

Effects of Teaching Toulmin Argument Patterns on Critical Thinking and Argumentation among Elementary Gifted Students

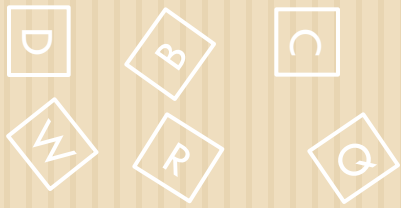
Developed at 2010 EASE Summer School

National Taiwan Normal University

Taipei, Taiwan

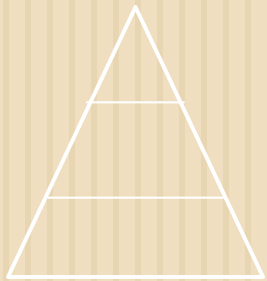
July 18~23, 2010

Yu-Chi Chao, National Taipei University of Education

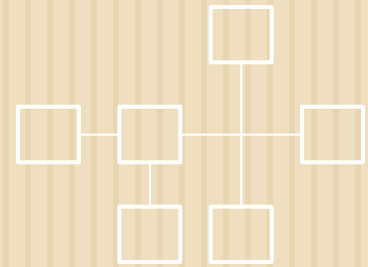


Argumentation
Argument
Critical Thinking

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Yu-Chi, Chao
Department of Science Education,
National Taipei University of Education,
Taipei, Taiwan.

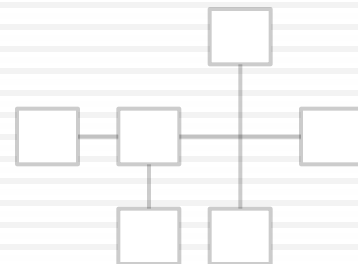




Argumentation
Argument
Critical Thinking

I

Introduction

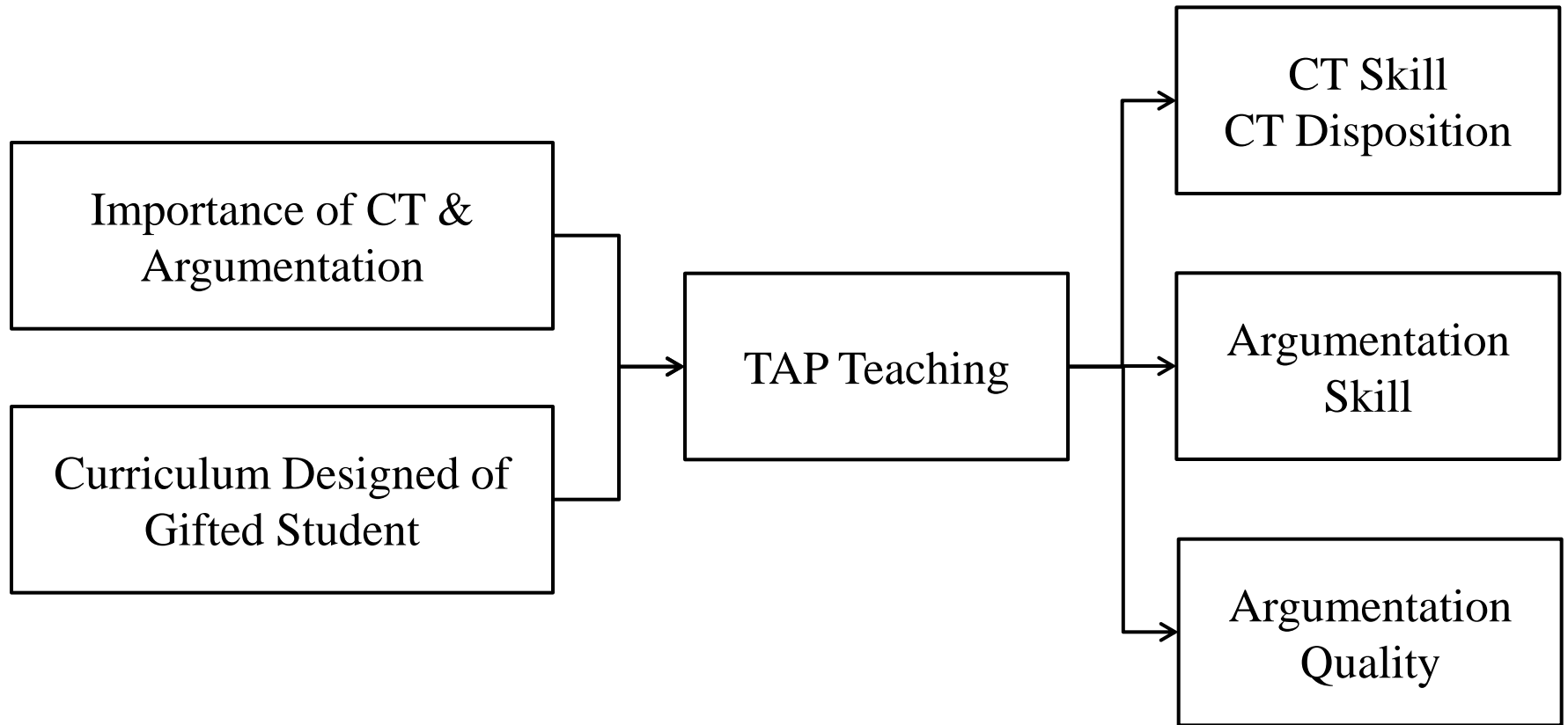


Background and Motivation

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- Importance of Critical Thinking & Argumentation
- Characteristics & Curriculum Design of Gifted Students

Research Questions

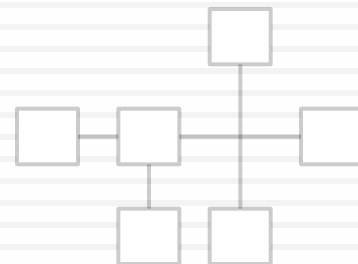


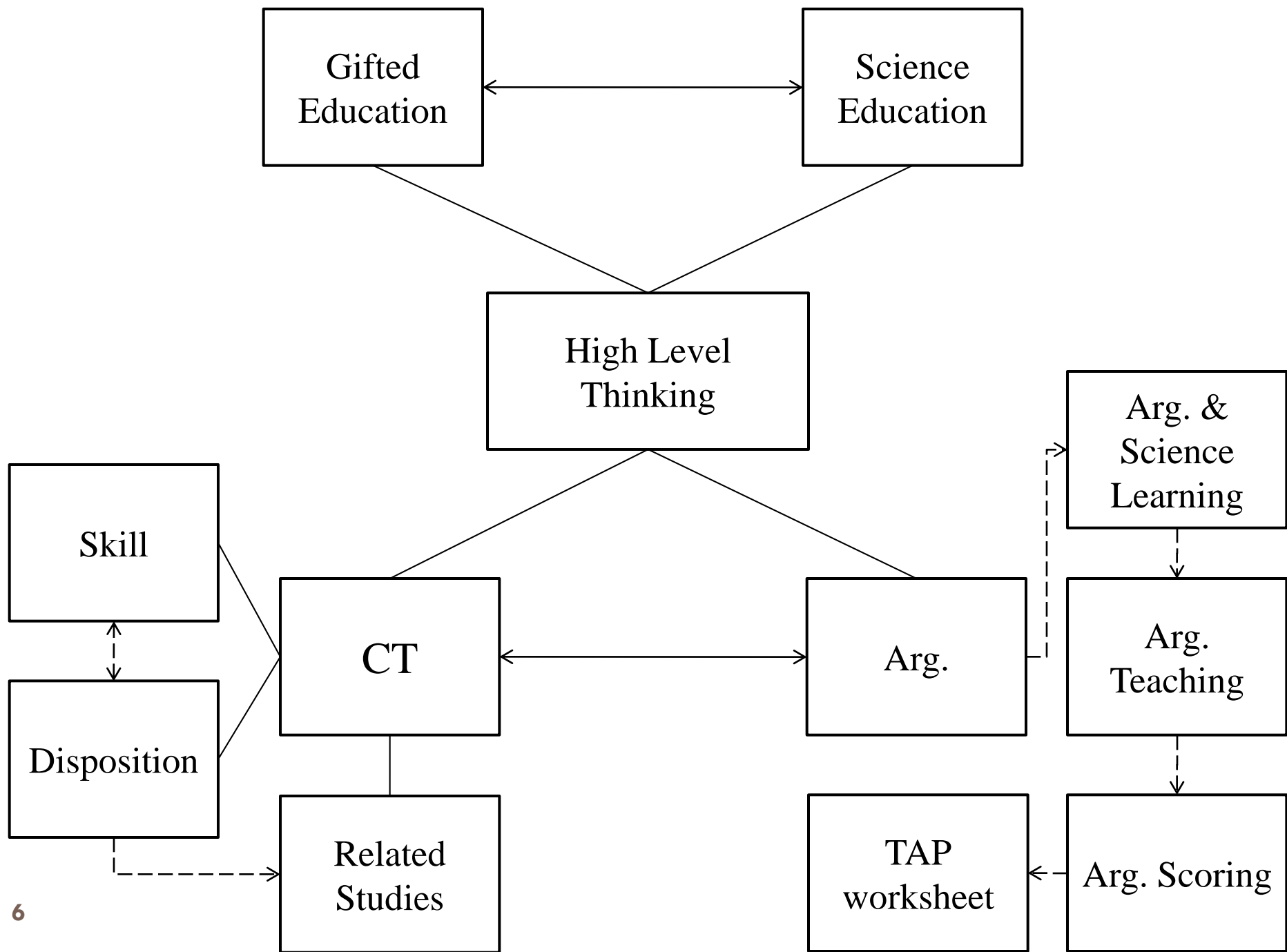


Argumentation
Argument
Critical Thinking

II

Literature Review



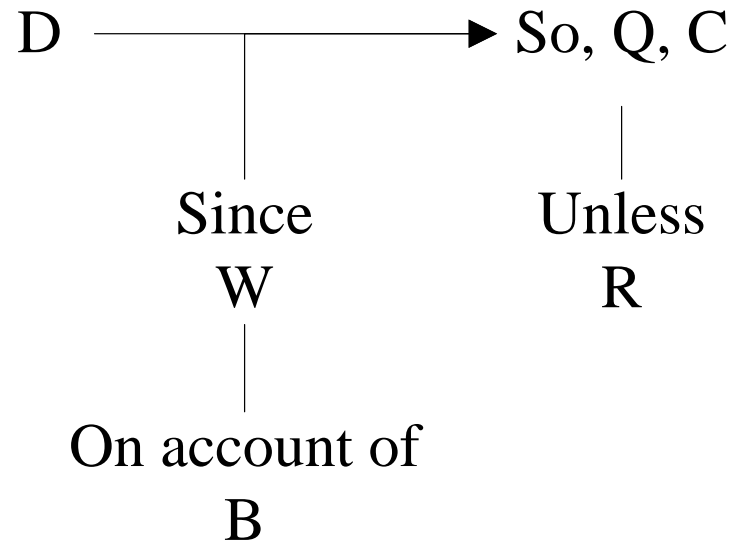




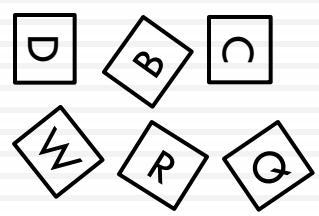
Toulmin's Argument Patterns (TAP)

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- Data
- Claim
- Warrants
- Backing
- Qualifiers
- Rebuttals



Toulmin, 2003, p.97



Argumentation
Argument
Critical Thinking

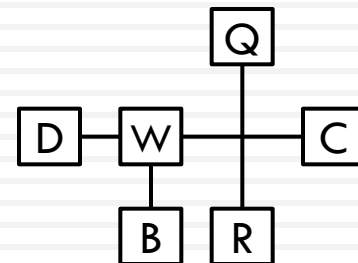
III

Method

Research Design

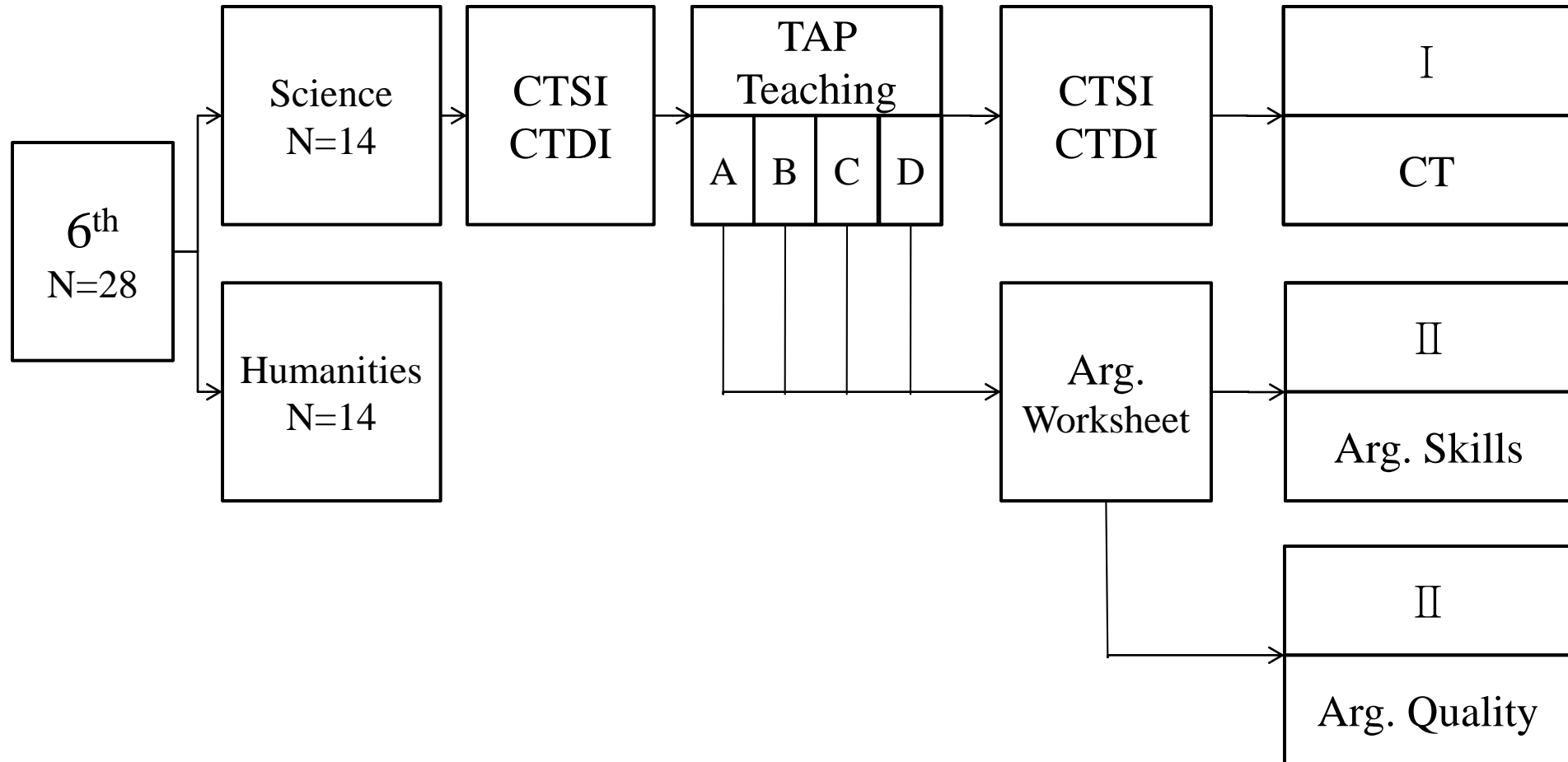
TAP Teaching

Instruments & Data analysis



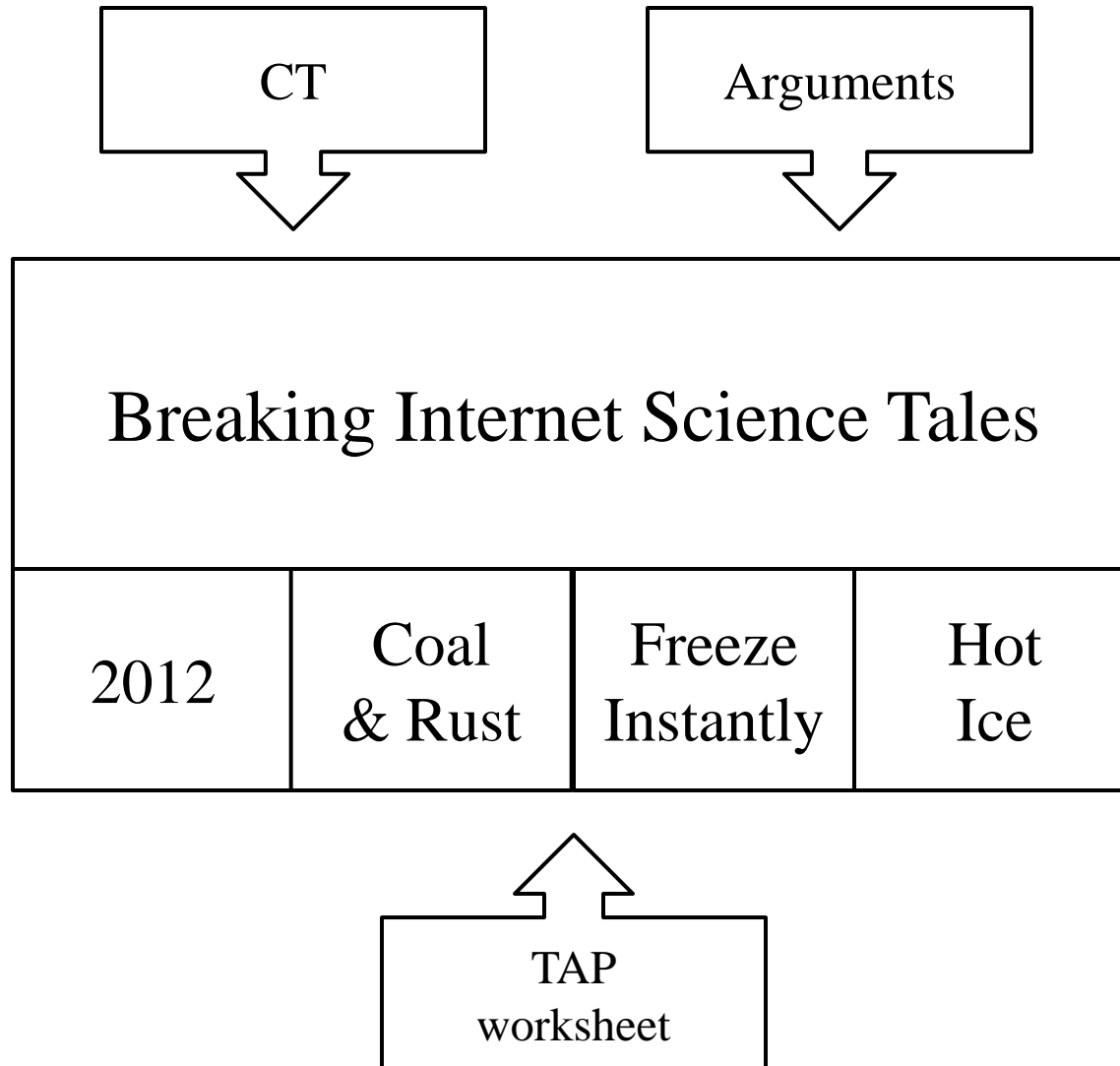
Research Design

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TAP Teaching

11



Instruments & Data analysis

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Research
Question

Instruments

Data
Analysis

CT

Ability

Disposition

Critical Thinking for inventory in Science

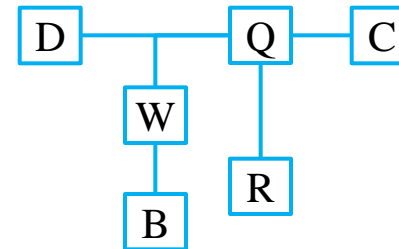
Critical Thinking Disposition Inventory

Paired-Sample
T test

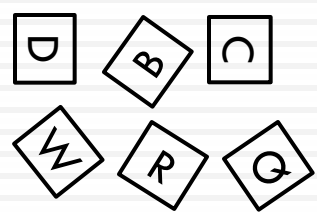
Argumentation
Skill

Argumentation
Quality

TAP worksheet



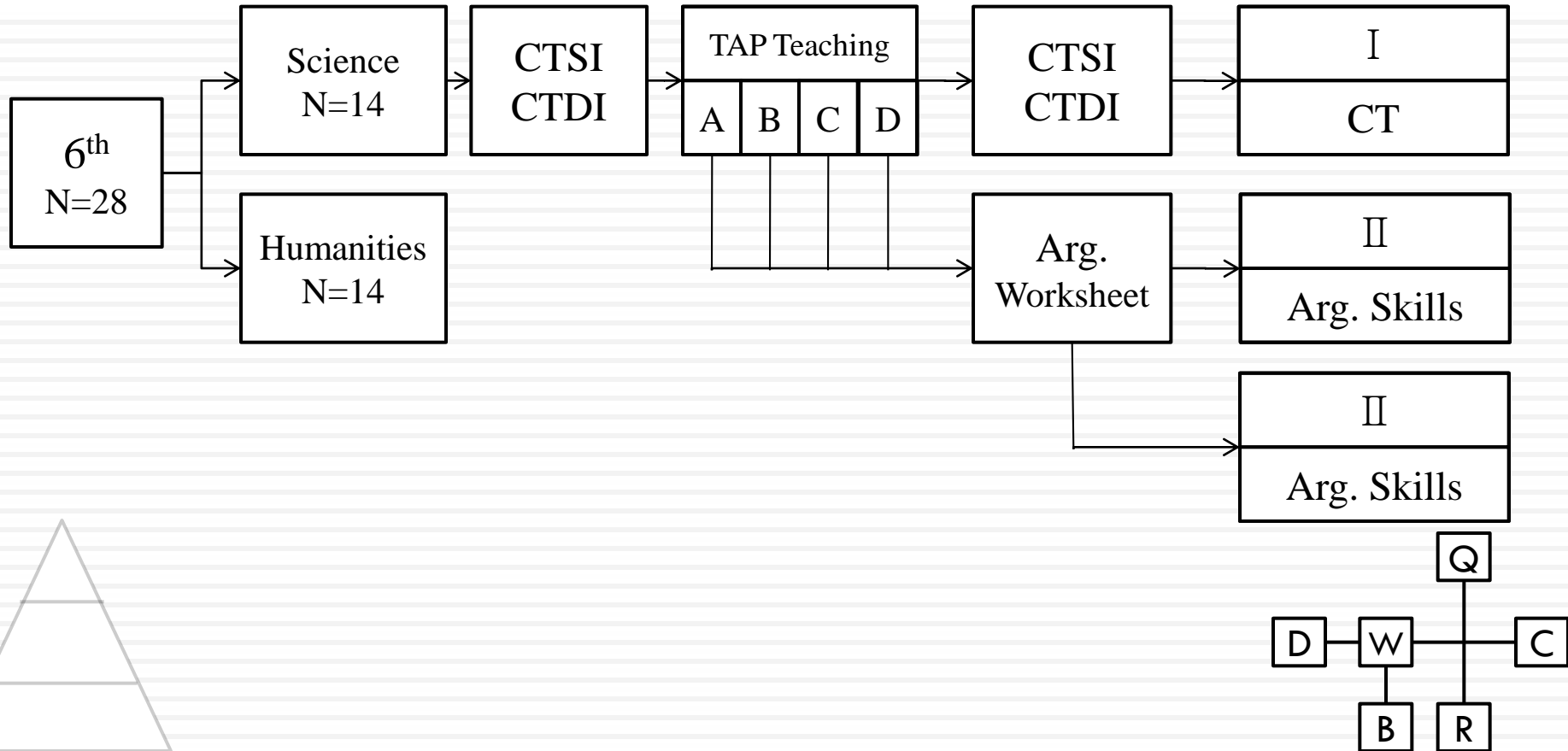
Paired-Sample
T test



Argumentation
Argument
Critical Thinking

IV

Results



CT

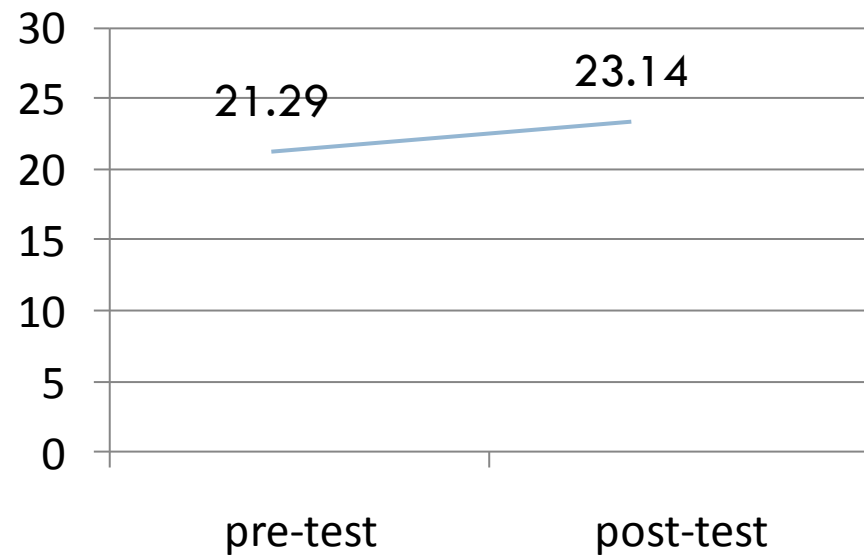
14

Instruments	pretest		post-test		t	Sig.	ES
	M	S	M	S			
CT Ability	21.29	3.56	23.14	3.44	-2.15	.051	.26
CT Disposition	90.50	9.45	92.21	11.36	-0.69	.506	.08

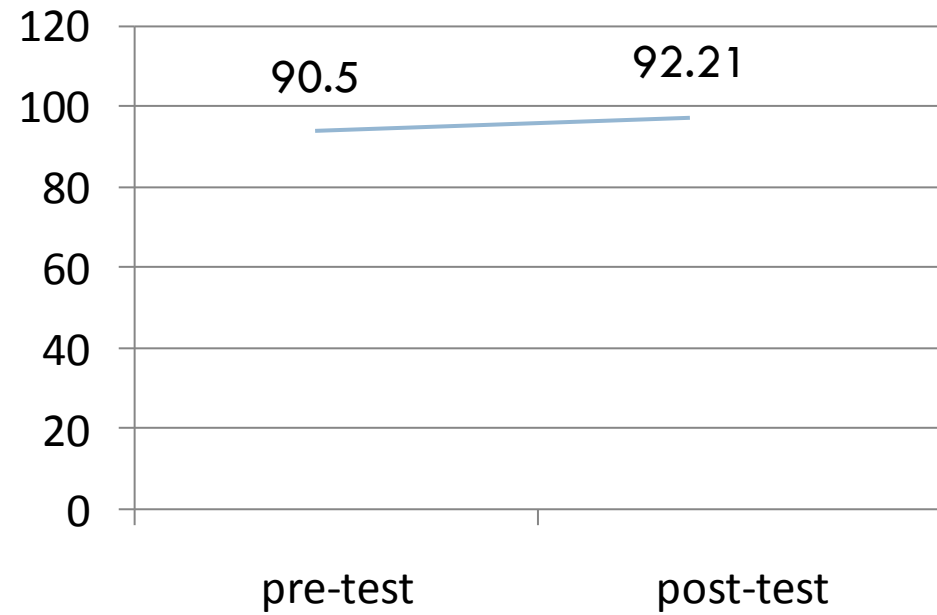
CT

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CT ability

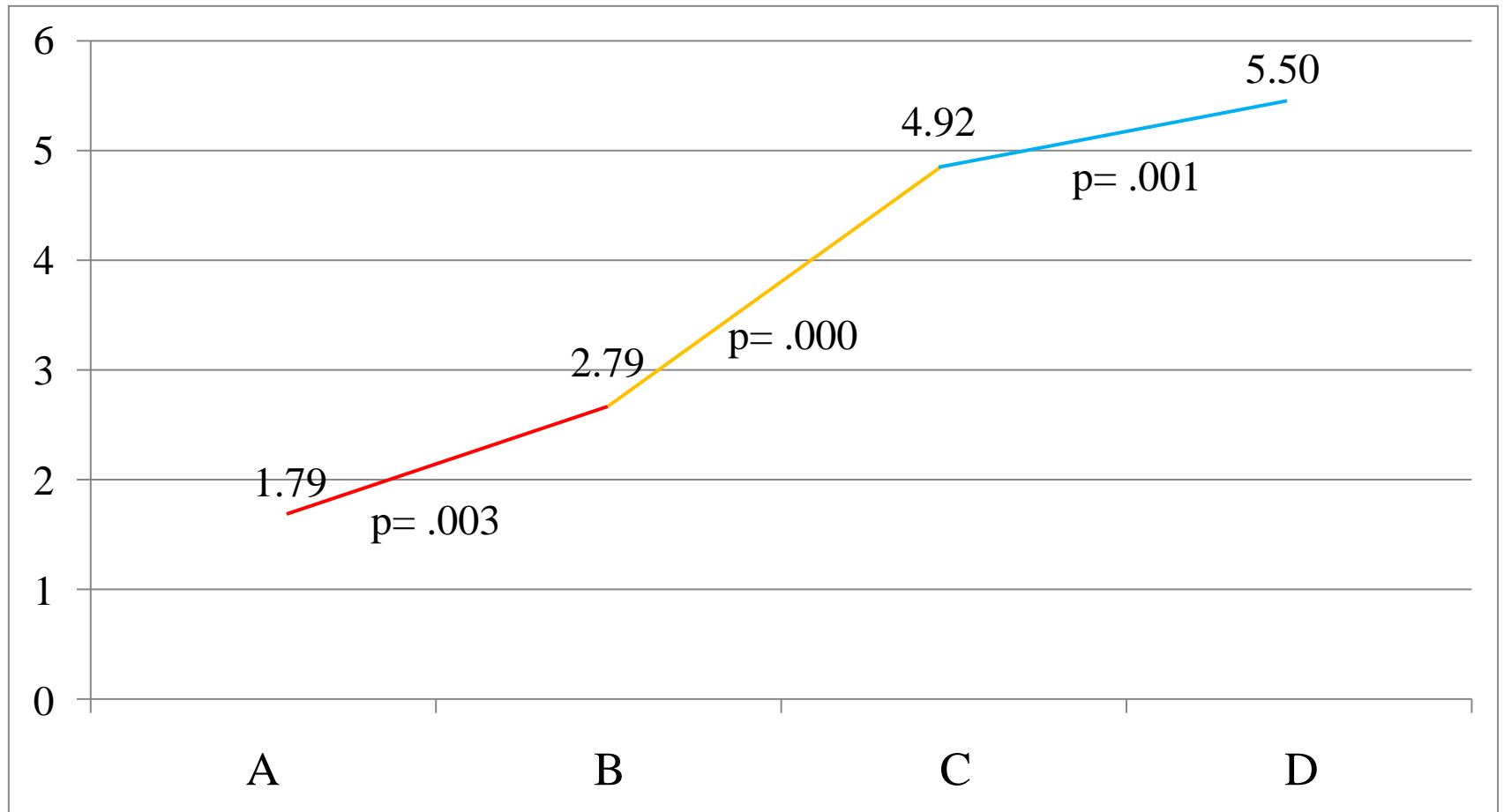


CT disposition



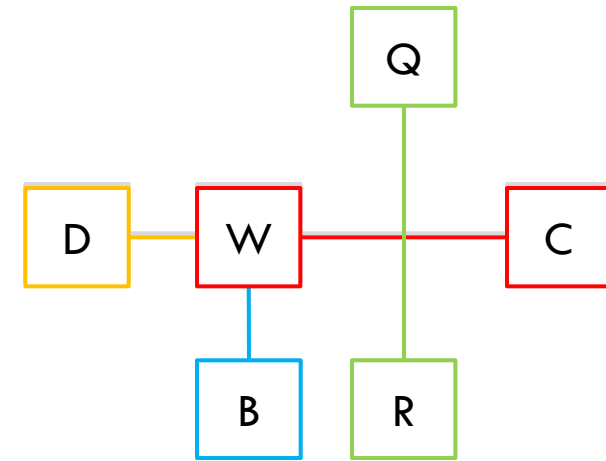
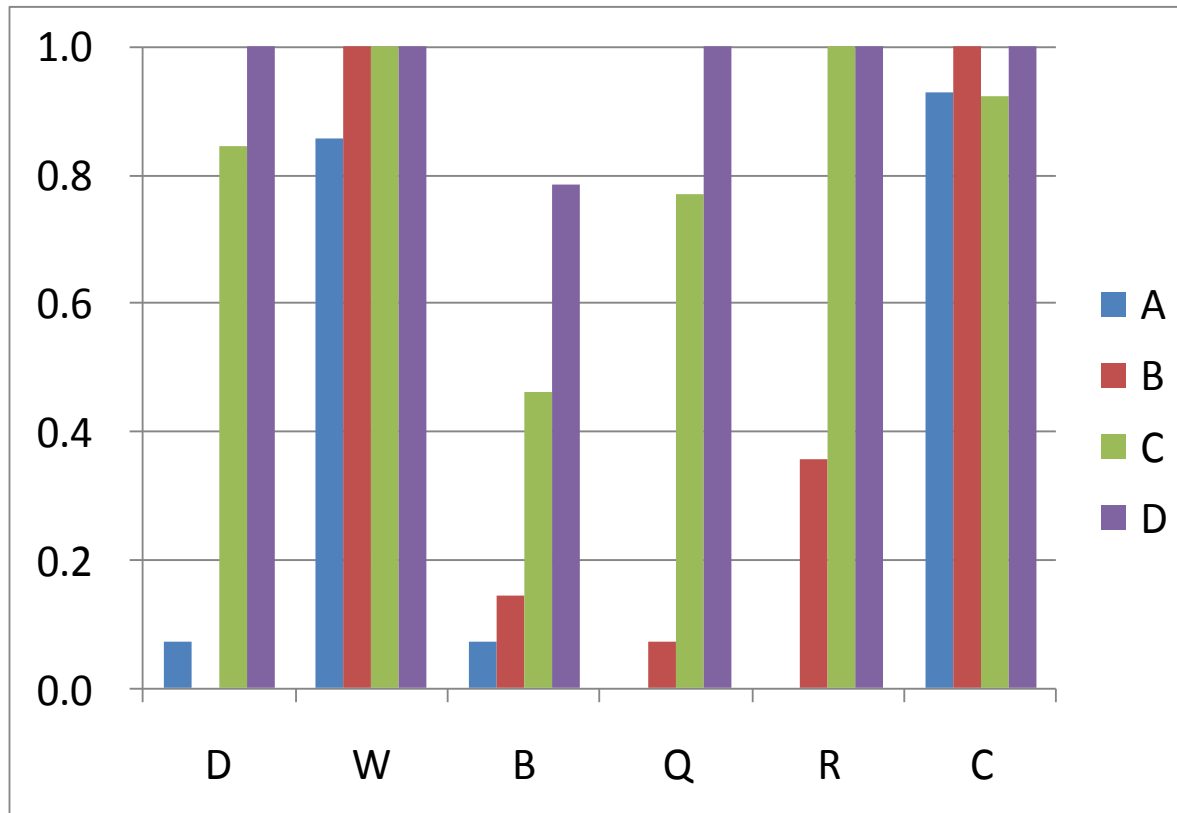
Argumentation Skill

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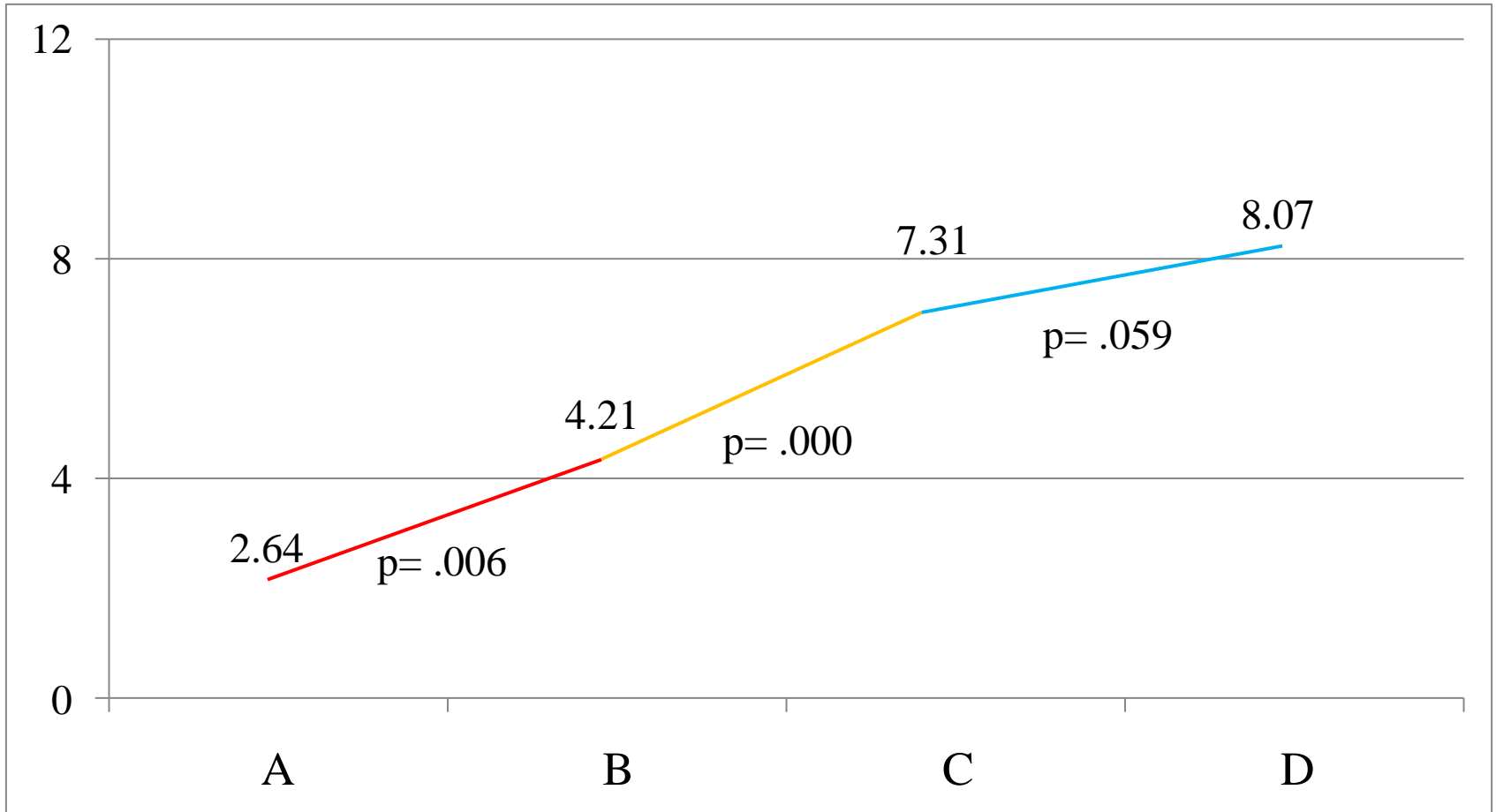
Arguments

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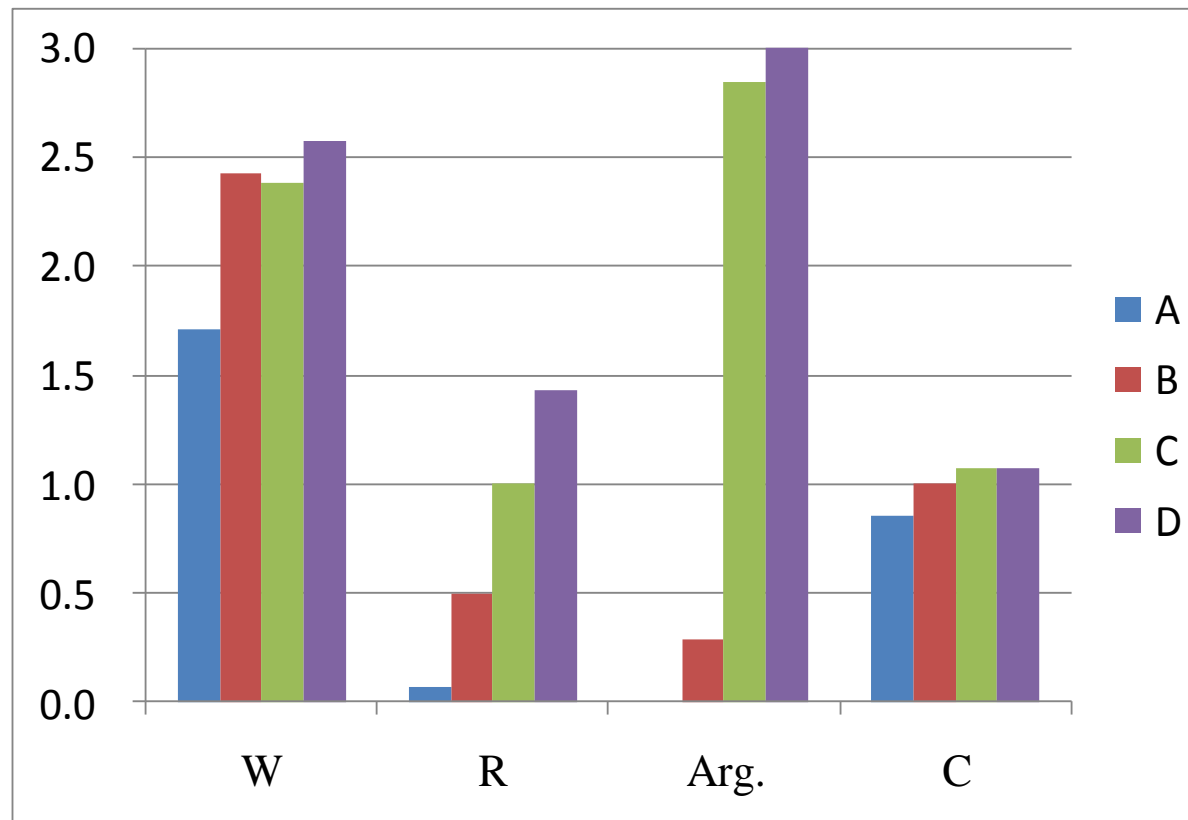
Argumentation Quality

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Argumentation Quality

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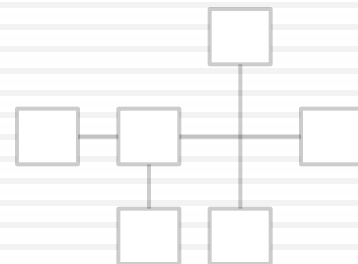


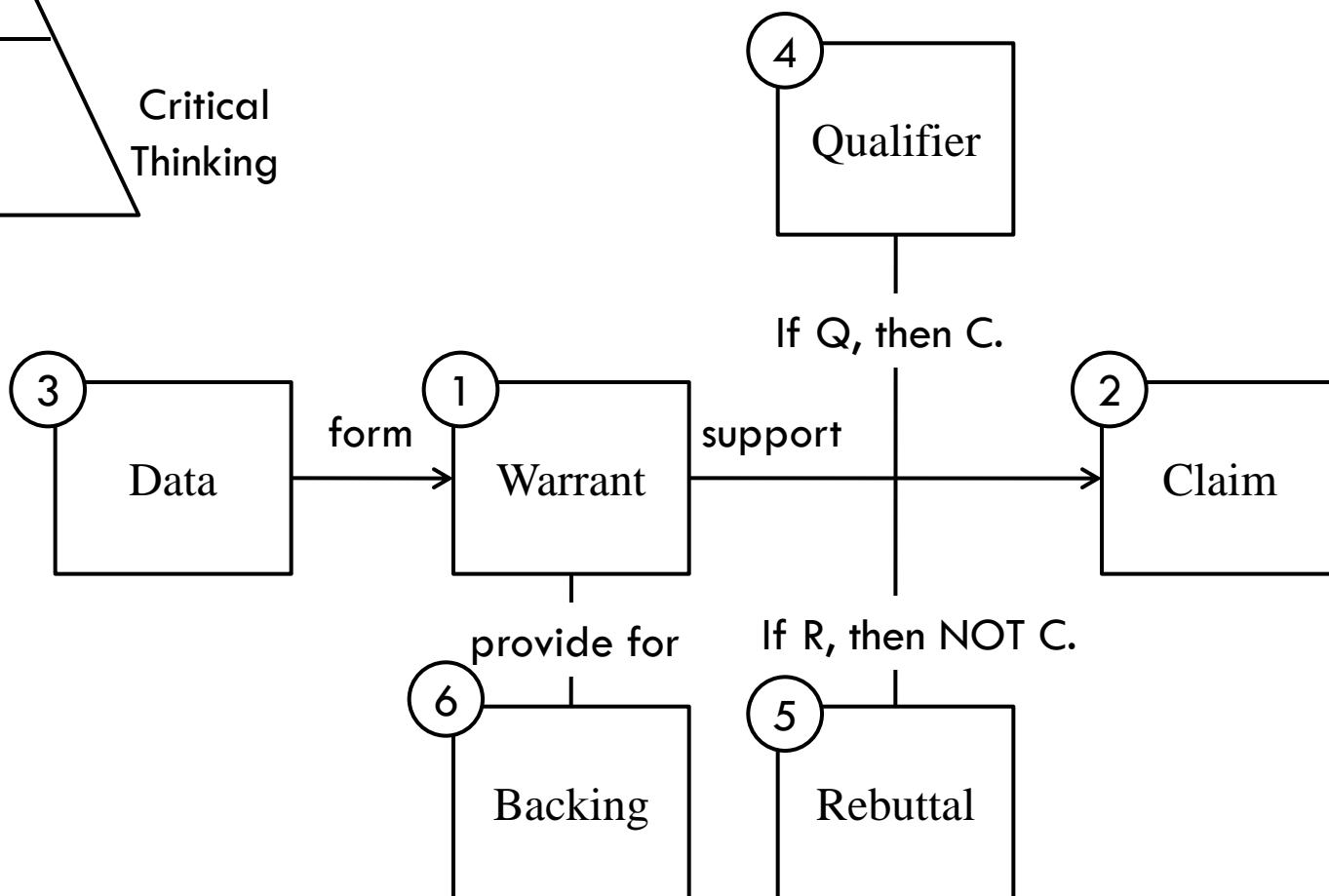
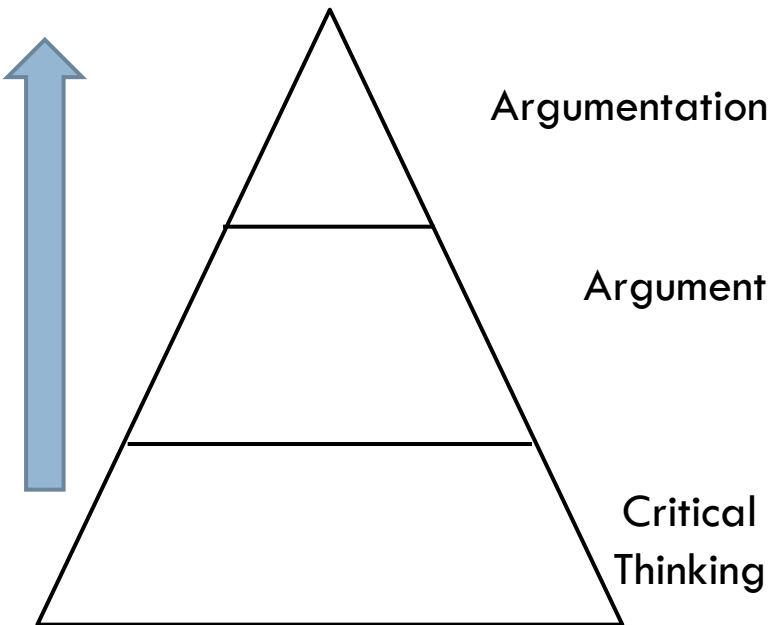


Argumentation
Argument
Critical Thinking

V

Conclusion





Thanks For Your Listening