

# **DISTINGUISH TECHNICAL TERMS USED IN RESEARCH**

**(EN10V-IVa-30)**

# **At the end of the lesson, the students are expected to:**

- **Identify the technical terms used in research.**
- **Use the technical terms learned for future research work.**
- **Appreciate the importance of research by familiarizing its technical terms.**

# What's the Word?

**\_E \_A \_H**

**It is the organized and systematic  
method of finding answers to  
questions.**

**What's the Word?**

**RESEARCH**

**It is the organized and systematic method of finding answers to questions.**

# RESEARCH

Research is a process of seeking out answers to a specific problem.

## Organized

a planned structure or method used to reach the conclusion

## Systematic

a process broken up into clear steps that lead to conclusions.

# What's the Word?

A \_ \_ T \_ \_ T

A clear, concise summary that communicates the essential information about the study.

# What's the Word?

## ABSTRACT

A clear, concise summary that communicates the essential information about the study.

## ABSTRACT

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### Introduction and Background

*Introduction:* India currently hosts 49% of the world's diabetes burden, with an estimated 72 million cases in 2019. The complex cascade of events which leads to cellular malfunction in response to high levels of glucose culminates upon formation of advanced glycation end products (AGEs). Accumulation of AGEs in vivo can induce insulin resistance and impair  $\beta$ -cells of islets of Langerhans, resulting in impaired glucose regulation and development of diabetes. Therefore, AGE is an early risk factor for diabetes. Skin autofluorescence (SAF) spectroscopic screening is the emission of light in the UV-visible, near-IR spectral range when biological substrates are excited with light at suitable wavelength.

### Material and Methods

*Materials and methods:* In this study, we estimated the subcutaneous AGE level in 197 nondiabetic healthy subjects and then stratified the population into risk groups for developing diabetes based on the result.

### Results

*Results:* In our study, a majority of the healthy population (82% subjects) were in the moderate group, followed by 7% and 3% in the mild and severe groups, respectively. Only 8% of the population screened was in the normal group. In subjects older than 50 years, 95.7% had AGE levels in moderate risk.

### Conclusions and Recommendations

*Conclusion:* Autofluorescence is an easy tool for early diagnosis; however, larger studies are required.

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# What's the Word?

I \_ R \_ U \_ \_ \_ N

presents background information,  
scope, and focus of the research  
paper

**What's the Word?**

# **INTRODUCTION**

**presents background information,  
scope, and focus of the research  
paper**

# What's the Word?

L \_ \_ \_ A \_ U \_ E R \_ \_ \_ E \_

provides a review of what others  
have written or researched on  
concerning the topic

**What's the Word?**

# **LITERATURE REVIEW**

**provides a review of what others  
have written or researched on  
concerning the topic**

# What's the Word?

C \_ C \_ T \_ L   F \_ M \_ \_ \_ K

offers a logical structure of connected concepts that help provide a picture or visual display of how ideas in a study relate to one another within the theoretical framework(Grant & Osanloo, 2014).

**What's the Word?**

# **CONCEPTUAL FRAMEWORK**

**offers a logical structure of connected concepts that help provide a picture or visual display of how ideas in a study relate to one another within the theoretical framework(Grant & Osanloo, 2014).**

# What's the Word?

R \_ \_ \_ T

(also sometimes called Findings) in an empirical research paper describes what the researcher(s) found when they analyzed their data.

**What's the Word?**

**RESULT**

**(also sometimes called Findings) in an empirical research paper describes what the researcher(s) found when they analyzed their data.**



# What's the Word?

M \_ \_ \_ D \_ \_ \_ Y

systematic approaches to the conduct of an operation or process. It includes steps of the procedure, application of techniques, systems of reasoning or analysis, and the modes of inquiry employed by a discipline

**What's the Word?**

# **METHODOLOGY**

**systematic approaches to the conduct of an operation or process. It includes steps of the procedure, application of techniques, systems of reasoning or analysis, and the modes of inquiry employed by a discipline**

# METHODOLOGY

allows the reader to critically evaluate a study's overall validity and reliability.

It is where the researchers will decide:

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- How to collect it ( **data collection method** )

# METHODOLOGY

allows the reader to critically evaluate a study's overall validity and reliability.

It is where the researchers will decide:

- What data to collect
- Who to collect it from ( **sampling design** )
- How to collect it ( **data collection method** )
- How to analyze it ( **data analysis method** )

# What's the Word?

H \_ \_ T \_ \_ \_ S

It is a statement of expectation or prediction that will be tested by research.



**What's the Word?**

# **HYPOTHESIS**

**It is a statement of expectation or prediction that will be tested by research.**

***"Quality of sleep affects academic performance",  
is a statement about the expected outcome.***

# What's the Word?

S \_ \_ \_ E

It is a subset of individuals from a larger population, selected to participate in the research study.

# What's the Word?

## SAMPLE

It is a subset of individuals from a larger population, selected to participate in the research study.

The sample is categorized into 3:



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1. **Respondents**- answers questionnaires in quantitative research





The sample is categorized into 3:

1. **Respondents** - answers questionnaires in quantitative research
2. **Participants** - answers interviews in qualitative research



The sample is categorized into 3:

1. **Respondents** - answers questionnaires in quantitative research
2. **Participants** - answers interviews in qualitative research
3. **Subjects** - the people in the researcher's experiment

# What's the Word?

V \_ \_ \_ \_ E

any factor, trait, or condition that can be manipulated, controlled for, or measured in an experiment.



# VARIABLE

**Independent  
Variable**

# VARIABLE

**Independent  
Variable**

**Dependent  
Variable**

# VARIABLE

## Independent Variable

## Dependent Variable

- variable in an experiment that is changed or manipulated.

# VARIABLE

## Independent Variable

- variable in an experiment that is changed or manipulated.

## Dependent Variable

- responds to the changes.

# VARIABLE

## Independent Variable

- variable in an experiment that is changed or manipulated.

## Dependent Variable

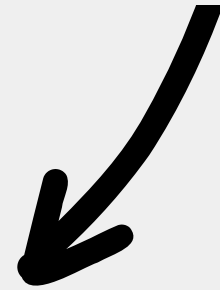
- responds to the changes.
- It is the variable being tested and measured.

# Example

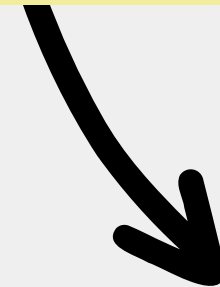
**"Quality of sleep affects academic performance"**

# Example

"Quality of sleep affects academic performance"



**Independent**



**Dependent**

# What's the Word?

C \_ \_ C \_ \_ \_ \_ N

provides the summary of the research. It is intended to help the reader understand why your research should matter to them after they have finished reading the paper.



# What's the Word?

## CONCLUSION

provides the summary of the research. It is intended to help the reader understand why your research should matter to them after they have finished reading the paper.

**"RESEARCH IS TO SEE WHAT EVERYBODY  
ELSE HAS SEEN, AND TO THINK WHAT  
NOBODY ELSE HAS THOUGHT."**

**- ALBERT SZENT-GYÖRGYI**

**THANK YOU**