



DIGITAL PRODUCT MANAGEMENT

USABILITY TESTING

MODULE 6 CLASS: PMDE

USABILITY TESTING

- User testing of UX helps discover the blind spots that a new user will readily encounter when using the product
- User testing often leads to the most surprising learnings!
- **Quantitative tests** - they are about data, do not involve 'talking' to users
 - E.g., A/B tests, landing pages etc
- **Qualitative tests** – show the customer the design deliverables or product to solicit their feedback

COMMON UX METRICS

- **PULSE** –low-level metrics for user experiences
 - Page views
 - Uptime
 - Latency
 - Seven-day active users (i.e., the number of unique users who used the product at least once in the last week – the time period for tracking can be different too)
 - Earnings

HEART FRAMEWORK – UX METRICS

- Heart metrics developed by Google for large-scale testing of UX design
- Also useful as a prioritization framework to weigh competing ideas or feature requests

Focus only on a handful of UX metrics

- **HEART:** *Happiness*, Engagement, Adoption, **R**etention, and *T*ask success
 - Happiness & Task success known user metrics
 - Engagement, Adoption, and Retention – from large-scale behavioural data
 - Use HEART with goals-signals-metrics framework

More on HEART :

[How to Use the HEART Framework to Make Product Decisions \(productplan.com\)](https://productplan.com/blog/how-to-use-the-heart-framework-to-make-product-decisions/)

HEART

#1 Happiness

How satisfied and happy are your customers?

#2 Engagement

How are customers engaged on your product?



#5 Task Success

How long does it take for a user to complete a task?

#3 Acquisition

How many new visitors are you getting per month?

#4 Retention

What are the daily and monthly active users?

HEART METRICS

Google's HEART Framework

	<i>Goals</i>	<i>Signals</i>	<i>Metrics</i>
<i>Happiness</i>			
<i>Engagement</i>			
<i>Adoption</i>			
<i>Retention</i>			
<i>Task success</i>			

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HEART FRAMEWORK

	GOAL	SIGNALS	METRICS
HAPPINESS	For users to feel like the site is unique	A satisfaction rating from a survey	<ul style="list-style-type: none">• Satisfaction• Perceived ease of use• Net promoter score
ENGAGEMENT	For users to keep discovering more content	The amount of time people spend viewing from analytics	<ul style="list-style-type: none">• Number of videos watched per user per week• Number of uploads• Number of shares
ADOPTION	For users to use the site or app	The number of signups per day from analytics	<ul style="list-style-type: none">• Upgrades to latest version• New subscriptions• Purchases by new users
RETENTION	For users to continue to use the site or app	The number of return customers from customer data	<ul style="list-style-type: none">• Number of active users• Renewal rate• Repeat purchases
TASK SUCCESS	For users to accomplish their goal	The number of successful completes from a study	<ul style="list-style-type: none">• Search result success• Time to upload• Profile creation completion

Google Ventures

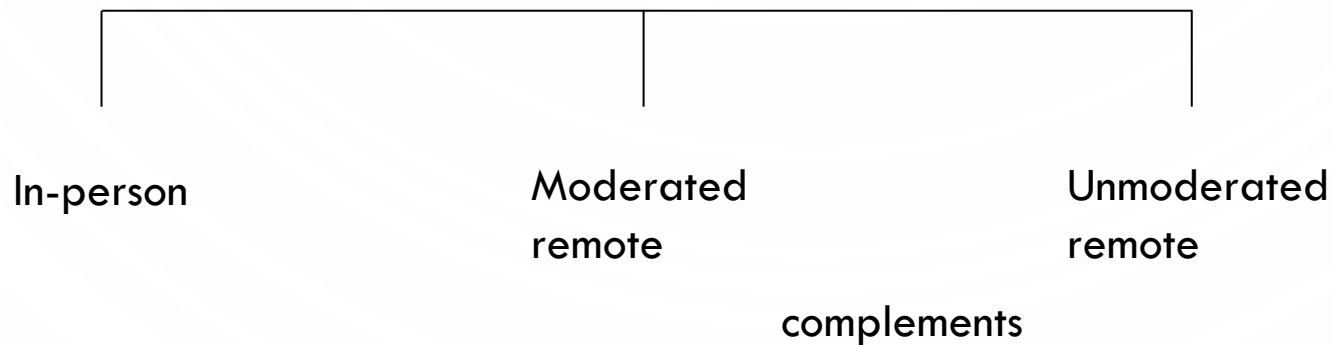
More on HEART :
[How to Use the HEART Framework to Make Product Decisions \(productplan.com\)](https://productplan.com)

The background features a subtle pattern of concentric circles in a light blue color. The corners are decorated with stylized circuit board traces in a darker blue color, with small circles at the end of the lines.

QUALITATIVE TESTING METHODS

USER TESTING

- **Usability testing** – what the users actually do with your product
- Ask discovery questions first
- Participants are given goals or scenarios to accomplish with a site or app or prototype
 - How many users to test with...? At least 6 -8 people in one wave, talk to these separately than in groups
 - **Usability metrics** – success rate, task time, and perceived ease of use



- **In-person** – is ideal for direct customer feedback and observing customer expressions/cues
- **Moderated testing** – helpful in early-stage and MVP validation; ensures rich feedback from the users
- **Unmoderated remote** – suitable for later stages when there is enough confidence about MVP
 - Tools for recruiting users and carrying out remote testing – e.g., Amazon’s Mechanical Turk or Mturk

EYE TRACKING

- Tracking how the user visually interacts with a design or a visual stimulus
- **Used for** : comparing different versions of the product or product components such as design
 - Usually done in a lab setting
 - For website versions and mobile versions
 - Users to be asked about their known eye conditions, so that the prototype test can be done smoothly
 - Using eyetracking to generate heatmaps
 - Changes to the site's design, positioning of content, the information architecture can be tested

F-Shaped Pattern of Reading on the Web with heat map

The design must help scan the pages/ screens with ease

The screenshot shows a Wikipedia article for Mikhail Baryshnikov. A yellow heat map is overlaid on the page, illustrating an 'F-shaped' reading pattern. The vertical bar of the 'F' covers the left sidebar, the article title, and the first paragraph. The horizontal bar of the 'F' covers the top of the article content, including the 'Contents' table of contents and the 'Early life' section. The rest of the article content is mostly unvisited.

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The Free Encyclopedia

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Mikhail Baryshnikov

From Wikipedia, the free encyclopedia

This article is about the ballet dancer. For the Russian athlete, see Aleksandr Baryshnikov.
This name uses Eastern Slavic naming customs; the patronymic is Nikolayevich and the family name is Baryshnikov.

Mikhail Nikolayevich Baryshnikov (Russian: Михаи́л Никола́евич Бары́шников, Latvian: Mihails Barīšņikovs, born January 27, 1948)^[a] nicknamed "Misha" (Russian diminutive of the name "Mikhail"), is a Soviet and American dancer, choreographer, and actor.^[b]

He is often cited alongside Vaslav Nijinsky, Rudolf Nureyev and Vladimir Vasiliev as one of the greatest ballet dancers in history.

After a promising start in the Mariinsky Ballet in Leningrad, Mikhail Baryshnikov defected to Canada in 1974 for more opportunities in western dance. After freelancing with many companies, he joined the New York City Ballet as a principal dancer to learn George Balanchine's style of movement. He then danced with the American Ballet Theatre, where he later became artistic director.

Mikhail Baryshnikov has spearheaded many of his own artistic projects and has been associated in particular with promoting modern dance, premiering dozens of new works, including many of his own. His success as a dramatic actor on stage, cinema and television has helped him become probably the most widely recognized contemporary ballet dancer.

In 1977, he received a nomination for the Academy Award for Best Supporting Actor and a Golden Globe nomination for his work as "Yuri Kopeckine" in the film *The Turning Point*. He also had a significant role in the last season of the television series *Sex and the City* and starred in the movie *White Nights* with Gregory Hines.

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Early life [edit]

Mikhail Baryshnikov was born in Rīga, then Latvian SSR, Soviet Union, now Latvia.^[a] His parents were Russians: Alexandra (a dressmaker, née Kiselyova) and Nikolai Baryshnikov (an engineer). Baryshnikov began his ballet studies in Riga in 1956, at the age of 11. In 1964, he entered the Vaganova School, in what was then in Leningrad (now St. Petersburg). Baryshnikov soon won the top prize in the junior division of the Varna International Ballet Competition. He joined the Mariinsky Ballet, which was then called the Kirov Ballet, in 1967, dancing the "Peasant" pas de deux in *Giselle*.

Recognizing Mikhail Baryshnikov's talent, in particular the strength of his stage presence and purity of his classical technique, several Soviet choreographers, including Oleg Vinogradov, Konstantin Sergeyev, Igor Tcherechov, and Leonid Jakobson, choreographed ballets for him. Baryshnikov made signature roles of Jakobson's 1969 verisodic *Vestris* along with an intensely emotional *Atrecht in Gaspard*.^[b] While still in the Soviet Union, he was called by *New York Times* critic Clive Barnes "the most perfect dancer I have ever seen."

Defection to Canada [edit]

On June 29, 1974, while on tour in Canada with the Mariinsky Ballet, Mikhail Baryshnikov defected, requesting political asylum in Toronto, and joined the Royal Winnipeg Ballet.^[a] He also announced to the dance world he would not go back to the USSR. He later stated that Christina Berini, an American friend of his, helped engineer his defection during his 1970 tour of London. His first televised performance after coming out of temporary seclusion in Canada was with the National Ballet of Canada in *La Sylphide*. He then went on to the United States^[a] in December 1975, he and his dance partner Natalia Makarova featured prominently in an episode of the BBC television series *Arena*.

Principal dancer with the American Ballet Theatre [edit]


From 1974 to 1976, Mikhail Baryshnikov was a principal dancer with the American Ballet Theatre (ABT), where he partnered with Gelsey Kirkland.^[a]

Principal dancer with the New York City Ballet [edit]

Mikhail Baryshnikov performed with the New York City Ballet as a principal dancer for 15 months from 1978 to 1979.^[a]

On July 8, 1978, he made his debut with George Balanchine's and Lincoln Kirstein's company at Saratoga Springs, appearing as Franz in *Coppélia*. On Oct. 12, 1979, Mr. Baryshnikov danced the role of the Poet in Mr. Balanchine's ballet, "La Sonnambula" with the City

Mikhail Baryshnikov, 2010



Born Mikhail Nikolayevich Baryshnikov
January 27, 1948 (age 69)
Riga, Latvia

Occupation Dancer, actor

Years active 1966–present

Height 165 cm (5 ft 5 in)

Spouse(s) Lisa Rinna(m. 2006)

Partner(s) Jessica Lange (1976–82)

Children 4 (including Shana and Anna)

Various contexts for Usability heatmaps –used to visualize key user interactions, e.g., identify how users see, click, scroll or move on a page

USER TESTING

	Vanessa O.	Sofia D.	Xavier G.	John G.	Rich S.	Overall
Feature Set						
+ Thought feature X was valuable and unique	Y	Y		Y	Y	80%
- Complained that feature Y was missing	Y	Y	Y		Y	80%
UX Design						
- Didn't see "sign up" link		Y		Y	Y	60%
- Had difficulty with registration	Y		Y	Y		60%

+ Thought the design looked professional		Y		Y		40%
Messaging						
+ Liked the hero figure on our home page	Y		Y	Y		60%
- Didn't understand our tagline		Y			Y	40%
How valuable? (1-10)	7	7	6	8	7	7 (median)
How easy to use? (1-10)	5	7	5	4	7	5 (median)

Product-market fit

Usability

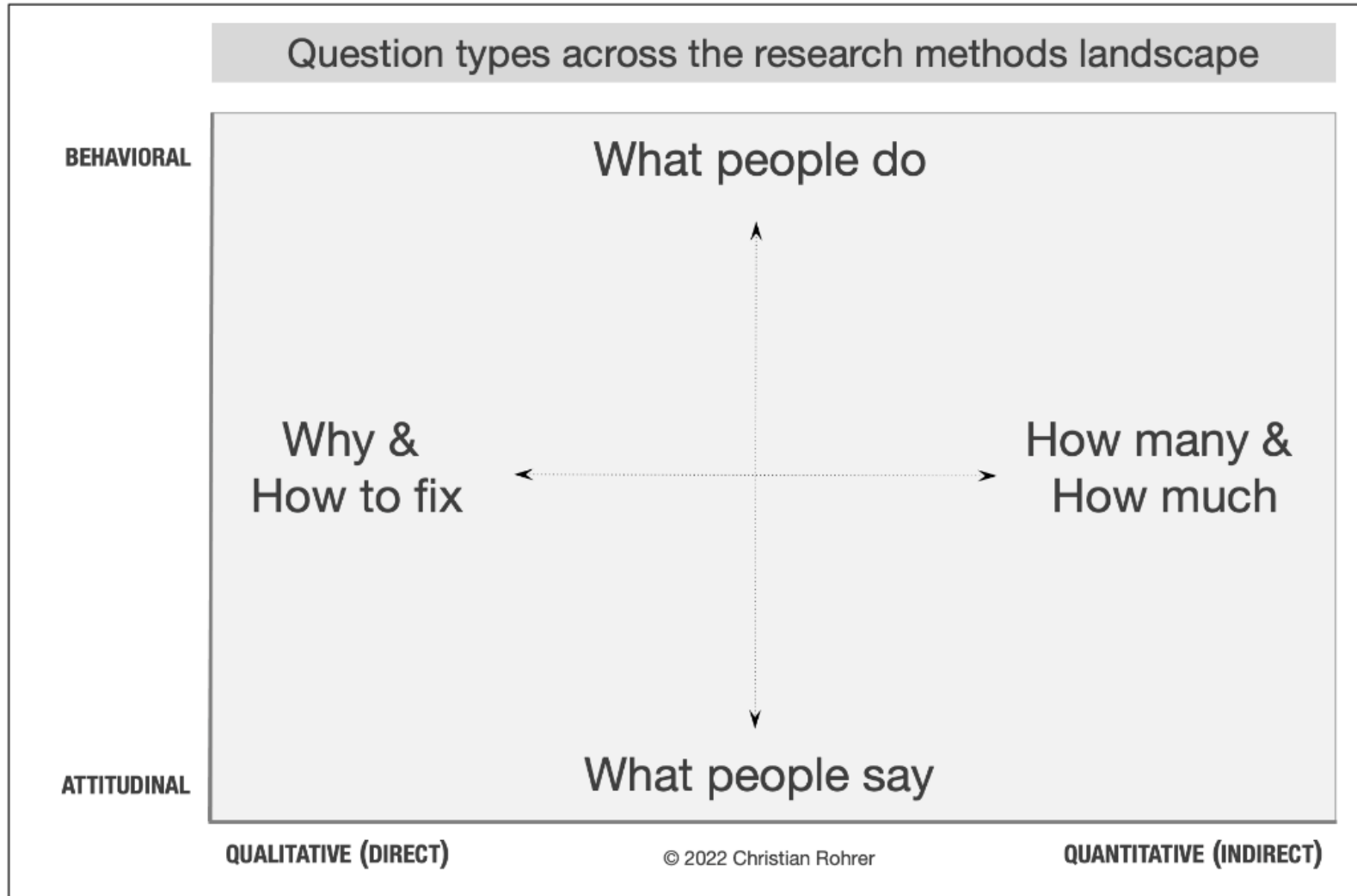
Iterative testing – address the issues in each wave and conduct the next wave of testing with different users



WHEN TO USE?

- Quantitative
- Qualitative

THE PRODUCT RESEARCH METHODS LANDSCAPE



ROHRER'S RESEARCH METHODS FRAMEWORK

