

CURIOSITY IN CLASSROOM DISCOURSE

Supplementary Information

for

Triggers of curiosity in social constructivist classroom discourse

Supplementary Table 1

Frequencies of teacher and student utterances across all lessons for second grade

Teacher utterances			Student utterances		
Code	Mean	S.D.	Code	Mean	S.D.
T:SQ	10.7%	6.9%	S:SC	36.4%	15.4%
T:AEL	17.1%	13.9%	S:PX	13.4%	8.9%
T:RV	10.7%	6.2%	S:EX	13.3%	11.0%
T:AEX	2.7%	4.1%	S:SP	7.6%	12.2%
T:ID	2.5%	2.2%	S:RG	2.5%	2.5%
T:IND	0.4%	0.8%	S:POS	45.3%	19.5%
T:GI	15.3%	14.3%	S:NEG	3.4%	4.3%
T:EP	6.5%	4.1%	S:SUR	0.8%	1.4%
T:NS	36.5%	24.9%	S:NEU	29.3%	15.7%
			S:CUR	12.6%	4.8%

Note: Frequencies are computed over total utterances of either teachers or students for each lesson. Mean represents mean frequencies across all lessons while S.D. represents standard deviation across all lessons. Frequencies do not sum to 100% because each utterance can be labelled by multiple codes. For teacher codes, T:SQ: Start to ask the questions about the ideas; AEL: Ask for elaboration or seek clarification or pose follow-up questions; T:RV: Restate or revoice students' ideas while expressing uncertainty; T:AEX: Ask for explanations, relationships, or interpretations using questions like "why" or "how"; T:ID: Invite the generation of diverse or supplementary ideas; T:IND: Invite the formulation of new questions or the exploration of new inquiry directions; T:GI: conveying information; T:EP: Encourage diverse participation, manage speaking turns, or facilitate the utilization of KB language; T:NS: Feedback talk, positive affirmation, and other non-instruction-related utterances. For student codes, S:SC: Give simple claim/ assessment or information; S:PX: Offer partial explanation; S:EX: Generate elaborated explanation; S:SP: Propose inquiry or research areas; S:RG: Regulate KB discussion; S:POS: Express positive emotion; S:NEG: Express negative emotion; S:SUR: Express surprise; S:NEU: Not express or indicate any emotions; S:CUR: Express curiosity

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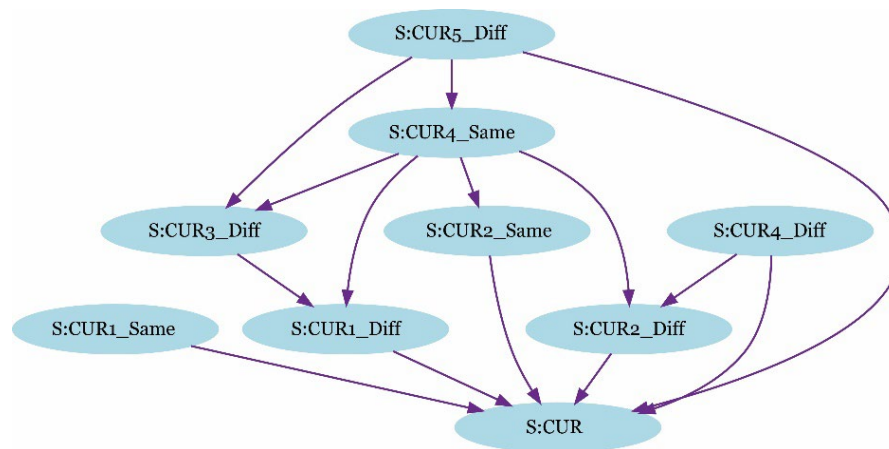
Supplementary Table 2

Frequencies of teacher and student utterances across all lessons for third grade

Teacher utterances			Student utterances		
Code	Mean	S.D.	Code	Mean	S.D.
T:SQ	6.9%	6.1%	S:SC	42.0%	9.6%
T:AEL	11.0%	9.2%	S:PX	9.9%	5.5%
T:RV	10.7%	5.4%	S:EX	13.1%	7.0%
T:AEX	2.7%	3.2%	S:SP	7.5%	9.3%
T:ID	2.4%	3.0%	S:RG	10.3%	7.2%
T:IND	2.0%	2.6%	S:POS	38.6%	13.1%
T:GI	28.7%	14.9%	S:NEG	5.2%	3.3%
T:EP	6.7%	7.6%	S:SUR	2.0%	1.4%
T:NS	34.1%	8.6%	S:NEU	26.9%	9.1%
			S:CUR	22.9%	11.8%

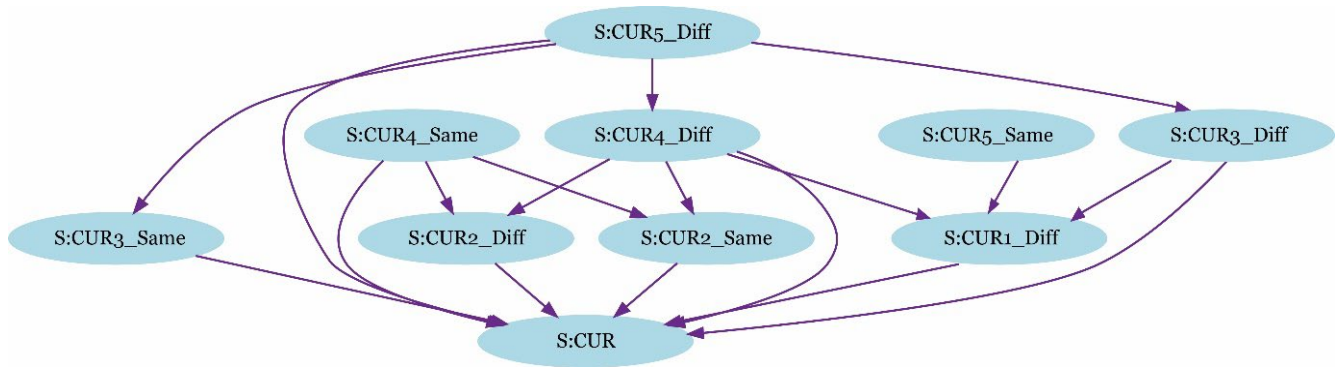
Note: Refer to Supplementary Table 2 for notes.

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Supplementary Figure 1 Network for social chain of curiosity in second grade.

Postpended numbers refer to utterance turn relative to the target utterance at the very bottom of the network (S:CUR). For example, 1 represents the turn immediately before the target utterance, 2 represents two turns before the target utterance and so on. Arrows represent inferred directional relationship from one utterance to the next utterance. Codes postpended with “_Same” refer to curiosity utterances by the same student as the one who produced the target utterance at the very bottom of the network. Codes postpended with “_Diff” refer to curiosity utterances by different students from the one who produced the target utterance at the very bottom of the network. The network analysis suggests that chains of curiosity can exist within and between students.

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Supplementary Figure 2 Network for social chain of curiosity in third grade.

See Supplementary Fig. 1 caption for explanation of network details.