TASK™ Navigational Charts — Guidelines for *Change Leaders*

TASK™ Navigational Charts in 6 Easy Steps

1. The charts are designed to help instructors revise their syllabi in line with TASK™.
2. The charts align to the TASK matrix and, more generally, to TASK™ assessment questions.
3. The chart's key ideas follow a basic structural logic: i.e., basic principles, current trends, cause, impacts, and solutions.
4. The charts provide guidance only: they do not purport to represent a definitive or exhaustive overview of each subject.
5. The charts should be adapted by instructors to the context of the specific courses they teach and the pedagogy they use.
6. The charts will evolve over time and Sulitest welcomes instructor feedback on the content and usefulness of each chart.

Introduction

All TASK™ Navigational Charts are conceived and designed with the instructional and pedagogical needs of the faculty foremost in mind. Their primary purpose is to inform the ongoing process of reviewing and revising course learning objectives and corresponding curricular content. The charts align to the construct of sustainability knowledge as articulated by Sulitest Impact. The charts also align to the TASK™ psychometric assessment tool that *Change Leader* institutions now have at their disposal to assess student learning outcomes and larger programmatic impact.

To this end, the Sulitest Content Team adopted the following principles in the drafting of each TASK™ Navigational Chart:

1. Alignment to TASK™ Matrix

The metadata, chart content, learning objectives, and key resources presented in each chart align to the Sulitest model of sustainability and corresponding TASK™ matrix. As such, they indicate the general organizing structure underlying TASK™ assessment questions for this subject. The metadata is drawn directly from the sources that informed the conceptual origins of the three TASK™ frameworks: i.e., *Earth Systems*, *Human Welfare*, and *Levers of Opportunity*. The corresponding primary sources for these three frameworks are: *Planetary Boundaries* (Rockström, Steffen et al, 2009, 2015); *Doughnut Economics* (Raworth, 2017) and; *The Global Sustainable Development Report: The Future is Now – Science for Achieving Sustainable Development* (Messerli, et al, 2019), respectively, along with *Education for Sustainable Development Goals: Learning Objectives (*UNESCO, 2017) and the *Sustainable Development Goals Report 2022* (United Nations, 2022). More specifically, the collection of key idea titles and corresponding bullet points under each key idea—taken together—constitute the "master inventory" of issues and concepts from which TASK™ multiple choice questions (MCQ) are selected and formulated. Similarly, the list of *Learning Objectives* aligns to the TASK™ matrix, key resources, and to TASK™ MCQs.

As an additional example of this alignment, the key ideas in the Navigational Charts for *Earth Systems* and *Human Welfare* are presented in a numerical order that roughly follows the structure of the TASK™ matrix. The lowest numbered key ideas focus upon basic definitions and underlying principles related to the subject. These are followed by key ideas focused upon current state and trends related to the subject. Next come the key ideas related to underlying causes. The higher numbers generally relate to the systemic impacts of the key ideas and corresponding bullet points. Also, the possible solutions to such impacts—which are presented in greater detail within the *Levers of Opportunity* framework—generally have the highest numbers and thus come at the end of each chart. Note, however, that the ordering of key ideas in this fashion may be more or less apparent depending on the nature and content of each subject.

For the third TASK™ framework—*Levers of Opportunity*—the structure varies somewhat given the very different nature of the 8 subjects listed within. Unlike the 20 subjects in *Earth Systems* and *Human Welfare,* the 8 levers of opportunity are not threshold-based or boundary constructs—they are "levers of action" that humans can use to effect transformational change vis-à-vis the 20 matrix subjects related to planetary boundaries and human social foundations. Of course, all *Levers of Opportunity* are constrained by inherent limitations. As such, a given lever may have a positive outcome in one subject area and trigger a negative impact in another. The expanded use of lithium car batteries, for example, may help reduce CO2 emissions; but it will also increase ecosystem destruction via mining and extraction, not to mention the limiting fact of resource depletion over time. For this reason, instructors should take note that the key ideas and corresponding bullet points listed in the Navigational Charts for *Levers of Opportunity* are contingent—while they indicate possible pathways towards transformational change; they also present potential hazards that limit opportunity.

2. Synoptic and Indicative

The Navigational Charts do not purport to provide a comprehensive analytical overview of the content of each TASK™ subject as listed. They are designed only to provide a simplified overview of the general content of each TASK™ subject as described in the key resources listed

above and as related to TASK™ MCQs. Similarly, the key idea headings and bullet-point sub-topics in each box are indicative only and are provided to help instructors better think about and "visualize" each TASK™ subject knowledge area—i.e., its minimum basic content, its scope, boundaries, and subsidiary themes. As such, the listed key ideas and sub-topics are not exhaustive and could be organized in alternative—yet equally meaningful—ways. Of course, each subject is quite complex and in response, we have made every effort to strike a meaningful balance between over-simplification (disappointing to the specialist) and excessive complexity (overwhelming to the generalist). We welcome your feedback on how successful we have been.

It is important to note, however, that instructors should not conclude that for each Key idea heading—much less for each bullet point—there is a dedicated TASK™ assessment question. The Sulitest Content Team certainly uses the Navigation Charts to identify *topics* appropriate for TASK™ assessment questions. But in no way should instructors think of each chart as a dedicated "menu" of multiple-choice questions linked each to a key idea or bullet point. Each chart presents only a synopsis of the general subject knowledge that constitutes a part of sustainability literacy, and which instructors are encouraged to progressively integrate into their respective teaching and learning agendas. As such, instructors should use this chart only *to guide and inform* the process of selecting new learning objectives, corresponding readings, and in-class lectures, discussions, and learning activities. Once instructors have used these Navigational Charts to update curricular content, they have at their disposal the pre-aligned TASK™ instrument to assess the quality and scope of student learning.

3. Adaptable and Iterative

It is important that TASK™ Navigational Charts be adapted to each instructor's designated field of study and pedagogical approach. As mentioned, the charts are designed neither to provide a definitive and comprehensive catalog of the content of the subject heading (e.g., Climate change), nor to be integrated *in toto* into a single existing course. What *is* important to teach and have students learn across their extended program is the general structure and content of sustainability knowledge as described by the TASK™ matrix both in terms of the 28 subjects, the list of key ideas listed within the 28 corresponding charts, and as articulated around the 4 corresponding types of sustainability knowledge they should seek to acquire, i.e., descriptive, contextualized, causal, and integrated.

As such, instructors should determine individually what TASK™ content appropriately relates to their specific course. Together, instructors from the same subject area or field should then collectively determine where there are gaps and/or overlaps in TASK™ content that legitimately applies to their shared discipline and varied courses. Finally, instructors from very different departments should then engage in a similar process of identifying gaps and overlaps in TASK™ content vis-à-vis both programmatic and institutional learning outcomes. The larger goal is to ensure that all students receive basic instruction across the entirety of the TASK™ matrix during their years of study.

As such, we at Sulitest hope that instructors will want to engage in an iterative and multi-year process of integrating TASK™ content into the curriculum, adapting it to the scope of each course, and sharing it among the many disciplines and fields of study within the institution. No instructor, course, or program can provide students with the full content of sustainability knowledge. It takes a village. Leaders of change in higher education recognize that mainstreaming sustainability literacy is an institution-wide effort. Happily, *Change Leader* institutions now have at their disposal all the required tools and processes they need to begin changing the ethos and outcomes of education at their institution. With these Navigational Charts and TASK™ assessment tools, Sulitest Impact supports *Change Leaders* in this endeavor.