

**ACHIEVING IMPROVED QUALITY AND
EFFICIENCY IN A LABORATORY
THROUGH ISO/IEC 17025:2005
ACCREDITATION**

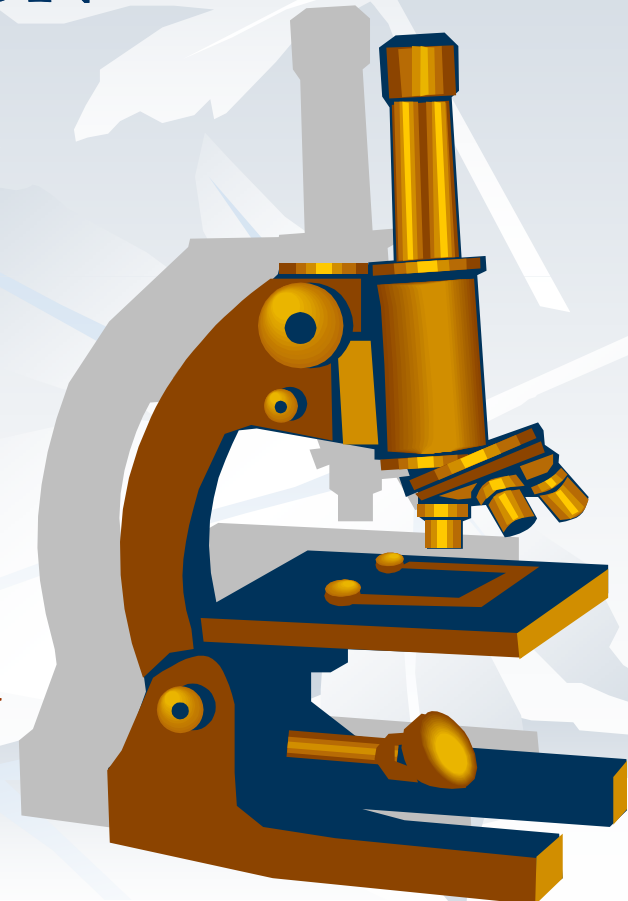
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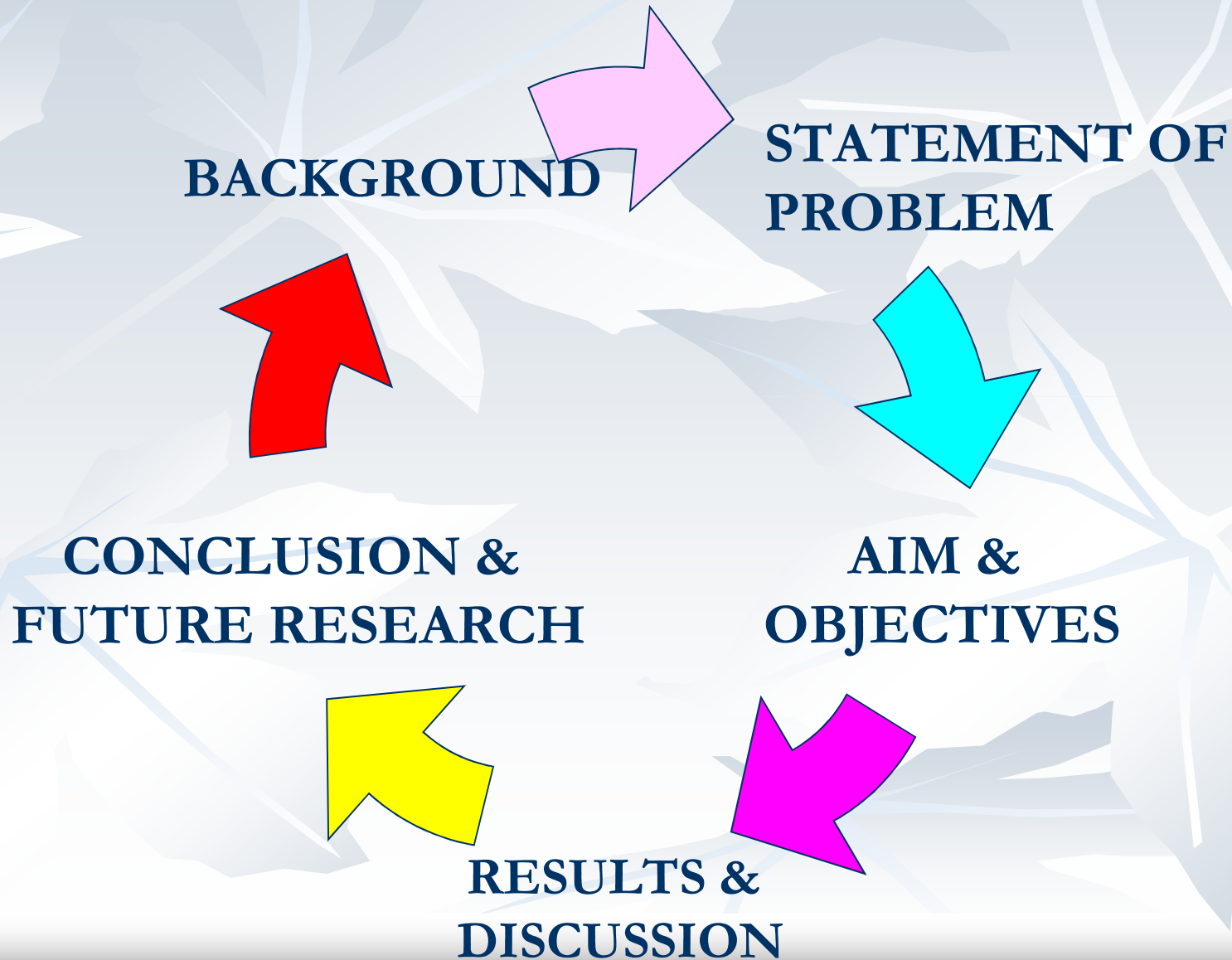
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OUTLINE OF PRESENTATION



BACKGROUND

According to ISO 19011 some of the principles that relate to an auditor:

- **Ethical conduct which is the foundation of professionalism.**
- **Integrity and trustworthiness are essential in auditing.**
- **Fair presentation - the obligation to report truthfully & accurately to ensure the effectiveness of an audit.**

AIM & OBJECTIVES

To identify methods used
in achieving improved quality, to obtain and maintain
ISO/IEC 17025:2005 accreditation.

Objectives :

- Effectiveness of an Internal Auditor.
- Deficiencies related to an internal auditor.
- Differences between Internal and External Assessors.
- Methods of how quality within an organization can be improved.
- The difficulties faced in the implementation of accreditation.
- Efficiency of the process after implementation of accreditation.

STATEMENT OF PROBLEM

**INCOMPETENT
INTERNAL
AUDITORS**

**CHECKS ARE
APPLIED TOO
LATE**

**INEXPERIENCED
CONSULTANTS**

**LACK OF TOP
MANAGEMENT
COMMITMENT**

**MISCONCEPTION
OF ISO/IEC
17025:2005 &
19011:2003
STANDARDS**

AN INTERNAL AUDITOR



ISO/IEC 17025:2005

A laboratory audit requires the examination of

- **All relevant documentation.**
- **Proficiency testing by recognized schemes inter/intra-laboratory testing.**
- **Measurement management systems.**
- **Method validation and use of CRM's.**
- **Reporting procedures.**



ALL RELEVANT DOCUMENTATION



MEASUREMENT MANAGEMENT SYSTEM



RESULTS & DISCUSSION

Qualitative Research approach

Results were based on a questionnaire. The laboratory was successful in achieving and maintaining accreditation for 27 methods.

Questions were designed to test the

- Effectiveness of an Internal Auditor
- The competence of an Internal Auditor
- The motivation for Quality work by the Internal auditor
- The deficiencies related to an Internal Auditor

RESULTS AND DISCUSSION

The questionnaire was validated prior to being administered and the results were verified and deemed reliable using the Cronbach Alpha Test.

The Statistical Package for Social Science (SPSS) was used to analyze the data.

RELIABILITY

CASE PROCESSING SUMMARY			
		N	%
CASES	VALID	10	100
	EXCLUDED	0	0
	TOTAL	10	100

List wise deletion based on all variables in this procedure.

RELIABILITY continued

Reliability Statistics		
Cronbach's Alpha Test	Cronbach's Alpha Test based on Standardized Items	No of Items (N)
0.558	0.667	20

The overall reliability score of 0.667 indicates a degree of acceptable, consistent scoring for the different categories for this research.

CONCLUSION

Results of this study showed that a well trained Internal Auditor will

- **Have good communication skills**
- **Increase the motivation for quality work**
- **Adequately plan and execute the internal audit with the use of a checklist**
- **Ensure that all valid suggestions will be implemented by Management**

CONCLUSION continued

This study showed that:

- **The Internal Auditing is an essential function in maintaining and improving accreditation and quality within a laboratory.**
- **A competitive advantage is gained through the accreditation of a laboratory.**
- **Information sharing and training increases the efficiency within a laboratory.**

CONCLUSION continued

- The performance and continual improvement of the service of a laboratory has to be evaluated.
- Effective Internal control can only be achieved when the entire team works together to achieve their organizational goals.

FUTURE WORK

- Future work should entail researchers looking at Quality Audit Teams.
- Comparison of the effectiveness of Team Based Auditors as apposed to individual Internal Auditors.
- Evaluate whether Quality Audit Teams improve and accelerate the implementation of accreditation by effective auditing.

QUESTIONS

