Efficacy in the Product Lifecycle

Summary:

In order for Efficacy and Research to take shape in Pearson, we need to make sure that they are an integral part of the way that we conceive, design and develop our products and services. The vehicle that enables this to happen is the Product Lifecycle. In essence, the Product Lifecycle is a global set of practices and tools that will help Pearson develop market leading products and underpin all product investment. This will allow the company to make more strategic portfolio and investment decisions.

Context:

In thinking about how we incorporate Efficacy and Research into our Product Lifecycle (PLC), we consider an additional set of questions as part of the development process. You will find the specific questions asked at each stage below.

The PLC involves six stages of a product's development, from Idea (a pitch for a new product) to Retire (a decision to divest or close a product). Every stage in the PLC has requirements related to understanding, defining, and demonstrating how the product will impact learner outcomes, by aligning to existing educational research original studies as well as through carefully constructed new studies.

The Efficacy and Research Questions asked at each stage of the Product Lifecycle

Idea
What are the high-level intended learner outcomes?
Are you aware of any educational research or literature that supports your idea? If yes, provide details.

Explore
What are the specific intended learner outcomes?
What are the metrics, baselines and targets associated with learner outcomes?
What educational research currently exists that supports the product design?
How do you intend to build the product to ensure learner outcomes are achieved?

Validate

What current evidence exists to show that the use of the product / service leads to the defined learner outcomes? Is the product on track to impact outcomes?
What educational research exists to inform product improvements?

Grow

What evidence exists that the product has had (and continues to have) a positive impact on learner outcomes? Are customers implementing the products as intended?
What research is being conducted to improve product design, customer experience, and implementation?

Sustain

What evidence is there that the product continues to have a greater impact on learner outcomes (with an increasing degree of isolation and replication in multiple situations)?
Are customers still using the products as intended?

Retire

Are there other products that deliver the critical outcomes this product was delivering?

First and foremost in the Idea phase of the Product Lifecycle, we help teams to define their intended learner outcomes for their product, and validate them with customers and learners. This is vital to ensure that we have a clear handle of what we want to achieve before any product development takes place. We underpin our efficacy approach from the start of product ideation with an understanding of "learning science", which generally refers to any systematic and rigorous approaches to understanding how students learn, how teachers teach, and how the environment in which the learning is happening (e.g., social interactions, using technology, etc.) can impact those processes.

We also look into existing research literature for examples that are the most applicable and likely to be impactful on learning, given the specific learner outcomes for the product and the way the product is designed to achieve those outcomes. Then, along with our Learning Design teams, we work to consider ways of making the integration with educational research base even tighter, in terms of both the product design and the messaging around the product.

In parallel, we partner with our product teams to get a sense of the key questions they would like answers to. For example:

- How could we use what is known from learning science to make an ever larger impact on learner outcomes?
- Does a particular feature we've designed really help students learn better?

This enables us to have a platform upon which we can validate our total set of hypotheses to get to an MVP at the Validate stage of our Product Lifecycle. For existing products, this work means a refreshed approach to considering the value created for customers and learners of a given product or service.

Product teams have a set of efficacy and research resources aligned to each stage available to them, that they can use to conduct some of the suggested activities themselves – and for those to be complemented with additional self-service tools provided by the wider Pearson Efficacy and Research Community.

Key points:

- **Having a theory of change** related to a clearly defined set of learner outcomes is an important part of embedding efficacy into the entire product development process. This explicitly ties the clearly defined outcomes with the way the product is designed.

- **Efficacy can mean different things** – When people think of efficacy, they may picture a rigorous evaluation of a fully-implemented product. But efficacy also means laying out the research-backed ideas behind the design of your product. The rigour that's required will vary on where your product is in its lifecycle.

- **Considering efficacy in feature changes is important**, in order to understand the potential ramifications. Feature changes can affect product implementation, which implicitly affects impact on learning.

Additional reading:

On the Road to Delivering Learner Outcomes
https://efficacy.pearson.com/content/dam/corporate/global/efficacy/files/Pearson_OntheRoad_150330.pdf