Interpersonal Language in MOOC Lectures: Comparing a High-rated and a Low-rated Course

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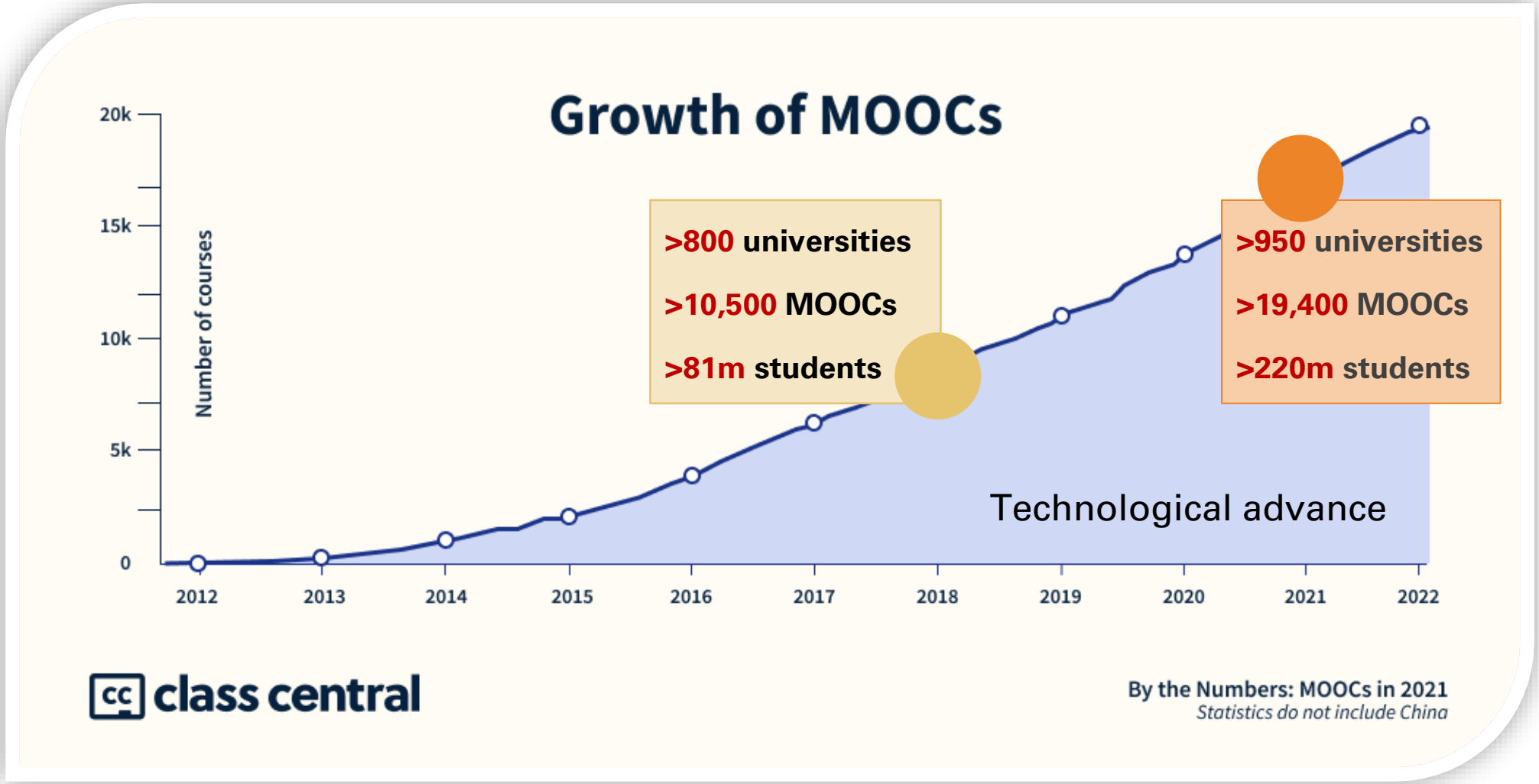
Background: Exponential Growth



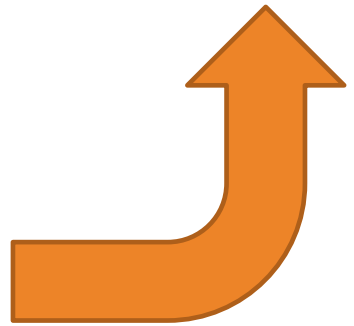
Background: Issue

The **dropout rate** of MOOCs ≈ 87% ☹

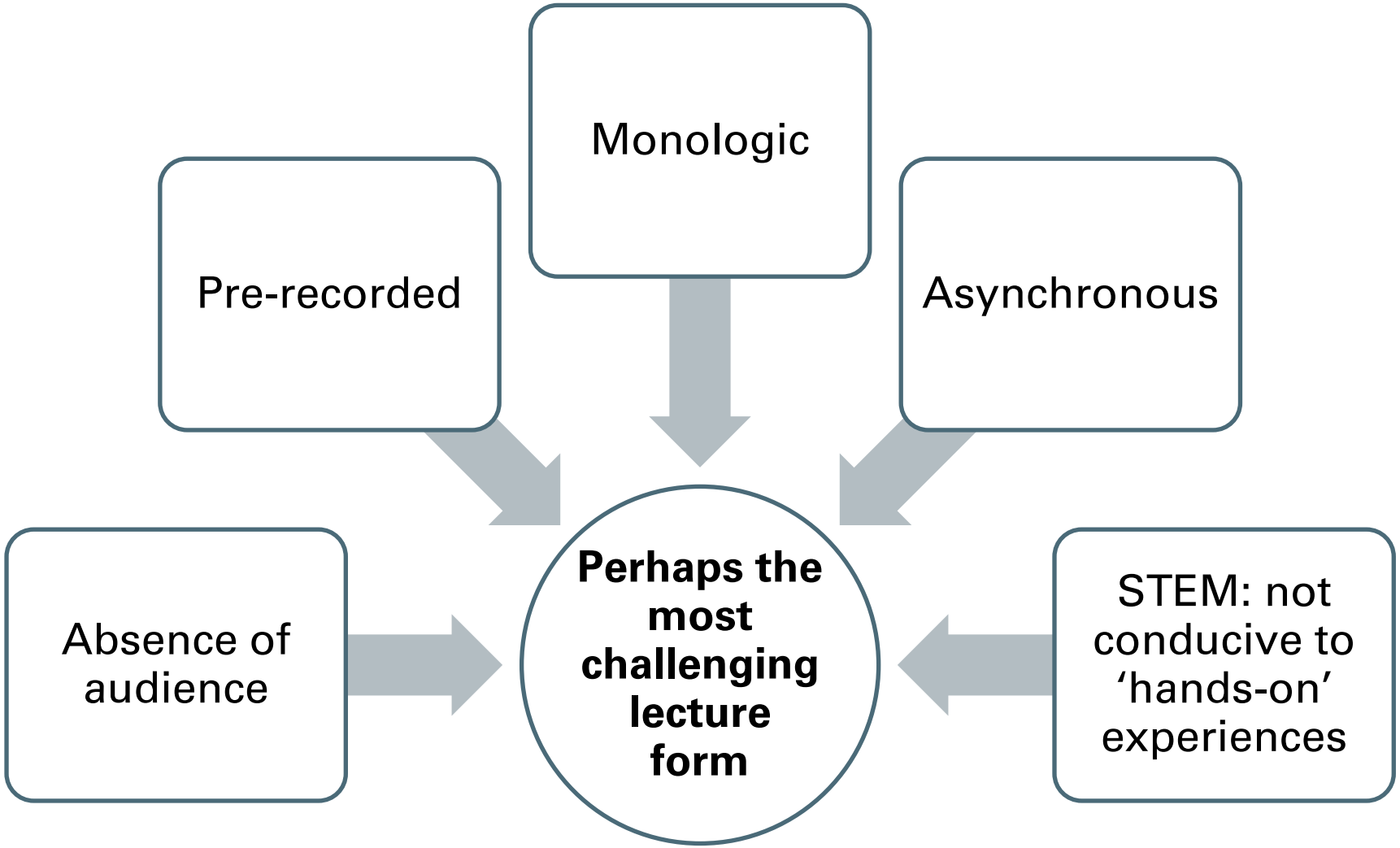
(Jordan, 2014; Romero-Rodríguez, et al., 2020)

- A feeling of **isolation and disconnection**
- A lack of interpersonal interactions with their **lecturers** and peers

(Alexander, 2017; Lehman & Conceicao, 2014; Open Culture, 2013; Palloff & Pratt, 2005)



Background: MOOCs – The New Textbooks?



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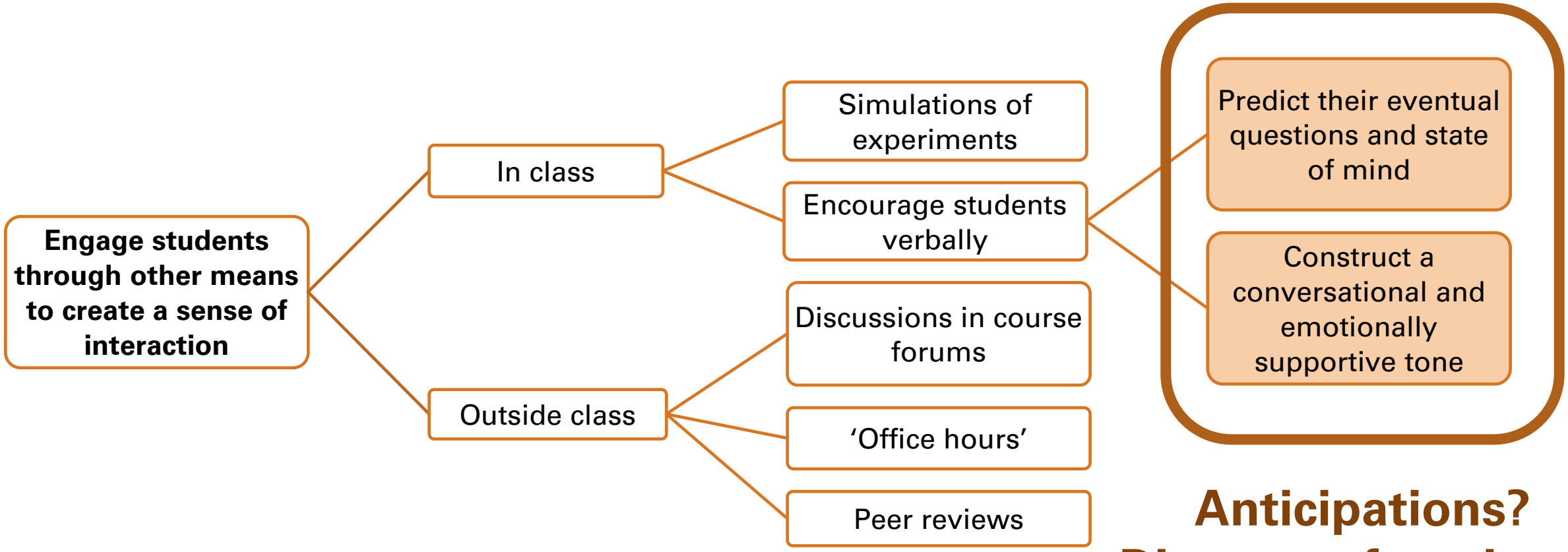


Anticipations?
Discourse functions?

(Lehman & Conceicao, 2014; Anderson et al., 2008; Palloff & Pratt, 2005; Alexander, 2017)

Literature Review

Face to face Lectures

Macro-components

Housekeeping, Interpretation
Exemplification, Storytelling
Summary, Humour

(Flowerdew & Miller, 2005; Young, 1994; Crawford, 2007; Deroey & Taverniers, 2011; Alsop & Nesi, 2015)

Linguistic resources

Pronouns
Discourse markers
Questions
Evaluative items

(Lee, 2009; Schleef, 2008; Fortanet, 2004; Mauranen, 2002)

Multimodal resources

Gaze
Gesture
Written material on the screen
Spatial position

(Morell, 2018; Lim et al., 2012; Tan et al., 2016)

Online Lectures

Multimodal resources (synchronous)

Hampel & Stickler, 2012; Querol-Julián, 2021

Research questions

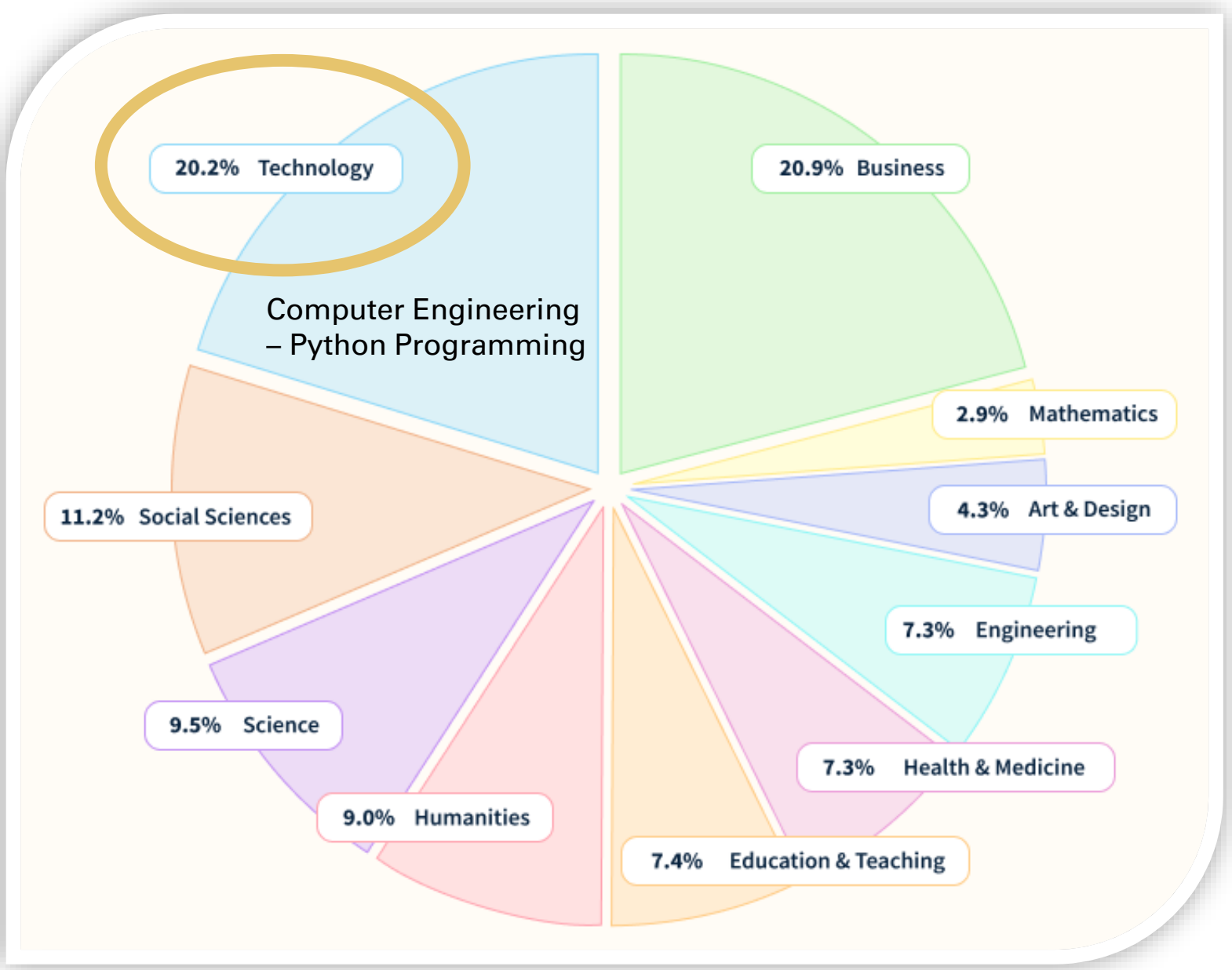
What are the differences between high-rated and low-rated MOOC courses?

1) What do the lecturers anticipate the students' state of mind to be?
2) What are the macro-level discourse functions (with a focus on the interpersonal language)?

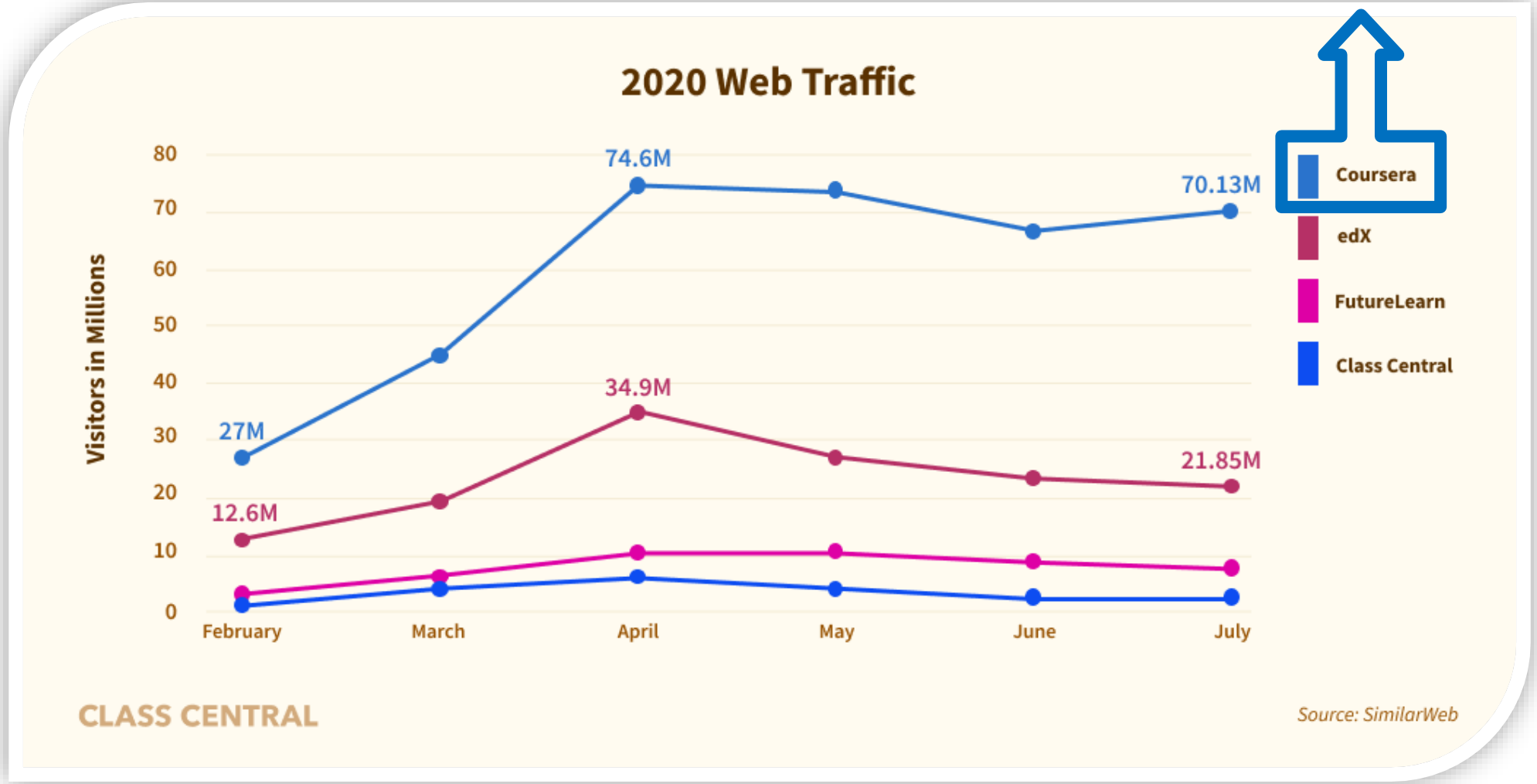
Methodology

Course Distribution by Subject

(Class central, 2021)



Methodology



Methodology

Data

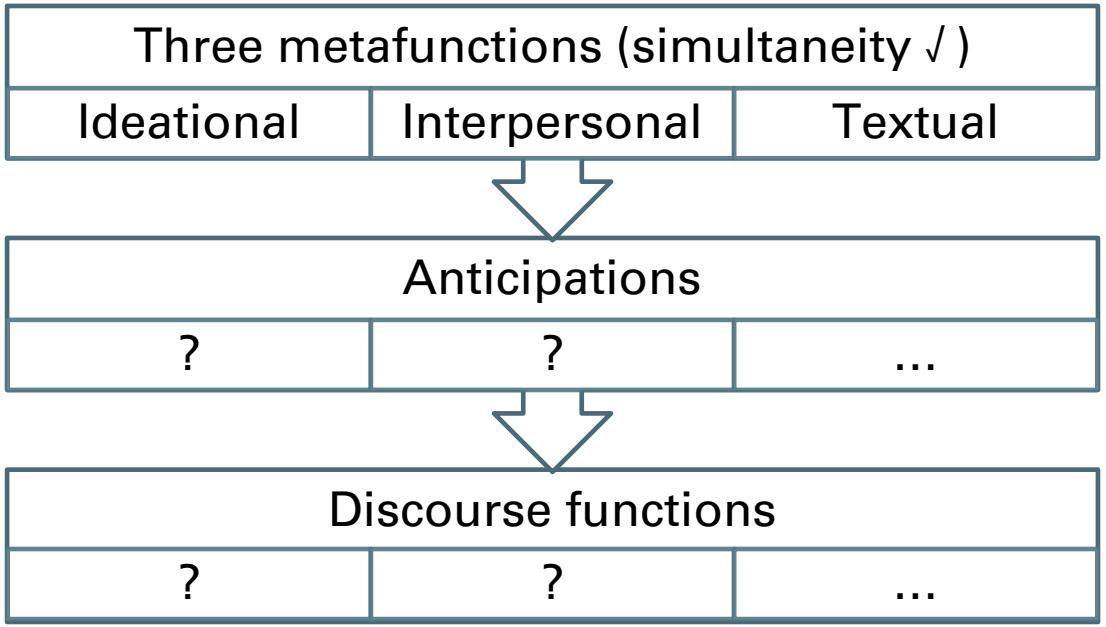
Computer engineering courses		
Metadata	**High-rated**	**Low-rated**
Rating	4.8 / 5.0	3.4 / 5.0
Videos	26	45
Lecturer	1	3
Length	9 min	5.6 min
Tokens	47484	42020

Transcription

- Downloaded transcriptions from Coursera
- Made adjustments
- Saved as plain texts
- Imported into UAM CorpusTool

Methodology

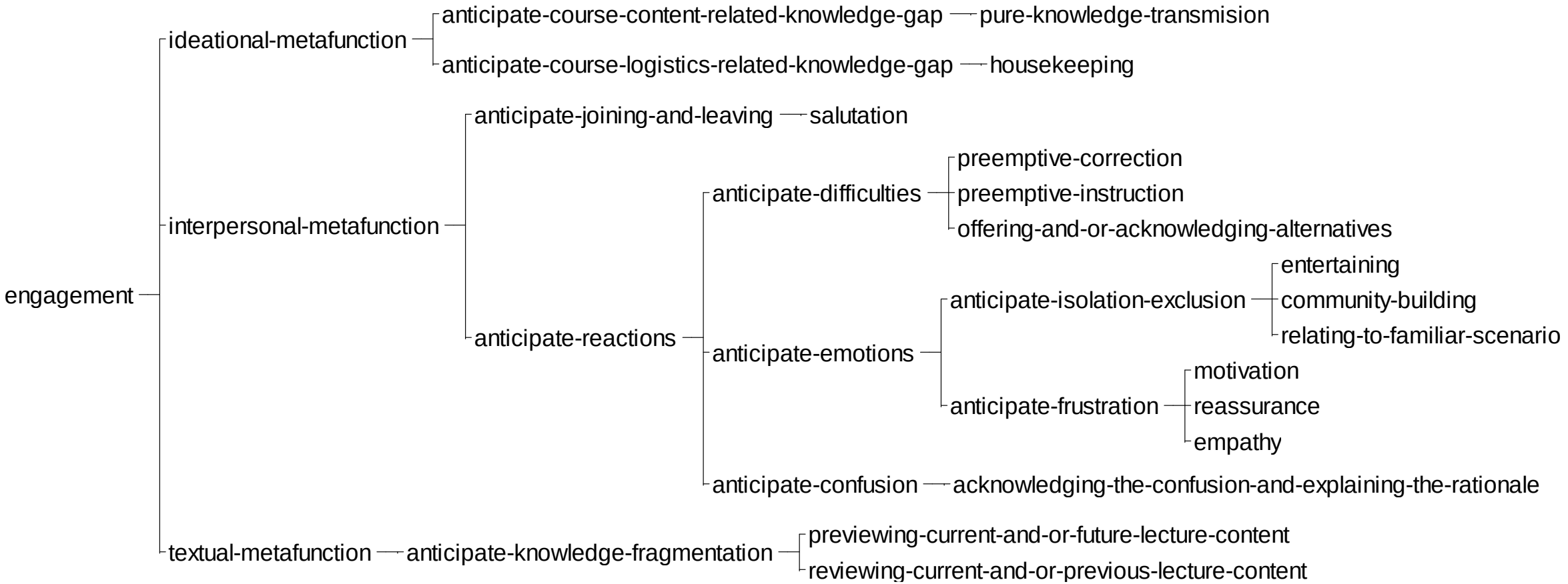
Annotation – Engagement Framework



Annotation Principles

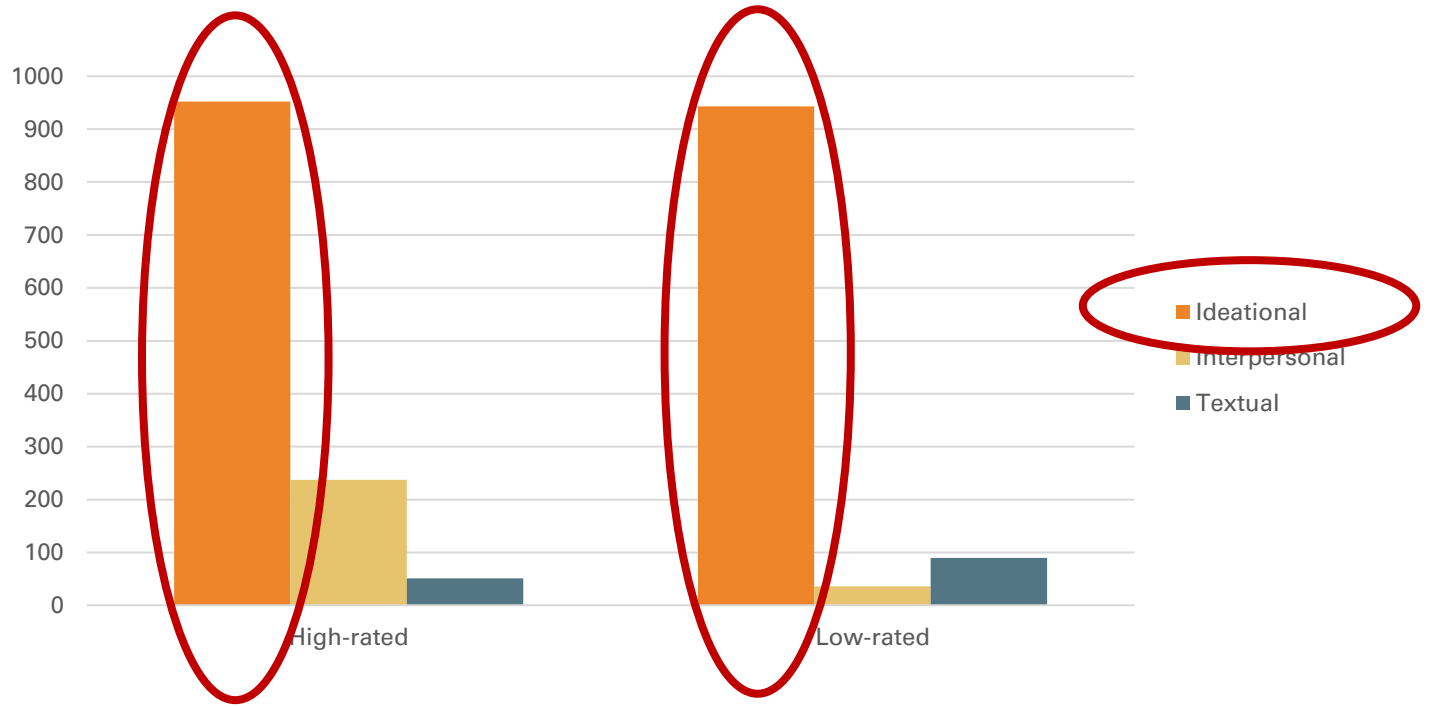
- Beyond lexico-grammar
- Occur more than once in the corpus
- Each segment should contain only one topic
- One segment can perform more than one function
- Two segments can overlap
- When in doubt, more rather than less of the transcript should be included within the segment

Findings


engagement
ideational-metafunction
anticipate-course-content-related-knowledge-gap
pure-knowledge-transmision
anticipate-course-logistics-related-knowledge-gap
housekeeping
interpersonal-metafunction
anticipate-joining-and-leaving
salutation
anticipate-reactions
anticipate-difficulties
preemptive-correction
preemptive-instruction
offering-and-or-acknowledging-alternatives
anticipate-emotions
anticipate-isolation-exclusion
entertaining
community-building
relating-to-familiar-scenario
anticipate-frustration
motivation
reassurance
empathy
anticipate-confusion
acknowledging-the-confusion-and-explaining-the-rationale
textual-metafunction
anticipate-knowledge-fragmentation
previewing-current-and-or-future-lecture-content
reviewing-current-and-or-previous-lecture-content

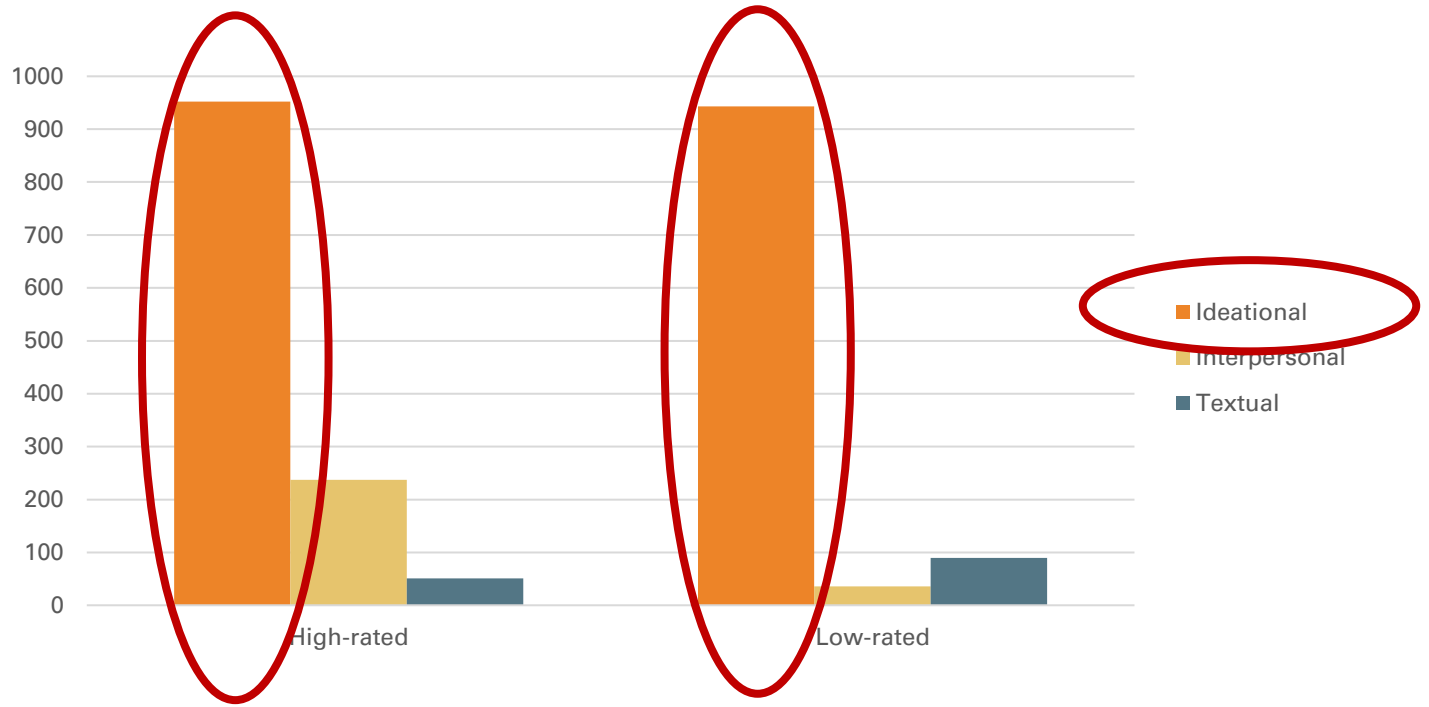
Findings

engagement
- ideational-metafunction
- interpersonal-metafunction
- textual-metafunction



Findings

- engagement
  - ideational-metafunction
    - anticipate-course-content-related-knowledge-gap — pure-knowledge-transmision
    - anticipate-course-logistics-related-knowledge-gap — housekeeping
  - interpersonal-metafunction
  - textual-metafunction



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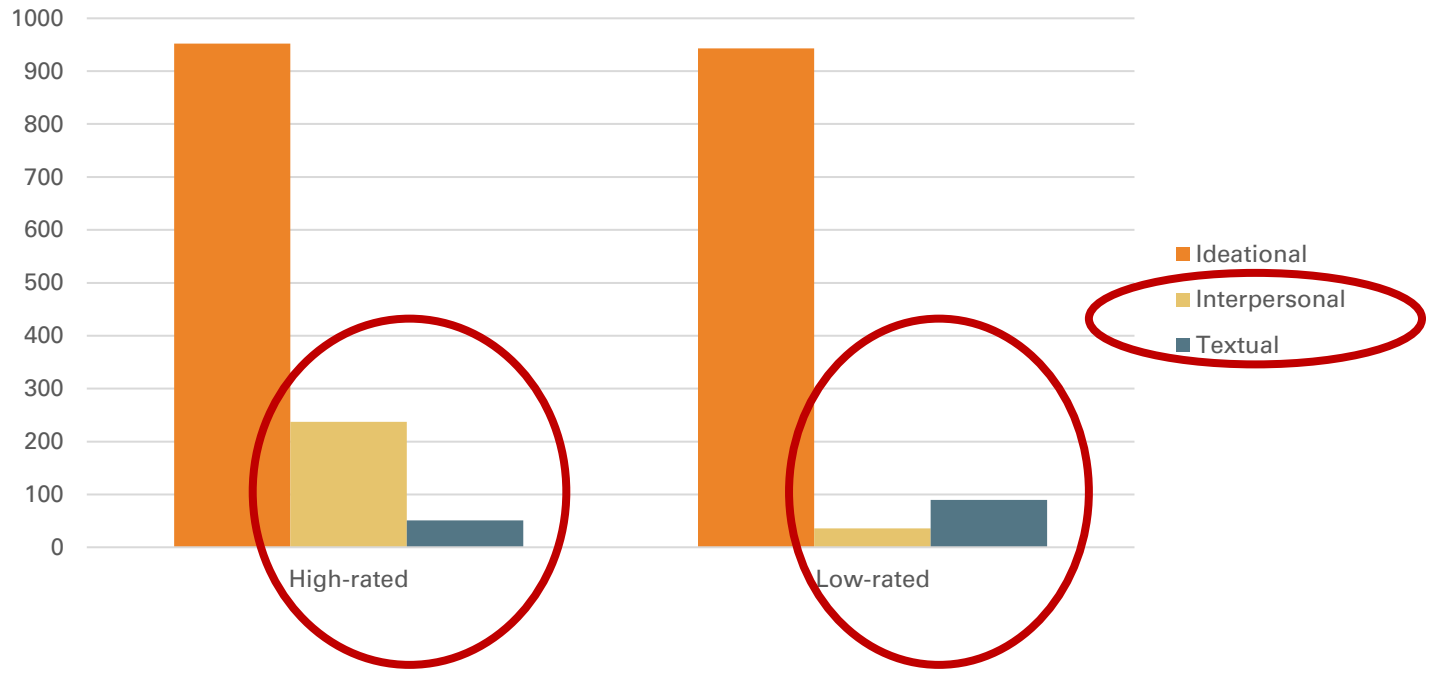
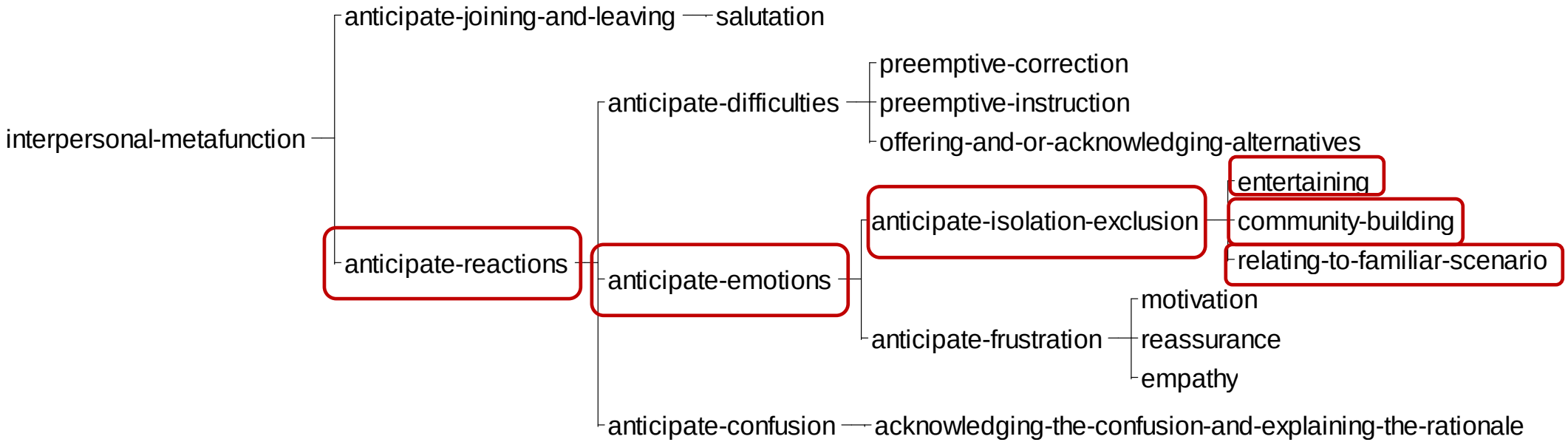
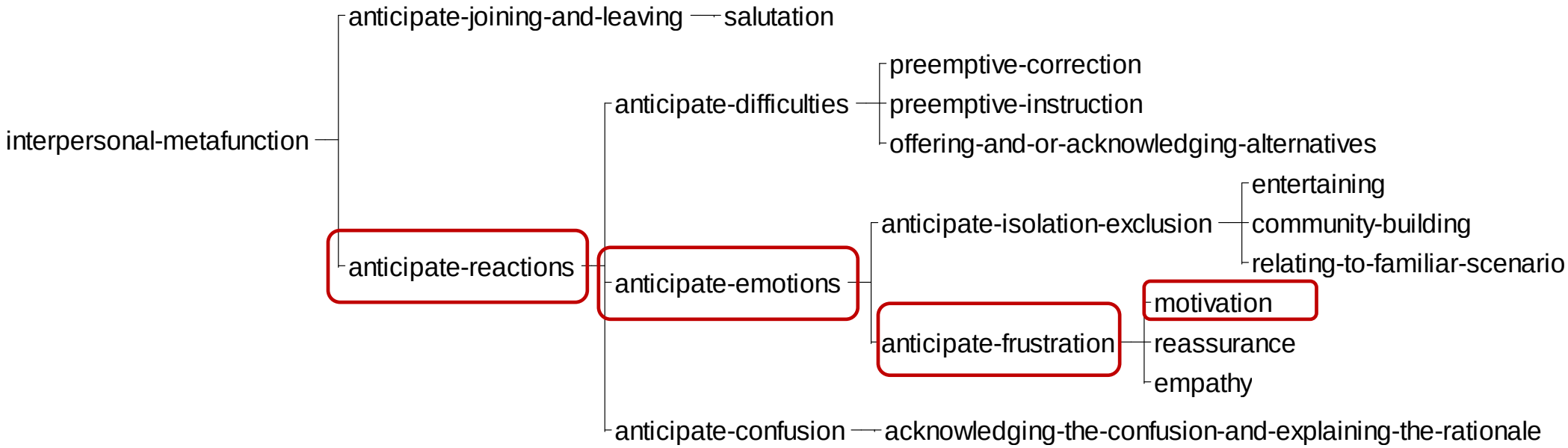




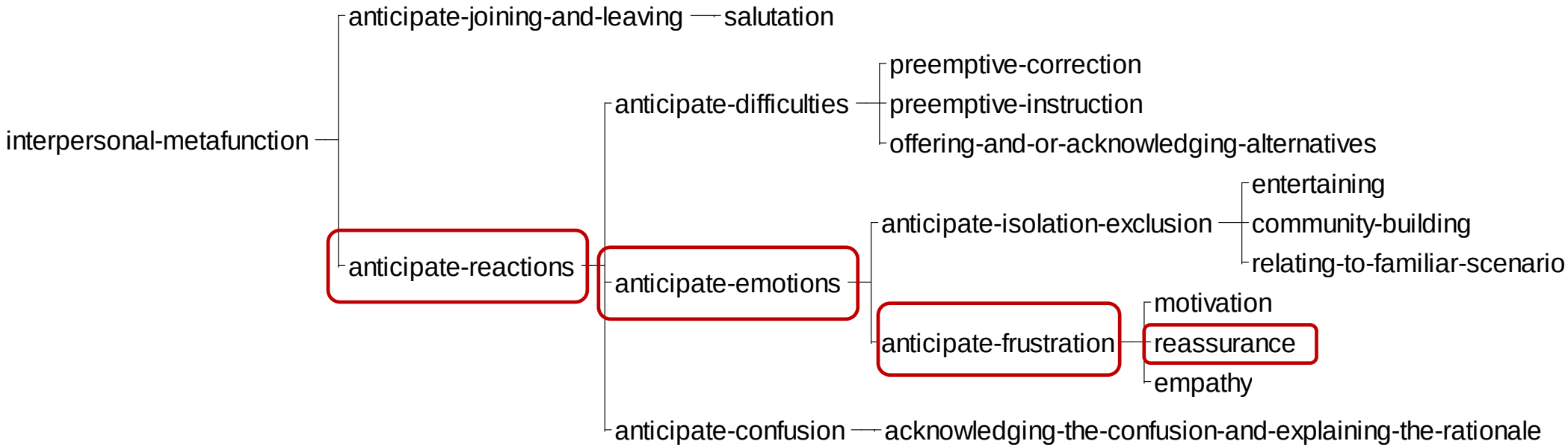
Example: entertaining & community building & relating to familiar scenario

...you probably noticed that I am wearing a sorting hat # the reason I am wearing a sorting hat is that # where I work at the university of Michigan school of information # we are in a building called the north quad and you can look it up on google and find a picture of it if you like ...



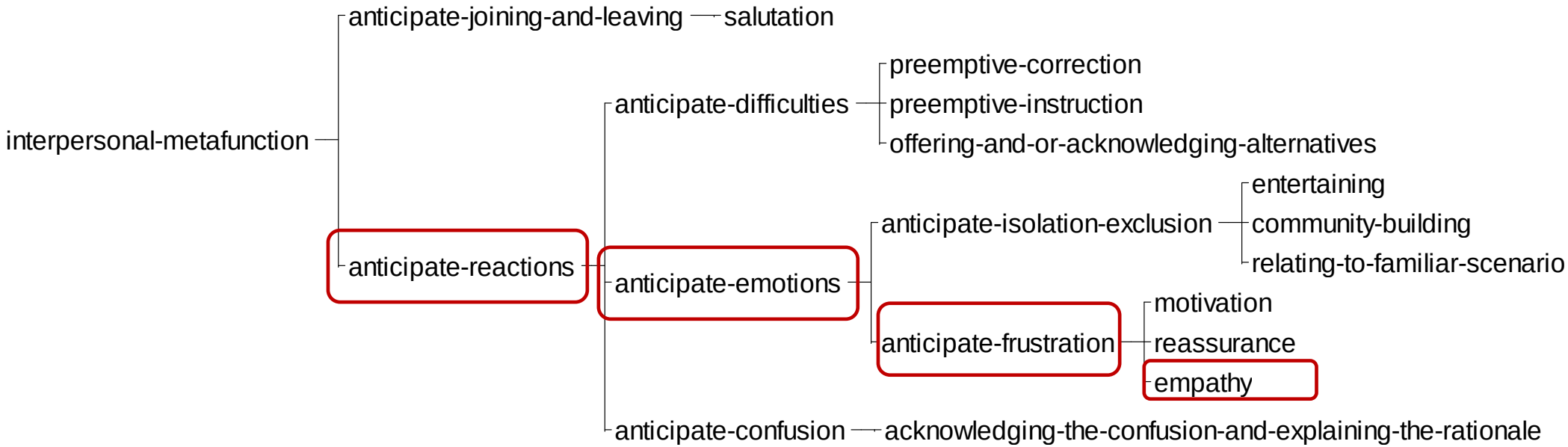
Example: motivation

…that is why python turns out to be such a perfect language to use as your first programming language is that it is designed to be your first programming language but it so also powerful so many times you build a first programming language that is weak and not capable of doing a lot of stuff but python has this wonderful easy to learn and powerful and useful and so there we are welcome to being a pythonista…



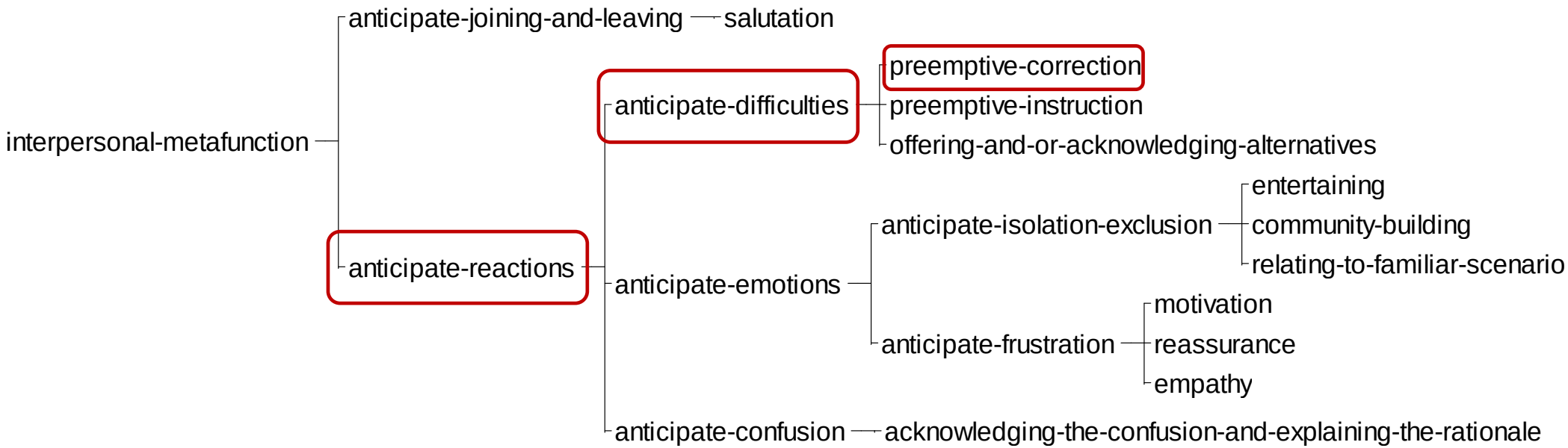
Example: reassurance

…i encourage you to realize that these tracebacks are not# # personal attacks by python on you even though they might be frustrating# and so the way to parse this is# start by saying line three something is wrong at line three it is pretty good at knowing what line it is or it is either that line or the line above it# and it is something about multiplying# what it is really saying is i am confused i have to stop because i cannot understand your instructions…



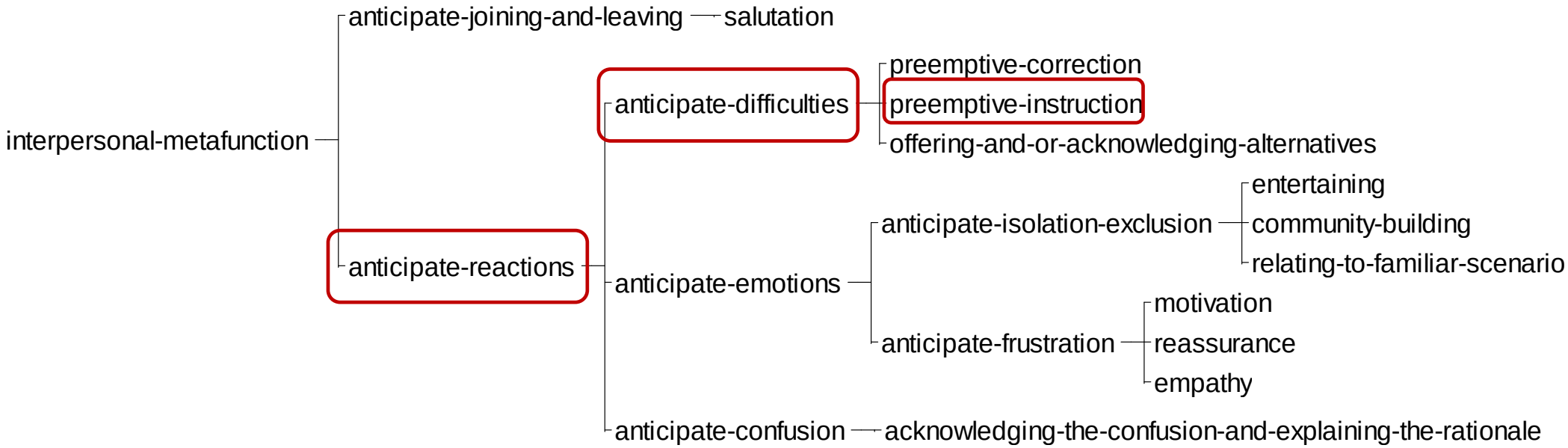
Example: empathy

…now# as you learn python remember you are talking to a snake and this is a language that you do not already know you are going to make lots of mistakes and the computer is going to seem to judge your mistakes harshly you will learn the word syntax error a lot and if you are like me I think back to the first time that I was programming I was typing stuff on cards and you would bring your card deck up and you had hand it to the computer and you would read it through the computer and then the computer would come back with errors…



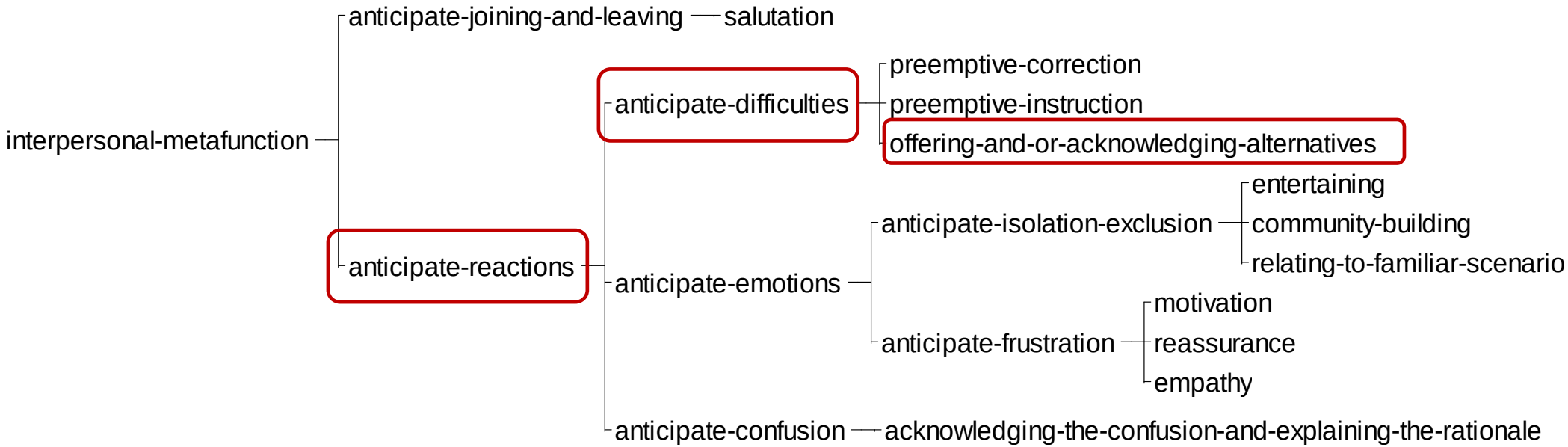
Example: pre-emptive correction

…some of you will immediately want to go to the autograder and sort of do your homework in the autograder i really rather you did not do that# # unless of course you are doing this on an ipad# an android or something where you cannot# # install python # but you have to realize that the autograder# is not forever you can only go so far with the autograder and eventually you have to# write a real python program…



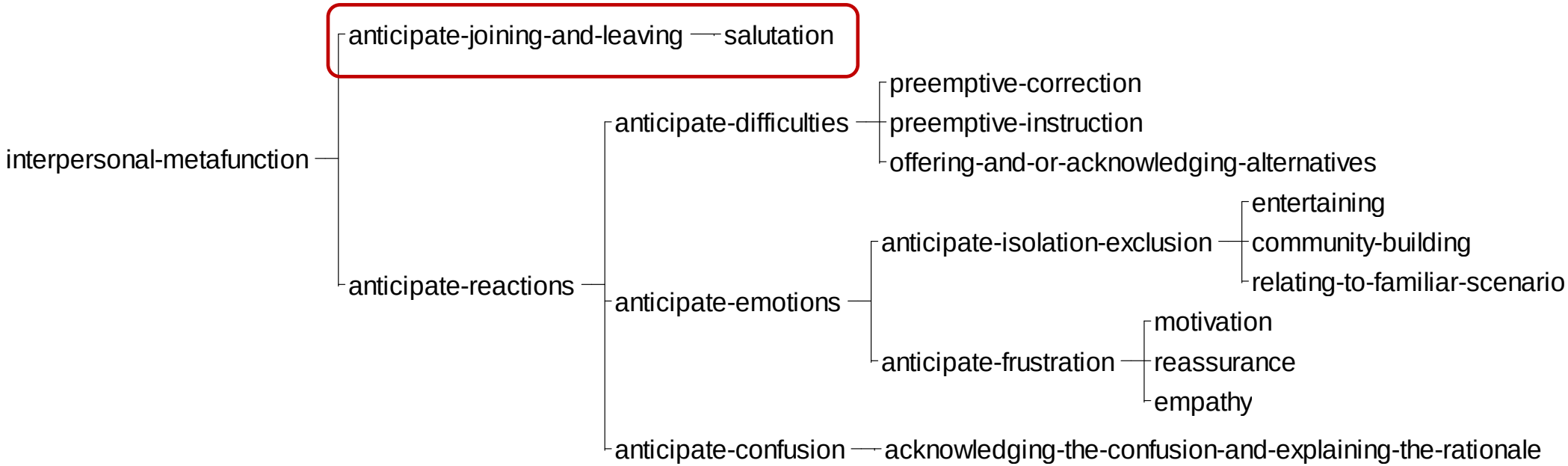
Example: pre-emptive instruction

...always remember to save...



Example: offering and/or acknowledging alternatives

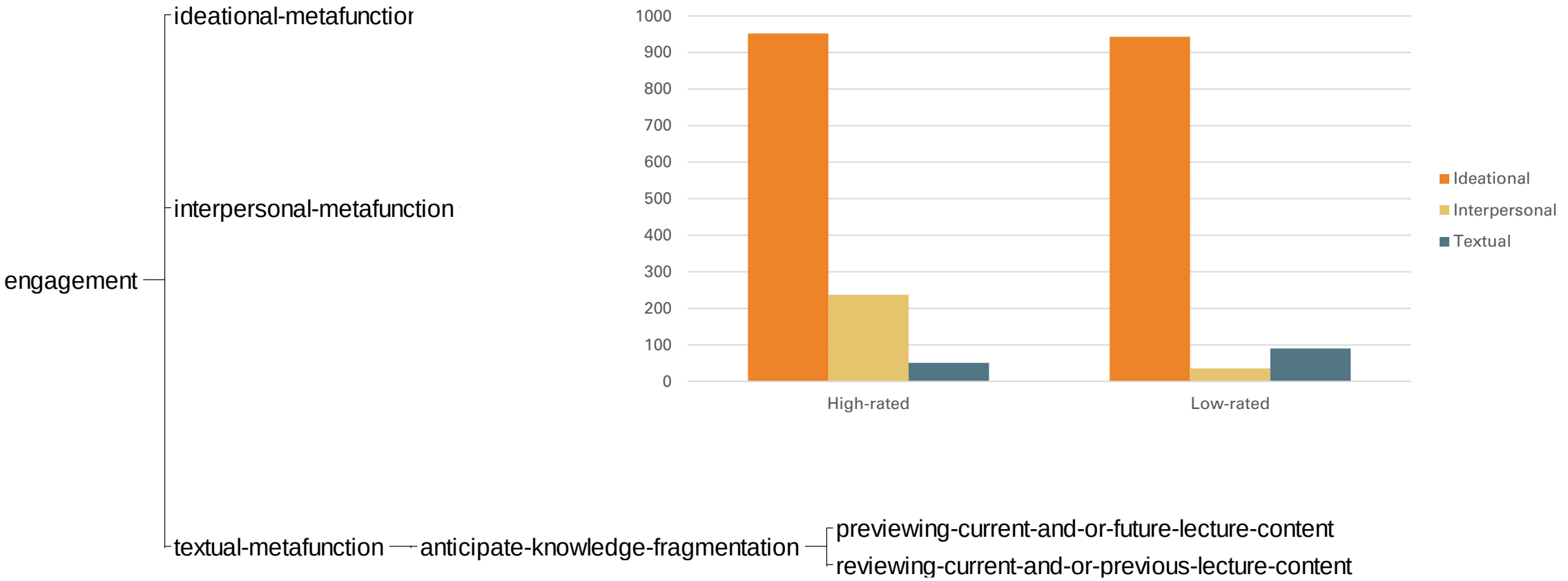
…if you# cannot do it that way it is a great way to get started to just write your code in the autograder# you can change your code in the autograder and then run it again…



Example: *salutation

welcome to loops and iteration…

Findings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1000
900
800
700
600
500
400
300
200
100
0
High-rated
Low-rated
Ideational
Interpersonal
Textual

Conclusion

High-rated

- Multiple and simultaneous anticipations of the putative students' actions and state of mind (e.g., knowledge gaps + feelings of isolation)
- Construction of a discourse that performs several functions (e.g., pure knowledge transmission + entertaining + community building + relating to familiar scenario).

Low-rated

- A sole anticipation of knowledge gaps overall
- Construction of a discourse that performs pure knowledge transmission overall
- Having many short videos & lecturers may create unecessary textual meaning

Contributions to the literature

- Adding how lecturers can simulate a face to face environment in mind with anticipations
- The discourse functions of lectures are mostly **mutually exclusive** (Flowerdew & Miller, 2005; Young, 1994; Crawford, 2007; Deroey & Taverniers, 2011; Alsop & Nesi, 2015) =>The functions can **perform simultaneously**
- The high-rated course seems to use more interpersonal components than the engaging face to face lectures (Alsop & Nesi, 2015)

Pedagogical implications

- What to anticipate and how to address each anticipation verbally
- How to create a lecture discourse that performs multiple layers of functions
- How to Incorporate more interpersonal language (it does not mean compromising other meanings; multitasking)

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Thank you!