

TOOL | LEARNING PLAN

How is the tool linked to Entrepreneurship PBL?

Learning Plan can serve as a progression tool for an entrepreneurship or innovation team during project development. It is useful in all phases of the Entrepreneurship PBL model. Value-added cooperation, e.g., with users/customers and other partners; group-based project work, e.g., guiding the team's workflow and reflections etc.; Entrepreneurial Mindset, e.g. the action aspect via experiments and trial-and-error learning.

What is the tool?

Learning Plan is a tool that systematically helps the team focus on reducing the most critical uncertainties through experimentation and learning.

It is expensive to fail late in the development process, so the earlier you can reduce uncertainty by learning from experiments, the higher the chances to get through successfully.

Learning Plan helps to:

- reduce uncertainties
- validate the market
- discover new areas of application
- raise awareness and form the basis for communication about progression ('what have we learned since the last time?')

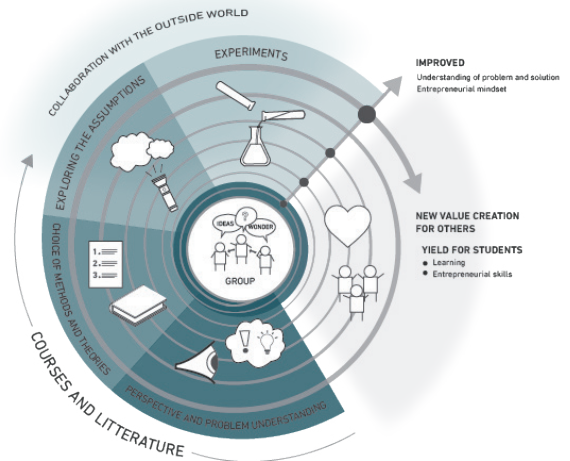
What can be achieved by using 'Learning Plan'?

Briefly, it is about identifying uncertainties in relation to the market, technology, organisation and resources. Then you choose the most critical uncertainty. There is a way ('experiment') to learn about this uncertainty, so that it can be reduced. Work is done according to the principle: Maximise learning per sum/time spent to create learning for reducing uncertainty.

The tool was originally developed for use in radical innovation teams in established companies in the USA; in Denmark it has been used, e.g., in Grundfos and Sintex.

How is it used?

The tool is shown below. The column to the left describes the steps that the group must go through to complete a 'learning loop' in order to reduce a selected uncertainty.



First, describe what is known and especially not known about the technology, market, organisation and resources. Examples of typical uncertainties that the group may have could be; **Technical:** That the technology is based on accurate and complete knowledge, that the technical specifications can be implemented etc. **Market:** That you properly understand the customer's needs and wants, that the group understands the product relative to competitors' products. **Organisational:** Primary uncertainties for startups will be in relation to society's support (users, customers, interest groups, family, etc.) **Resources:** That you can continuously create funding opportunities to attract the necessary resources internally and externally in the group, and create sustained interest in the project from stakeholders and sponsors.

The group always selects the most critical uncertainty. Determine what assumptions the group has about the uncertainty and generate alternative methods to test these assumptions. Define success criteria for the testing and a plan for implementation. Following the implementation, analyse and reach a conclusion. The impact of the result on the other three areas and the progression of the project is assessed, as well as what must be done subsequently.

Then the next critical uncertainty is selected for a new learning loop.

Compared to use in established companies, the (internal) organisational dimension will be less prominent, and the resource dimension more prominent.

(Note: Learning Plan was originally made for radical innovation in companies, and the examples reflect this, particularly regarding 'organisational uncertainties'. In entrepreneurship, the three others feature are more important, and the organisation is primarily in relation to outside organisations and individuals):

Learning Plan:

PROCEDURE	UNCERTAINTIES			
	Technology	Market	Organisation	Resources
1. What things are unknown (and known) in each area				
2. How critical are they (high/medium/low)				
3. What are your assumption(s) concerning the uncertainties				
4. Are there cheap/simple ways to test these assumptions				
5. Choose the most effective testing method/experiment (maximum learning per DKK)				
6. Define criteria for assessing test results				
7. Create plan for testing and implement it				
8. Evaluate and draw some conclusions about the testing (has the uncertainty been reduced? Does it create new assumptions about uncertainty?)				
9. How does the result affect the uncertainties in other areas? The project's overall progression?				
10. What further action may be needed?				
Which uncertainty is now the greatest — choose the next learning loop.				

Sources

Rice et al. (2008) Implementing a Learning Plan to counter uncertainty, Sloan Management Review 49/2. O'Connor et al. (2008) 'Grabbing Lightning', Wiley.

Arteaga and Hyland (2013) Pivot. Wiley.

Contact

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