Effects of the number of participants on group oral test performance

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Section 1
Research Background

The number of participants in group oral tests

Author (Year)	Group size
Folland & Robertson (1976)	max 7
Liski & Puntanen (1983)	6 (min:5, max: 7)
Shohamy *et al.* (1986)	4
Hilsdon (1991)	5
Pavlou (1995, 1997)	3
Fulcher (1996)	(not mentioned)
Nunn (2000)	3
Ockey (2001)	3
[Interactive English Forum] (2003)	3
[The Kanda English Proficiency Test (KEPT)] Bonk & Ockey (2003); Van Moere & Kobayashi (2004); Van Moere (2006; 2007); Ockey (2006)	3 or 4
Nakamura (2003)	3 or 4
Berry (2004)	5 (occasional exception 4 or 6)
[Hong Kong A/S Level Examination] (2005)	4 (min: 3)
He & Dai (2006)	3 or 4

Studies on group size in group oral tests

- **Liski & Puntanen (1983):** The test-takers in bigger groups spoke significantly less than those in smaller groups (although the time was controlled for the group size).

- **Van Moere & Kobayashi (2004):** The group size did not have a significant influence on the test scores.

## Reports by language teaching/testing practitioners

- The optimal number of participants involved in group interactions is 3, as groups of 3 generate more balanced contributions from test-takers (Nunn, 2000; Coulson, 2005; Ojima, 2005).

Impact of test-taker characteristics

☐ Gender
☐ Acquaintanceship
☐ Cultural background
☐ L1

(e.g. O'Sullivan, 2000; Berry, 2004; Norton, 2005; Ockey, 2006; Van Moere & Bonk, 2004)

☐ **Personality**

☐ **Proficiency level**

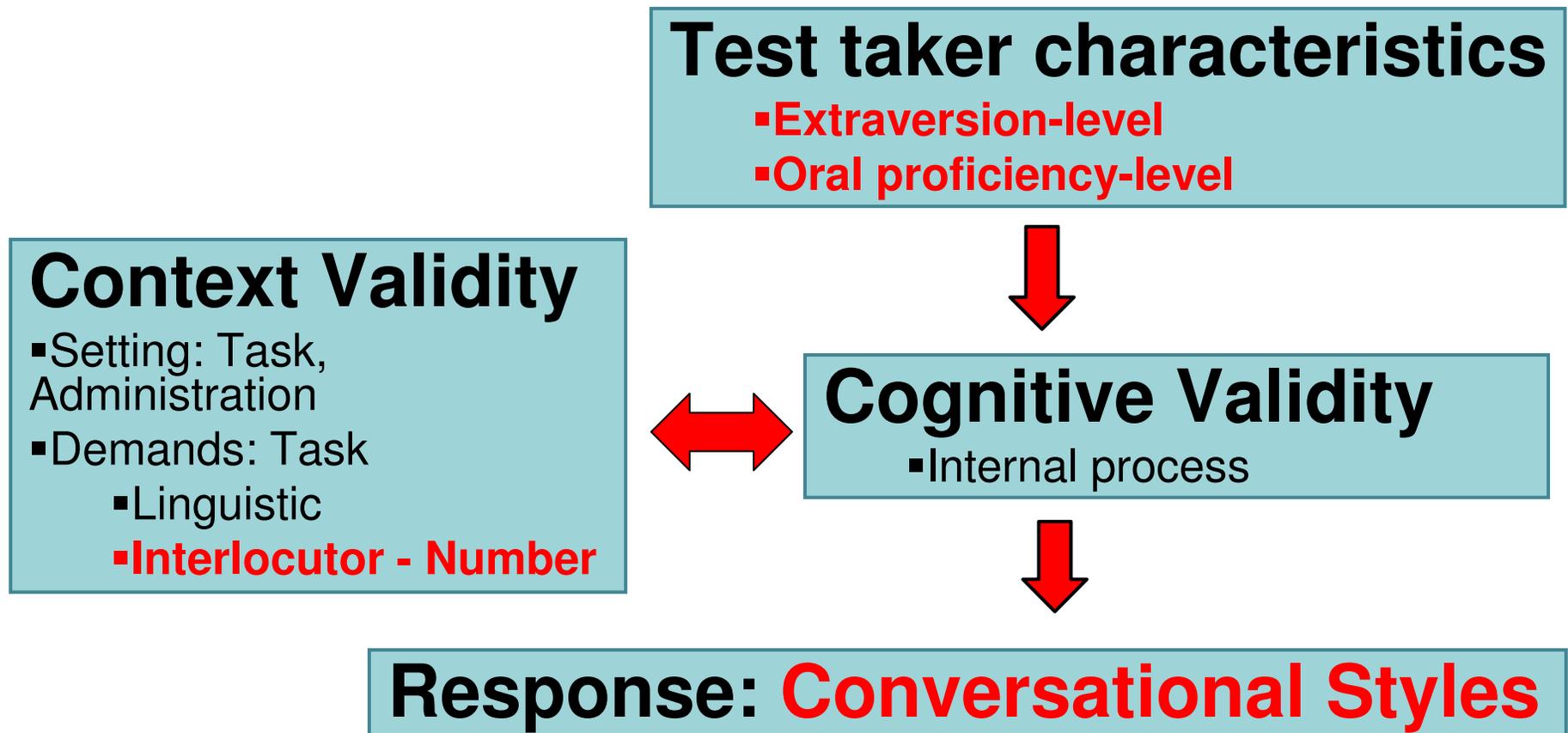▪Results are often mixed in terms of the direction of the effects
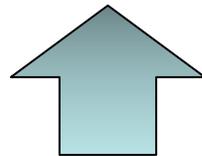
[Paired/Group test studies in relation to test-taker characteristics]

▪ Only a few studies have investigated **task qualities** (Berry, 1997; Van Moere, 2007)

▪ **Task implementation conditions** have not yet been researched

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Socio-cognitive framework for validating speaking tests

Weir (2005)

Test taker characteristics
- **Extraversion-level**
- **Oral proficiency-level**

Context Validity
- Setting: Task, Administration
- Demands: Task
  - Linguistic
  - **Interlocutor - Number**

Cognitive Validity
- Internal process

Response: Conversational Styles

Research Questions

□ Do test-takers' extraversion- and oral proficiency-levels have different influences on conversational styles in groups-of-three participants as against groups-of-four?

□ If so, **how & why** are they different?

Section 2
Methods of Data Collection & Data Analysis

Data Collection

- **Participants:** 96 groups of 3 (N=288), 50 groups of 4 (N=200)

- **Test-taker characteristics:**
  - **Extraversion-level:** a Japanese version of Eysenck Personality Questionnaire (EPQ) (Iwawaki *et al.*, 1980)
  - **Oral proficiency-level:** classroom teacher's assessment

- **Tasks:**
  - Information-gap, Ranking, Free discussion tasks

    (In this presentation, we will only look at discourse features common to all the 3 tasks)

Quantitative Analysis (Multiple Regression)

MR: Predictors (IVs)

- **Extraversion-level: Japanese EPQ (0-20)**

1) Self E score
2) Self-excluded E mean score in his/her group
3) Self excluded E Std.Dev. in his/her group

- **Oral proficiency-level: classroom teacher's assessment (0-5)**

4) Self proficiency score
5) Self-excluded proficiency score in his/her group
6) Self excluded proficiency Std.Dev. in his/her group

MR: Measures of Conversational Styles (DVs)

- **Goal-Orientation:** measured by <u>Topic initiation</u>
- **Interactional Contingency:** measured by <u>Topic ratification</u>
- **Quantitative Dominance:** measured by <u>The amount of talk</u>

(Van Lier, 1989; Young & Milanovic, 1992; Young, 1995; Kormos, 1999)

Qualitative Analysis (Conversation Analysis)

To interpret and elaborate the quantitative results

Section 3
Quantitative Results

Collective influence of 2 test-taker characteristics

- Similar amount of the variance in **topic initiation** is explained in the 2 group sizes
- More variance in **the amount of talk** is explained in groups of 4 than 3

MR model summaries (group-size comparison)

DV	Group size	R Square	Sig.
Topic initiation	**Groups of 3**	**.165**	**.000**
	Groups of 4	**.142**	**.000**
Topic ratification	Groups of 3	.012	.833
	Groups of 4	.012	.896
The amount of talk	**Groups of 3**	**.196**	**.000**
	Groups of 4	**.243**	**.000**

Separate influences of 2 test-taker characteristics

[In general]

- More extraverted/proficient test-takers initiated more topics and talked more, especially when grouped with less extraverted and less proficient members.

[Systematic differences between two group sizes]

- **Extraversion-level variables** were more influential in groups of 4 than in groups of 3.
- There was an influence of the **proficiency-level variables** in both group sizes, but the effect size was larger in groups of 3 than in groups of 4.

MR results (DV: topic initiation) [Group-size comparison]

Group Size	Predictors	Std Coefficients Beta	Sig.
Groups of 3	(Constant)		.001
	E –self	**.107**	**.077**
	E -self excluded group mean	-.082	.195
	E -self excluded group std.dev.	-.050	.424
	Prof –self	**.399**	**.000**
	Prof -self excluded group mean	**-.344**	**.000**
	Prof -self excluded group std.dev.	-.001	.988
Groups of 4	(Constant)		.025
	E –self	**.225**	**.001**
	E -self excluded group mean	**-.141**	**.067**
	E -self excluded group std.dev.	-.056	.472
	Prof –self	**.249**	**.002**
	Prof -self excluded group mean	**-.187**	**.017**
	Prof –self excluded group std.dev	.023	.741

MR results (DV: the amount of talk) [Group size comparison]

Group Size	Predictors	Std Coefficients Beta	Sig.
Groups of 3	(Constant)		.000
	E –self	**.144**	**.015**
	E -self excluded group mean	**-.110**	**.075**
	E -self excluded group std.dev.	**-.117**	**.057**
	Prof –self	**.409**	**.000**
	Prof –self excluded group mean	**-.369**	**.000**
	Prof -self excluded group std.dev.	-.066	.277
Groups of 4	(Constant)		.000
	E –self	**.244**	**.000**
	E -self excluded group mean	**-.183**	**.012**
	E -self excluded group std.dev.	-.087	.231
	Prof –self	**.370**	**.000**
	Prof –self excluded group mean	**-.277**	**.000**
	Prof –self excluded group std.dev	.057	.386

Section 4
Qualitative Results

Extraversion-level variables were more influential in groups of 4 than in groups of 3. How & why?

1) Collaborative atmosphere in groups of 3→Mitigating the effect of extraversion variables

❑ **Joint utterance completion in groups of 3**

[Excerpt 1] Group of 3, 3004 (E: 6, P: 3) 3016 (E: 6, P: 3) 3021 (E: 12, P: 3)

1→   **3021:** uh:::: I think enthusiasm is (.) uh:::: (1.0) u(h)h:: huh huh

2   3016: *Hai* ((raising a hand)) [Huh

3   3004:   [Hah hah hah

4   3021:   [Hah huh huh

5   3021: Uh

6→   **3016:** Teacher's enthusiasm makes [us our enthusia(h)sm, so (.5) we study

7   (1.0) very (1.5)

8   3021:   [Uh   uh

9→   **3021:** So ah:[:

10→**3004:**   [We can study more work.

❑ **More success in involving introverted participants in groups of 3**

2) Avoidance behaviour by introverts in groups of 4

☐ Simply agreeing with others

[Excerpt 2] Group of 4, 5045 (E: 0, P: 3) 5046 (E: 16, P: 4) 5047 (E: 14, P: 4) <u>5049 (E: 1, P: 3)</u>

1   5046: What do you think? ((making deliberate eye contact with *5049*))
2   5045: Huh huh uh
3➔**5049:** Me too.

☐ Asking a question back

[Excerpt 3] Group of 4, 3002 (E: 3, P:3) <u>3022 (E: 5, P: 1)</u> 3026 (E: 12, P: 5) 3032 (E: 12, P: 5)

1   3032: Do you have any any (   ) anything else?
2   (8.0)
3   3032: huh [huh
4   3026:   [huh huh
5   3026: *Ryoko*?
6   (4.0)
7➔ **3022:** Do you think about clear speaking voice, *Azumi*?

There was a larger influence of the proficiency-level variables in groups of 3 than in groups of 4. How & why?

The turn-taking was more often mechanical in groups of 4 → seemingly reduce the impact of extraversion and oral proficiency

☐ **Specifying Turn-Taking Order by Gesture in Groups of 4**

[Excerpt 4] 2104 (E: 20, P: 3) 2105 (E: 10, P: 3) 2106 (E: 14, P: 3) 2107 (E: 14, P: 1)
1   2104: Have you ever been (.) have you ever going to date, date?
2   (1.0)
3→ 2106: ((indicating to take turns in a counter-clockwise direction))

[Excerpt 5] 1107 (E: 12, P: 4) 1110 (E: 8, P: 4) 1113 (E: 10, P: 3) 1116 (E: 13, P: 3)
1   1110: I I think clear, clear speaking voice is very important, because …
:
4   (1.0)
5→ 1116: ((putting a hand towards *1107* to speak up.))
6   1107: ah I think love of student is good way, because uh …
;
9   (1.5)
10→1107: ((putting a hand towards *1113* to speak up))
11   1113: I think uh clear writing is important, because if teacher…

☐ **Irrelevant use of "How about you?" in Groups of 4**

[Excerpt 6] 3001 (E: 14, P: 3) 3006 (E: 12, P: 3) 3015 (E: 14, P: 2) 3040 (E: 7, P: 3)

1   3015: I think (1.0) clear writing is important. Uh:: (.5) …
:
4   3015: so clear writing is (.3) most importa(h)nt. Huh huh
5   (1.5)
6→ 3015: How (.) about you? ((smiling at *3006*))
7   (.5)
8   3006: I think clear speaking voice is important, because (1.0) .hhh if…
:
10→   so clear speaking voice is important. huh How about yo(h)u? huh ((smiling at *3001*))
12 3001: I think love of student is the mo- most important, because if if the teacher loves us, we
13   can (1.0) we can (.) tell we can tell her a lot of things.
14 3015: Uh::
15 3001: And and, when when I (.5) but when I am in trouble, she can help me. So I
16 →   think love of student is the most important. How about you? ((looking at *3040*))
17 3040: I think knowledge of subject is very the most important. (1.0) Because

▪   "How about you?" interactions usually occurred towards the beginning of
        discussion (Van Moere, 2007) ← Yes, but this is more related to **the group size**.

Incompatibility between talking naturally in groups of 4 and talking in groups of 4 in oral tests

- ☐ Among the 50 groups of 4, there was no group which had *"**schisming**"* (Schegloff, 1995; Egbert, 1997)
- ☐ Test-takers' ultimate target audience is the examiners rather than the other candidates in the group (He & Dai, 2006)
  → unconsciously avoid the simultaneous talk
  → inducing the unnatural way of turn-taking

Summary of Main Findings

1. Extraversion-level: more influential in groups of 4 than in groups of 3.

- Collaborative atmosphere in groups of 3 (Joint utterance completion in groups of 3)
- Avoidance behaviour in groups of 4

2. Oral proficiency-level: influential in both group sizes, but the effect size was larger in groups of 3 than in groups of 4.

- Mechanical turn-taking in groups of 4

3. Incompatibility between talking naturally in groups of 4 and talking in groups of 4 in oral tests

→ Grouping test-takers into groups of 4 might not always provide a suitable environment where test-takers could display their communication ability!!

4. A test-taker's characteristics, **his/her group members' characteristics**, **group sizes** affected the resulting test-takers' discourse in group oral tests. →

- the **interactionalist view** of construct definition (e.g. Brown, 2005)
- **Greater attention should be paid to group size**

Thank you very much! ☺

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