LESSONS FLOW

WEEK 7 TO 13

Create and develop team micro-project
to showcase, validate and apply innovation

WEEK 4 TO 6

Deconstruct product, service or system to identify opportunity for team micro-project

WEEK 1 TO 3

Initiation to innovation and industrial trends to open mind-sets

IMPORTANT!
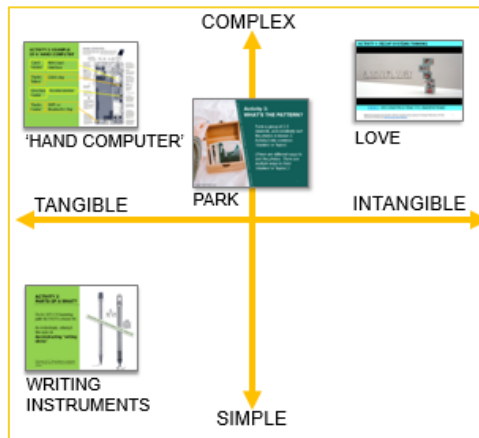
Lesson 7 e-Learning (For Students)

For Student

SECTION A

RECAP

Using **Systems Thinking** to **deconstruct** or **Computational Thinking** to **decompose:**

- Simple versus Complex things
- Tangible versus Intangible things

Look closely at the object and system.

Explore the complexity, the interaction between parts and people.

Ride on your observations and explorations, find opportunity to innovate, invent or reinvent.

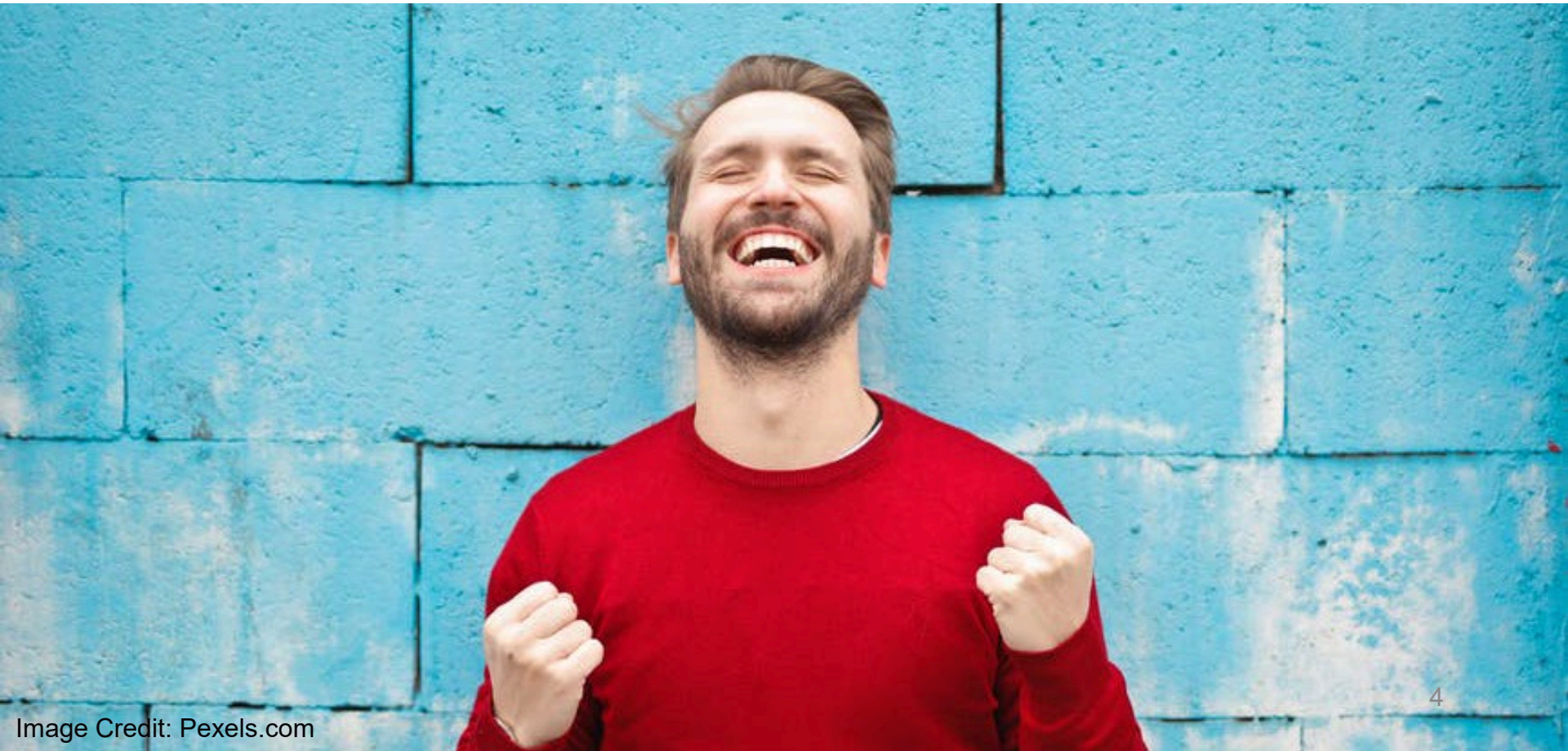" *Try to learn something about everything and everything about something."*

Thomas Huxley

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Image Credit: Pexels.com

G121 Innovation and Practice

Lesson 06: Recognize Opportunities For Innovation

School of Management and Communication

Lesson Outcome

- Use sources of intelligence to show opportunities for micro-project idea

- Generate innovative concepts by deconstructing project topic with Systems Thinking

TRENDS ANALYSIS
FOR INNOVATION MANAGEMENT – IDEA STAGE

PURPOSE

Identify present & future trends to get ideas or understand which trends support a specific innovation topic or idea.

SCOPE

Examine macro and micro trends, global and local trends. Trends analysis can be unfocused (L03) or focused (L05 – L06).

E.g., Trend: Creating concepts with Social Impact ⟹ **Folk, Kitchenware for the Blind**

VIDEO 1: Young Designer Creates Cooking Tools For the Blind
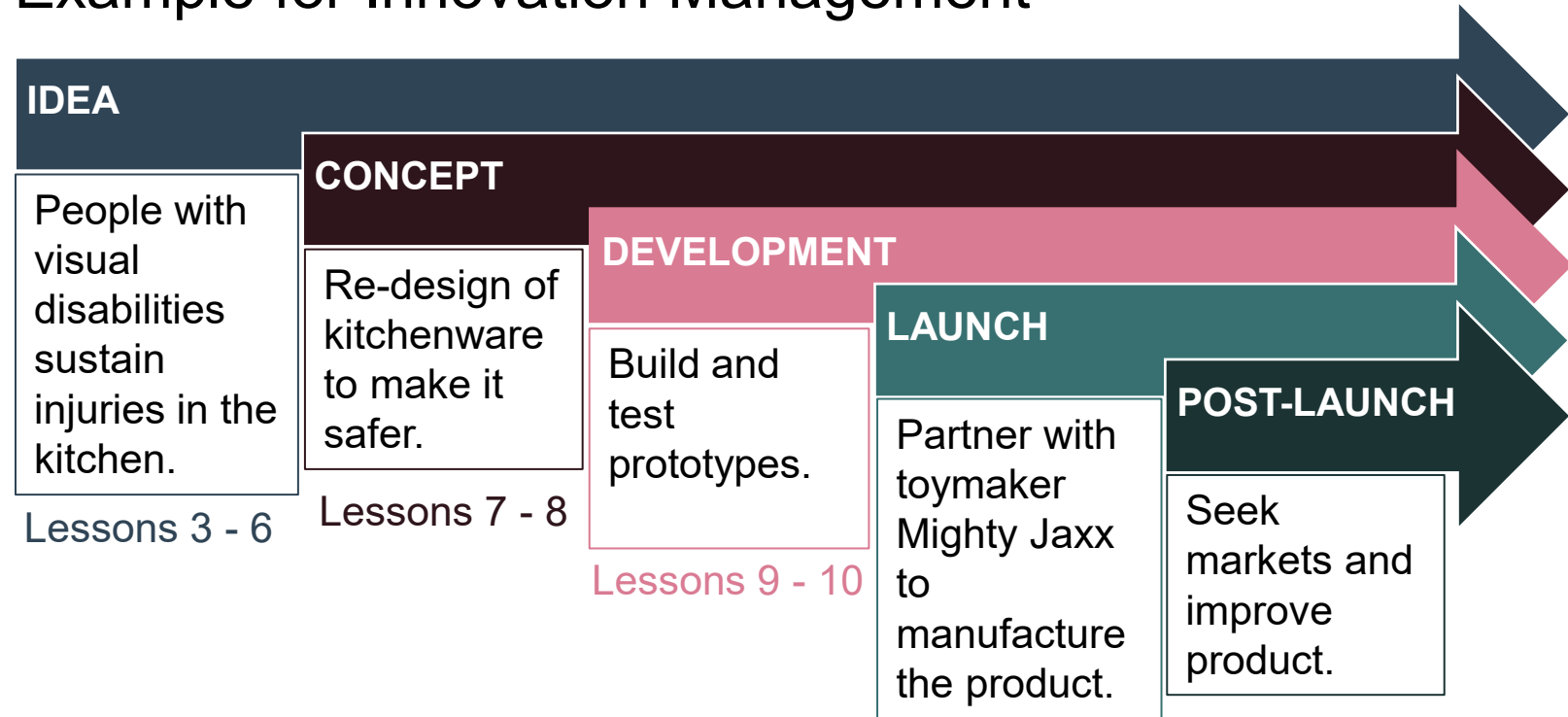
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VIDEO 2: Toymaker Offers to Produce Kitchen Tools for the Blind

CNA Insider (2018) "Toymaker Offers to Produce Kitchen Tools for the Blind | Made In Singapore | CNA Insider" Retrieved on 18 Oct 2023 from YouTube website at https://www.youtube.com/watch?v=NVsXtTGaN8U

FOLKS – KITCHENWARE DESIGNED FOR PEOPLE WITH VISUAL DISABILITIES
Example for Innovation Management

IDEA

People with visual disabilities sustain injuries in the kitchen.

Lessons 3 - 6

CONCEPT

Re-design of kitchenware to make it safer.

Lessons 7 - 8

DEVELOPMENT

Build and test prototypes.

Lessons 9 - 10

LAUNCH

Partner with toymaker Mighty Jaxx to manufacture the product.

POST-LAUNCH

Seek markets and improve product.

"*Jackson Aw, founder of Folk, designed the kitchenware line during his studies in university. Folk, is partnering with Mighty Jaxx to produce the kitchenware.*"

INNOVATION MANAGEMENT STAGES & MICRO-PROJECT

- In the industry, **Innovation Management** is about developing and launching new products, services, technologies, concepts or processes to the market.

- Done in a way that maximizes the company's idea generation and innovation potential.

- Similar stages for G121 Innovation and Practice module.

IDEA

Explore ideas to address a problem or need.

CONCEPT

Conceptualize idea into a product with key features based on market demand.

DEVELOPMENT

Develop product into a form for profitable production and marketing.

LAUNCH

Launch the new or improved product.

POST-LAUNCH

Continuous marketing, sales and delivery.

Image Credit: Pexels.com

Global Intelligence Alliance (2007) "Market Intelligence for Innovation and Product Life Cycle Management" Retrieved on 4 May 2023 from GIA website at https://www.m-brain.com/wp-content/uploads/2015/04/10879.pdf

MI PLC

SOURCES OF INTELLIGENCE & THE INNOVATION PROCESS

As the team sharpens the scope of micro-project topic, teams can begin to examine, but not limited to:

- *Online Technology Marketplace*
  e.g., IPI Marketplace

- *Patents Library*
  e.g., Google Patents

SOURCES OF INTELLIGENCE
Online Technology Marketplace

- Online Technology Marketplace is for Technology seekers and providers to post and find Technology Offers and Needs.

- A quick way to find real and available technologies.

- Such marketplaces facilitates the successful matching of technologies with innovators.

https://www.ipi-singapore.org/tech-offers

QUICK TIPS FOR GOOGLE PATENTS SEARCH

Proto G Engineering (2015) "Quick Tips #3 // Google Patents" Retrieved on 18 Oct 2023
from YouTube at https://www.youtube.com/watch?v=8912a0CY1gg

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PATENTS

- Patent is a right granted for an invention.
- Patents can be for new product, process or technical improvement to existing technology.
- Patent owner holds exclusive right to use the patent after registration.

We can research patents to see technology trends and possibilities.

IPOS (2018) "What is a Patent?" Retrieved on 18 Oct 2023 from IPOS website at https://www.ipos.gov.sg/about-ip/patents

SECTION B

TEAM MICRO-PROJECT TOPIC
CLASSWORK

- Complete the slides labelled for Lessons 5 & 6.
- Create your team's Systemigram (Slide 12) based on individual research done in Lesson 5.
- Use the PowerPoint template provided in Lesson 5. You can download from LEO 2.0.
- Upload to LEO 2.0 team submission folder (Lesson 6) before end of lesson.
- Team can still refine and create micro-project idea after this submission.
- Cite your references with the example below:

J. Cutler (2015) "104 Questions for Product Development Teams" Retrieved on 18 Oct 2023 from Medium website at https://medium.com/@johnpcutler/104-questions-for-product-development-teams-5bc2dbae690e

TEAM MICRO-PROJECT TOPIC PROPOSAL

5 MINUTES TEAM PRESENTATION TO CLASS

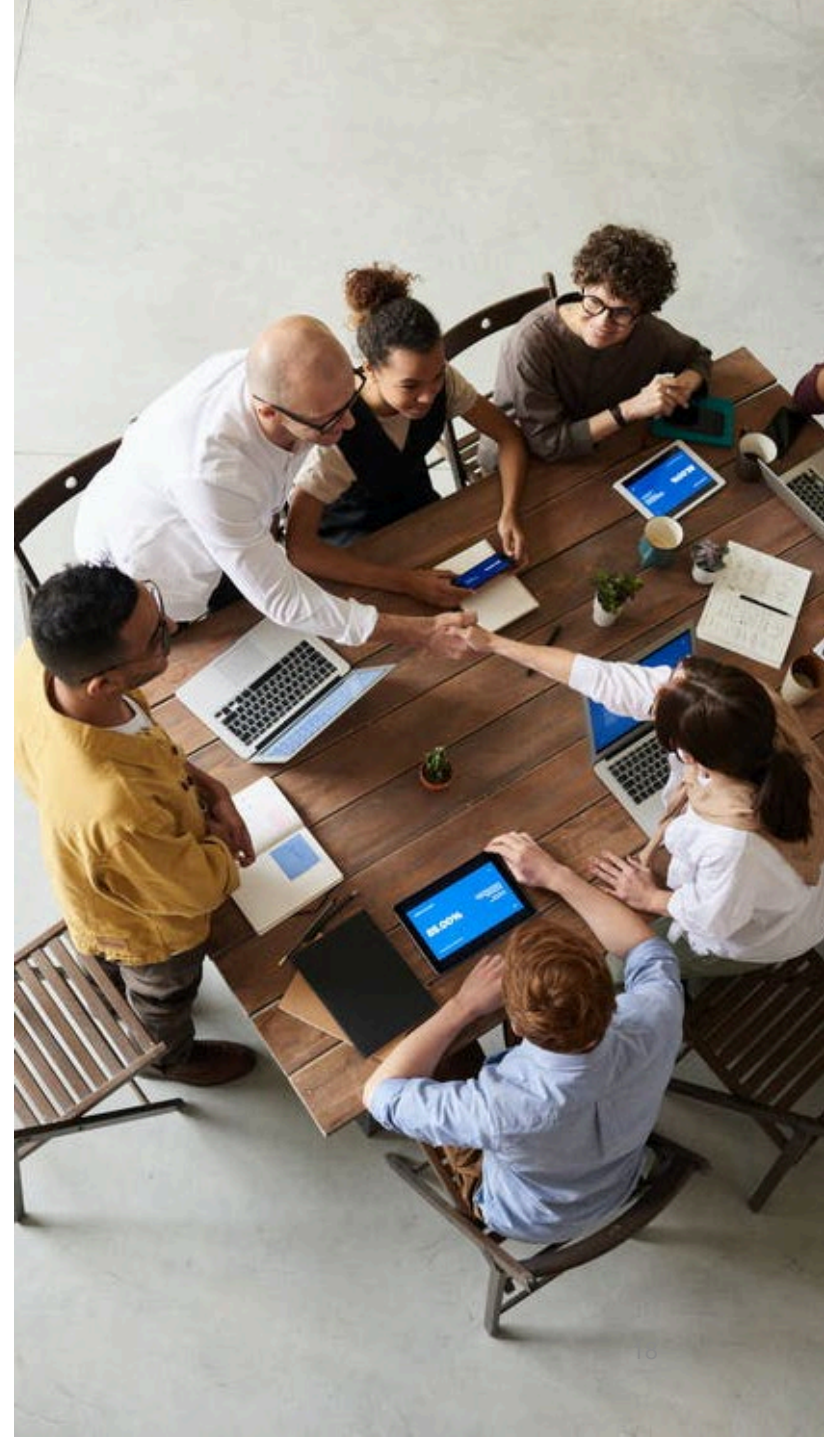**3** MINUTES QUESTIONS & FEEDBACK

Likely Asked Questions (LAQs)

PDF
Microsoft Edge
PDF Document

Download from LEO 2.0

J. Cutler (2015) "104 Questions for Product Development Teams" Retrieved on 18 Oct 2023 from Medium website at https://medium.com/@johnpcutler/104-questions-for-product-development-teams-5bc2dbae690e

After Class Activity

Team Evaluation Survey in LEO 2.0:
- Students to complete by 2359 hr
- Provide a fair evaluation for the questions in the survey

Image credit: formsite.com

References

Weblinks:

- Google (n.d.) "Google Patents" Retrieved on 18 Oct 2023 from Google website at https://patents.google.com/

- IFI Claims Patent Services (n.d.) "Convertible wheelchair and methods for making the same" Retrieved 18 Oct 2023 from Google Patent website at https://patents.google.com/patent/US6896079B1/en?q=wheelchair&q=scooter&oq=wheelchair+scooter

- IPOS (2018) "What is a Patent?" Retrieved on 18 Oct 2023 from IPOS website at https://www.ipos.gov.sg/about-ip/patents

- J. Cutler (2015) "104 Questions for Product Development Teams" Retrieved on 18 Oct 2023 from Medium website at https://medium.com/@johnpcutler/104-questions-for-product-development-teams-5bc2dbae690e

- Berkeley (n.d.) "Thomas Huxley" Retrieved on 18 Oct 2023 from Berkeley website at https://ucmp.berkeley.edu/history/thuxley.html

- Global Intelligence Alliance (2007) "Market Intelligence for Innovation and Product Life Cycle Management" Retrieved on 18 Oct 2023 from GIA website at https://www.m-brain.com/wp-content/uploads/2015/04/10879.pdf

References

<u>Videos:</u>

- CNA Insider (2018) "Young Designer Creates Cooking Tools For The Blind | Made In Singapore | CNA Insider " Retrieved on 18 Oct 2023 from YouTube website at
https://www.youtube.com/watch?v=w0hE6DdqRFo

- CNA Insider (2018) "Toymaker Offers to Produce Kitchen Tools for the Blind | Made In Singapore | CNA Insider " Retrieved on 18 Oct 2023 from YouTube website at
https://www.youtube.com/watch?v=NVsXtTGaN8U