RADIANT AGILITY TECHNOLOGY

Your Partner in Agile Excellence

🧪 Smart Hypothesis Templates

Turn Product Ideas into Testable Experiments

🎯 How to Use These Templates

1. **Choose the template** that matches your experiment type
2. **Fill in the bracketed sections** with your specific context
3. **Use the AI prompts** to enhance your hypothesis
4. **Set up tracking** with the measurement framework
5. **Run your experiment** and capture learnings

🚀 Core Hypothesis Template

Basic Structure

```
We believe that [BUILDING THIS SOLUTION]
for [THESE USERS]
will achieve [THIS OUTCOME]
because [THIS IS OUR REASONING].

We'll know we're successful when we see:
- [LEADING INDICATOR 1] by [DATE]
- [LAGGING INDICATOR 1] by [DATE]
- [BUSINESS METRIC] improves by [%] within
[TIMEFRAME]
```

Example:

We believe that adding one-click reordering functionality
for customers who purchase monthly essentials
will achieve increased purchase frequency
because customers told us reordering is their biggest friction point.

We'll know we're successful when we see:

- 40%+ of eligible customers use the feature within 30 days
- Average time between purchases decreases by 15% within 60 days
- Monthly recurring revenue increases by 12% within 90 days

📊 Feature Hypothesis Templates

New Feature Hypothesis

Feature: **[Feature Name]**
Target User: **[Specific user segment]**
Problem: **[What pain point does this solve?]**
Solution: **[How does your feature address this?]**

```
Hypothesis Statement:
We believe that [FEATURE DESCRIPTION]
will [DESIRED USER BEHAVIOR CHANGE]
for [TARGET USER SEGMENT]
resulting in [BUSINESS OUTCOME].
```

Success Criteria:

- User Adoption: **[X]** % of target users try the feature within **[timeframe]**
- User Engagement: **[X]** % continue using after first week
- Business Impact: **[Specific metric]** improves by **[X]** % within **[timeframe]**

Failure Criteria:

- If adoption is below **[X]** % after **[timeframe]**, we pivot
- If engagement drops below **[X]** % after week 1, we investigate
- If business metric doesn't improve by **[X]** % within **[timeframe]**, we stop

Learning Goals:

- What user behavior patterns emerge?
- Which user segments respond best?
- What unexpected use cases develop?

User Experience Improvement Hypothesis

Current State: `[Describe current user experience]`
Proposed Change: `[Describe the improvement]`
User Impact: `[How will users benefit?]`

```
Hypothesis:
Improving [SPECIFIC UX ELEMENT]
will reduce [USER FRICTION POINT]
leading to [IMPROVED USER OUTCOME]
and ultimately [BUSINESS RESULT].
```

Leading Indicators: (Observable within 1-2 weeks)

- `[Metric 1]`: Current `[X]` → Target `[Y]`
- `[Metric 2]`: Current `[X]` → Target `[Y]`

Lagging Indicators: (Observable within 4-8 weeks)

- `[Business Metric]`: Current `[X]` → Target `[Y]`
- `[User Satisfaction]`: Current `[X]` → Target `[Y]`

Measurement Plan:

- Daily: `[What we'll track daily]`
- Weekly: `[What we'll analyze weekly]`
- Monthly: `[What we'll evaluate monthly]`

Performance Improvement Hypothesis

Performance Issue: `[What's currently slow/broken?]`
Technical Solution: `[How will you fix it?]`
User Benefit: `[How will users benefit?]`

```
Hypothesis:
Optimizing [TECHNICAL COMPONENT]
will reduce [PERFORMANCE METRIC] from [CURRENT] to
[TARGET]
resulting in [USER BEHAVIOR CHANGE]
and [BUSINESS OUTCOME].
```

Technical Success Metrics:

- Load Time: From `[X]` s to `[Y]` s

- Error Rate: From **[X]** % to **[Y]** %
- Throughput: From **[X]** to **[Y]** requests/second

User Success Metrics:

- Task Completion Rate: From **[X]** % to **[Y]** %
- User Satisfaction: From **[X]** to **[Y]** score
- Session Duration: From **[X]** to **[Y]** minutes

Business Success Metrics:

- Conversion Rate: From **[X]** % to **[Y]** %
- Revenue Impact: **[Expected $ change]**
- Cost Savings: **[Expected operational savings]**

🎯 Behavioral Change Hypothesis Templates

User Adoption Hypothesis

Target Behavior: `[What do you want users to do?]`
Current Behavior: `[What do users do now?]`
Intervention: `[What will you change to drive adoption?]`

```
Hypothesis:
Users currently [CURRENT BEHAVIOR]
will start [TARGET BEHAVIOR]
if we [INTERVENTION]
because [PSYCHOLOGICAL/PRACTICAL REASON].
```

Adoption Funnel:

- Awareness: `[X]` % of users see the new option
- Trial: `[X]` % of aware users try it once
- Adoption: `[X]` % of trial users use it 3+ times
- Retention: `[X]` % of adopters still use it after 30 days

Success Thresholds:

- Week 1: `[X]` % awareness, `[Y]` % trial
- Week 2: `[X]` % adoption rate
- Week 4: `[X]` % retention rate
- Month 3: `[X]` % of target behavior achieved

Risk Mitigation:

- If awareness < `[X]` % → Increase promotion
- If trial < `[X]` % → Simplify onboarding
- If adoption < `[X]` % → Improve value demonstration
- If retention < `[X]` % → Enhance ongoing value

Engagement Improvement Hypothesis

Current Engagement: **[Baseline metrics]**
Target Improvement: **[Desired change]**
Strategy: **[How will you improve engagement?]**

```
Hypothesis:
Users who [CURRENT ENGAGEMENT LEVEL]
will [INCREASE ENGAGEMENT BEHAVIOR]
when we [ENGAGEMENT STRATEGY]
because [USER MOTIVATION/BENEFIT].
```

Engagement Metrics:

- Frequency: From **[X]** times per **[period]** to **[Y]**
- Duration: From **[X]** minutes to **[Y]** minutes per session
- Depth: From **[X]** features used to **[Y]** features used
- Return Rate: From **[X]**% to **[Y]**% weekly active users

Segmentation Analysis:

- New Users: **[Expected behavior pattern]**
- Existing Users: **[Expected behavior pattern]**
- Power Users: **[Expected behavior pattern]**

Success Milestones:

- 2 weeks: **[Early engagement indicators]**
- 1 month: **[Engagement pattern establishment]**
- 3 months: **[Long-term engagement confirmation]**

💰 Business Impact Hypothesis Templates

Revenue Growth Hypothesis

Revenue Opportunity: **[What revenue could this generate?]**
Revenue Mechanism: **[How will this make money?]**
Target Metrics: **[Specific revenue goals]**

```
Hypothesis:
Implementing [SOLUTION]
will generate [REVENUE AMOUNT]
within [TIMEFRAME]
through [REVENUE MECHANISM]
by [USER BEHAVIOR CHANGE].
```

Revenue Funnel:

- Traffic: **[Expected volume]**
- Conversion: **[X]** % conversion rate
- Average Order Value: $ **[X]**
- Customer Lifetime Value: $ **[X]**
- Projected Revenue: $ **[X]** per **[timeframe]**

Leading Revenue Indicators:

- Pipeline Growth: **[X]** % increase in qualified leads
- Conversion Rate: **[X]** % improvement in trial-to-paid
- Upsell Rate: **[X]** % increase in plan upgrades
- Retention Rate: **[X]** % reduction in churn

Revenue Validation Timeline:

- Week 1-2: Traffic and initial conversion data
- Week 3-4: Pattern confirmation and optimization
- Month 2-3: Revenue impact measurement
- Month 4+: Long-term revenue sustainability

Cost Reduction Hypothesis

Current Cost: [What's expensive now?]
Cost Driver: [Why is it expensive?]
Solution: [How will you reduce costs?]

```
Hypothesis:
Changing [CURRENT PROCESS/SYSTEM]
to [NEW APPROACH]
will reduce [COST CATEGORY] by [AMOUNT/PERCENTAGE]
through [EFFICIENCY MECHANISM]
within [TIMEFRAME].
```

Cost Categories:

- Direct Costs: [Current $X] → [Target $Y]
- Operational Costs: [Current $X] → [Target $Y]
- Opportunity Costs: [Current $X] → [Target $Y]
- Total Savings: [Expected $X] per [timeframe]

Efficiency Metrics:

- Time Savings: [X] hours per [timeframe]
- Resource Utilization: From [X] % to [Y] %
- Error Reduction: From [X] errors to [Y] errors
- Automation Rate: From [X] % to [Y] % automated

Implementation Costs:

- Development: $ [X]
- Training: $ [X]
- Transition: $ [X]
- Break-even Timeline: [X] months

🔬 Experiment Design Templates

A/B Test Hypothesis

Test Name: **[Descriptive test name]**
Test Duration: **[How long will you run it?]**
Traffic Split: **[What % sees each version?]**

```
Hypothesis:
Version B ( [CHANGE DESCRIPTION] )
will outperform Version A ( [CURRENT STATE] )
by [EXPECTED IMPROVEMENT]
for [TARGET METRIC]
because [REASONING] .
```

Variants:

- Control (A): **[Current experience]**
- Treatment (B): **[New experience]**
- Traffic Allocation: **[X]** % Control, **[Y]** % Treatment

Primary Metric:

- Metric: **[What you're measuring]**
- Current Performance: **[Baseline]**
- Minimum Detectable Effect: **[Smallest change you care about]**
- Statistical Significance: **[Confidence level needed]**

Secondary Metrics:

- **[Metric 1]** : **[Expected direction of change]**
- **[Metric 2]** : **[Expected direction of change]**
- **[Metric 3]** : **[Expected direction of change]**

Guardrail Metrics: (Don't let these get worse)

- **[Metric 1]** : Should stay above **[X]**
- **[Metric 2]** : Should stay below **[X]**

Sample Size Calculation:

- Minimum Sample Size: **[X]** users per variant
- Expected Test Duration: **[X]** days/weeks

- Power Analysis: **[Statistical power level]**

Multivariate Test Hypothesis

Test Concept: **[What combination are you testing?]**
Variables: **[What elements are changing?]**
Combinations: **[How many variants total?]**

> **Hypothesis:**
> The optimal combination of **[VARIABLE 1]**, **[VARIABLE 2]**, and **[VARIABLE 3]**
> will improve **[TARGET METRIC]** by **[EXPECTED %]**
> compared to the current baseline.

Variables & Levels:

- **Variable 1:** **[Element 1]**
  - Level A: **[Option 1]**
  - Level B: **[Option 2]**
- **Variable 2:** **[Element 2]**
  - Level A: **[Option 1]**
  - Level B: **[Option 2]**
- **Variable 3:** **[Element 3]**
  - Level A: **[Option 1]**
  - Level B: **[Option 2]**

Total Combinations: **[X variants]**
Traffic per Variant: **[X]** % each

Analysis Plan:

- Main Effects: **[How each variable independently affects outcomes]**
- Interaction Effects: **[How variables work together]**
- Winning Combination: **[Criteria for selecting best variant]**

📈 Success Measurement Templates

Metrics Hierarchy Template

North Star Metric: **[Ultimate success measure]**

Primary Metrics: (Direct hypothesis validation)

- **[Metric 1]**: **[Current]** → **[Target]** by **[Date]**
- **[Metric 2]**: **[Current]** → **[Target]** by **[Date]**

Secondary Metrics: (Supporting indicators)

- **[Metric 1]**: **[Expected direction]**
- **[Metric 2]**: **[Expected direction]**
- **[Metric 3]**: **[Expected direction]**

Counter Metrics: (Watch for negative effects)

- **[Metric 1]**: Should not decrease by more than **[X]** %
- **[Metric 2]**: Should stay above **[threshold]**

Leading Indicators: (Early signals, 1-7 days)

- **[Metric]**: **[What to watch first]**
- **[Metric]**: **[Early user behavior]**

Lagging Indicators: (Business impact, 30-90 days)

- **[Metric]**: **[Business outcome]**
- **[Metric]**: **[Long-term user behavior]**

Learning Framework Template

Core Questions:

1. **[Primary question your experiment answers]**
2. **[Secondary question about user behavior]**
3. **[Question about implementation/feasibility]**

Success Scenarios:

- **Strong Success:** [Exceeds expectations] → [Next actions]
- **Moderate Success:** [Meets minimum threshold] → [Next actions]
- **Partial Success:** [Some benefits, some concerns] → [Next actions]
- **Failure:** [Doesn't meet threshold] → [Next actions]

Learning Capture:

- **User Behavior Insights:** [What did users actually do?]
- **Technical Learnings:** [Implementation challenges/successes]
- **Business Impact:** [Revenue, cost, efficiency effects]
- **Unexpected Findings:** [Surprises, edge cases, new opportunities]

Decision Framework:

- **Scale:** [Criteria for rolling out to 100%]
- **Iterate:** [Criteria for making improvements and retesting]
- **Pivot:** [Criteria for trying different approach]
- **Stop:** [Criteria for abandoning this direction]

🛠️ Implementation Checklist

Pre-Experiment Setup

- ☐ Hypothesis clearly defined with specific predictions
- ☐ Success/failure criteria established upfront
- ☐ Measurement tools configured and tested
- ☐ Sample size calculated for statistical significance
- ☐ Timeline established with key milestones
- ☐ Team aligned on experiment goals and process
- ☐ Stakeholder expectations set appropriately

During Experiment

- ☐ Daily/weekly metric monitoring in place
- ☐ Regular check-ins scheduled with team
- ☐ Anomaly detection and response plan ready
- ☐ User feedback collection mechanism active
- ☐ Technical monitoring for performance impacts
- ☐ Documentation of observations and insights

Post-Experiment Analysis

- ☐ Statistical significance achieved for primary metrics

- [ ] Secondary and counter metrics analyzed
- [ ] User feedback synthesized and categorized
- [ ] Technical performance impact assessed
- [ ] Business case updated with actual results
- [ ] Learnings documented for future experiments
- [ ] Next steps and rollout plan defined

💡 Pro Tips for Better Hypotheses

Common Mistakes to Avoid:

❌Vague predictions: "This will improve user experience"

❌Unmeasurable outcomes: "Users will be happier"

❌No timeframe: "Eventually we'll see improvement"

❌Binary thinking: "This will either work perfectly or fail completely"

❌No counter-metrics: "Nothing bad could happen"

Best Practices:

✅Specific predictions: "Click-through rate will increase from 3.2% to 4.1%"

✅Measurable outcomes: "User satisfaction score will improve from 7.2 to 7.8"

✅Clear timeframes: "Within 4 weeks of launch"

✅Range predictions: "We expect 10-25% improvement, most likely 15%"

✅Guardrail metrics: "While maintaining <2% error rate"

Advanced Techniques:

🎯Segment-specific hypotheses: Different predictions for different user groups

🎯Confidence intervals: "95% confident the improvement will be 8-18%"

🎯Multiple timeframes: Short-term adoption vs. long-term retention predictions

🎯Interaction effects: How this change affects other parts of the system

Contact: hello@radiantagility.tech
Schedule consultation: radiantagility.tech/hypothesis-consultation

Smart Hypothesis Templates - Part of the Hypothesis-Driven Development Toolkit by Radiant Agility Technology

Download more resources at **radiantagility.tech**