

Archetype-Based Organizational Change: A Teaching Experiment with Undergraduate Business Students

Appendix A



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This appendix presents the worksheet used in the classroom experiment described in this paper. The worksheet was designed to support undergraduate business students in analyzing organizational change problems using System Dynamics structures, with the aim of encouraging structural diagnosis over symptom-based explanations.

Its design was informed by Jay W. Forrester's *System Dynamics—the Next Fifty Years*, particularly his reflections on the characteristics of strong System Dynamics work, including careful problem definition, compact structural representation, endogenous explanation, policy exploration, and implementation awareness. In this teaching context, these ideas were adapted into a guided analytical framework suitable for students with no formal background in dynamic modeling.

The worksheet was used to help student teams define the problem, justify the selection of a structure, construct a causal account, examine policy alternatives, and connect structural insight with change implementation. It is included here as a practical teaching resource that others interested in introducing structural reasoning into organizational change education may adapt.

General Information

Team Name:

Team Members:

Partner Organization:

Sector:

Date:

Selected Archetype:

Preliminary Justification (3–4 lines):

I. PROBLEM DEFINITION

1. Clearly Define the Problem

Describe the organizational problem as clearly as possible. Focus on what is not working, how the problem manifests over time, who is affected, and the gap between the current situation and the desired one. Try to describe the behavior pattern, not just the event. (*Forrester #1*)

What is not working?

How does it manifest over time?

Who is affected?

What is the gap between the current state and the desired state?

Expected behavior pattern (describe in words or with a conceptual graph):

II. IDENTIFICATION OF THE ARCHETYPE

2. Why this archetype?

Explain why your selected archetype or structure fits the problem. Identify the features of the case that resemble the structure and describe the dynamic pattern you believe is operating.

What characteristics of the problem match the model?

What structural pattern do you observe?

What evidence suggests structural equivalence?

3. Why is it NOT another archetype?

Show that your choice was deliberate. Briefly compare your selected structure with at least one alternative and explain why the alternative does not explain the problem as well.

Provide a brief rationale for ruling out at least one alternative archetype.

III. CAUSAL STORY AND MODEL

4. Structural description of the system

Describe the main elements of the system. Identify the key actors, key accumulations, major flows, incentives, and delays that shape the problem's behavior over time.

Key actors:

Accumulated resources (stocks):

Main flows:

Relevant incentives:

Important delays:

5. Causal loop or stock-and-flow diagram

Create a compact diagram that captures the structure of the problem. Then explain how the interactions in your diagram generate the behavior observed in the organization. (*Compact model – Forrester #2*)

Insert model here

Explain in one page how the model generates the observed behavior.

6. Endogeneity

Focus on what the system creates on its own. Explain which important behaviors come from the internal structure and which variables are driven mainly by relationships inside the system rather than by outside forces. (*Forrester #3*)

What behavior emerges from the internal structure?

Which variables do NOT depend on external factors?

IV. SCENARIO EXPLORATION

7. Intuitive policies tested (that do NOT work)

Identify at least one solution that looks reasonable at first but fails in practice. Explain what people would expect from it, what actually happens systemically, and why the structure prevents it from working well.

Policy 1:

Expected result:

Systemic result:

Why does it fail structurally?

8. Proposed structural policies

Propose an intervention that addresses the problem's structure. Explain what part of the system it changes, how the feedback loops are affected, and what new pattern of behavior you expect to emerge over time. (*Forrester #6 and #7*)

Recommended policy:

What structure does it modify?

How does it change the loops?

What new behavior emerges?

Estimated time horizon for change:

V. EXTERNAL STRESS TEST

9. Impact of external forces (PESTEL / iPESTEL)

Introduce an external shock or environmental pressure and examine how it affects your structure. Use this test to evaluate whether your proposed policy is robust or whether it reveals new vulnerabilities.

Simulated external shock:

How does it affect the structure?

Which policies remain viable?

What fragilities appear?

VI. RESISTANCE AND ORGANIZATIONAL CHANGE

10. Identification of resistance

Identify who might resist the proposed change and why. Focus on what they could lose, what incentives would shift, and what narratives or concerns could emerge against implementation. (*Forrester #8*)

Who loses under the new policy?

What incentives change?

What narrative might oppose the change?

11. Implementation strategy

Translate your structural recommendation into a practical change process. Use Lewin or Kotter to explain how the organization could introduce the change, generate early progress, and manage political or cultural resistance. (*Forrester #9*)

Lewin- or Kotter-type strategy:

Quick wins:

Adjustments in metrics or incentives:

Political management of the change:

VIII. EXECUTIVE CONCLUSION

Summarize your analysis in a clear executive format. State the structural problem, the intervention you recommend, the impact you expect, the main risks, and the value this creates for the partner organization.

Structural problem identified:

Recommended intervention:

Expected impact:

Main risks:

Value generated for the partner organization:

IX. QUALITY CHECKLIST (Self-Assessment)

Review your work critically. Check whether your analysis clearly defines the problem, shows a coherent structure, explains endogenous behavior, compares policy options, identifies resistance, and proposes a realistic path for implementation.

Mark and briefly justify each one:

- ☐ Problem clearly defined
- ☐ Compact model
- ☐ Endogeneity
- ☐ Genericity
- ☐ Policies tested
- ☐ Structural defense of the policy
- ☐ Resistance identified
- ☐ Strategy to overcome it