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Smiles and laughter in conversation

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Research questions

- Do people look at other person when they smile/laugh ? Do they look to objects?
- Do people tend to smile and/or laugh on any specific Dialogue Act type or DA group?

Material

	total duration in sec	proportion compared to the duration of the video	Proportion compared to the duration of the speech	average duration in sec	average proportion
video	1637	100%	-	409.25	25%
speak	1463.365	89%	100%	365.84125	22%
smiles and laughs	805.78	49%	55%	201.445	12%

Note that there can be overlapping speech and overlapping smiles/ laughters

	number	duration in sec
Smiles	88	484.48
laughs	69	321.3
totals	157	805.78
% of smiles	56%	60%

Numbers = annotation stretches
1637 (seconds) / 157 = 10.5

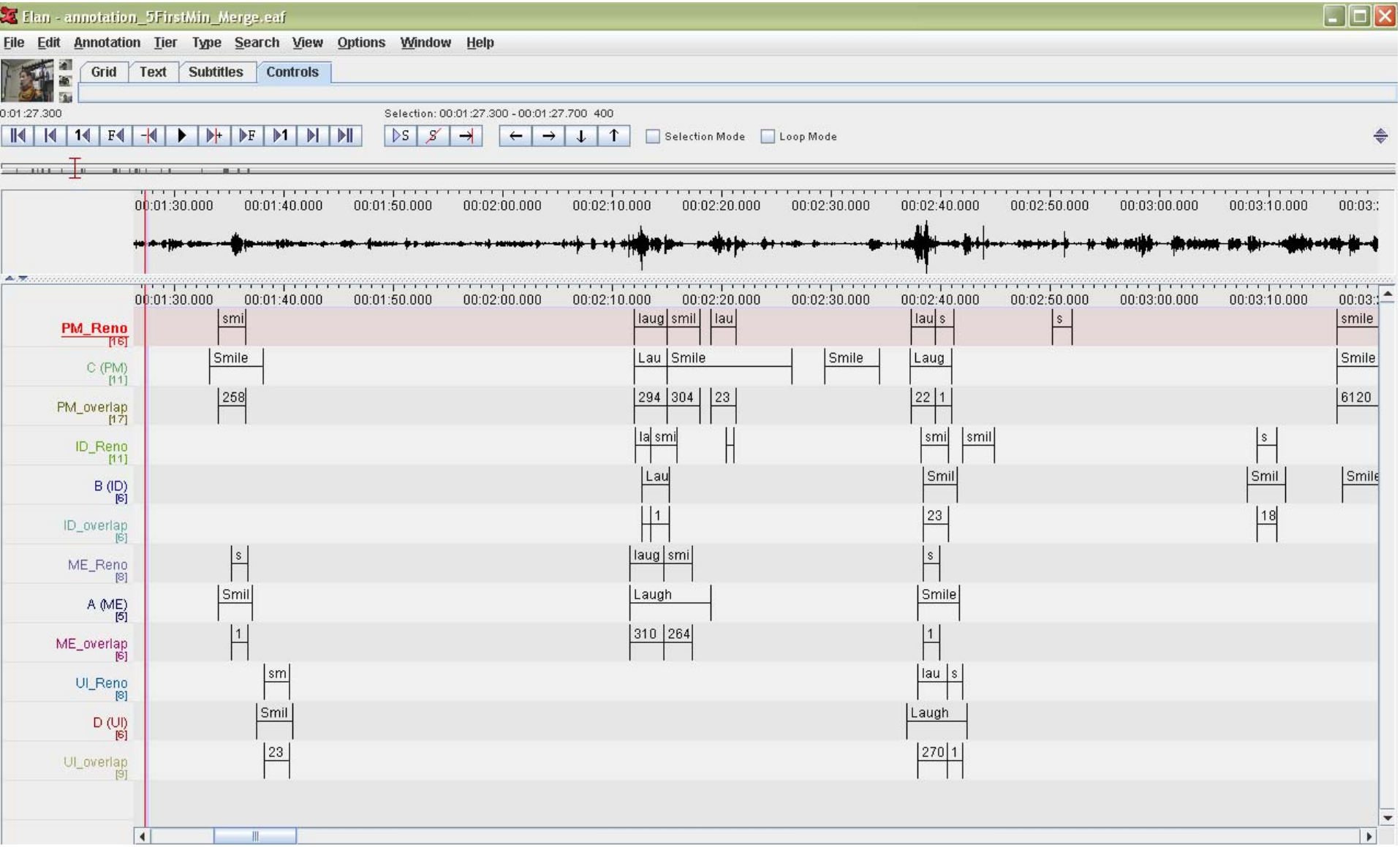
Reliability of the data

Test of reliability on 5 minutes of the video

- Annotated twice

total	Number of Annotations	Average Duration	Total Annotation Duration
renaud	43	9.592312	111.277
gabor	28	18.05094	139.877
overlap	38	8.914255	92.019

- A lot of overlapping: a large agreement on the annotated parts
- Problem with the definition of the beginning and ending of smile (average duration different but almost the same time annotated)


Elan - annotation_5FirstMin_Merge.eaf
File Edit Annotation Tier Type Search View Options Window Help
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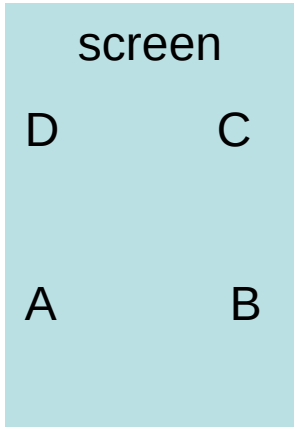
00:01:30.000 00:01:40.000 00:01:50.000 00:02:00.000 00:02:10.000 00:02:20.000 00:02:30.000 00:02:40.000 00:02:50.000 00:03:00.000 00:03:10.000
PM_Reno [16]
C (PM) [11]
PM_overlap [17]
ID_Reno [11]
B (ID) [6]
ID_overlap [6]
ME_Reno [8]
A (ME) [5]
ME_overlap [6]
UI_Reno [8]
D (UI) [6]
UI_overlap [9]
smi laug smil lau lau s s smile
Smile Lau Smile Smile Laug Smile
258 294 304 23 22 1 6120
la smi smi smil s
Lau Smil Smil Smile
1 23 18
s laug smi s
Smil Laugh Smile
1 310 264 1
sm lau s
Smil Laugh
23 270 1

Focus of attention

Where are people looking at?

Focus of Attention



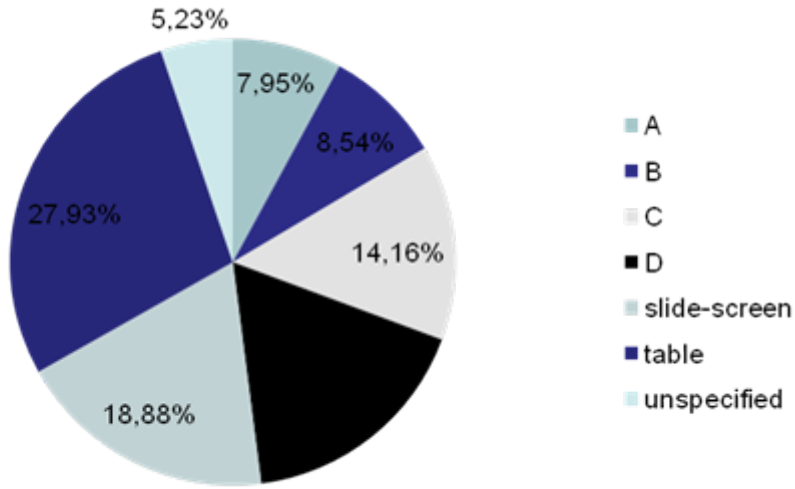
A - ME	
Annotation	Occurrences
B	71
C	103
D	71
slide-screen	155
table	135
unspecified	26

B - ID	
Annotation	Occurrences
A	87
C	92
D	204
slide-screen	186
table	238
unspecified	40

C - PM	
Annotation	Occurrences
A	103
B	51
D	165
slide-screen	5
table	201
unspecified	25

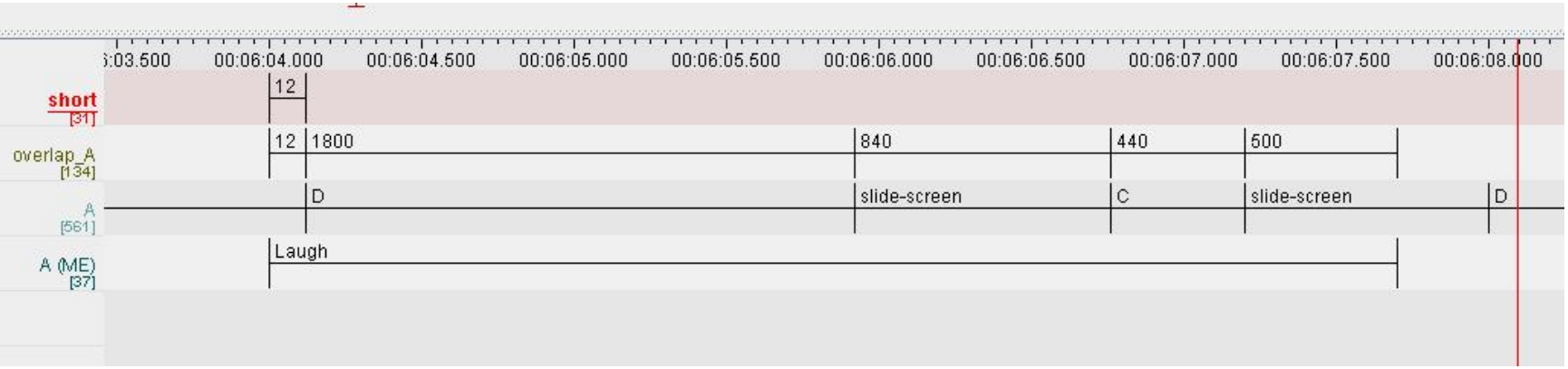
D - UI	
Annotation	Occurrences
A	12
B	95
C	165
slide-screen	134
table	136
unspecified	42

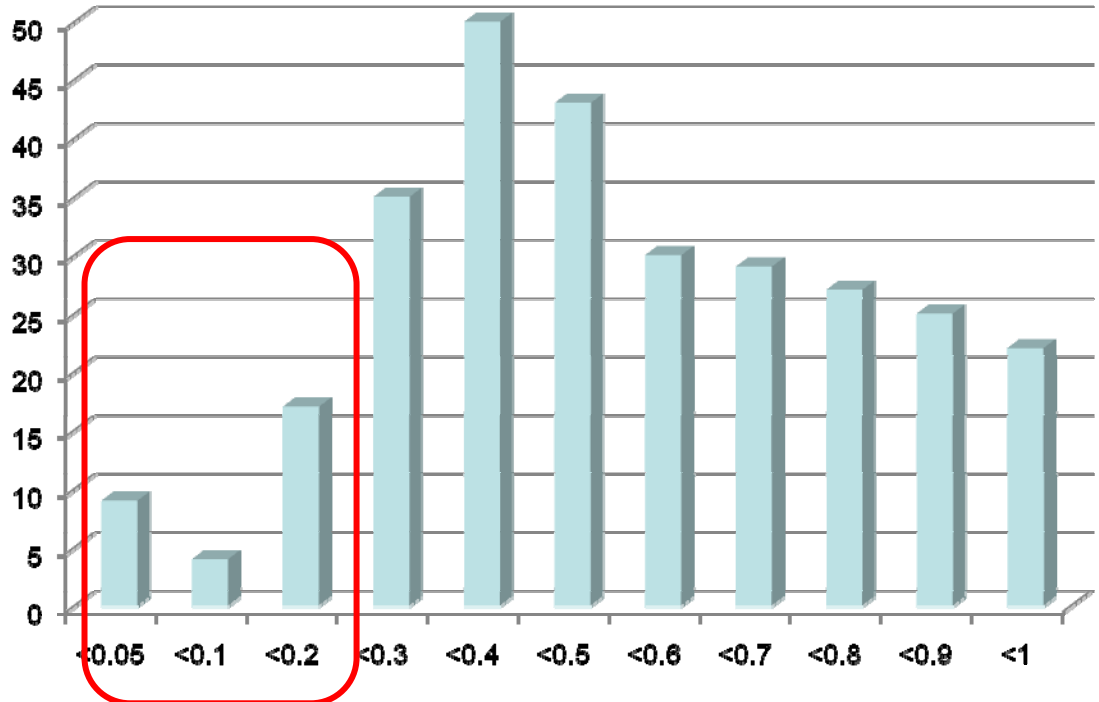
Total number of occurrences	
A	202
B	217
C	360
D	440
slide-screen	480
table	710
unspecified	133



Total length of focus (on someone)	sec	minutes (total=27:14)		
A	217.08	3.6	3.3%	
B	408.6	6.8	6.3%	
C	593.72	9.9	9.1%	
D	710.04	11.8	10.9%	29.5%
slide-screen	1942.04	32.4	29.7%	
table	2334.36	38.9	35.8%	
unspecified	323.8	5.4	5.0%	70.5%
	6529.64	108.8		

Laugh/FOA Overlap





Where are people looking at when starting to laugh/smile?

A

Annotation	Occurrences w/o small	Occurrences	Occurrences w/o small overlaps in percent	Occurrences in percent	Difference	
B	10	10	31.25%	27.78%	0	
C	4	5	12.50%	13.89%	-1	
D	1	1	3.13%	2.78%	0	46.88%
slide-screen	13	14	40.63%	38.89%	-1	
table	3	5	9.38%	13.89%	-2	
unspecified	1	1	3.13%	2.78%	0	53.13%
	32	36				

In most cases:
- A (ME) starts to smile when looking at B (ID)
- A (ME) probably finds the slide screen also funny
- C (PM) never starts to smile while looking at the slide screen
- D (UI) starts to smile when looking at B (ID) or C (PM)

C

Annotation	Occurrences w/o small	Occurrences	Occurrences w/o small overlaps in percent	Occurrences in percent	Difference	
A	6	7	23.08%	23.33%	-1	
B	2	4	7.69%	13.33%	-2	
D	7	8	26.92%	26.67%	-1	57.69%
slide-screen	0	0	0.00%	0.00%	0	
table	9	9	34.62%	30.00%	0	
unspecified	2	2	7.69%	6.67%	0	42.3
	26	30				

Annotation	Occurrences w/o small	Occurrences	Occurrences w/o small overlaps in percent	Occurrences in percent	Difference	
A	2	3	5.26%	6.67%	-1	
B	11	12	28.95%	26.67%	-1	
C	12	13	31.58%	28.89%	-1	65.79%
slide-screen	8	9	21.05%	20.00%	-1	
table	4	6	10.53%	13.33%	-2	
specified	1	2	2.63%	4.44%	-1	34.21%
	38	45				

S

D C

A B

Dialogue acts

Do people smile/laugh when talking?

Speech smiles + laugh

	Number of annotations	duration
total DA	693	1463.365
total Smile & laugh	157	805.78
total overlap	134	219.265
% of DA / Smiles	23%	55%
% of overlap / DA	19%	15%

Speech smiles

	Number of annotations	duration
total DA	693	1463.365
total laugh	88	484.48
total overlap	64	93.127
% of DA / Smile	13%	33%
% of overlap / DA	9%	6%

Speech laughs

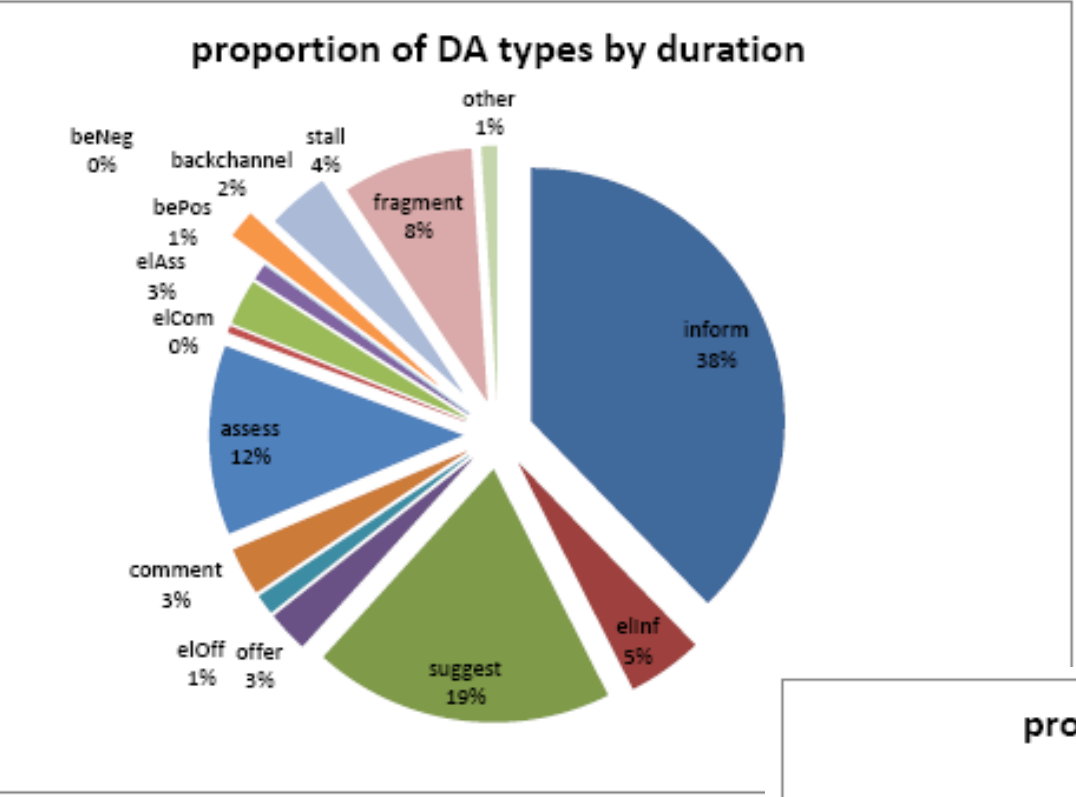
	Number of annotations	duration
total DA	693	1463.365
total laugh	69	321.3
total overlap	71	127.099
% of DA / Laugh	10%	22%
% of overlap / DA	10%	9%

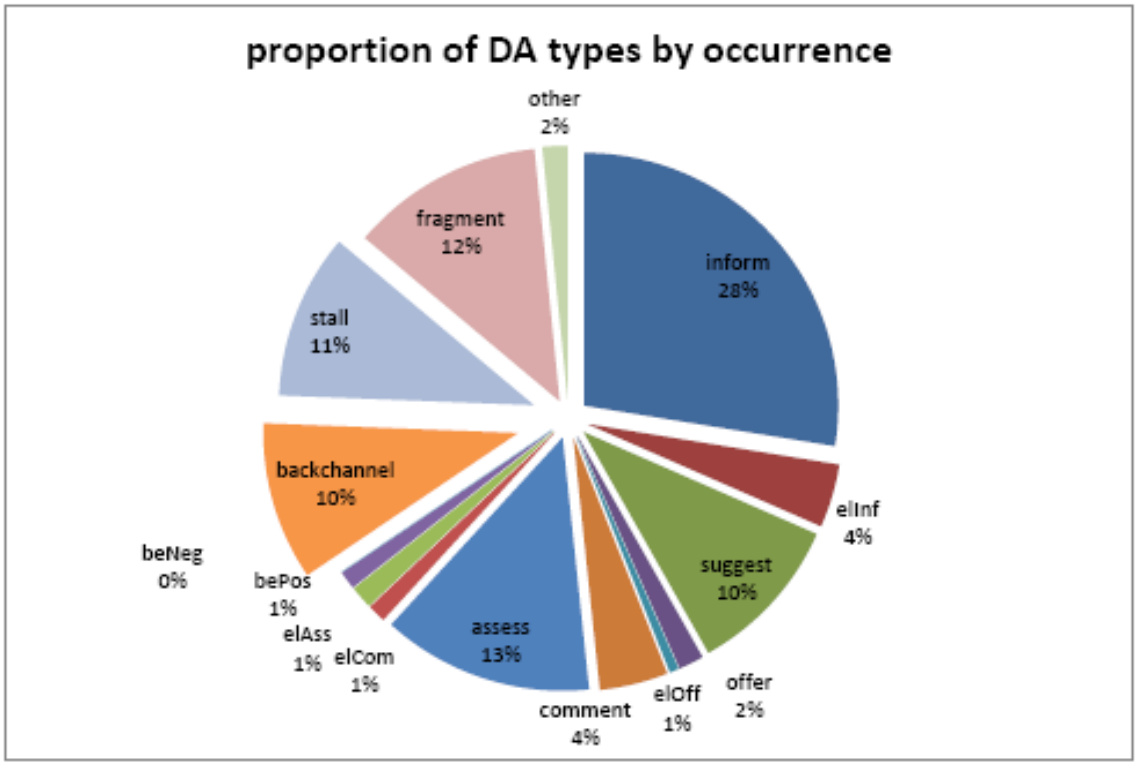
The Dialogue Acts

Group	Dialogue Act	Frequency
Information exchange	Inform	28.3%
	Elicit-inform	3.6%
Actions	Suggest	7.9%
	Offer	1.3%
	Elicit-offer-or-suggestion	0.6%
Discussion	Comment-about-understanding	1.9%
	Assess	18.6%
	Elicit-comment-about-understanding	0.2%
	Elicit-assessment	1.9%
Social acts	Be-positive	1.9%
	Be-negative	0.1%
Segmentation	Backchannel	11.0%
	Stall	6.8%
	Fragment	14.0%
Other	Other	2.0%

type of DA	nb DA type / nb DA
backchannel	10%
stall	11%
fragment	12%
inform	28%
suggest	10%
assess	13%
elInf	4%
elOff	1%
elAss	1%
elCom	1%
offer	2%
comment	4%
bePos	1%
beNeg	0%
other	2%
unlab	0%

type of DA	nb of DA	duration	Frequency for occurrences	Frequency for duration
backchannel	70	25.862	10%	2%
stall	73	56.889	11%	4%
fragment	85	121.574	12%	8%
inform	191	552.455	28%	38%
suggest	71	280.158	10%	19%
assess	93	176.716	13%	12%
elInf	28	70.312	4%	5%
elOff	4	18.67	1%	1%
elAss	10	42.36	1%	3%
elCom	8	6.05	1%	0%
offer	11	38.354	2%	3%
comment	30	44.672	4%	3%
bePos	8	14.694	1%	1%
beNeg	0	0	0%	0%
other	11	14.603	2%	1%
unlab	0	0	0%	0%
totals	693	1463.369	100%	100%

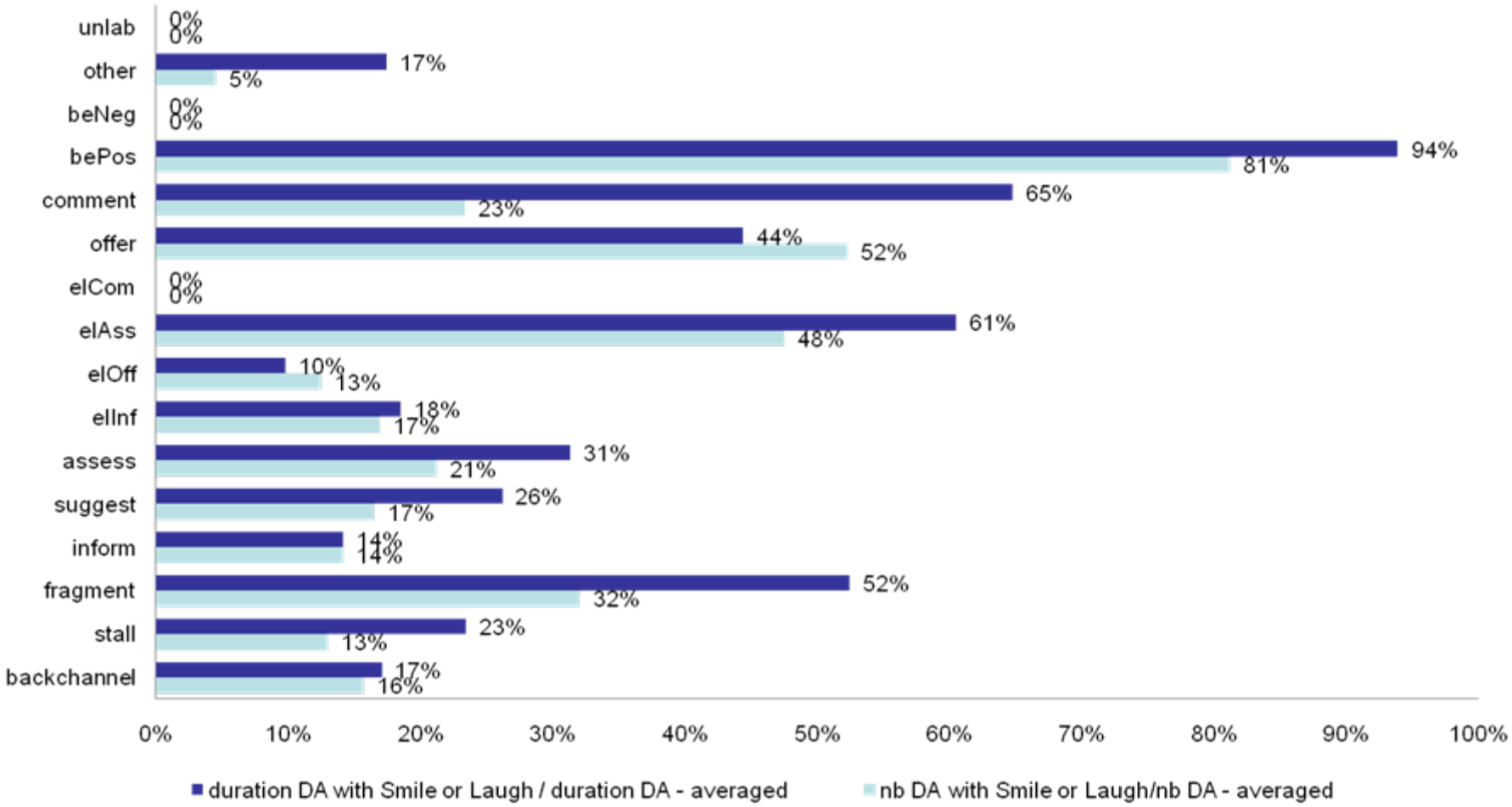

proportion of DA types by duration
other 1%
stall 4%
backchannel 2%
beNeg 0%
bePos 1%
elAss 3%
elCom 0%
fragment 8%
inform 38%
assess 12%
comment 3%
elOff 1%
offer 3%
suggest 19%
elInf 5%


proportion of DA types by occurrence
other 2%
fragment 12%
inform 28%
stall 11%
backchannel 10%
elInf 4%
beNeg 0%
suggest 10%
bePos 1%
elAss 1%
assess 13%
elCom 1%
comment 4%
elOff 1%
offer 2%

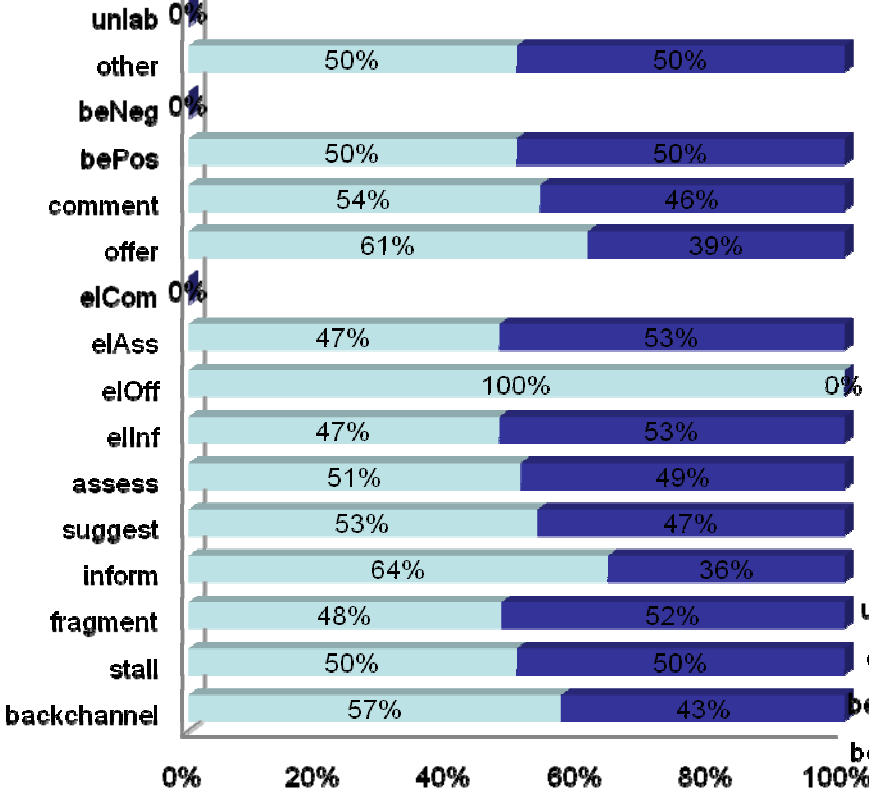
With what dialogue act (type) are smiles/laughters associated?

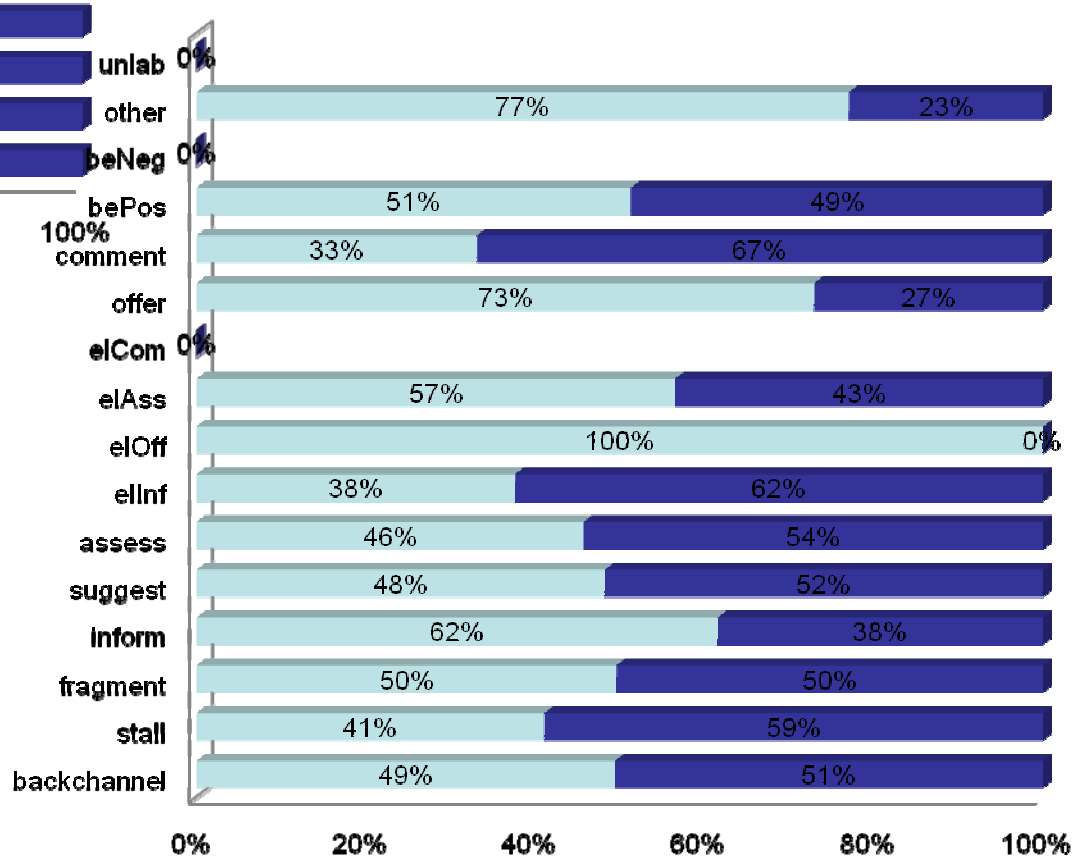
type of DA	number of DA which overlaps a smile or Laugh	duration	number of DA which occurs at the beginning of a smile or Laugh	duration
backchannel	44	17.66	2	4.15
stall	38	53.403	7	24.12
fragment	109	255.009	29	105.636
inform	108	313.01	44	155.573
suggest	47	293.534	31	219.932
assess	79	221.527	34	134.813
elInf	19	52.004	6	17.474
elOff	2	7.3	2	7.3
elAss	19	102.54	9	91.09
elCom	0	0	0	0
offer	23	68.09	9	31.046
comment	28	115.766	9	57.162
bePos	26	55.2	6	16.074
beNeg	0	0	0	0
other	2	10.19	0	0
unlab	0	0	0	0
totals	544	1565.233	188	864.37

The Dialogue act



The Dialogue Acts





Questions

- Are numbers interesting or do need instances?
- How tied to this specific data set?
- What more numbers to get out?
- What insights have/could these numbers given/give us.