual Process, it is imperative to “unlock” System 2 - Type 2 reflective thinking. Here lurks a dangerous temptation to zero in on a problem based on experience and habitual thinking. This temptation needs to be resisted or the risk is that all the knowledge gathered during the observation phase is wasted.

The balance here is delicate and hard to maintain, so make sure to gather only those who are able to handle the situation to this work. You will need people that are curious and ready to reevaluate assumptions and “common knowledge”. Keep digging until you strike what feels like an important aspect of the problem to solve. We will now turn that into a challenge.

Framing the challenge

It is imperative to strike a balance between the concrete and the abstract. The challenge must be large enough to pose a challenge and be relevant, and on the same time concrete enough to grasp and feel. Strive to narrow down the challenge space and open up tie solution space. “Too abstract and the brief risks leaving the project team wandering; too narrow a set of constraints almost guarantees that the outcome will be incremental and, likely, mediocre. “(Brown and Wyatt 2010)

Normally we often work in the opposite manner, we are told what needs to be done and what the final product should look like. Not always is the “Why?” discussed, instead everything focuses on the “How?”. When working with innovation the “Why?” is the starting point, and the final product is not known.

A few tools used in this phase

- Framing
- Personas
- User Journey

Ideation

The ideation phase is what many would refer to as innovation, this is the untamed generation of ideas, the more the better. Quantity over quality. There are many tools and much written about creativity, often a fun read.

The human creativity has taken us from caves to space in only 10 000 years, less than 500 generations. This is deeply ingrained in our DNA, in fact being innovative is one of the defining factors of being human. All of us have creative potential, and all of us can train our ability. That being said there are some notes that should be considered before venturing into the ideation.

The ideation is all about applying reflective thinking and divergent wayfinding, in an allowing climate.

Extended effort

Linus Pauling is said to have said "the best way to have a good idea is to have lots of ideas" and according to two studies described in 1986 (Basadur and Thompson 1986) the "most preferred ideas" were more likely to be found among the latter two thirds of the ideas listed serially than in the first third. This surely resonates with being in wayfinding mode, the evidence suggest that we need both courage and stamina to push on during the ideation, with faith in our heart that valuable ideas will come to us. Eventually.

Bisociation

Following (Altshuller 1992) that there is (almost) nothing new under the sun, we learn to look for new combinations or applications of already known solutions. The process of combining we refer to as bisociation (Koestler 1964), where blending of thinking and action matrices are in fact the cornerstone of human creation, discovering and humor.

Paradoxically one might think, but a traditional brainstorm is often benefitted from adding imaginary frames to the session. Frames in time, keep it short and snappy, as well as solution-vice where the facilitator gives the group temporary and ideally unexpected restrictions. To mention an example: “The solution must be a subscription” will open up a new solution space for the group, which they can explore for a given time.

Implementation

As for the implementation part, it is heavily dependent on the aspects of the solution, but there are general measures to take into account. To start with, we may have a large number of ideas to work with from the ideation phase. But they cannot all be implemented, and a lot of them should just be discreetly disposed of.

Start by removing the obvious ones, the duplicates and the ones just written for the sake of keeping the pen busy. Then to rid us of the bad ideas we simply vote, put them up on the whiteboard and let the team vote for their favourites. Product owners and those with stakes in the situation get extra votes.

Another simple yet efficient tool to help you identify the most promising ideas is to plot them all in a four-fielder. Put positive impact on one axis and ease of implementation on the other. As always you will find your stars in the upper right corner and the kill-zone down to the left. The only problem here is that we probably made assumptions about the positive impact, so what may look like a no-brainer may very well be turn out to be a bad idea that does not solve the problem for the user in a good way.

The best way to test your assumptions is to create a physical prototype to validate parts of your solution and thinking, put it in the hands of your intended users and watch them interact with it. The faster you do this, the more iterations you will have time to execute, the more you will learn, and the better will the solution eventually becomes.

Here is also where we come full circle, as you noticed we are now back in observing humans performing tasks. We are trying to understand the situation even better and gain more insights as to what is it that really causes the problem.

Practical consequences

Introducing and implementing new procedures in a healthcare organization is a challenge. There are barriers and pitfalls to break your stride, many of them outlined and described in later chapters accompanied by tools and methodology to handle them.

Unfortunately, many implementation attempts will fail, and the sought after positive impact will stay a mirage on the horizon. The intention of this training is thus not only to give a brief understanding of how to create and foster innovation in healthcare per se but to show how it may be used as a tool to increase the odds of a successful implementation.

The tools and mindsets introduced above are very well suited to prepare the implementation of a procedure based on the local prerequisites and constraints. It should come as no surprise that there are substantial differences between healthcare organizations in Europe and that ways of working that are successful in one site may prove inadequate in other.

A successful implementation that will have a positive impact must take into account the local situation; what kind of patients are we targeting, how does the procedure fit into the existing services offered by the organization, how is it financed and controlled, who are championing the process, are there specific challenges or constraints, etc?

In this case, the innovation effort will concentrate not on improving the patients care directly, that the novel procedure already provides improvement, but on how to deliver the service or procedure in the best way. There are typically problems enough to solve right there.

Let's imagine a case where health care professionals have been away to train a procedure for improving the psychosocial care offered to a specific group of patients; children under the age of 18 with various congenital craniofacial defects.

The procedure does not require any special equipment, but as it is based on a specific psychosocial model, which is crucial to ensure working communication between the patient and the caregiver.

The overall treatment of this group is highly specialized, which means that some patients will have to travel far to the treatment centre. By addressing the constraints, unsolved problems and latent needs in the situation as the patient experience them, we may come up with new and human-centred ways of providing this moment of care.

At least two tools from the toolbox are relevant at this initial stage, the Persona and the User Journey. The persona will help us to formulate what we know and give us a canvas to add helpful information about some of the subgroups. In the case of teams working on the issue, it helps the team articulate a common understanding of the patient group they are addressing, and therefore limit the risk of talking past each other. The information in the persona includes the medical status, but also relevant non-medical information that influences the situation: language, ethnic background, social determinants, distance to care centre etc.

Once the most important /most significant subgroups have been fleshed out in personas, they can be run through the User Journey. The user journey canvas forces the team to describe and deconstruct the tasks and steps that a user performs in order to get treatment. Depending on the user and the context, this journey may start as early as when the user tries to book an appointment. From the user perspective, already, this step may be problematic. Subsequent steps and tasks are listed, and for each, the team describes what the user does/thinks/feels. Ideally, the information is based on observations of the real persons in the field.

Armed with this knowledge, the team zooms in on the most important problems and latent needs. Is it travelling, distance or getting access to transportation? Or is it about taking short leaves from work to accompany the child? Is language an issue, or are there even cultural aspects that pose barriers. There may be a multitude of problems, and some of them can be handled easily by traditional solutions based on common sense.

Other problems perhaps need more unconventional thinking, so gather the team for a short idea generation session. Let the ideas and thoughts flow free for a while, applying tools and techniques of the area but once done focus in on solutions that may be tested in under two weeks under safe conditions. There is perhaps not a lot of resources available for innovating the way the procedure is provided, so you may just as well look for the most cost-efficient solutions.

In this way, it is possible to increase the quality of the care, by looking at how the patient is experiencing the whole scenario and not only the precious short time spent in the care centre.

In the Art of Innovation (p 195) Tom Kelley mentions how IDEO was challenged to design a new train interior for Amtrak. They came back with several improvements that could be implemented to make the user's journey more enjoyable. And those were before the traveller even entered the station (Kelley and Littman 2001).

Change

The section on change is based on the John M. Fisher Transition Curve, which explains how people respond to change through the individual going through various defined emotional phases in succession until they accept the change. We live today in a society that is continually changing; change is the only constant. Always living in and living with change can be stressful: it challenges an individual's ability to cope with everyday life and can exhaust the individual's resilience. When change occurs at work, each individual affected by the change goes through a series of emotional stages. But implementing changes is necessary to develop and lead an organisation forward.

> The world hates change, yet it is the only thing that has brought progress." **Charles Kettering**

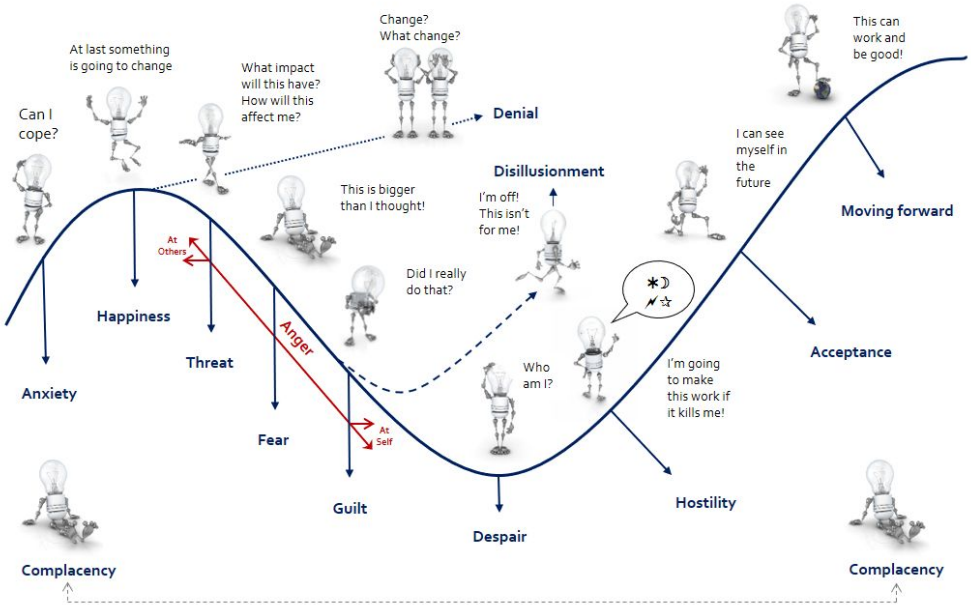
But implementing changes is necessary to develop and lead an organisation forward. When implementing change, organisations often focus on systems, processes and results, but fail to understand or consider the emotional impact it will have on people. Equipping people both physically and emotionally to deal with change effectively will significantly develop the resilience of the individual, the team and the organisation. Consequently, the business also has the opportunity to succeed with the change. Therefore, there are some critical "remember" points to consider for anyone who is to implement change at work.

- Understand as much as you can about any impending changes or challenges
- Understand the causes of the changes or challenges and why they happen

- Decide what should not change
- Identify and acknowledge what you will lose
- Think positive instead of negative, ie use your creativity, improvise and think about problem solving
- Break down problems and challenges into pieces
- Listen to other people's concerns and fears
- Let other people develop a common vision of a realistic and optimistic future
- Achieve a healthy work-life balance
- Celebrate small victories and small progress

Almost all individuals go through a similar emotional rock and roller coaster when significant changes are to be handled. The picture below illustrates the phases the individual goes through in a change process, but there are large individual differences and much of the actual transition takes place unconsciously. Some people go through the phases faster than others, different individuals will need different things depending on what phase they are in. Decisive factors are the individual's temperament, life experience, the individual's experience of control of the situation and so on.

An important aspect to be aware of is that each of the phases does not have to go through nor in an exact order. Some people may also regroup to an earlier stage depending on their experience and the situation as such. Instead, it is more useful to consider the different phases as guides in the change process - it helps you to understand other individuals and to put their reactions in context.



Emotional reactions to change

It is important to remember that everyone reacts differently. Some people have an easy time showing their feelings and others do not. You should try not to evaluate how a person experiences change, because each person will experience it differently. The 12 emotional stages and the perception associated with the emotion, based on Fisher's Transition curve is described below.

There are 12 emotional stages:

1. Anxiety

   You do not really know what will happen next, and you do not know how a change will affect you at this time.

2. Happiness

   You are doing really well with the change because it is the chance to get rid of things, systems and processes that you know do not work.

3. Threat

   You are not sure how the change will affect you.

4. Fear

   You are afraid that change will force you into a new way of thinking, working and behaving.

5. Anger

   You draw some anger and frustration towards others, especially those you think are responsible for forcing you into a change.

6. Guilt

   You are angry at yourself for not coping with the change as well as you thought you could have done.

7. Despair

   You feel confused and apathetic and really start to wonder who you are.

8. Hostility

   You are angry with yourself and others and the change in general.

9. Acceptance

   You become emotionally disconnected from the situation and begin to feel more familiar with the change.

10. Moving forward

    You start exercising more control and making more things happen in a positive sense.

Other emotional reactions that deviate from Fisher's Transition curve are:

11. Denial

    You deny that there is any change at all

12. Disillusionment

    You decide that the change does not fit your value system and you decide to have nothing more to do with it.

Change can be a precious, exciting opportunity, with the right attitude and focus, for organizations, for management groups - and of course, for people who will experience the change. They are the most important people to make the change a success. Coaching individuals through changes requires effective leadership. The leader's role is to:

- Show the way and explain the process of change and give it a meaning

- Communicate (avoid delivering message)
- Understand the emotional impact that change will have, care and be empathetic
- Explain where there are uncertainties
- Empower individuals and challenge when appropriate.

Implementation of change

Motivation

What drives us to do things? Psychologists have suggested different ways of thinking about motivation, including a method that involves looking at whether motivation arises from the outside (extrinsic) or from within (intrinsically) in the individual. Extrinsic motivation means that we perform an act, have a behavior, or engage in an activity to get a reward or avoid punishment (Czikszentmihalyi, 2002). That is, the individual acts to get something in return or avoid something unpleasant. Intrinsic motivation, on the other hand, means that the individual engages in an activity or has a behavior because it is personally rewarding (Czikszentmihalyi, 2002). The individual performs an activity for the sake of the activity rather than the desire for some external reward. The activity or behavior is in itself the reward (Czikszentmihalyi, 2002) and this type of motivation is considered the most desirable because it has the prerequisites to succeed.

Change / implementation theory

The term implementation refers to methods used to introduce new approaches in a regular daily function in, e.g. health services. The successful implementation ensures that the new methods are applied as determined and applied over time. Although it is said that good practices or working methods spread themselves because of their superiority, this is a misunderstanding (Fixsen, 2005). Instead, knowledge of what makes the implementation work necessary that leads to success in introducing new routines or methods and that they become part of the business over time. The knowledge of successful implementation is the result of research from many areas, including health care, crime prevention and social work (Greenhalgh, 2004). There are various theoretical methods and models used in implementation science, and one can identify three primary traces (Nilsen, 2015). There are

process models that focus on the process of applying research results in practice, understanding and explaining what affects the results of implementation and evaluating the effect of the implementation in the business (Nilsen, 2015). Regardless of the implementation strategy or design, some obstacles need to be addressed. A successful intervention depends on many different factors, e.g. the individual employee, the leadership and the organizational structure.

Irrespective of the theoretical method or model, there are obstacles and / or facilitators at different levels, from individual to organization, and also interactions between different levels (Nilsen, 2015). Classical theories in general are more likely to be interested in a team or profession at an organizational level (Nilsen, 2015), a number of implementation theories have been developed to gain a better understanding of certain aspects of implementation (Nilsen, 2015). Although there is considerable overlap, they identify all potential obstacles and facilitators that are important to deal with when implementing an implementation project.

In general, the implementation process is considered to have four phases (Damschroder et al, 2009). The first phase involves identifying the need for change in the work routine and the second phase is about implementing the new method. In the third phase, the new method is applied in clinical practice. In the fourth and final phase it is considered implemented if the method is used by more than 50% of the staff and after 1-2 years the new method is the routine. Implementation theories overlap and definitions do not match in different studies. However, Damshroder et al (2009) compiled and coordinated barriers to implementation at different levels and at different stages, resulting in the Consolidated Framework for Implementation Research (CFIR).

CFIR consists of five domains: intervention characteristics, external environment, internal environment, characteristics of the individuals involved and the implementation process.

- The first domain of CFIR is linked to the characteristics of the intervention and the organization in which it is implemented. A more complex method must be made understandable for everyone involved.

- The next two domains are internal and external environment and they interact. The internal environment is the context (department, clinic) where the implementation of a new method is introduced. It has its own unique characteristics, networks and communications, culture, climate and preparedness that are all interconnected are affected by the implementation. In addition, most health care organizations and units have interrelationships within and between other organizations (department vs operating room vs. community care) that they can depend on. The link to the external setting includes e.g. political or economic decisions and cultural or social values that can withhold, delay or support the implementation of a new method.
- The fourth domain is about the people involved in the implementation process. Individuals make choices and can exert power and influence on others with predictable or unpredictable consequences for implementation. Individuals carry cultural, organizational, professional and individual ways of thinking, standards and interests. These individuals may think that the new method is meaningful, which means that they will use the new method, have positive or negative feelings about it as time goes on, complain about it, change and try to improve it. Thus, actively promote the implementation process or not.
- The fifth and final domain is about the implementation process. Successful implementation usually requires an active change process aimed at achieving individual and organizational use of the intended intervention. The implementation process is a continuous chain of subprocesses that does not necessarily occur in a sequence.

There is a consensus on the importance of addressing obstacles and facilitators for implementation (Greenhalgh, 2004; Grol, 2004; Durlak, 2008; Fixsen, 2005; Damschroder, 2009) at different levels during the implementation process. It is during the third phase (Damschroder et al, 2009), when the new method is implemented that most projects fail because the professional feels uncomfortable and insecure. There is an obvious risk that the professional rather than using the method as intended will make any change and / or adjustment of the method. Thus, integrated and ongoing monitoring of the new method in ordinary activities can prevent this from happening. There are three factors that are crucial

for the success of this phase: users' competence, a supportive organization and effective leadership (Fixsen, 2005).

Opportunities and Barriers

As pointed out previously, it is when change work reaches the third phase and the new method is to be applied in clinical practice (Damschroder et al, 2009) that is the most critical phase in the change process.

Criteria that facilitate implementation (Greenhalgh, 2004; Durlak, 2008) are:

- The new method is perceived as relevant by future users.
- The new method seems to be more efficient and more cost effective than the method already used.
- The new method corresponds to the prevailing conditions, e.g. existing rules, values as well as the working method to be changed.
- An easy-to-use method is implemented more easily than a method that is perceived as complex and difficult to use.
- The user has the opportunity to test how the new method works on a smaller scale and at the same time receive consultative support.
- Rapidly positive results from the change work are motivating. When the effects of the new method can be expected much later, supplementary short-term goals are needed.
- If the new method can be adapted to the context in which it is introduced, the chances of success with the implementation increase.

Factors that give success

When the change work reaches phase three, according to Fixsen (2005), three factors are central to the success of the change work:

- Competence of the users
- A supportive organization

- Effective leadership

Together with method fidelity, these factors create more favourable conditions for the new method to be used as intended. Consequently, this increases the likelihood that the new method will benefit the target group (Socialstyrelsen, 2012).

Competence of the users[1]

In order for a method to have the intended effect, it must be used correctly (Socialstyrelsen, 2012). Therefore, selection, training and supervision of the staff are essential components of the implementation process. There are usually specific requirements for those who will work with a new method, and it is, therefore, necessary to provide comprehensive and transparent information about what the work will entail. The result may then be that people who were initially interested choose to abstain, but this is positive as it can prevent later drop-offs. The selection of staff is thus not only about identifying the right people for implementation, but also about creating a clear target image. Those who are recruited need training in the new method but only teaching will not lead to a new method being used. It is only when guidance is attached to the education that a lasting change usually occurs. The first attempts to apply a new method can cause difficulties. It is therefore valuable to have access to a person who captures the problems and provides guidance. A knowledgeable supervisor can overcome initial challenges and facilitate the correct use of the method.

A challenge when implementing new methods is that the methods are often changed to suit the organization instead of the existing organization adapted to the new, more efficient methods (ibid).

[1] Adapted from Socialstyrelsen. (2012). Om implementering In Socialstyrelsen (Ed.). https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/ovrigt/2012-6-12.pdf

Supporting organization

Without long-term organizational support, implementation of new methods is at risk of failure (Socialstyrelsen, 2012). Organizational support is about systems that can provide feedback on how the methods work for those who use them. A supportive administration redistributes resources in the form of time, finances and staff. It is important that the organization has a positive attitude towards innovation and skills development as well as good preparedness for change. Organizational support is also about coordination with other businesses and organizations, as well as securing funding and political and administrative support (ibid).

Effective leadership

Leadership is crucial for effective operations in general and successful implementation in particular (Socialstyrelsen, 2012). This may include clarifying roles and responsibilities for employees, assigning tasks and managing resistance. Leadership is also about dealing with situations where it is not working and adapting to the views of employees and others. It is about being able to motivate the change, understand the difficulty of abandoning a working method for a new way of working and convincing doubtful employees. Implementation of new methods requires pragmatic solutions (ibid).

The change factors work interactively and compensatively

The three change factors competence, organization and leadership function interactively and compensatively; if one factor is less well developed, it places higher demands on the other two (Socialstyrelsen, 2012). If, for example, it is not possible to influence the selection of persons to be educated, the quality of the training itself and the subsequent supervision will become all the more important (ibid).

Utilisation–Focused Outcomes Framework

This is a framework that distinguish six different elements that are required for an evaluation focusing on participant or client outcomes (Patton, 2008).

1. A specific participant or client target group
2. The desired outcome(s) for that target group
3. One or more indicators for each desired outcome
4. Performance targets
5. Details of data collection
6. How will the results be used?

A specific participant or client target group

It is paramount to specify the participant or client target group that the evaluation will benefit. When you specify the target group, you must be as specific as possible. Considering the following example of a program that is designed to improve the provision of psychosocial care a healthcare setting. Considering the differences between the two following statements:

> *All patients and their families will benefit from the psychosocial provision of care.*

This statement is quite general, which makes it hard to specify the target group and outcomes. Also, not all patients may benefit because they do not need the psychosocial provision of care. Instead, consider this statement:

> *All patients that will undergo a revision surgery will be screened for psychosocial problems.*

This description is much more meaningful because it specified what will be done for a specific target group (undergoing revision surgery), and you can generate measurable outcomes (how many were screened).

The desired outcome(s) for that target group

It is imperative to be specific on your list of desired outcome or outcomes. An outcome is often measured in the change that occurs, for example; a change in attitude, knowledge, skills or level of functioning are some examples (Patton, 2008). In our example patient that will undergo a revision surgery will be screened for psychosocial problems, it's a change of status. The patient goes from being not screened to being screened for psychosocial issues.

One or more indicators for each desired outcome

An indicator is a thing that indicates the state or level of something, for example; a score on a reading test as an indicator for reading aptitude (Patton, 2008). The challenge becomes how we take our desired outcomes and figuring out how they can become measurable. This process is called operationalizing, and an important aspect to consider is what kind of resources do you have available to obtain the quantifiable data. Do you need to conduct in-depth interviews with the participants in order to collect the measurable data, which would be very costly and time-consuming for a project. In our example of the patient being screened for psychosocial problems, it becomes quite easy to collect the data. Since it is a "yes" or "no" answer, has the patient been screened, and it would be recorded in their medical notes.

An excellent way to determine if you have created a good indicator is to use the mnemonic SMART.

- Specific
- Measurable
- Achievable
- Relevant
- Timebound

Performance targets

An indicator can also be used to measure performance, which can be called performance targets. Performance targets could be, for example, how many patients that underwent

revision surgery were screened for psychosocial problems after the screening procedure was implemented after six months? 25%? 45%? 60%?

By having this data, it is possible to establish future performance targets based on our past performance. Collecting the data on regular intervals makes the interpretation much more meaningful, and we can see their relationship between resources and outcomes. We become able to make more accurate and longitudinal predictions and set realistic goals of achievements.

Details of data collection

Data collection is an important part of the process, but it is important that it doesn't become a hindrance for the overall process. A good way to guide you through this process is to answer the following questions[2]:

- What existing data can be used and how can it be accessed? Who will collect the new indicator data?
- Who will be accountable for the data collection?
- How often will the new indicators be collected and reported?
- Will the data be collected from all participants or just a sample? If we only using a sample, how do we select the sample?
- How will we report the findings? In what format? To whom? When? How frequently?

[2] Adapted from Patton, M. Q. (2008). Utilization-focused evaluation (4th ed.). Thousand Oaks: Sage Publications. Page 249

How will the results be used?

This is the crucial component; how do we utilise the results that the evaluation generated? Another way to phrase it is to ask yourself if the result came out with this way what action would you take? It is paramount when conducting an evaluation to contemplate how will we use the results and what action would we make based on those results. By addressing this question, it also helps us to formulate the right outcomes and useful indicators, so in a way, it almost becomes a circular process.

Logic framework model - a very useful tool

The logic model is defined as a graphical, textual representation of how a program is intended to work and links outcomes with processes and a theoretical assumption of a program. This is the model that is widely used in the world by many different organisations such as the UN European Union and so forth.

The logic framework module can be described as a goal-driven project planning method, which can be illustrated in the following way:

- It is an instrument that is used for goal driven planning, analysis, assessments, follow-up and evaluation of projects or programmes.
- It is a tool for a logical analysis and structured thinking when planning a project and stimulates questions about the project's relevance and feasibility.
- It also creates participation, ownership and responsibility of the involved stakeholders in the project.

A core concept of the logic framework module is that you do not start to address what activities you want to do; instead you focus upon what is that you want to achieve for the target group - your goal.

The model is associated with the deliverance of successful projects since it addresses the crucial criteria that are essential for that outcome. Examples of these criteria are:

- All actors involved in the project are committed and have responsibilities.

- The goals are clearly set and they are realistic.
- There is a clear connection between what is done within the framework of the project and what is to be achieved.
- A clear plan and the ability to manage risks.
- There is a clear division of responsibility between the people involved in the project.
- The possibility to be flexible to adapt new processes or projects plan to be changed.
- Participation of the target group in the project design.

Logic framework module is an excellent resource to generate structure and clarity in the project and therefore, an excellent method to achieve the set objective. The fundamental precondition for a project is that it should contribute to sustainable development via the key actors that are affected by the problem. It is also paramount that the key actors control the development and the implementation of the project.

So how do we use for logic framework module efficiently to create the outcomes we have identified? For this text, we will look briefly at the various steps required. It is essential to understand that this is only a brief introduction to how to use a logical framework module and will provide recommendation for future readings so that you can become even more proficient in this approach.

Theory of change

The logic framework module is closely interlinked with the theory of change. A theory of change is a narrative that explains the links between program strategies or activities and outcomes and how and why the desired change is expected to come about (W K Kellogg Foundation, 2017). The theory of change outlines long-term goals and then maps backwards to identify essential preconditions, which is also how a logic framework model functions.

A theory of change exercise

The following exercise[3] is designed to assist with identifying the problem or issue you're trying to solve and the outcomes you want. It will also make you take into consideration the needs of your target group, the factor that can or will influence the project implementation. Furthermore, it will make you look at the current "best practises" and/or research in the area and will as look at the underlying assumptions (see figure 6).

1. Problem or Issue
    a. Describe what it is your program/intervention trying to solve
2. Patient Needs
    a. Specify the needs of your target group
3. Desired results
    a. Identify your desired results
        i. Outputs (immediate results)
        ii. Outcomes (intermediate results)
        iii. Impact (long-term results)
4. Influential factors
    a. Protective factors or resources could include funding, potential collaborating partners, staff and volunteers, time, facilities, equipment, and supplies.

[3] Adapted from W K Kellogg Foundation. (2004). W.K. Kellogg Foundation Logic Model Development Guide. Page 31

b. Risk factors or barriers might include such things as attitudes, lack of resources, policies, laws, regulations, and geography.

5. Strategies

a. Identify “best practises” and/or research that supports why this will succeed

6. Assumptions

a. State the assumption behind *how* and *why* the identified change strategies will work in your setting (e.g. principles, ideas, beliefs).

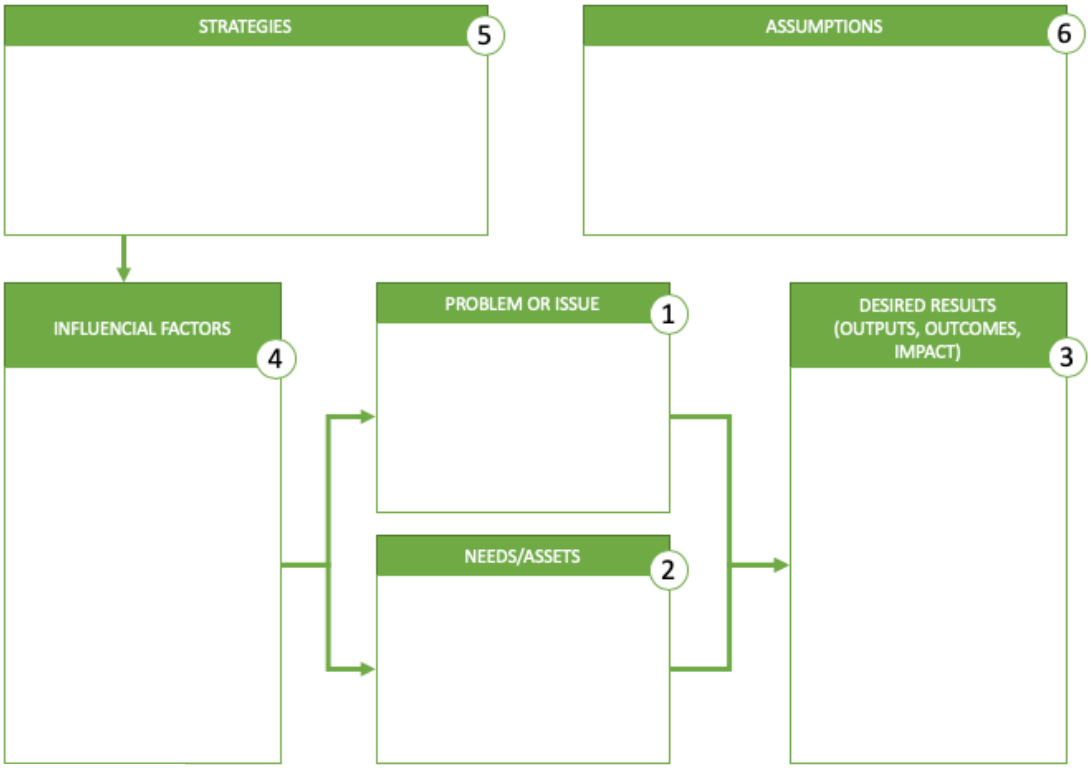


Figure 6.

Pragmatical thinking about the logical framework model[4]

As we stated previously, the best way is to work backwards in the logical framework model. This means that we start with our envisioned impact, what is it we want to achieve in the long terms with the project. We then work backwards in order to identify what is needed to accomplish the envisioned impact (figure 7).

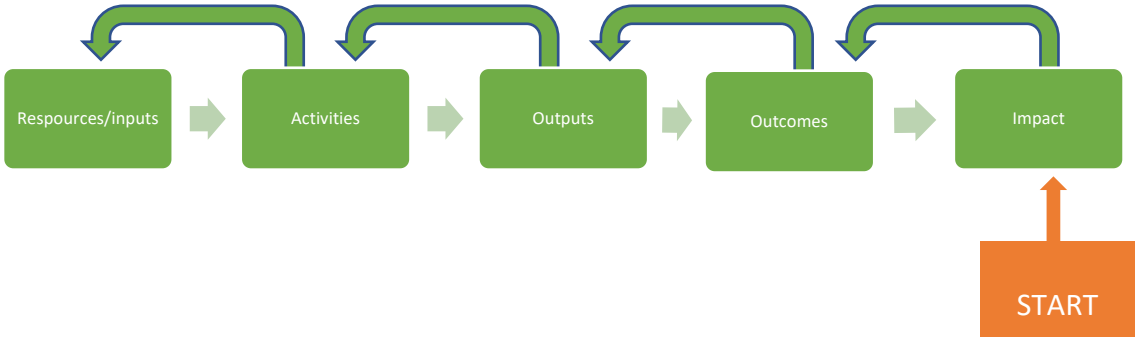


Figure 7.

Impact

Impacts are organizational, community, and/or system-level changes expected to result from program activities, which might include improved conditions, increased capacity, and/or

[4]Adopted from W.K. Kellogg Foundation Logic Model Development Guide, page 8
https://www.wkkf.org/resource-directory#pp=10&p=1&q=logic%20model

changes in the policy arena. This is the goal you want to achieve with the change on a long-term basis.

Outcomes

Outcomes are specific changes in attitudes, behaviours, knowledge, skills, status, or level of functioning expected to result from program activities and which are most often expressed at an individual level. To achieve long-term impacts, the achievement of the specified outcomes are essential.

Outputs

Outputs are the direct results of program activities. They are usually described in terms of the size and/or scope of the services and products delivered or produced by the program. They indicate if a program was delivered to the intended audiences at the intended "dose."

- A program output, for example,
    - might be the number of classes taught, meetings held, or materials produced and distributed;
    - program participation rates and demography;
    - or hours of each type of service provided.

Activities

Activities are the processes, techniques, tools, events, technology, and actions of the planned program.

- Products –promotional materials and educational curricula;
- Services – education and training, counselling, or health screening;
- Infrastructure – structure, relationships, and capacity used to bring about the desired results.

Inputs

Inputs are resources,

- Protective factors or resources could include funding, existing organizations, potential collaborating partners, interpersonal networks, staff and volunteers, time, facilities, equipment, and supplies.

We can also divide part of the logic framework model, into two sections. Your planned work that consists of inputs and activities and your intended results, which consists of outputs, outcomes and impact (see figure 8).

Your Planned Work		Your Intended Results		
INPUTS (Resources, Factors)	**Activities (Measurable)**	**Outputs**	**Outcomes**	**Impact**
In order to accomplish our set of activities we will need the following:	In order to address our problem or asset we will conduct the following activities:	We expect that once completed or under way these activities will produce the following evidence of service delivery:	We expect that if completed or ongoing these activities will lead to the following changes in 1–2 years:	We expect that if completed these activities will lead to the following changes in 2 -5 years:

Figure 8.

Evaluation[5]

The purpose of the evaluation should, therefore, answer whatever we have reached the set goals of the project or in other words have we succeeded with our envisioned impact. It

[5] Adapted from Patton, M. Q. (2008). *Utilization-focused evaluation* (4th ed.). Thousand Oaks: Sage Publications.

should also be able to tell us why the project was successful or what factors prevented the project to deliver the intended results. In order to facilitate a beneficial evaluation, we need specific indicators that we can be examined. If we have adopted the approach of Utilisation–Focused Outcomes Framework and we have generated a good logical framework model (both described earlier in this text) this will not pose a problem. When designing a project, it is of equal importance to consider what we will evaluate so we can determine if the project is providing the intended effect or be made aware that changes are needed to create the intended outcome. It is essential to understand that evaluation is not only used to see if the project has delivered the expected impact. A proper evaluation strategy takes place from the start of the project and is a continuous process used to ensure that the intended outcomes are maintained. Several types of evaluations can be utilised depending on the purpose. Some of these evaluations are described in table 1 and the text below.

Evaluation purpose	Key values	Guiding principles	Political Implications
1) Overall Summative Judgement	Future of the program;	Independence and credibility Rigor of design Significance Time-bound	Intended for funders, decision-makers, policymakers; Very high stakes
2) Formative Improvement and Learning	Focus on improving the program/intervention/ model	Trust Learning environment Relevance	Intended for those involved in the program (staff, admin, participants); Moderate Stakes
3) Accountability	Efficiency in use of resources Program management Outcome and Results	Transparency Validity Integrity & credibility Consistency Fairness	Intended for those involved in the funding, running and management of the program; High stakes
4) Monitoring	Program management	Timeliness, regularity, relevance and consistency in reporting	Intended for program managers; Low stakes (high stakes when external accountability)
5) Developmental	Adaptation and change based on emerging conditions	Openness Adaptive capacity Critical	Intended for Social innovators; Low stakes on short term but high stakes on long term
6) Knowledge generating	Enhance understanding Improve practice	Quality and comparability Triangulation	Intended for planners, theorists, researchers, policymakers; Moderate to low stakes

Table 1. Patton, M. Q. (2008). *Utilization-focused evaluation* (4th ed.). Thousand Oaks: Sage Publications. Page 139

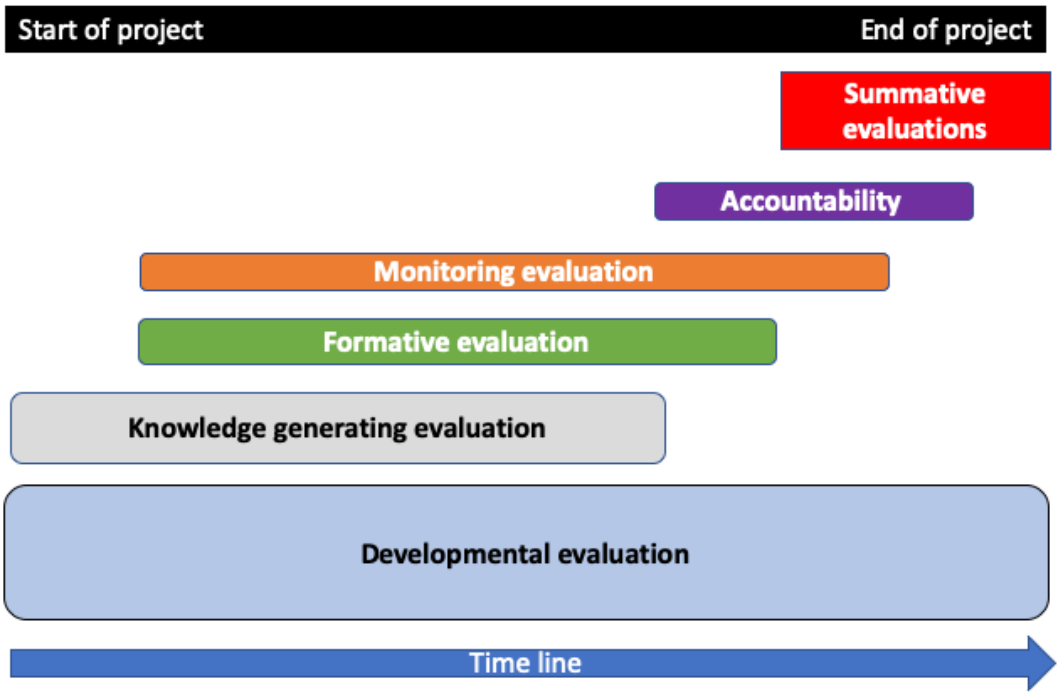


Diagram 1. Time line

Summative

The purpose of summative evaluations is to determine the effectiveness of a program in terms of merit, significance or value of a program. This is based on if the program has met its objectives, it can be by judgments or ratings (patients, founders or other key stakeholders) to decide whether a program is sufficiently effective to be continued, expanded or if of changes are needed within the program or if it should be terminated.

Formative Improvement and Learning

The purpose is to improve a program by gathering varieties of data about strengths and weaknesses. This type of evaluation is often used during start-up or pilot phases to strengthen implementation and/or solve anticipated problems. However, it can also be used as a mid-term evaluation of the project. The primary users are often those that are in charge of implementing the project so that it could be program managers, staff and sometimes participants. This is achieved by using approaches such as quality enhancement,

learning reviews, participant feedback, and reflective practice, and so on. It is vital to use a participatory approach, so everyone feels that they can provide their opinion and suggestion in an open and accepting environment.

Accountability

The primary purpose is to generate an insight if the program meets the expected deliverables as promised. You could state that is performance measure and if the performance is inadequate someone or something must be accountable. Accountability is driven by attention to external stakeholders that are either responsible for the program or funding it.

Monitoring

In this evaluation scenario, monitoring is used to provide information for the people that are responsible for implementing the project. This could include quality control systems, management information systems and record-keeping and performance indicators. The data gathered provides information about the current performance of the project and if anything needs to be addressed or changed. This information is intended for internal use, which is contradictory to accountability that focus on the external stakeholders.

Developmental

Development evaluation is particularly suited to innovation, progressive program redesign or can be used in projects aiming to bring social change in complicated or unpredictable environments. This type of evaluation facilitates real-time feedback from and to program staff, thus facilitating a continuous development loop. The aim of the developmental evaluation is not to secure a project and preparing it for summative evaluation; instead, it aims to continually evolve the project where new ideas/innovations will be generated. The end-users of developmental evaluation findings will be the project manager and staff, who will use real-time or near real-time data to continually modify their actions.

Knowledge generating

The idea with knowledge generation is to identify patterns of effectiveness from different programs, incorporating findings from various studies regarding processes and interventions. Knowledge generating evaluations does not focus on the stakeholders, capacity aspects or measured output and result. It is instead focusing on general understanding and effectiveness and how this triangulate with research and theory.

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