

CODING TEACHER UTTERANCES USING THE LIDO

- **Codable Teacher utterances** include those that are **about the contents of instruction**; they do not include utterances about classroom procedure. They must be utterances addressed to **the whole class**, not a small group or individual.
- The Teacher's turns may be complex. We are only coding prompts and questions to students, i.e., utterances intended to get a response from students. Since turns can contain more than one utterance, note that our focus is on the utterance that is addressed to a student or students, attempting to get a response. It is usually the last utterance in a turn.
- Using the flowchart below, each codable teacher turn is assigned to only one category (i.e. if a teacher explicitly prompts a student to respond to the contribution of another student (T1) by asking a semi-open question (T5), the utterance is only coded as T1.)

1. Is the Teacher's codable utterance about the contents of instruction?		
Yes ↓	No → Not Codable	
2. Is the Teacher's codable utterance explicitly prompting student(s) to respond to the contribution of another student? (e.g. <i>do you agree or disagree with Jason? Who wants to respond to that? Can anyone add on to what she said?</i>)		
No ↓	Yes → T1	
3. Is the Teacher's codable utterance addressed to the immediately previous student contributor?		
No ↓	Yes → Is the T's utterance an explicit prompt to get that student to expand, explain, clarify, give an example, or provide reasoning or evidence?	
	No ↓	Yes → T2
	Does the Teacher's utterance get the previous speaker to continue by repeating or rephrasing that student's contribution (e.g. with a rising intonation, I see...) or by using other "active listening" techniques (e.g. say that again, okay)?	
	No ↓	Yes → T3
	Is the T's utterance a completely new, unrelated question?	
	Yes → T4, T5, T6 as applicable	
4. Is the Teacher's utterance a prompt that contains an open-ended query with unconstrained and contestable responses?		
No ↓	Yes → T4	
5. Is the Teacher's utterance a prompt that contains a semi-open question that is not very contestable but has some latitude for explanation?		
No ↓	Yes → T5	
6. Is the Teacher's utterance a prompt that contains a closed or display question?		
No ↓	Yes → T6	
Go back and check again		

TEACHER CODING CATEGORIES AND EXAMPLES

Often a Teacher turn will include a large number of utterances. You only code one utterance per turn. Listen to the turn and see what happens next. You should code the utterance that the next speaker picks up and responds to. If it's not clear which utterance the students are responding to, choose the most highly valued utterance type in the turn. (The Teacher turn categories are ordered from most highly valued to least highly valued—from 1 to 6.)

T1: Teacher prompts student(s) to engage with or respond to another S's ideas or contributions.

- What do you think about what she said?
- Bruno, do you agree with what Brittany said?
- Who wants to agree or disagree, or add on to that idea?
- Nick, they seem to be disagreeing with you. Do you want to respond to their argument?
- Who could rephrase what Cheyla said in their own words?

- A **T1** move should include **unambiguous evidence** that the teacher is asking students to **respond to one particular Student's contribution**. If the Teacher's question is immediately following the original student's utterance, then even a phrase like "that idea" in "Who wants to respond to that idea?" might be sufficient to decide that it's a T1. If the Teacher's utterance is not contiguous with the previous Student turn, then the Teacher needs to use more explicit evidence (e.g. "What do you think about Eve's idea?") to qualify as a T1. If you can't tell for sure that the Teacher is asking students about a particular student's idea, then move on to the other categories.
- Beware of a Teacher referring to the "ideas" of characters in the text. A Teacher might say, "What do you think about Ingrid's claim?" when Ingrid is a character in the text.

T2: Teacher follows up on a response from a specific student, asking that student to clarify, expand, explain, or even to address a new content question. That same student then responds to the Teacher question or prompt.

- Why do you think that?
- How did you figure that out?
- Can you give us an example of that?
- What's your evidence? Where is that in the text?
- How did you come to that conclusion?
- Could you clarify that? Can you say that in a different way?
- What do you think about ___? (new or related question)

- To be a **T2**, an utterance must be addressed to the previous student speaker. When using audio files and transcripts, we can't be sure of who utterances are addressed to. Therefore, to be coded as a T2, there must be evidence that the Teacher is

following up with the same student. There are several ways to be more certain about this:

- a) the Teacher uses the previous Student's name: "Sarah, can you give us an example of that?"
- b) the Teacher immediately follows a Student's turn with a question using "you" or other expressions that indicate the continuity: "So why do you think that?"
- c) the previous Student responds to the Teacher's question:

Janice: I think she was the one who found them.

Teacher: How do we know that? What's the evidence? (T2)

Janice: In the next paragraph it says it.

Compare this to a case like the following, where the Teacher's question is NOT a T2:

Janice: I think she was the one who found them.

Teacher: How do we know that? What's the evidence? (not a T2)

Martine: In the next paragraph it says it.

- Notice that T2s include any kind of Teacher follow-up to the same student, including new questions, old questions, press for reasoning, press for expansion, etc. They only kind of follow-up that is not included in T2 is described below in T3.

T3: Teacher encourages the same student to continue talking by using "backchanneling" signals (e.g. *uh huh, oh!, yeah? okay, or "that's interesting" etc.*) There is no new content or questions contained in these Teacher utterances.

- Occasionally a Teacher will ask "What?" or "Could you say that again?" because the student's utterance was not heard. This is also a T3.
- Note: If the Teacher utterance is not followed by another utterance from the previous Student, it's not a T3.

T4: Open, discussable, contestable content question or prompt

- Why do you think the community disagreed about the Native Americans?
- Were the Pharaohs oppressive rulers or great leaders?
- Should people be able to rent pets?
- Should school cafeterias serve "junk food" or not?

- The purpose of a T4 question is to scaffold dialogic discussion among students. Its purpose is to get students to think about one another's reasoning, to question, contest, agree, oppose, and seek further evidence. Therefore, T4 questions are "open", discussable, contestable content questions or prompts. These questions support opportunities to delve into reasoning and they afford students the opportunity to take a position and develop support for that position. A T4 question does not have a "right answer" but affords students the chance to build a good answer based on a variety of evidence and reasoning.

T5: Semi-open content questions—not a single right answer, but not totally contestable, either. Circumscribed set of data or facts with some latitude for exploration of the ideas

- Why did Frodo go to Mordor?
- How do you find all the common factors?
- Who can use the word ‘operable’ in a sentence?
- Which of the three artists in this story was most dependent on his patrons?
- What are some things that the pilots did to prevent conflict?
- What is the process for becoming a citizen?

- Often these questions have procedural answers that can differ from student to student: “What method did you use to get that answer?” can sometimes be a T5. Or they may have a series of steps as part of the answer that different students can contribute to. They may generally have a desirable type of answer or set of answers, but they have more expansive possibilities than T6 questions (see below).

T6: Closed, “test” content question or prompt—not contestable

- When did the Pharaohs rule?
- The opposite of negative six is what?
- Can anyone give me a definition of the word “operable”?
- Last week we talked about Native American tribes. Who can remind us of one?
- Who can give me an example of an adverb?
- Raise your hand if you’ve been to a football game.
- And that’s an example of an equilateral.... what?

- Many T6 questions have one right answer. Other T6 questions are “yes/no” questions where only students know their own answer: “How many of you have written a poem?” “Who has been to Disneyland?”
- In contrast, T5 questions may more than one right answer, and different sources of evidence that students may cite. They are often based in a text or an activity, with a circumscribed pool of information to be drawn from, and the Teacher may have an answer in mind. It won’t create a debate, it won’t support an extended discussion, but there is a bit of room for conversation. Its purpose is often to get students to display their ability to make inferences or read text.
- Note that the context of the classroom will play a role in your judgment about these. For example, in a second grade, a Teacher might ask “How does someone become President?” If the answer is “They get more votes” and the Teacher responds to that answer by saying “Good!” --it’s a T6. If we’re in a high school and the answer covers the nomination process by the two main political parties and the alternative route of running as an Independent, with a discussion about voter registration, that’s a T5.

CODING STUDENT UTTERANCES USING THE LIDO

Student Turns: What are we coding? Solicited or unsolicited student utterances that are about content and are addressed to the whole class are coded. Using the flowchart below, each codable student utterance is assigned to only one category (i.e. if a student utterance is directly addressing another student about content (S1) and contains a claim with evidence/reasoning to support that claim (S3), it is only assigned S1 – the highest category in the flowchart below.)

1. Is the Student's codable utterance about the contents of the lesson/discussion?	
Yes ↓	No → Not Codable
2. Is the Student's codable utterance directly addressing another student about instructional content? (e.g. <i>I agree with you, Freddy. Can you repeat what you just said?</i>)	
No ↓	Yes → S1
3. Does the Student's codable utterance refer to another student's response or contribution? (e.g. <i>I like her idea. I agree with Sarah.</i>)	
No ↓	Yes → S2
4. Does the Student's utterance provide reasoning to support his or her own claim? (e.g. <i>The answer is 49. I figured it out by multiplying both numbers.</i>)	
No ↓	Yes → S3
5. Is the Student's utterance an extended response (longer than one simple clause)? (e.g. <i>He thought that they would need to move to another place.</i>)	
No ↓	Yes → S4
6. Is the Student's utterance a minimal response (simple clause or less)? (e.g. <i>Yes/No. I agree/disagree. I don't know</i>)	
No ↓	Yes → S5
Go back and check again	

STUDENT CATEGORIES AND EXAMPLES

S1: Student directly addressing another student about instructional content

- I agree with you, Freddy.
- Caitlyn, did you mean the Pharaohs WERE good leaders?
- Where did you see that?
- Can you repeat what you just said?

- *Should include unambiguous evidence that one student is directly addressing another student, such as use of their name, or "you," or other markers of direct address.*
- *The student's direct address to their classmate may be spontaneous or may be mediated by the teacher:*

Freddy: Well, the Pharaohs were wise and good leaders, because they united the people and took care of them.

Teacher: What do you think about Freddy's claim?

Student: I agree with you, Freddy, but I don't think that's the only answer.

- *Does not include name-calling or shout outs not concerned with instruction:*

Freddy: Well, the Pharaohs were wise and good leaders, because they united the people and took care of them.

Jeremy: Freddy, you're an idiot. (*not codable*)

Tito: Freeedddd!!! Dude! Over here! (*not codable*)

Teacher: Jeremy, you have a second warning. What do others think about Freddy's claim?

Sandy: Freddy, I don't agree. Because they did more than that. (S1)

- *A tricky case: a student says something and another student follows up immediately with no intervening teacher turn. Is the second student talking to the first student directly?*

Student 1: But the Pharaoh couldn't control the flooding of the Nile.

Student 2: He couldn't control it but he could pray to the gods for it.

Student 3: But he WAS a god!

- *When coding from audio, it's difficult to tell whether students are addressing one another or the teacher or the class as a whole. There is no direct evidence (names, "you" etc.) that Student 2 is directly addressing Student 1 or that Student 3 is directly addressing Student 2. It IS clear that they are referring to what the previous student just said, so move on to the next category, S2.*

S2: Student referring to another student's response or contribution

- I like **her idea** because...
- I agree with **what he just said**.
- I agree **with Freddie**.
- I think they were oppressive rulers **too**

- *Student cites or mentions or responds to what another student said, but there is no evidence of direct address.*

- *Should include explicit **evidence** of previous student utterances being referred to. This can include mention of the student's name (I agree with Sandy) or their specific words, or a 3rd person pronoun (I agree with her) or may use a phrase like "what she said" (I agree with what she said).*

- *If the target student turn is immediately after the first student's turn, it may be coded as an S2 even if the previous student's name is not mentioned, and the evidence is a bit more indirect.*

Student 1: At least you don't have your kids taken away from you when they're 7.

Student 2: Forcefully.

Student 3: Yeah, forcefully. With force.

In this example, Student 3 is clearly referring to Student 2's utterance, so that is an S2. Arguably, Student 2 is also clearly referring to Student 1's utterance.

(One useful test is to imagine the interaction going on without the first student's utterance. Would the second student's comment still make sense? If it would still make sense, then there is not enough evidence that the second student was referring to the first student's comment.)

S3: Student provides reasoning to support his or her own claim

- Pharaohs were oppressive because they took away people's freedoms.
- Spartans were happy because they didn't have to make hard decisions on their own.
- He's nice and mean because he founded it, but he treated the people bad.
- The answer is 49. I figured it out by multiplying both numbers.
- I think girls *should* play football. They have a *right* to be equal with boys.

- *If a student states a claim (turn 1), then the teacher asks for reasoning, and the student provides reasoning (turn 2), their second turn counts as an S3 even though their statement about their reasoning was initiated because of a teacher question. E.g. Student: I think girls *should* play football (S5).*

Teacher: Why do you think that?

Student: Because they have the right to be equal (S3).

- *If students collectively respond to a claim (e.g. the teacher asks students to raise their hands if they agree, and many students raise their hands), and then go on to provide reasoning for their agreement, their responses count as S3s.*

(The raising of hands constitutes an answer that they are then providing a reason for. In an audio recording, you can detect hand raising by teacher questions [e.g. "Raise your hand if you think Hester wanted to leave."] and often by other teacher comments [e.g. "I see lots of hands up. So most of you agree."])

- *Many student turns contain talk that is hard to interpret. It is often unclear whether the student has made a claim and whether what they are saying constitutes reasoning about that claim. Your job is not to judge the quality of the reasoning. We want to avoid having coders spend a lot of time trying to judge whether something a student says constitutes a "claim" or "reasoning."*

So a useful rule of thumb is this: If the student uses "because" or "so that's why" (or other clear indicators of providing a reason for a claim) then it is an S3. If the student does not use "because" or other clear markers, then ask yourself if nine out of ten other coders would agree that the example constitutes a claim with reasoning. If they would not all agree, then don't use S3.

- *Finally, beware of students providing reasoning/evidence for claims that are not their own. S3 is for students reasoning about their own answer or claim.*

S4: Extended student response

- Well, when they play football, they could be also playing soccer or baseball too.
- They were nice and they were compassionate.
- He thought that they would need to move to another place.

- *This category is used when S1 through S3 do not apply, and a Student says something, either solicited or unsolicited, and the turn is longer than one simple clause.*
- *Any utterance that **has more than one main verb** is judged to be longer than one simple clause. (See S5 for further discussion of what counts as “more than one verb.”)*

Well, when they **play** football, they could be also **playing** soccer or baseball too.

They **were** nice and they **were** compassionate.

He **thought** that they would **need** to **move** to another place.

S5: Minimal student response

- Yes/no.
- I agree/disagree.
- I don't know.
- An adjective.
- Yeah, it's good.
- They were nice ...and compassionate.
- Maybe he could have gone.

- *This category is used when a student says something, either solicited or unsolicited, and the turn is one simple clause or less (and it does not fall into categories S1-S3.)*
- *A simple clause has a subject and a main verb. (If the clause includes “auxiliary” verbs like could, might, have, been, etc., these are not counted. So an example like “He has gone” has one main verb—gone.)*
- *Simple repetitions of the same clause are coded as S5s:*
 - *E.g. They were sleeping, um yeah they were sleeping*
- *Fillers, casual evidentials, or tag questions are not counted as full verbs, so the examples below are not S4 but S5. E.g.:*
 - *Cows and horses eat hay, **don't they?** (S5)*
 - ***I'd say** because they were living there (S5)*
 - ***I guess** they were sleeping (S5)*
 - ***I guess, I think** girls should play football (S5)*