

Decision-Making Frameworks

An Ethics Primer

The strength of Decision-Making Frameworks or Models is that they provide a structured format for student thought. In teaching frameworks to students, teachers have found it helpful to begin with a familiar example or have students consider how they themselves make decisions (see Lesson Strategies section for ideas about how to introduce these models).

The model provided here is based upon one developed by the Hastings Center on Bioethics (Campbell, 1990) and has been widely used by educators in science classrooms. It has the following components:

- **Ethical Question**

First, the decision-making framework asks students to consider the ethical question. This is in itself not trivial – awareness that an ethical dilemma actual exists requires ‘moral sensitivity’ (Rest, 1984) which often needs to be cultivated. Often, students will identify the ethical question only to return to modify it later. An ethical question often (but not always) includes the word ‘should’, and it is characterized by the fact that several competing solutions exist. In reflection on the moral nature of the dilemma, none of these solutions is without its problems, concerns, or issues. Examples of such questions include, “In which cases, if any, is the use of animals in research ethically justified?” “Is it ethical for scientists to pursue embryonic stem cell research?” or “How should donated organs be allocated?”

- **Facts: Known and Unknown**

Students then determine which facts relevant to the question are known and which still need to be researched. If time permits, students can research the issue more deeply. This is an excellent place to incorporate additional science content. From additional research, or from content provided by the teacher, students identify stakeholders and their values.

- **Stakeholders and their Values**

One of the most rewarding aspects of having students consider the position and values of different stakeholders is that it asks them to ‘step into someone else’s shoes’. While this is a valuable exercise at any age, it is particularly important for young people, who may struggle to view dilemmas from different perspectives. Such practice is also important for developing citizenship skills in students. In order to participate effectively in a pluralistic, democratic society, students need to be able to understand different perspectives, even though they may not agree with them.

Teachers can generate a list of stakeholders with their students, and then, in a classic ‘case-study’ approach, have students form stakeholder groups representing a single stakeholder position. Students discuss the values their stakeholder might bring to the issue, and the range of positions that the particular stakeholder might take. Next, the teacher can form mixed groups with one representative from each original stakeholder group. This mixed group will try to reach consensus or clarify the nature of their disagreement. This format is also explained in the Lesson Strategies section of the Primer.

- **Possible Solutions - Generating Options**

Students are asked to generate several options for solutions. This is a brainstorming step, in order to provide a wide range of ideas. Thinking about solutions that different stakeholders would propose is one strategy. Solutions can be analyzed to consider which ethical principles are granted priority in each case.

- **Decision and Justification**

When presented with an ethical dilemma, students are apt to quickly jump to their decision/position, without a sense of their justification. Alternatively, students may express that their position is ‘simply what they believe’ or what intuitively ‘feels right’. The justification of the decision is a key element of the model. This section allows students to practice clarifying their reasoning. Here is where students can bring in their understanding of ethical perspectives and theories (highlighted in the Ethics as a Discipline section) in order to provide depth to their arguments. For example, ethical perspectives can help students clarify which of the possible solutions provides the best outcome for the greatest number (an ‘outcome-based’ perspective).

- **Action/Evaluation**

The last steps consist of acting on the decision and evaluating the decision. Students should be aware that they could change their decisions in light of new evidence or information. Many elements of this problem-solving strategy are shared with scientific decision-making processes. The focus is on a reasoned, thoughtful methodology rooted in critical thinking. Additionally, the process of decision-making itself should be considered, in order to determine the extent to which it was fair and just.

Ethical Decision-Making Framework





Ethical Question:

1. Relevant Facts (known)

2. Questions that remain (unknown, need to know)

3. Stakeholders
(people and/or entities affected by the decision)

4. Concerns/Values of each stakeholder

.....	
.....	
.....	
.....	

5. Possible Solutions

- a.
- b.
- c.

6. Decision

Justification

- a.
- b.
- c.

Ethical Decision-Making Framework (4-page Version)

I. Identify the Bioethical Issue

WHAT is the ETHICAL QUESTION?

II. Gather the Facts

KNOWN: What are the relevant facts? What are the essential biological, ethical, economic, social, or political considerations?

UNKNOWN: What additional facts, information, or evidence would be useful?

III. Consider the Controversy

WHO are the stakeholders? Which individuals or groups have an important stake in the outcome? Identify the concerns and values associated with each stakeholder.

stakeholder	stakeholder	stakeholder
↓	↓	↓
concerns/values	concerns/values	concerns/values
1.	1.	1.
2.	2.	2.
3.	3.	3.

stakeholder	stakeholder	stakeholder
↓	↓	↓
concerns/values	concerns/values	concerns/values
1.	1.	1.
2.	2.	2.
3.	3.	3.

IV. Address Alternatives	Pros	Cons
Option 1		
Option 2		
Option 3		

As you weigh each option, consider the following:

Rules/Duties: Does the option help support a good general moral rule for people to follow in similar situations?

Virtues: Does the option help support or develop the character traits we value most as individuals and in our society?

Outcomes: Does the option produce the most good and do the least harm?

Principles: Does the option address the bioethical principles (respect, do no harm/do good, and justice) involved?

Care: Does the option focus mostly on protecting vulnerable individuals and maintaining important relationships?

V. Decide

What is your decision?

Justify your decision, using the language of ethical concepts and principles described above.

1.

2.

3.

VI. Action and Evaluation

After acting on your decision, you can evaluate it afterwards. You can also consider the process of decision-making itself — was it fair and just?

Ethical Decision-Making Model Scoring Guide	Points Possible	Points Received
Ethical question clearly identified 5 pts: Question that relates to an ethical dilemma clearly identified. 4 pts: Question suggests an ethical dilemma but is ambiguous, vague, or not clearly identified. 3 pts: Question does not clearly relate to an ethical dilemma or is inappropriate for topic. 0 pts: Question not identified.	5	
Basic bioethical principles at stake identified and explained 5 pts: Principles clearly identified and their logical relation to the ethical question is explained. 4 pts: Principles are identified, but their relationship to the question is illogical or not explained. 3 pts: Inappropriate principles are identified, and no explanation is provided. 0 pts: Principles are neither identified nor explained.	5	
Stakeholders clearly identified 5 pts: Major stakeholders clearly identified, and their claims, values, and assumptions are explored. 4 pts: Major stakeholders clearly identified, but without corresponding clarification of their position. 3 pts: Major stakeholders not clearly identified, or irrelevant stakeholders mentioned. 0 pts: Description of stakeholders is missing.	5	
Sufficient factual information gathered 10 pts: Factual information gathered reflects good use of the time and resources available to student. 8 pts: Factual information gathered reflects adequate use of the time and resources available to student. 6 pts: Factual information gathered reflects poor use of the time and resources available to student. 0 pts: Factual information is missing.	10	
Additional (unknown) information necessary for decision-making identified 10 pts: Additional information necessary for decision-making is thoroughly considered; clear explanation of what is lacking is provided. 8 pts: Additional information briefly considered, and explanation conveys what is lacking overall. 6 pts: An attempt to identify additional information is made, but explanation is unclear or not present. 0 pts: Additional information not considered.	10	
Minimum of 3 alternative options generated 5 pts: 3 alternative options described 4 pts: 2 alternative options described 3 pts: 1 option described 0 pts: Description of options is missing.	5	
Option 1 10 pts: Option thoroughly evaluated based on principles, consideration of perspectives, implications, concessions, and costs/benefits. 8 pts: Evaluation of option is adequate, but certain aspects lack depth. The discussion of principles, implications, concessions, and costs/benefits would benefit from further exploration and development. 6 pts: Evaluation of option is attempted, but important aspects may have been missed or are incorrectly interpreted. 0 pts: Option is not described.	10	
Option 2 10 pts: Option thoroughly evaluated based on principles, consideration of perspectives, implications, concessions, and costs/benefits. 8 pts: Evaluation of option is adequate, but certain aspects lack depth. The discussion of principles, implications, concessions, and costs/benefits would benefit from further exploration and development. 6 pts: Evaluation of option is attempted, but important aspects may have been missed or are incorrectly interpreted. 0 pts: Option is not described.	10	
Option 3 10 pts: Option thoroughly evaluated based on principles, consideration of perspectives, implications, concessions, and costs/benefits. 8 pts: Evaluation of option is adequate, but certain aspects lack depth. The discussion of principles, implications, concessions, and costs/benefits would benefit from further exploration and development. 6 pts: Evaluation of option is attempted, but important aspects may have been missed or are incorrectly interpreted. 0 pts: Option is not described.	10	
Decision clearly identified 5 pts: Final decision is readily identified. 4 pts: Final decision is identified, but may be unclear or vague 3 pts: Final decision is alluded to, but may be incomplete or fragmentary. 0 pts: Final decision is not identified.	5	
Justification provided based on comparison of options and reference to ethical perspectives 20 pts: Thorough reference made to the consideration of perspectives, facts, and principles involved. Clear articulation of the rationale behind the decision. Explanation is logical and presents at least 3 supporting examples, as well as thoughtful exploration of ethical perspectives. 18 pts: Reference made to the consideration of perspectives, facts, and principles involved. Articulation of the rationale behind the decision is mostly complete. Explanation is logical and presents at least 3 supporting examples, as well as discussion of ethical perspectives. 16 pts: Partial reference is made to the consideration of perspectives, facts, and principles involved, but key points may be missing. The rationale behind the decision may be incomplete. The explanation may not follow logically, may lack discussion of ethical perspectives, or have fewer than 3 supporting examples. 14 pts: The consideration of perspectives, facts, and principles involved is incomplete. The rationale behind the decision is not clearly explained. Evidence of a logical justification for the decision reached is scant or absent, ethical perspectives are not mentioned, or fewer than 2 supporting examples are present. 12 pts or less: The consideration of perspectives, facts, and principles involved is attempted. Evidence of a logical justification for the decision reached is scant or absent. Supporting examples, if provided, are insufficiently developed or do not relate to the decision made.	20	
TOTAL	100	

Alternate Decision-Making Framework #1

State the bioethical problem. State problem as an ought to do question (e.g., “What ought I do when...”)

List at least five possible alternative actions or solutions to the problem, even if you don’t agree with some.

Ranking	Possible Solutions
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____

Rank these alternatives in order of preference by placing numbers beside them. For example, place #1 beside the first choice, #2 beside the second, etc. (Rank them from the one your values agree with most to the one your values agree with least.)

Take your #1 solution and explain why it is your number one solution. How does it reflect your values?

What ethical perspective is given priority in your solution? (For example, are you mostly concerned with outcomes or with following a moral rule?)

List 3 reasons why others might not agree with your solution to the problem.

- 1.
- 2.
- 3.

How would you address their concerns?

Alternate Decision-Making Framework #2

1. State the question or ethical issue.

2. Develop criteria for how you will decide what is the most ethical course of action. How will you evaluate different solutions? What ethical perspectives, if any, should have priority?

3. Brainstorm a list of solutions.

4. Rank the solutions using the criteria you have established.

5. Explain how the solution you chose is the best one among competing choices.

‘4-Box Method’ for Clinical Decision-making

MEDICAL INDICATIONS	PATIENT PREFERENCES
<p>Principles of beneficence and nonmaleficence</p> <ol style="list-style-type: none"> 1. What is the patient’s medical problem? History? Diagnosis? Prognosis? 2. Is the problem acute? Chronic? Critical? Reversible? 3. What are the goals of treatment? 4. What are the probabilities of success? 5. What are the plans in case of therapeutic failure? 6. In sum, how can this patient be benefited by medical and nursing care, and how can harm be avoided? 	<p>Principle of respect for autonomy</p> <ol style="list-style-type: none"> 1. Is the patient mentally capable and legally competent? Is there evidence of incapacity? 2. If competent, what is the patient stating about preferences for treatment? 3. Has the patient been informed of benefits and risks, understood this information, and given consent? 4. If incapacitated, who is the appropriate surrogate? Is the surrogate using appropriate standards for decision making? 5. Has the patient expressed prior preferences, e.g., Advance Directives? 6. Is the patient unwilling or unable to cooperate with medical treatment? If so, why? 7. In sum, is the patient’s right to choose being respected to the extent possible in ethics and law?
QUALITY OF LIFE	CONTEXTUAL FEATURES
<p>Principles of beneficence, nonmaleficence and respect for autonomy</p> <ol style="list-style-type: none"> 1. What are the prospects, with or without treatment, for a return to normal life? 2. What physical, mental, and social deficits is the patient likely to experience if treatment succeeds? 3. Are there biases that might prejudice the provider’s evaluation of the patient’s quality of life? 4. Is the patient’s present or future condition such that his or her continued life might be judged undesirable? 5. Is there any plan and rationale to forgo treatment? 6. Are there plans for comfort and palliative care? 	<p>Principles of loyalty (fidelity) and fairness Justice)</p> <ol style="list-style-type: none"> 1. Are there family issues that might influence treatment decisions? 2. Are there provider (physicians and nurses) issues that might influence treatment decisions? 3. Are there financial and economic factors? 4. Are there religious or cultural factors? 5. Are there limits on confidentiality? 6. Are there problems of allocation of resources? 7. How does the law affect treatment decisions? 8. Is clinical research or teaching involved? 9. Is there any conflict of interest on the part of the providers or the institution?

Developed by Jonsen AR, Siegler M, Winslade WJ. Clinical Ethics: A Practical Approach to Ethical Decision in Clinical Medicine. 5th ed. New York, NY: McGraw-Hill: 2002

'4-Box Method' for Clinical Decision-making

The Jonsen model (widely referred to as the “four box method”) is a form of casuistry.

It is useful for cases that involve **treatment decisions**.

Simplistically, casuistry embraces the particulars of a case suggesting that how we determine whether something is right or wrong is how we weigh those particulars along a continuum of like cases.

Sorting these particulars allows us to see what “type” of case the one at hand is – that is, what continuum it lies on. Is it a case of an individual’s right to choose to forgo a beneficial therapy? If so, then we can consider it along a continuum of similar cases with one end where most of us would agree people “ought” to be allowed to forgo a therapy, and the other end where most would agree that the individual’s rights are overwhelmed by another factor such as risk: to others or the individual’s mental incapacity.

The purpose of the four boxes is simply to sort our data so that we can determine what is central to the discussion and what is merely interesting.

The boxes do not give us an answer – they point us to areas of confusion or areas of contention. When you finish sorting the data, ask, “In which quadrant does the problem seem to lie?” That will guide you for where to get more information. (Or, for physicians and nurses, where to intervene.)

Goal: A respectful discussion that goes beyond swirling about in the issues to identify the tension points around the topic.

A. MEDICAL INDICATIONS:

- Good ethics starts with good facts.
- Make sure you have the facts available for your students to chew on.
- Sometimes the actual facts will turn the case on its head for the students.
- This can be the most powerful part of an ethics discussion in science.

B. PATIENT PREFERENCES:

- Biases regarding sex, age, race, culture, class, sexual orientation, etc. affect our views of a person’s wishes.
- The U.S. is more “autonomy” and “individual” focused than any other country. Most cultures and countries value the family, the community and the overall population in concert with the individual.
- Helping students explore the tension between allowing anything versus setting some boundaries as a society on behaviors.

C. QUALITY OF LIFE:

- Helping students recognize that our beliefs about mental capacities, physical capacities, and social capacities shape our views of quality of life.

D. CONTEXTUAL FEATURES:

- Issues around the “innocence” of disease etiology affects views about a person’s worth, the efficacy of treatment, etc.

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