

Gender difference in Critical Thinking Skills of Competitive Examinations Youth Aspirants

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Significance of the Study

What is an UPSC Examination

For the selection of bureaucrats –IAS,IPS, IRS, IFS etc.

1

- **Prelim – MCQ type**

2

- **Mains – General Studies , Essay and Optional subject**
- **Descriptive type**

3

- **Personality test**
- **Panel Interview based on Bio Data**

Competition and Rigour of Examination

- **All India Examination**
- 6,00,000 aspirants for **Prelim (I level)**
- 15,000 appear for **Main Examination (II level)**
- 2500 get qualified for **Personality test – Interview (III level)**
- Approx. 1000 get selected for various **posts**
like IAS, IPS, IFS, IRS etc. (for 27 different services)
- *Varied subjects from Social Science, Science and Current National, Economical and Social issues , Ethics, GMAT, Mathematics, English Comprehension and 25 other optional subjects from different streams*

What is Critical thinking?

- **Higher Order Thinking**
- **Bloom (1956) Cognitive Theory-
Taxonomy of Learning Objectives (Analysis,
Synthesis, Evaluation)**
- **Critical thinking is the mastery of sub skills such as
inference, assumption, interpretation, deduction,
and evaluating argument. (Watson & Glaser, 2002
updated in 2015)**

Critical thinking Sub skills

- **1) Inference-** It is a conclusion drawn from observed or supposed facts. Inference may or may not be correct.
- **2) Interpretation** Clarifying meaning of the given content. Here whatever we conclude from the given information logically flows beyond doubt.
- **3) Analysis** A systematic examination of data or information, by breaking it into its component parts to uncover their interrelationships and understand cause-effect relationships, thus providing basis for problem solving and decision making.

Critical thinking Sub skills

- **4) Evaluation** A systematic determination of a subject's merit, worth and significance, using criteria governed by a set of standards.
- **5) Argument** Opinion based on reasons, Conclusion backed with evidence. Strong argument is both important and directly related to the question. A weak argument may also be related to a trivial aspect of the question.
- **6) Assumption** It is something which is presupposed or taken for granted. Assumption is logically justified based on the information given in the passage.

Objective of the study

To find out whether there is any significant difference in critical thinking and its sub skills of female and male UPSC CSE aspirants

- **Description of Sample**

- **Incidental Sample - 174 UPSC Civil Services Examination aspirants (92 female and 82 male)**
- **Age range 21 to 25 yrs., Average age- 23 years**
- **Graduates of various streams**
- **Three institutes , Pune Coaching of UPSC CSE for four months**
- **Rural and Urban area covering all the regions of Maharashtra**

Tool for measurement

- **1) Watson Glaser Critical Thinking appraisal (WGCTA)**
 - UK Edition, Five dimensions of critical thinking like *Inference, Assumption, Deduction, Interpretation, Evaluating arguments*. Internal consistency reliability .82.
- **2) Ravens Standard Progressive Matrices (SPM)**
 - A nonverbal test of intelligence to test intelligence to make two groups equivalent on their intelligence. Test-retest reliability ranged from .55 to .84. Concurrent validity ranged from .54 to .86.
- **3) Personal Information**
 - Personal information profile of aspirants e.g. age, educational qualification, rural or urban area of their schooling and college education

Method of Study

- 1) The WGCTA test was given to test critical thinking and its sub skills**
- 2) Ravens SPM a nonverbal test of intelligence was administered to make two groups equivalent on their intelligence**

Data analysis

- **Descriptive and Inferential statistics used**
- 1) Mean and standard deviation - intelligence on SPM
- 2) Independent samples 't' test - intelligence across gender
- 3) Mean and standard deviation -Composite scores of Critical thinking and its Sub skills
- 4) Independent samples 't' test - composite scores of Critical thinking and its sub skills across gender

Table 1: Comparison of Female (N= 92) and Male (N= 82) aspirants on Intelligence (Total N=174)

Sample				
	Female	Male		
	Mean (SD)	Mean (SD)	t	p
Intelligence	53.14 (4.8)	52.74 (6.5)	0.46	0.64

Table 2: Comparison of Female (N-92) and Male (N-82) aspirants' means on Critical Thinking Total (N - 174)

	Female	Male		
	Mean (SD)	Mean (SD)	t	p
Critical Thinking (Composite Score)	47.53 (6)	48.84 (7.1)	-1.311	0.192
Sub skills of critical thinking				
Inference	5.5 (2)	5.65 (2.1)	-0.461	0.645
Assumption	6.4 (1.6)	6.4 (1.7)	0.094	0.925
Deduction	13.8 (2.8)	14.6 (2.6)	-2.00	0.047*
Interpretation	7 (1.7)	7.5 (1.7)	1.575	0.117
Evaluation	14.8 (2.9)	14.7 (2.9)	0.097	0.923

Conclusion

- 1) No significant difference is found in composite scores of critical thinking across gender
- 2) Only on sub skill deduction male aspirants show high scores than their female counterparts
- 3) Critical thinking can be learned through gaining life experiences and through teaching it to others, we can conclude that critical thinking is not a matter of gender

- **Limitations of present study**

- 1) Incidental sample
- 2) Aspirants from Urban area
- 3) English as a medium of instruction for UPSC CSE
- 4) During the study No control on other exposures of sample group students

- **Implication of present study**

- The results of this study can be used for
- 1)the teachers as well as counselors in their work so that the stereotype about female students would be broken.
- 2)education practitioners in benchmarking of CT skills across gender in youth to design a programme for its enhancement.

References

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