Assessing interdisciplinarity in comps

We’ve identified four “levels” of interdisciplinary achievement, from simple (citing different disciplines) to the most sophisticated (thinking critically about disciplinarity and interdisciplinarity).

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| Criterion | Poor | Minimally adequate | Adequate | Really good |
| **Level 1:**  Diversity and proportions of citations | Citations come mostly from one field | Citations come predominately from one field but with some references to two or three others | Two or three fields are represented roughly equally among the citations | Two or three fields are represented roughly equally among the citations, with some references to other fields |
| **Level 2:**  Success in relating separate perspectives to one another | Only one disciplinary perspective is explicitly discussed | At least two perspectives are discussed but independently, without addressing conflicts or connections between them | At least two perspectives are discussed, with explicit attention to conflicts and connections, and how researcher will handle them | At least two perspectives are discussed, with an attempt to reconcile conflicts between them |
| **Level 3:**  Use of integrative technique\* | No attempt at integration | Some use of historical narrative or a simple integrative model | Historical narrative, integrative model or other integrative technique is central to study | One of those integrative techniques is used in a particularly smart and sophisticated way |
| **Level 4:**  Critical perspective on disciplinarity | No attention to strengths and limits of the disciplines used in study | Some awareness of the strengths and limits of the various disciplines | Study explicitly considers and reflects on the strengths and limitations of the disciplines used | Study explicitly considers and reflects on the strengths and limitations of the disciplines used and the study’s approach to interdisciplinarity |

\*Integrative models include ecosystem services model, integrated risk assessment, vulnerability models—basically anything that includes social and natural science data in one model. Historical narratives may also explicitly integrate different disciplines. This is not an exclusive list; we expect to learn about additional integrative techniques.

Examples:

A comps studying responses to the collapse of marine fisheries

Level 1: Comps notes that economists and ecologists both study the collapse of marine fisheries

Level 2: Notes that economists think the policy goal is “maximum sustained yield” while many ecologists think that level of fishing is often too intense for a healthy marine ecosystems.

Poor: Continues with project using “maximum sustained yield” as goal.

Good: Attempts to justify proceeding with “maximum sustained yield” or a lower standard as goal

Level 3: Analyzes debate between economists and ecologists; concludes that economists are not taking into account ecosystemic impacts of heavy fishing. Adopts an ecosystem services model so as to include costs to the ecosystem in economic analysis

Level 4: Reflects on the limitations of traditional economic models and whether ecologists are giving sufficient attention to how the human economy interacts with the marine ecosystem

A comps studying how the emergence of “sustainability” as a policy goal has affected US public policy

Level 1: cites the policy literature and the historical literature on the concept of sustainability

Level 2: notes that some historians believe the concept is not new at all but simply a different term for older conceptions of “permanent agriculture” and related ideas from the Progressive era

Poor: continues with project under assumption that “sustainability” really is new

Good: examines the meaning of the older concepts and compares them with the new concept. Attempts to justify treating “sustainability” as a new concept

Level 3: Shifts the project to constructing a historical narrative of the way “long-term planning” (a more abstract concept) has been handled in US environmental policy since the Progressive era. Identifies which conceptual changes are relevant to the policy process.

Level 4: Reflects on how the historical and policy literature might be integrated, identifying the need for to use an explicit model of the policy process in order to identify which conceptual changes are likely to be relevant to policy making