



Camden County College Critical Thinking Module for the Information Technology Innovation Partnership Institute

**NEW JERSEY COMMISSION ON HIGHER
EDUCATION
NOTICE OF GRANT OPPORTUNITY (NGO)
INNOVATION PARTNERSHIP INSTITUTES
October 16, 2006**

[Link](#)



Critical Thinking and Troubleshooting

- **Module One Critical Thinking**
- **Module Two Troubleshooting in the IT World**



Critical Thinking and Troubleshooting

Critical Thinking - Module One

- Defining Critical Thinking
- Understanding your own Thinking
- Stages of Critical Thinking
- Universal Structures of Thought
- Standards of Thinking
- Questions



Critical Thinking and Troubleshooting

Module Two

Troubleshooting in the IT World

- Assessing and Responding to Problems
- Troubleshooting Procedures
- Troubleshooting Resources
- Troubleshooting Hands on Scenarios



Critical Thinking - Module One

Defining Critical Thinking

- Introduction
- Definition
- Critical Concepts



Critical Thinking - Module One

Understanding your own thinking

- **What type of thinker are you?**
- **Becoming a critical thinker**

Exercise in thinking # 1



Understanding Your Own Thinking

- **Clarifying your own thinking**
- **Clarifying other people's thinking**
- **Exercise in thinking # 2**



Understanding Your Own Thinking

Relevant thinking



Understanding Your Own Thinking

Developing better questioning



Understanding Your Own Thinking

Open-mindedness

Vs.

Close-mindedness



Critical Thinking - Module One

Stages of critical thinking

Stage one: The Unreflective Thinker

- **Characteristics**
- **Exercise in thinking # 3**



Stages Of Critical Thinking

Stage two: The Challenged Thinker

- **Becoming aware**
- **Characteristics**



Stages Of Critical Thinking

Stage three: The Beginning Thinker

- **Characteristics**
- **Exercise in thinking # 4**



Stages Of Critical Thinking

Stage four: The Practicing Thinker

- **Characteristics**
- **Developing a plan**
- **Exercise in thinking # 5**



Stages Of Critical Thinking

Stage five: The Advanced Thinker

- **Characteristics**



Stages Of Critical Thinking

Stage six: The Master Thinker

- **Characteristics**



Critical Thinking - Module One

Universal Structures of Thought

- Purpose
- Questions
- Assumptions
- Point of View



Critical Thinking - Module One

Universal Structures of Thought

- Information
- Concepts
- Inferences
- Implications



Critical Thinking - Module One

Intellectual Standards of Thinking

- Clarity
- Logic
- Accuracy
- Significance
- Precision



Critical Thinking - Module One

Intellectual Standards of Thinking

- Breadth
- Depth
- Fairness
- Relevance
- Exercise in Thinking # 6



Critical Thinking - Module One

Questions

Types of questions

- Fact
- Preference
- Judgment



Critical Thinking - Module One

Questions

- **Socratic questioning**



Critical Thinking - Module One

Questions

- **Focus of questions**



Troubleshooting In The IT World

Module Two

Assessing and responding to problems

- The human factor
- Prioritizing problems/examples



Troubleshooting In The IT World

Module Two

Troubleshooting procedures

- Identify the exact issue
- Re-create the problem
- Isolate the cause
- Formulate a correction
- Implement the correction
- Test
- Document the problem and solution
- Give feedback



Troubleshooting In The IT World

Module Two

Troubleshooting procedures

- Identify the exact issue
- Re-create the problem
- Isolate the cause



Troubleshooting In The IT World

Module Two

Troubleshooting procedures

- Formulate a correction
- Implement the correction
- Test
- Document the problem and solution
- Give feedback



Troubleshooting In The IT World

Module Two

Troubleshooting resources

- Logging tools
- Performance monitoring tools
- Data analyzers
- Documentation



Troubleshooting In The IT World - Module Two

Troubleshooting scenarios

- File and system rights issues
- Login issues
- Printing issues
- Connectivity issues



References

Dauer F., W. "Critical thinking : An Introduction to Reasoning" . New York: Oxford University Press.

Guralnik, D.B. Ed., 1986. *Webster's New World Dictionary*. New York: Prentice Hall.

Paul, R and Elder, L. 2006. *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life*. New Jersey: Pearson Prentice Hall.

Paul, R and Elder, L. 2006 *The Thinkers Guide to the Art of Socratic Questioning..* Sacramento California: Foundation for Critical Thinking.

Paul, R., Elder, L., and Bartell T. 1997. *California Teacher Preparation for Instruction in Critical Thinking: Research Findings and Policy Recommendations*. California Commission on Teacher Credentialing. Sacramento California: Foundation for Critical Thinking.



End

**Critical Thinking And
Troubleshooting In The IT
World**