

Assignment 1 Phase 3

P0 Problem Identified

Frequent learners on YouTube struggle to quickly identify trustworthy and learning-appropriate videos for their goals. This leads to excessive trial-and-error, fragmented learning sessions, and reduced confidence in relying on YouTube for repeated learning over time.

Why does this problem exist? (Root Cause)

- No structured credibility or expert verification layer for educational content
- Engagement-based ranking prioritizes popularity over learning reliability
- Massive content volume without strong learning-intent filtering creates noise

Brainstorming solutions against each root cause

Solution	Short Description	Key Assumption	Category
Expert-Verified Creator Badge	Allow creators to verify domain-specific credentials. Videos within verified domains display an "Expert Verified" badge.	Users will prioritize and trust videos more when domain expertise is visibly authenticated.	High Confidence
Learning Intent Match Score	Display a visible "Intent Match %" showing how closely the video content aligns with the user's search query and learning objective, based on transcript and semantic analysis.	Clear relevance signaling reduces video switching and improves confidence before clicking.	Medium Confidence
AI-Summarized Comment Consensus	Generate a structured summary of audience feedback highlighting strengths, weaknesses, and perceived accuracy of the video.	Reducing comment noise into structured insight improves trust without requiring users to read through hundreds of comments.	High Confidence
AI-Based Content Verifier with Source Linking	Use transcript analysis to detect factual claims and surface linked, credible sources or validation markers directly under the video.	Visible fact-verification increases perceived reliability and reduces skepticism.	High Confidence
Post-Video Outcome Feedback Score	Prompt users after completion with a structured feedback question such as "Did this fully answer your question?" and aggregate this into a Learning Value Score.	Outcome-based feedback is a stronger proxy for learning quality than views or likes.	Medium Confidence
AI-Generated Multi-Video Learning Synthesis	Allow users to specify a learning goal and generate an AI-stitched, structured summary combining the most trusted segments from multiple videos.	Users value time efficiency and prefer synthesized, comprehensive content when trust is curated.	Moonshot

Solution Prioritization using ICE

Solution	Impact (1-3)	Confidence (1-3)	Effort (1-3)	ICE Score	Notes
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★ Expert-Verified Creator Badge	3	3	1	9.0	High trust signal with moderate implementation effort. Requires verification system and ongoing maintenance.
Learning Intent Match Score	3	2	2	3.0	Strong relevance filtering but depends on accurate semantic analysis. Requires robust NLP infrastructure.
★ AI-Summarized Comment Consensus	2	3	1	6.0	Quick win - leverages existing data. Relatively low effort with high confidence in user value.
AI-Based Content Verifier with Source Linking	3	2	3	2.0	High impact but technically complex. Requires fact-checking infrastructure and source database integration.
Post-Video Outcome Feedback Score	2	2	1	4.0	Easy to implement but depends on user participation. May have cold start problem for newer videos.
AI-Generated Multi-Video Learning Synthesis	3	1	3	1.0	Transformative but high risk and effort. Requires advanced AI, content rights management, and new UI paradigm.

Top Priority Solutions

Based on ICE scoring (Impact × Confidence / Effort), here are the solutions ranked for implementation:

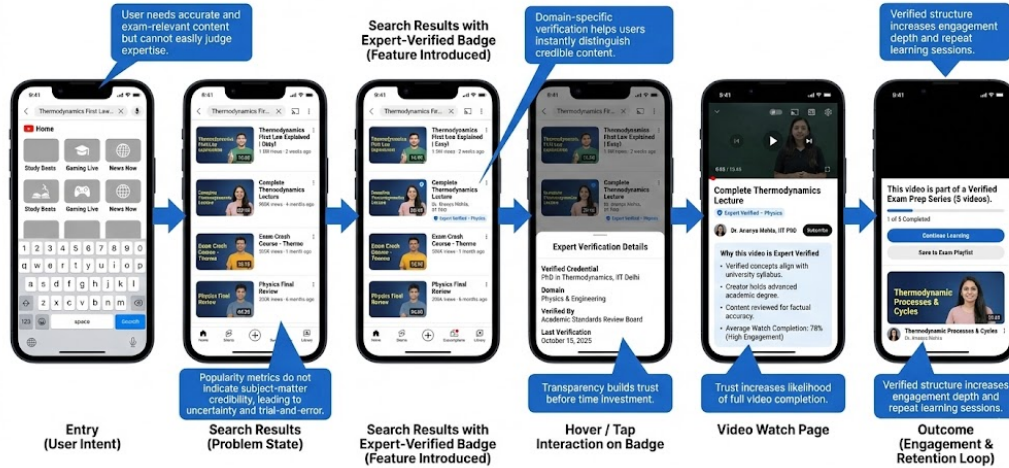
1. 🌟 **Expert-Verified Creator Badge** (ICE: 9)
 - **Why:** Strong trust signal with high impact and confidence, low - moderate effort required
2. 🌟 **AI-Summarized Comment Consensus** (ICE: 6.0)
 - **Why:** Highest overall score - quick to implement, high confidence in user value, leverages existing comment data

Wireframing

Below are the **top 2 solution wireframe flows**.

● Expert Verified Batch

Expert-Verified Creator Badge: A Mobile YouTube User Journey for Trust-Based Educational Engagement



AI-Summarized Comment Consensus

AI-Summarized Comment Consensus: A Mobile YouTube User Journey for Educational Content Discovery



*Note: I did all wireframing by myself, Got stuck in figma while exporting the wireframes so shifted to Nano banana pro for same image generation.

Defining Success Metrics

Goal from Phase 2:

Improve 30-day retention by 15% in 6 months for users who use Youtube for learning atleast weekly.

PO solution based on prioritization

Introduce an "Expert Verified Badge"to increase trust & credibility of video content for consumers.

Metrics

Metric Type	Metric Name	Definition	Why it matters
Key Metric	Learning session completion rate	% of users who watch 80% of a video selected with a verified badge	Directly measures whether users are selecting more appropriate and trustworthy content
Secondary Metric	Video Switching Rate	Average number of videos opened before completing one learning session	Lower switching indicates reduced trial-and-error and improved upfront trust
Secondary Metric	Repeat Learning Rate (30-day)	% of users who return for another learning session within 30 days	Captures long-term retention improvement among serious learners
Guardrail Metric	Creator Exposure Diversity	Distribution of views across creators after expert badge launch	Ensures trust signals do not unfairly suppress new or smaller creators

Pitfalls & Mitigations

Assumption at risk	Failure mode	Impact (H/M/L)	Likelihood (H/M/L)	Mitigation (practical)	Detection signal (metric)	Containment / rollback
Expert verified content might itself not be a universal truth	People find contradictory information on other websites inspite of consuming verified content on Youtube	H	L	Attach autogenerated sources to the videos	Click through rate (verified videos)	Automatically suspend badge and move videos to re-view queue