

Sequences for 5 constructs, with 5th grade heat map

Within the context of the RFJ001, the phases at which we find the following ideas. N=1070

Terms in [brackets] are not actually used by individuals performing in a given phase. They are placeholders.

1%-12% 13%-24% 25%-37% 38%-49% 50%-62% 63%-74% 75%-87% 88%-100%					
Phase	Reasoning	Discussion	Persuading as inducement	Persuading as argumentation	Persuading as tactics
	n = 145	n = 53	n = 104	n = 251	n = 192
08d	(h) happens in your brain and helps you <i>figure out</i> the right answer or remember [specific things] you have [experienced]		(f) telling [someone] to [do something specific]	(i) telling [someone] that [something specific] is bad or good (okay or not okay) or that [someone] should stop [specific activity]	
09a	(i) helps you figure out the <i>best answer</i> , can be better or worse, helps you remember or think about things you have learned or [experienced]	(f) (using words) people talking to one another	(h) getting [someone in particular] to talk to [opponent], bugging them, begging, or keep telling them [specific thing]	(c) telling [someone] what is true, right, wrong, or okay, or that they bad or good ideas	
09b	(a) helps you figure out if you are right or wrong or what makes <i>sense</i> , may involve having ideas, paying attention, or understanding things you have learned, thought, or imagined	(h) talking to one another to tell your <i>opinions or ideas</i>	(g) doing, saying, or showing [something] that will make [an opponent] agree with you, getting people to listen, getting someone to talk to [an opponent]	(f) telling someone your <i>opinion</i> , what you know or think{explicit}, or that something is (not) cool, <i>explaining</i> [something] or telling <i>why</i> [something] is good or bad or giving <i>reasons</i>	(c) doing, saying, or showing [something] that will make [an opponent] feel bad or good or make them want [something], telling [someone] something that is nice (not) rude

Phase	Reasoning	Discussion	Persuading as inducement	Persuading as argumentation	Persuading as tactics
	n = 145	n = 53	n = 104	n = 251	n = 192
09c	(d) helps you figure out what makes the <i>most sense</i> , helps you make better choices or decisions; involves <i>comparing</i> [information] or thinking about <i>facts</i> , <i>evidence</i> , or ideas	(a) <i>discussing</i> a problem, finding out what people are thinking, or explaining your opinions or reasons	(e) getting people to think or do the right thing, see their mistake, or see for themselves, getting them on your side, getting [someone] <i>with experience</i> to talk to them, getting someone to see or understand what you mean or are talking about, “think about it”, think about their choice, or think about what people want, asking “what if”	(g) getting your ideas across, <i>persuading</i> someone, telling them “how it is”, what you <i>honestly</i> think, or something that <i>makes sense</i> , making a suggestion, <i>explaining well</i> , explaining your choice, why you have your opinion, or why you are right, giving <i>good</i> or <i>many</i> reasons	(e) getting [an opponent] to <i>think about</i> or <i>imagine</i> how they (or other people) would feel or what they want, making them think they are wrong or that people won't trust them
09d	(g) a [mental activity] that organizes your ideas or knowledge, or helps you figure out <i>why</i> something makes sense (or not); involves skills like <i>double-checking</i> information or being <i>reasonable</i>	(d) sharing opinions, listening to (or asking about) the opinions, ideas, or thoughts of the other side (or both sides), debating with or persuading <i>one another</i> , presenting reasons, <i>perspectives</i> , <i>evidence</i> , or <i>pros and cons</i> to <i>one another</i> , or working together to figure something out (e.g., working it out, deciding together)	(a) being <i>persuasive</i> , giving an answer that will “make people listen”, getting someone to <i>see your point</i> , <i>realize</i> [something], trust your <i>judgment</i> , think about their <i>reasons</i> , or “think twice”, telling them something they will understand or that would convince you	(e) <i>communicating</i> , making an <i>argument</i> , <i>recommendation</i> , <i>good point</i> , or <i>true statement</i> , explaining your <i>reasoning</i> , <i>defending</i> your [conclusion], being <i>specific</i> , pointing things out, saying something that is <i>clearly true</i> , <i>backing up</i> [statements] with reasons	(d) trying to <i>impress</i> [an opponent], getting [an opponent] to think about or imagine how <i>other people</i> would feel, [appealing] to their <i>perspective</i> or what they <i>want for</i> [people they care about], getting them to <i>think positive</i> or doing (or saying) [something] they can <i>relate</i> to
10a	(f) the thinking that is <i>behind</i> a perspective or position (what it is based on); required for <i>connecting ideas</i> or making a <i>sensible</i> , <i>realistic</i> , or <i>logical</i> decision or claim; involves making an educated guess, thinking for yourself, <i>processing</i> things, or thinking <i>scientifically</i> ; may be stronger or weaker	(b) sharing perspectives or reasons, or <i>giving everyone a chance</i> to provide their perspective, get their point across, <i>express</i> themselves or their feelings, or present reasons, perspectives, evidence, or pros and cons to one another; a nonviolent way to end a disagreement	(i) <i>reasoning with</i> [an opponent], making your idea <i>understandable</i> , getting people to see things <i>through your eyes</i> or from another <i>perspective</i> , getting them to see <i>common sense</i> or the other side of things, providing evidence or arguments [opponents] <i>can't ignore</i> or <i>deny</i> , making it difficult to argue with you, <i>overpowering</i> the [opponent's] argument, or saying something <i>both sides</i> would understand	(a) making a case, getting your point across, making a <i>convincing</i> , <i>strong</i> , <i>best</i> , or <i>more than one</i> argument, being <i>clear</i> or <i>straightforward</i> , explaining things in <i>different ways</i> , being <i>logical</i> or <i>reasonable</i> , showing how [specific things] <i>relate</i> , presenting a [certain] <i>point of view</i> , presenting <i>organized</i> information	(f) telling [opponents] about something that would affect them <i>personally</i>

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10b	(b) a [mental activity] required for making <i>valid</i> or <i>unbiased</i> decisions or arguments, the logic or reasoning behind a perspective; involves thinking about how things <i>relate</i> to one another, taking things into <i>consideration</i> , determining if something is <i>probable</i> , considering <i>potential</i> consequences, or being <i>skeptical</i>	(c) sharing or discussing the <i>reasoning behind</i> ideas, brainstorming to bounce around ideas, an [exchange] of ideas in which <i>all</i> [immediate] perspectives, evidence, or pros and cons are heard or understood	(c) getting someone to see <i>reason</i> or <i>consider</i> a <i>possibility</i> , using an argument that is <i>likely</i> to get an opponent to agree with you or “win them over”, <i>overpowering</i> their argument, or making it difficult to disagree with you	(b) communicating <i>fully</i> , showing a <i>direct connection</i> , showing how things <i>relate</i> or showing <i>relationships</i> , <i>elaborating</i> , explaining the <i>logic behind</i> your position or explaining from <i>different angles</i> , making the <i>most convincing</i> or a realistic, effective, or valid argument, an argument “without holes”	(a) using an <i>extreme example</i> , telling [an opponent] something that “isn't hard to understand” [with sarcasm], using an argument that will “shake them up” or get their <i>sympathy</i>
10c	(e) a [mental activity] that is required for thinking <i>realistically</i> , thinking in a <i>well-rounded</i> way, or making <i>rational</i> decisions or arguments; involves identifying differences between <i>aspects</i> of [something] or considering <i>multiple</i> perspectives; may be more or less developed	(e) an <i>open</i> [exchange] in which <i>all</i> perspectives, evidence, or pros and cons are heard or understood	(d) getting people to <i>set aside</i> their <i>current</i> beliefs or <i>reconsider</i> their approach, <i>appealing</i> to reason or logic	(d) making <i>positive</i> points, being <i>precise</i> , presenting findings in an <i>organized manner</i> , not <i>contradicting</i> yourself, <i>restating</i> your reasons, showing <i>direct</i> or <i>indirect relationships</i> , the <i>strength of relationships</i> , or links between factors	(b) <i>emphasizing</i> the size [of an effect], <i>embellishing</i> arguments, presenting <i>moving</i> arguments, <i>appealing</i> to emotion, or convincing the most <i>influential</i> people first
10d	(c) a mental activity that allows you to <i>differentiate</i> (<i>discern</i> differences) between aspects of something, or to make valid, objective, impartial, or unbiased <i>generalizations</i> ; involves avoiding <i>speculation</i> , considering a <i>wide range</i> of perspectives on an issue; may be more or less <i>viable</i>	(g) an open or <i>productive</i> exchange in which all <i>relevant</i> perspectives, evidence, or pros and cons are brought out into the open, or that is likely to lead to a compromise	(b) causing people to <i>reevaluate</i> their own position by <i>exposing a contradiction</i>	(h) presenting an <i>alternate</i> explanation	(g) understanding your audience, appealing to <i>both logic and emotion</i> or <i>evidence and emotion</i> , making an argument that does not conflict with [opponents' <i>basic beliefs</i> or <i>ideals</i>

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