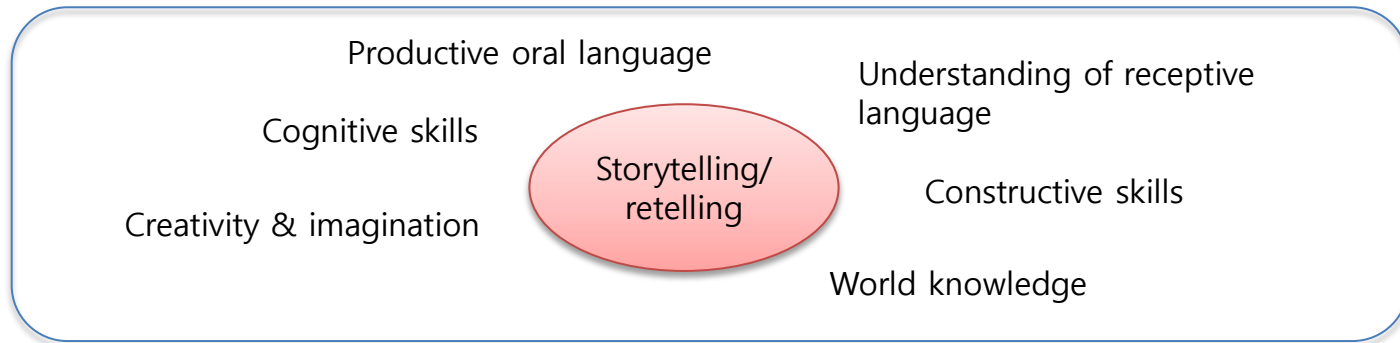


Rethinking play in preschool classrooms:
The cognitive, affective and contextual roles of constructive play in
storytelling and retelling performance
積木遊戲「砌」故事：
從認知、情感和情境上了解如何利用建構性遊戲幫助小朋友說
出創意故事

By Dr. CHUNG Sandrine Man Chi
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Department of Counselling and Psychology
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Introduction

- Why storytelling and retelling are important for us?
 - storytelling as a 'constructivist model for developing language and literacy' (Palmer et al. ,2001)
 - a 'narrative mode of thought' (Bruner, 1986)
 - Storytelling as a LIFELONG skill



The participants

- 60 preschool children from Hong Kong, mean age = 61 months
- 35 male, 25 female
- All have gone through the baseline assessment:
 - The Raven's Colored Progressive Matrices
 - Cantonese Oral Language Deficiency Early Identification Test for Pre-primary Children (學前兒童粵語表達能力識別測驗) developed by the Hong Kong Po Leung Kuk District-based Speech Therapy Service Unit

Story retelling task

Assessment procedures at Time Point 1 (T1)

Step 1: listen to a story



Step 2: retell the story



Story retelling task

Assessment procedures at Time Point 2 (T2)

Step 1: listen to a story



Step 2: Activities

- Written- based
- Semi- structured play
- Free play

Step 3: retell the story



What are the 3 activities?

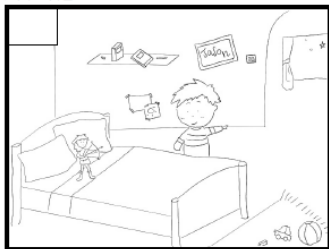
1. Worksheet Group: Written- base activity

Appendix A- Worksheets for Worksheet Group

《給媽媽摘星星》 遊戲工作紙

第一部分：填色遊戲

以下是故事的內容，請你於圖畫左上角空格填上數字，排列故事的順序，並把圖畫填色。



第二部分：尋寶遊戲

你還記故事中出現過什麼人物嗎？請你把在故事中出现過什麼人物圈起來。



第三部分：配對遊戲

你還記得故事裡的人物擁有什麼工具嗎？請你連線把人物和屬於他的工具配對起來。



2. Brick Set Group: Semi- structured play



3. Free Bricks Group: Free play



How to assess the stories?

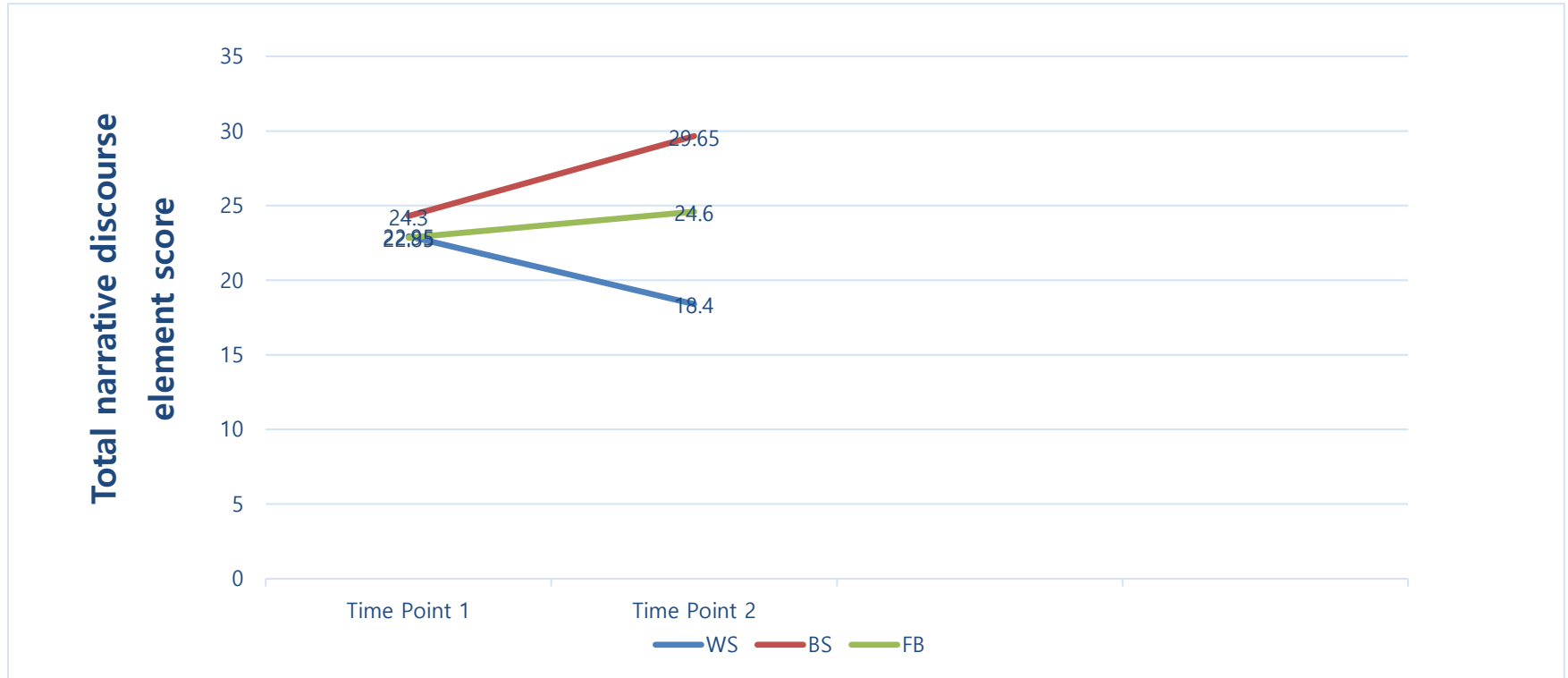
- The narrative discourse elements of the retold stories were assessed by two selected instruments
 1. the Narrative Assessment Profile (NAP) (Bliss, McCabe & Miranda, 1998) for MICROSTRURAL DISCOURSE ELEMENTS
 - Topic maintenance
 - Event sequencing
 - Explicitness
 - Referencing
 - Conjunctive cohesion
 - Fluency

How to assess the stories?

2. The Index of Narrative Complexity (INC) (Peterson et al., 2008) for **MACROSTRURAL DISCOURSE ELEMENTS**

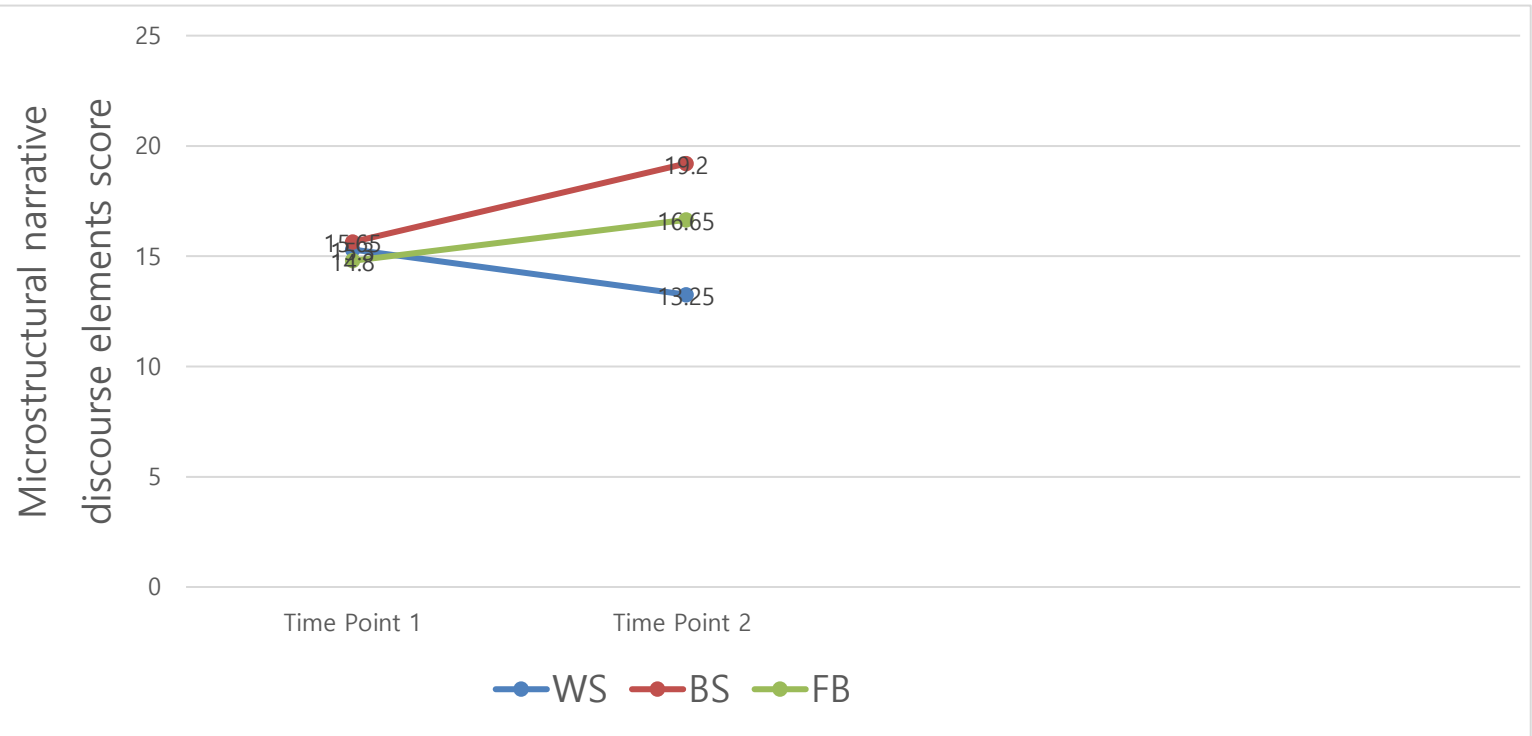
- Character
- Setting
- Initiating events
- Internal response
- Plan
- Action/ attempt
- Complication
- Consequence
- Formulaic markers
- Temporal markers
- Causal adverbial clauses
- Knowledge of dialogue
- Narrator evaluations

What are the results?



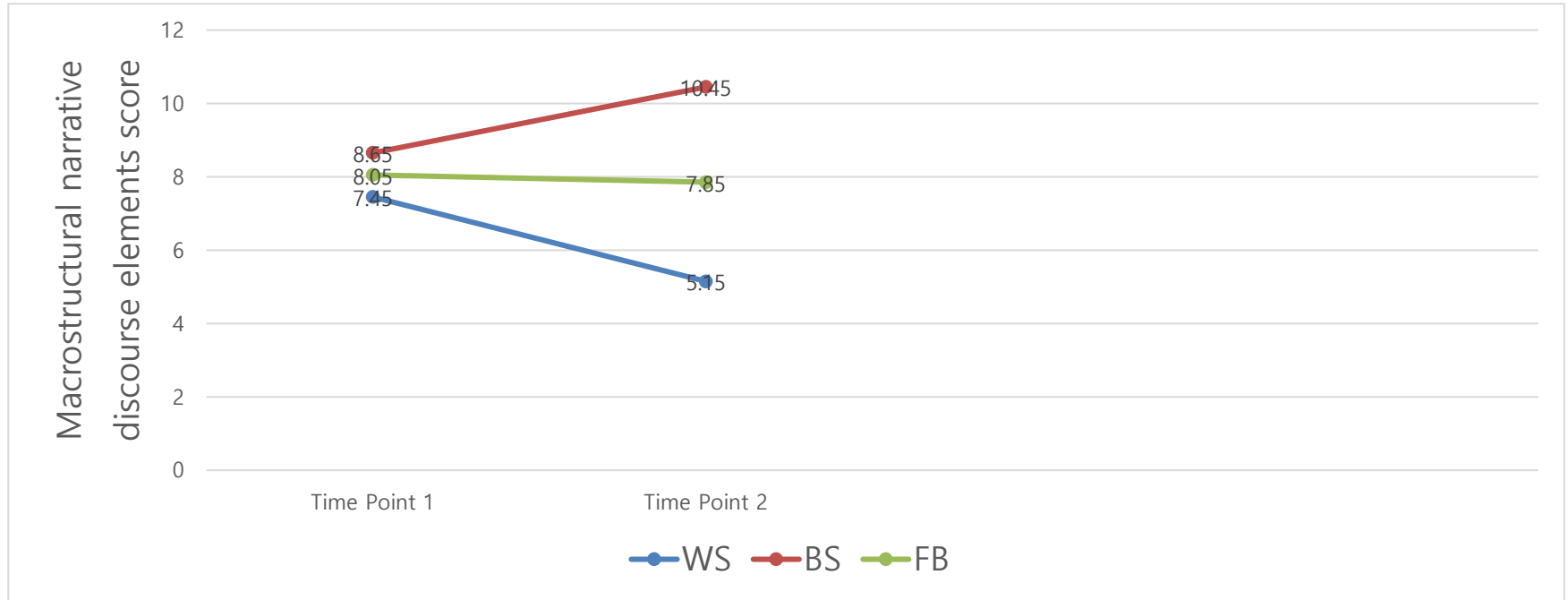
What are the results?

Microstructure



What are the results?

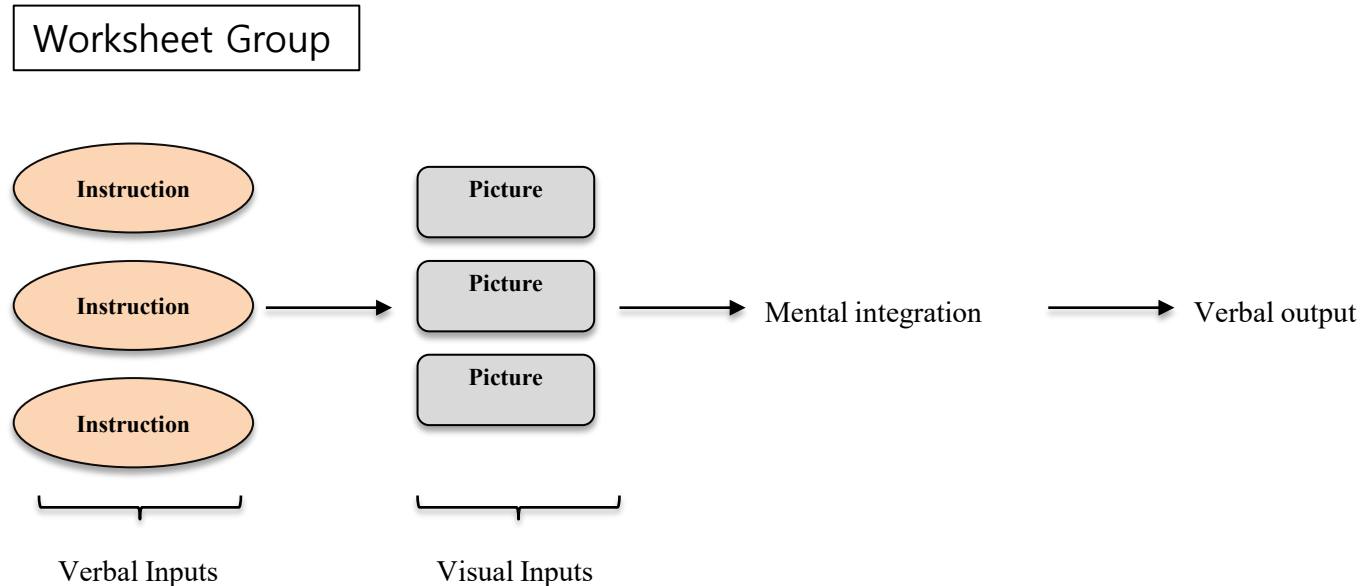
Macrostructure



How do we explain the results from a cognitive aspect?

從認知上理解

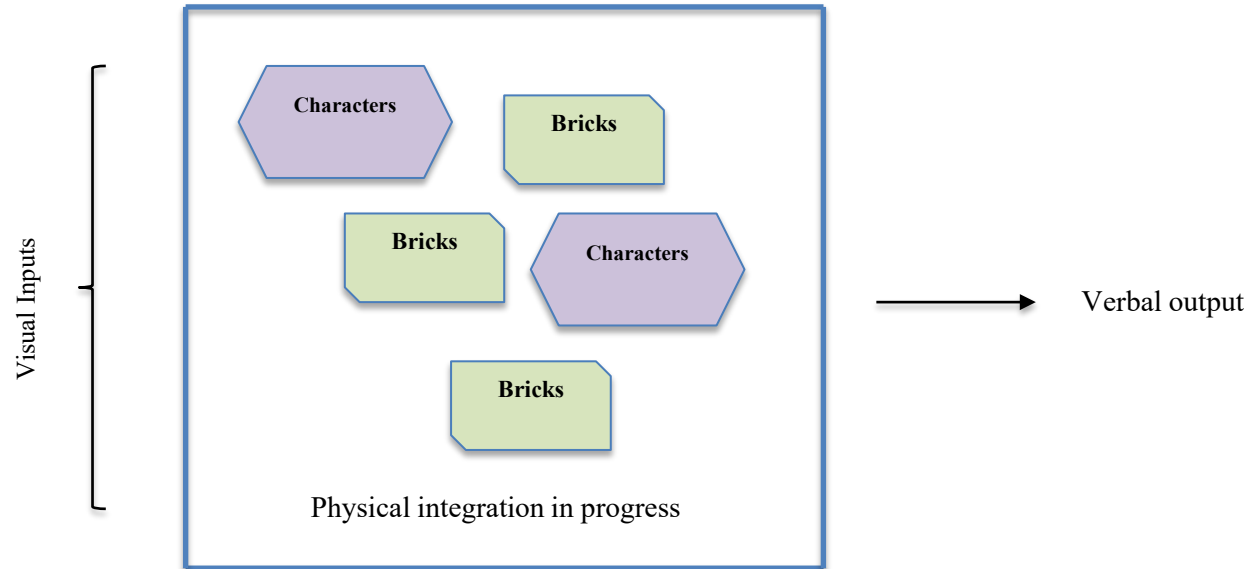
Different instructional design of the three activities



How do we explain the results from a cognitive aspect? 從認知上理解

Different instructional design of the three activities

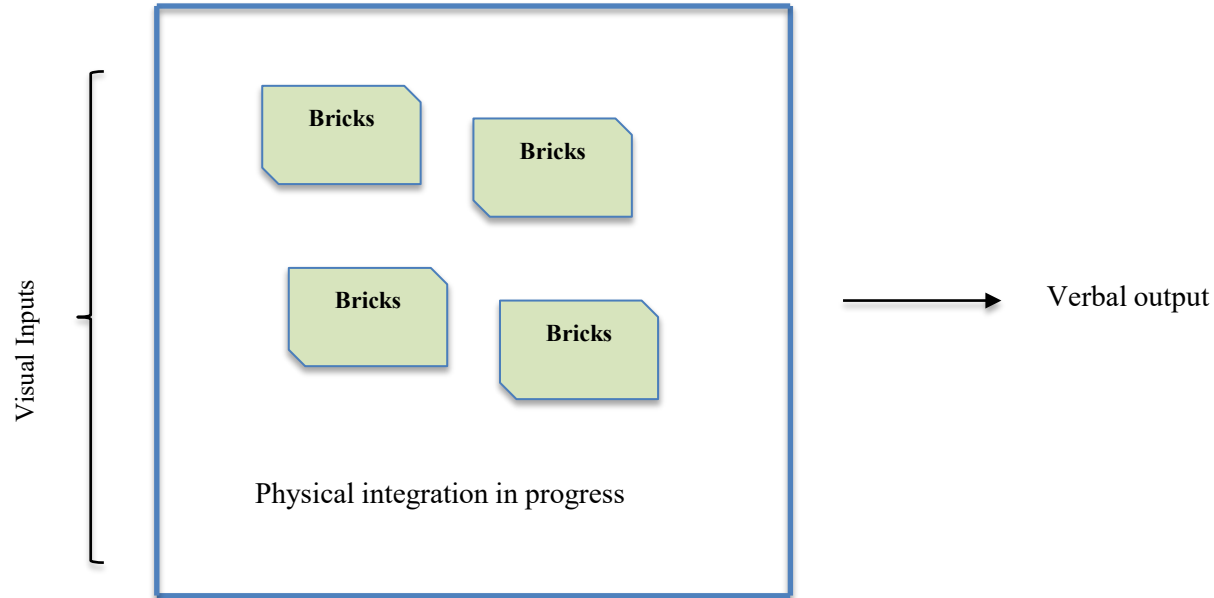
Brick Set Group



How do we explain the results from a cognitive aspect? 從認知上理解

Different instructional design of the three activities

Free Bricks Group



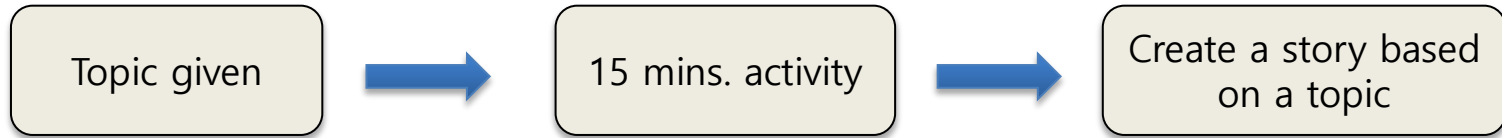
How do we explain the results from a cognitive aspect?

從認知上理解

- **Excessive cognitive load causing adverse performance in story retelling**
- Instructional procedures in the Worksheet require learners to unnecessarily process many elements of information simultaneously
- Results in a heavy, extraneous cognitive load that interferes with learning (Sweller, 2011)
- The **split-attention effect** assumes that instructional materials of a task consist of **two or more sources of information** that split the learner's attention (Sweller, 2016)
- The diverse source of instructional materials **must be mentally integrated** before they can be understood and processed towards the goal of the task

Storytelling task

Procedures



WS Group



BS Group



FB Group

Table 12 Frequency of discourse elements by activities

Discourse elements*	Activity			Total n = 60
	Worksheet n = 20	Brick Set n = 20	Free Bricks n = 20	
1. Character	17	61	46	124
2. Setting	10	5	19	34
3. Initiating event	5	5	5	15
4. Initiating response / emotion	4	6	4	14
5. Plan	0	0	0	0
6. Action words / verbs	38	64	122	224
7. Complication	2	0	5	7
8. Consequence	2	0	4	6
9. Formulaic markers	1	4	2	7
10. Temporal markers	25	41	64	130
11. Causal adverbial clauses	1	1	1	3
12. Dialogue	4	13	18	35
13. Narrator evaluation	0	0	0	0
14. Object/noun**	34	47	79	160
15. Total discourse elements presented in stories	143	247	369	759

* Discourse elements 1–13 are adopted from INC.

** Discourse element 14 is an extra element developed for the current study and is not included in the assessment instrument INC.

How do we explain the results from a contextual aspect? 從情境上理解

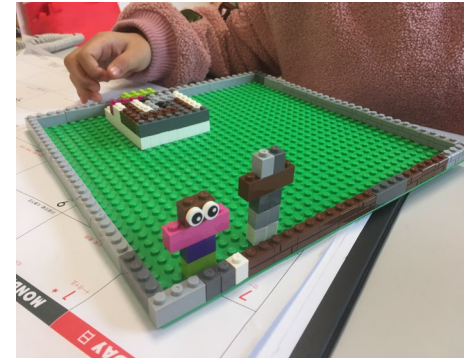
Work Sheet Group

- High sightedness
- Absence of dynamic materials



Brick Set/ Free Bricks Group

- Blind variation (BVSr model of the creative process, Campbell, 1960)
- Imagination as the trial and error process for brainstorming



Take away

Instructional factors

- ✓ Single- input instructions
- ✓ Physical integration of materials

Contextual factors

- ✓ Dynamic visualization
- ✓ Blind variation

Individual affection

- ✓ Positive affection
- ✓ Intrinsic motivation

Reference

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