The effect of CEFR-based vocabulary level, and audio and visual elements on the comprehension of movie clips

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Background

Knowledge of 95% vocabulary enough for most circumstances in listening (van Zeeland & Schmitt, 2013)
- 90% for videos (Durbahn, Rodgers & Peters, 2020) - but inconclusive
>4-5% proper nouns likely to increase listening difficulty (Kobeleva, 2012)

Lexical coverage video research

3k word families 95% TV & movies (Webb & Rodgers, 2009a, 2009b)

Measuring comprehension

– 'idea units' (Winke & Gass, 2016) and comprehension questions (e.g. Durbahn *et al*, 2020) – could involve learners recalling arbitrary details
- Meaning is constructed by L2 user ➡ self-report could be more reliable

CEFR-J Wordlist
- From textbook corpus (China, Korea, Taiwan)
+ English Vocabulary Profile ➡ what learners can do at each CEFR level (Tono, 2017)
- lemma-based ➡ less assumptions about knowledge of learners (Gablasova & Brezina, 2021)

Research questions
1. How accurate is lexical coverage at predicting if a video is suitable for a learner at the CEFR B1 level?
2. How much do the visuals and audio of a video contribute to comprehension?

Participants

18

Self-reported level
B1 = 10
B2 = 8

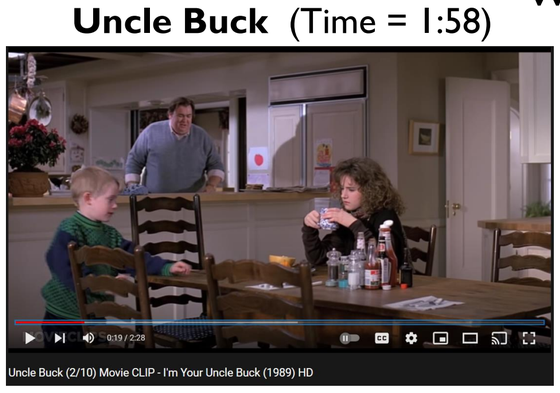
L1 = Japanese (17)
Korean (1)

- Elective course (English through Movies)
- 2nd to 4th year
- Private university (Tokyo)
- Mixed majors

Materials & Procedure

Week 1

Uncle Buck (Time = 1:58)



https://www.youtube.com/watch?v=ghQOllvR2cE

Word Level	Type	Freq	%	Cum.
PropN_Num	6	10	3.57	3.6
A1	92	243	86.79	88.85
A2	15	15	5.36	94.24
B1	4	4	1.43	**96.04**
B2	2	3	1.07	96.76
NA	5	5	1.79	100
ALL	124	280	100	100

Uptown Girls (time = 1:50)

https://www.youtube.com/watch?v=CtTjc4nJlDM

Word Level	Type	Freq	%	Cum.
PropN_Num	4	4	1.43	1.43
A1	85	208	74.29	75.71
A2	24	30	10.71	86.43
B1	9	9	3.21	**89.64**
B2	7	9	3.21	92.86
NA	17	20	7.14	100
ALL	146	280	100	100

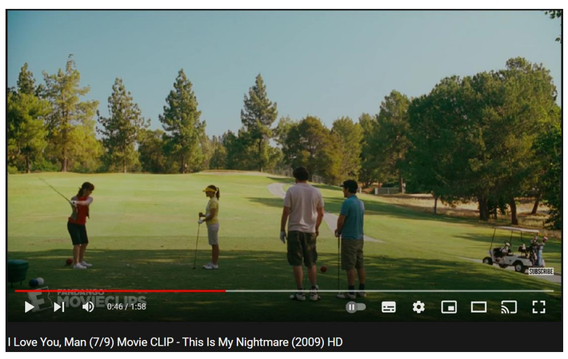
1st viewing → Comprehension **1 - 6** rating → 2nd viewing → Comprehension **1 - 6** rating → Which video was easier to understand?

How much did the audio / visuals contribute to your understanding of the scene? (2 x **1-6** rating)

High Likert scores = high comprehension or high contribution from audio / visuals

Week 2

I Love You, Man (Time 1:30)



https://www.youtube.com/watch?v=f_zpkjkB8ac

Word Level	Type	Freq	%	Cum.
PropN_Num	7	11	3.75	3.75
A1	76	217	74.06	77.82
A2	15	26	8.87	86.69
B1	1	1	0.34	**87.03**
B2	5	6	2.05	89.08
NA	24	32	10.92	100
ALL	134	233	100	100

Bridesmaids (Time 2:12)

https://www.youtube.com/watch?v=lyQ1m8xbJW0

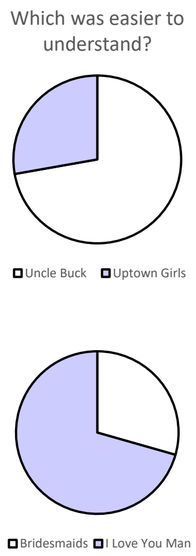
Word Level	Type	Freq	%	Cum.
PropN_Num	5	6	2.27	2.27
A1	86	219	82.95	85.23
A2	13	23	8.71	93.94
B1	7	7	2.65	**96.59**
B2	1	1	0.38	96.97
NA	8	8	3.03	100
ALL	120	264	100	100

Same procedure, except: 1st viewing

Lexical coverage
New Word Level Checker (Mizumoto, 2021)

Preliminary Results (data collection finished 13 Oct)

	Visuals		Audio		Comprehension	
	Mean	SD	Mean	SD	Mean	SD
Uncle Buck (>95%)						
1st viewing	2.22	0.65				
2nd viewing	3.5	1.25	5	1.03	4.39	0.85
Uptown Girls (<90%)						
1st viewing	2.94	1.16				
2nd viewing	3.78	1.22	4.06	1.06	3.78	1.06
I Love You Man (<90%)						
1st viewing			3.33	0.97		
2nd viewing	5.17	0.62	4.17	1.2	4.83	0.71
Bridesmaids (>95%)						
1st viewing			2.94	1.11		
2nd viewing	4.61	0.98	3.28	0.96	4.44	1.15



Week 1 – reported audio contributed more
Week 2 – reported visuals contributed more
- Related to content in video?
- Task sequencing?

Week 1 > 95% easier
Week 2 < 90% easier
- Based on mean Likert scale scores
- And qu. asking directly
- But variation in responses

Discussion & Preliminary Conclusions

Factors affecting comprehension (based on qualitative responses):

Visual
- Facial expressions
- Body language
- Lip reading
- Number of characters
- Complexity/simplicity of actions

Audio
- Speech rate
- Pronunciation
- Sound effects / music
- Specific lines of dialogue
- Vocabulary
- Sentence length

- There does not seem to be much difference between 90% and 95% lexical coverage for the comprehension of movie clips
- Other factors are clearly affecting self-reported comprehension
- Contribution of audio or video to comprehension is probably dependant on the specific text

Limitations
- 90% / 95% threshold set at B1 level, nearly half of participants were B2
- Small sample size / short data collection period

Future research
- More detailed analysis of this data (e.g. Repeated measures ANOVA)
- Different lexical coverage thresholds
- Larger sample / Different video genres

References / Contact

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