Module Content and Topics

Product Development

Indicative study duration: 8 hrs

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Learning outcomes and evaluation criteria

Learning outcomes	Evaluation criteria
By the end of this topic, learners will be able to: • **Explain** the concept and importance of product development in the entrepreneurial process. • **Design** a basic prototype of a product or service that addresses a specific need. • **Apply** feedback received from peers or potential customers to improve their product. • **Use** locally available materials creatively to build a physical or visual model of their product. • **Demonstrate** communication skills by presenting and explaining their product idea to others. • **Reflect** on the product development process and describe how their idea evolved through feedback and testing.	• **Understands product development:** Explains the role and value of product development in launching successful entrepreneurial solutions. • **Designs a prototype** that clearly responds to a defined user need or problem. • **Incorporates feedback:** Uses relevant feedback to revise and enhance the product meaningfully. • **Uses local materials creatively:** Demonstrates innovative use of accessible resources to realize the product concept. • **Presents product idea:** Communicates product concept clearly and confidently to peers or stakeholders. • **Reflects on development process:** Describes how feedback and iteration shaped the final outcome of their product.

Importance of the topic

As a teacher of entrepreneurship, consider product development to be a crucial step in transforming a business idea into a tangible offering. During this stage learners begin to think practically and creatively—designing, testing, and improving the product or service they intend to offer.
Teaching product development helps learners understand the importance of creating something that is not only functional and appealing but also suited to the needs of the customer. It encourages innovation, problem-solving, and continuous improvement, which are vital skills for future entrepreneurs in both rural and urban settings.

Product development is the entire process of creating a new product or improving an existing one to meet customer needs and market demands. It transforms an idea or concept into a tangible product or service that can be offered to customers. (Ulrich & Eppinger, 2015)
Product development is crucial because it helps businesses stay competitive, innovate, and satisfy their customers. Without continuous development, products may become outdated, lose appeal, or fail to solve the problems customers face. Successful product development can lead to increased sales, market growth, and customer loyalty.

The stages of product development:

1.Idea generation:

This is the starting point where new ideas are created based on customer needs, market research, or creative thinking. Ideas can come from employees, customers, competitors, or trends.

2. Idea screening:

Not all ideas are feasible or profitable. In this stage, ideas are evaluated to select the most promising ones for further development.

3. Concept development and testing:

The selected idea is developed into a clear concept. This may include sketches, descriptions, or simple models. The concept is then tested with potential customers to gather feedback.

4. Business analysis:

The concept is analyzed for market potential, costs, competition, and profitability. This ensures the product is viable before investing more resources.

5. Product development (prototyping):

A prototype or sample of the product is created. This helps test the design, functionality, and usability before full production.

6. Test marketing:

The prototype or limited product release is tested in a small market segment. Feedback is collected to make improvements.

7. Commercialization:

The final product is launched to the broader market. Marketing, sales, and distribution activities begin.

8. Post-launch evaluation:

After launch, the product's performance is monitored. Customer feedback and sales data are used to make further improvements or adjustments. (Ulrich & Eppinger, 2015)

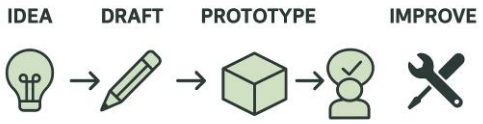
Key principles of product development

- Customer focus: always design products with the user's needs and preferences in mind.
- Iterative process: product development is rarely a straight line; it involves testing, feedback, and multiple improvements. (Ries, 2011)
- Use of local materials and resources: especially important in contexts like Tanzania, using available materials can reduce costs and increase relevance.
- Collaboration: involve different team members, customers, and stakeholders throughout the process for better results.

(Brown, 2009; Liedtka & Ogilvie, 2011; IDEO.org, 2015)

Suggested activities and exercises

To teach product development effectively—especially in resource-limited environments or with learners who have limited English skills— use a hands-on, visual, and iterative approach.



Teaching Strategies:

- **Idea-to-prototype process:**

  Explain the journey from idea → draft → prototype → test → improve. This helps learners understand that products evolve through feedback.

  Classroom activity:

  - Brainstorm problems from daily life (e.g., "carrying water is difficult," "phones run out of battery quickly," "students need a place to keep tools safe").
  - Choose one problem and sketch a possible solution on paper.
  - Transform the sketch into a simple model (prototype) using available materials.
  - Test the model with classmates and gather comments.
  - Make changes and show the improved version.

  Example: A group may design a phone stand from cardboard, test if it holds different phone sizes, and then reinforce it with tape after feedback.

- **Use of local materials:**

  Learners are encouraged to create sample products using materials they can find easily—cardboard, paper, recycled items, cloth, or natural materials.

  Classroom activity:

  - Collect materials in advance or ask learners to bring items from home (cardboard boxes, plastic bottles, fabric scraps, sticks, clay, wire, etc.).
  - Organize a "material challenge" where teams can only use what is in a shared box of scrap materials.

  Example: Learners could make a reusable shopping bag from an old T-shirt, or a stool prototype using wood scraps and rope.

- **Peer feedback:**

  Learners present their initial product concepts to their classmates to receive comments, suggestions, and questions. This helps them improve their ideas before testing them in the real world.

  Classroom activity:

  - Set up a mini-marketplace where each team presents their prototype.
  - Other learners walk around as "customers," test the product, and leave short comments on sticky notes or a feedback form with 3 guiding questions:
    1. What do you like about this product?
    2. What could be improved?
    3. Would you use or buy this?

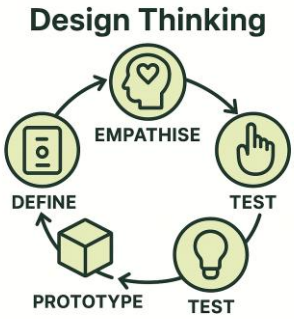
  Example: If a team makes a recycled-material lamp, peers may comment that it gives good light but needs to be more stable.

- **Design thinking mindset:**

  Emphasize that the first version of a product doesn't need to be perfect. Instead, learners should focus on quick prototyping, testing with users, and adapting based on feedback. (Brown, 2009; Liedtka & Ogilvie, 2011) **Classroom activity:**

  - Show examples of famous products that improved over time (e.g., early mobile phones vs. smartphones today, bicycles evolving into modern designs).(Ries, 2011)
  - Encourage learners to create a "before and after" comparison of their own prototype: Version 1 (initial idea) and Version 2 (after feedback).
  - Ask each group to reflect: *What did we change? Why did we change it?*

  Example: A team making a school-bag prototype may first use paper, then improve it with cloth after realizing the first version is too weak.



Activity: create a prototype

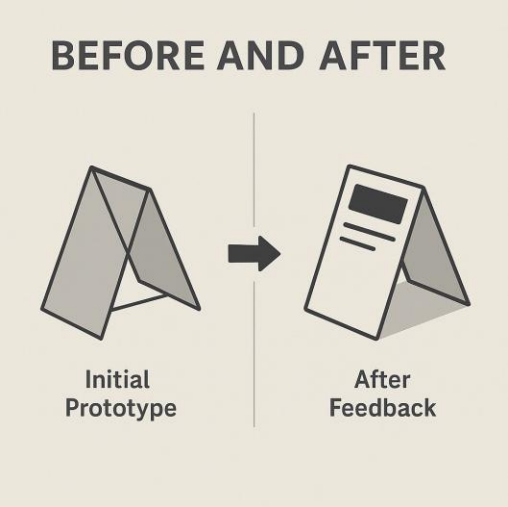
- Learners work in teams to create a simple prototype of their product using basic materials.
- They must explain:
  - What problem the product solves?
  - Who the customer is?
  - How the product will be used?

Activity: "Test my product" marketplace

- The classroom is turned into a mini-market.
- Each team presents their prototype.
- Other learners act as customers and give feedback using a simple form:
  - What did you like?
  - What could be improved?
  - Would you use or buy this?

Activity: before and after

- After receiving feedback, teams improve their product and present an updated version.
- They reflect on what changed and why.



Local context and examples

In Tanzanian communities, product development often happens informally—people adjust their goods based on customer feedback. For example:

- A street food vendor may change a recipe to suit local tastes.
- A tailor may adjust clothing design based on customer preferences.
- A carpenter may redesign a stool to be more comfortable or affordable.

Encouraging learners to notice how products around them are evolving helps them realize that product development is a natural and ongoing process, not something reserved for large companies.

Further reading and references

Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown business.

Brown, T. (2009). *Change by design: How design thinking creates new alternatives for business and society*. Harvard business press.

IDEO.org. (2015). *The field guide to human-centered design*. IDEO.

UNESCO-UNEVOC. (2021). *Entrepreneurship education in Africa: A key to unlocking youth potential*. [Online resource].

Ulrich, K. T., & Eppinger, S. D. (2015). *Product Design and Development* (6th ed.). McGraw-Hill Education.

Liedtka, J., & Ogilvie, T. (2011). *Designing for Growth: A Design Thinking Tool Kit for Managers*. Columbia University Press.

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