

How to Write and Publish a Research Paper for a Peer-Reviewed Journal

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Featured in the World Ranking of Top 2% scientists created by Stanford University.

<https://data.mendeley.com/datasets/btchxktzyw/2> Rank: 101882

HOW TO WRITE A MANUSCRIPT

TYPES OF SCIENTIFIC PAPERS

1. Research Papers (Original Research)

- The typical Paper
- Propose new concepts, problems, approach to know problems, algorithms, devices, experiments.

2. Review Papers

- Simple Review (literature)
- Systematic Review

Continued...

3. Case description Papers

- Common in area such as Mechanical Engineering, Energy Technology, Solar thermal/SPV/Biomass/Wind.
- Authors describe a number of industries cases and followed the approaches.

Common Instructions

- Manuscript to be typed double-spaced.
- A manuscript should not exceed 3000 words (20 texture page)in length.
- Font :Times New Romans
- Size:12

MANUSCRIPT DESIGN

- Most Journal follow the following design format:

IMRaD Format

- Introduction
- Methods
- Result and Discussion

Simple Format For Structuring Paper

TITLE

(Should be less than 20 words and contain the **3W** (What, Who, Where))

Author Name and Affiliation

Abstract(Less than 250 words)

- Introduction/Background (Must contain aim or objective of the study)
- Methods
- Result
- Conclusion

Heat recirculation of the biomass stove using porous medium for air pre-heating

Design, Development and Performance Evaluation of Porous Media Integrated Novel Biomass Stove

Abstract: This research aimed to design and performance evaluation of biomass stove with heat-recirculating technique using porous medium for air preheating. Combustion chamber of biomass stove of 40 liters capacity has porous medium of alumina ceramic ball with average diameter of 10 mm and porosity of 41.21%. Corn cobs were used as a solid fuel. Fuel consumption rate was 1.2 kg/h and operating time was 4 h with a Fuel/Air ratio 0.75 (lean-burn). Power input, power output, percentage of char produced, burning rate, and thermal efficiency were 0.006 kW, 94.98 kW, 38.88%, 0.02 g/min, and 28.28%, respectively. New biomass stove can effectively reduce ash 38.88% as compare to NPM-conventional biomass stove. This study provided a successful integration of heat recirculating for the biomass stove to enhance it efficiency and better waste management.

Keywords: Biomass Stove; Porous Medium; Heat Recirculation; Air-Preheated; Thermal efficiency

Improvement of disinfection process of pineapple production by applied pulse electric field method

Impact of pulse electric field in disinfection process of pineapple production

Abstract : In this study, the disinfection of liquid foods with non-thermal sterilization methods using pulsed electric fields (PEF) method was evaluated. Microorganisms within liquid foods were eliminated by electroporation processes up to acceptable levels of food industry standard and capable of disinfecting.

Thermal sterilization processes such as sterilization, pasteurization, and Ultra-high temperature (UHT) by measuring the quality of sterilization from cultivation and counting colonies that occur inside the cultivation dish and comparing the results of experiments.

About experimental set and operating parameters

Results/Findings in terms of quantitative values

From energy-saving efficiency, it could reduce the energy consumption of disinfection within liquid foods approx 60%, as measured by the electricity consumption of disinfection of each method.

Energy consumption of disinfection within liquid foods was reduced upto 60%.

Concluding remark and redocumentation

Keywords: Pineapple; PEF; Disinfection; Non-thermal sterilization; Energy consumption

Title : Design and Development and Performance Evaluation of Novel Automatic Pineapple Planting Machine

Abstract:

In the present research, automatic pineapple planting machine with a tractor back up of 60 horsepower was designed and developed.

Double row planting, 50 centimeters row spacing, 30 - 45 centimeters plant spacing, using the leaves to prune the leaves, length 30 cm, weight 250 - 300 gm were considered.

Packed into single-row cartons, mounted on conveyors driven from the ratchet drop into the trench after opening the trench with the plow assembly.

It cover the root of the bud with the leaves to cover the soil. The prototype plant is capable of working 0.55 acres per hour.

At a movement speed of 0.30 m/s, fuel consumption rate of 3.15 liters per rai, planting efficiency per hundred, 60 shoots, tilted about 65 degrees from the horizontal plane.

Average planting depth 15.50 cm, average distance between plants 30.50 cm, and average row spacing 50 cm.

Concluding remark and recommendation

Keywords: Pineapple; Planting; Tractor; Automatic; Fuel consumption rate; Planting efficiency

Continued...

KEYWORDS

A list of 3-5 key words is to be provided directly below the abstract, key words should express the precise content of the manuscript, as they are used for indexing purposes.

INTRODUCTION

Maximum 3-4 Paragraphs, 100-200 words to introduce your topic, 500-1000 words of literature review, Last paragraph should be the aim of the Study.

METHODS

200-400 words

Describe study Population and location.

Study Design and sampling methods.

List of questionnaires used and from where adopted ?

Any Pre-Test Done? Validation?

State ethics approval from which institute.

Did all Participants Sign the Consent Form ?

Continued..

RESULT

500-1000 Words.

No Need to express each table in detail, Only Headlines.

First Paragraph Describes the Characteristics of the Sample.

DISCUSSION

Maximum 3-4 Paragraphs.

500-1000 Words.

1st paragraph: the study main findings.

2nd paragraph: the study Limitations.

3rd and 4th paragraph: Compare your results with previous studies.

.

CONCLUSION

200 Words

One Paragraph

Maximum 3-4 Sentences

Continued...

ACKNOWLEDGEMENT

1 or 2 Sentences.

COMPETING OF INTEREST

Author needs to declare if they have any competing of interest.

REFERENCES

Depend on each journal Style.

TABLES

Maximum of 4-5 Tables.

Title of each table must be self-explanatory.

Include confidence interval and p value where possible.

Table should not be large (maximum 6 columns and 12 rows.)

Table 1: Socio-demographic characteristics.

Table 2: Dependent variable and Outcome.

Table 3: Association table (Socio demographic and dependent).

Table 4: Association table (Other Factors and dependent).

Table 5: Multivariable table

Key finding should be placed in key section

- ✓ Abstract
- ✓ Introduction
- ✓ Conclusion

How To Start

- Start with methods.
- Then table and figures.
- Then Result section.
- Write introduction.
- Write discussion.
- State Keywords.
- Last things to write is abstract.

TITLE

- Usually Journals will ask for 2 titles.
- The full title and short running title.

Tips for good title:

- Used attractive words, put place of study and some journals will ask to put study design in the title , like cross sectional study.
- Use the minimum number of words that adequately summarize the content of the paper.
- Avoid title with more than 20 words.
- Sometimes the title contain the conclusion of the paper.
- Rewrite the title in the final version of the paper.
- Don't use acronyms and abbreviation in the title.
- Avoid waste words(studies on, investigation on, a, an. the, etc.)
- Review the title again and again.

ABSTRACT

- The most important part of the Manuscript.
- Most of the time when you send paper to a journal, the Editor-In-Chief will read the abstract to see if you paper can be send to external reviewer.
- An abstract is to be provided, preferably no longer than **250 words**.
- Most readers only read this.
- Readers use the abstract to decide weather or not to read and cite the paper.
- May be reproduced in publication that list abstract.
- The abstract is not an introduction to the paper.

Continued...

- It is a brief summary of each of the main IMRAD section of the paper.
- Brief description of the whole paper, so that diagonal readers understand it without reading the other parts of the manuscript.
- Avoid the classical “In this paper” starting
- Avoid bibliography references in the abstract
- Avoid acronyms. If they must be used, their definition should be repeated in the main text.
- In general, write the abstract in one paragraph.
- Tense: past or present tense may be used

Common Mistakes in Abstract

- Too much background or methods information.
- Figures or images.
- References to other literature, figures or images.
- Abbreviations or acronyms.

KEYWORDS

Keywords: a list of 4-5 key words is to be provided directly below the abstract . Key words should express the precise content of the manuscript, as they are used for indexing purposes.

Abstract

Background: Environmental factors play a very important role in the child development process, especially in a situation like that of Iraq. Thirteen years of economic sanctions followed by the 2003 war and 8 years of unstable security have affected the daily life of Iraqi families and children. The objective of this study was to assess the associations between living environment domains and child intelligence quotient (IQ) score.

Methods: A cross-sectional survey was conducted among 529 children aged 7–8 years from five primary schools in Baghdad during September–October, 2011. The five schools represent people living a range of conditions, and include of both high and low socio-economic groups. Living environment was assessed by 13 questionnaire items, consists of three domains: physical safety , mental stress and public services. While IQ was assessed by Raven Colored progressive matrices.

Results: Among the participants, 22% were of low intelligence versus 77% of high intelligence and 19% lived in a poor environment. There were significant associations between the mental stress and service living environment domains and child IQ ($p=0.009$ and $p=0.001$, respectively).

Conclusion: In Iraq, child IQ was found to be associated with the mental stress and service domains of the living environment. This study findings will help authorities in their efforts to improve living environment.

Keywords: Baghdad City, IQ, Living environment, Primary school children

TIPS TO WRITE GOOD ABSTRACT

- ☐ Write the abstract after you finish writing your paper.
- ☐ Choose main points from your introduction and conclusion.
- ☐ Pick out key points from the methods section.
- ☐ Pick out the major finding from result section.
- ☐ Add a sentence or two as a conclusion.

Continued...

- ☐ Now write a paragraph of all points chosen in steps 1 to 5.
- ☐ Don't add any new information or undefined abbreviations.
- ☐ Do not add any reference in the abstract.
- ☐ Link your sentences so that the information flows clearly.
- ☐ Check if points presented in your paper and abstract are consistent.

Structured vs. Unstructured Abstracts

Structured

Original article

Social, Demographic, and Health Outcomes in the 10 Years Following Adolescent Depression

Kiyuri Naicker, M.Sc.^{a,b}, Nancy L. Galambos, Ph.D.^c, Yiye Zeng, M.Sc.^b, Ambikaipakan Senthilvelan, Ph.D.^b, and Ian Colman, Ph.D.^{a,b,c}

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Article history: Received July 13, 2012; Accepted December 28, 2012

Keywords: Depression; Adolescence; Early adulthood; Mental health; Epidemiology

See Related Editorial p. 511

ABSTRACT

Purpose: Little attention has been paid to the sociodemographic profiles of depressed youth during the vulnerable transition from adolescence to early adulthood. This study aimed to determine and describe the social, demographic, and health outcomes of adolescent depression during a 10-year period of transition into early adulthood, using a population-based cohort of Canadian teenagers.

Methods: Depression status on 1,027 adolescents aged 16–17 years was ascertained from the National Population Health Survey. Social and health outcomes (i.e., employment status, marital status, personal income, education, social support, self-perceived stress, heavy drinking, smoking, migraine headaches, adult depression, antidepressant use, self-rated health, and physical activity) were measured every 2 years until the ages of 26–27 years. Logistic regression was combined with a generalized linear mixed-model approach to determine the odds of health and social outcomes in depressed versus nondepressed adolescents.

Results: Proximal effects of adolescent depression were observed (at ages 18–19) on all outcomes with the exception of physical activity. Significant effects that persisted after 10 years included depression recurrence, higher severity of symptoms, migraine headaches, poor self-rated health, and low levels of social support. Adolescent depression did not appear to significantly affect employment status, personal income, marital status, or educational attainment.

Conclusions: The transition from adolescence to adulthood is a particularly vulnerable period due to educational, employment, and social changes that may be occurring. The results of this study indicate that the onset of depression during adolescence may be indicative of problems of adaptation that persist at least a decade into early adulthood.

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IMPLICATIONS AND CONTRIBUTION

Adolescent depression may predict specific long-term difficulties during an individual's transition into adulthood. Using repeated measures over 10 years and a large, population-based cohort, this study is among the first to document early adulthood consequences (i.e., heavy drinking, migraine headaches, smoking, high stress, and low social support) of adolescent depression.

Unstructured

ELSEVIER

www.elsevier.com

Commentary

WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Outcomes Among Adolescents in Developing Countries

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Keywords: World Health Organization; Pregnancy prevention; Early pregnancy; Child marriage

ABSTRACT

Adolescent pregnancy and its consequences represent a major public health concern in many low-middle income countries of the world. The World Health Organization has recently developed evidence-based guidelines addressing six areas: preventing early marriage; preventing early pregnancy through sexuality education; increasing education opportunities and economic and social support programs; increasing the use of contraception; reducing coerced sex; preventing unsafe abortion; and increasing the use of prenatal care, childbirth and postpartum care. In each of these areas, World Health Organization recommends directions for future research. The summary concludes with a brief look at global and regional initiatives that provide a window of opportunity for stepping up action in this important area.

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The World Health Organization (WHO) recently published its guidelines on preventing early pregnancy and poor reproductive outcomes in adolescents in developing countries [1]. Adolescent pregnancy and its consequences represent a major public health issue with enormous social implications in many countries of the world. In 2008, there were an estimated 16 million births to mothers aged 15–19 years worldwide. About 95% of these births occurred in low- and middle-income countries (LMICs) [2]. Births to younger adolescents were relatively less common, but according to recent estimates, 1 million births occur to girls aged 12–15 years every year [3]. Although adolescent birth rates are declining, the absolute number of births has declined less because of the increase in the size of the adolescent population [4].

First pregnancy at an early age is risky for the health of the mother. Even though births to adolescents account for 11% of all births worldwide, they account for 21% of the overall burden of disease (in terms of disability-adjusted life years) from pregnancy and childbirth among women of all ages. In LMICs, complications of pregnancy and childbirth are the leading cause

of death in women aged 15–19 [5]. The social consequences of pregnancy to adolescents include school dropout (with subsequent lower educational attainment and decreased social opportunities, including reduced lifetime earnings) and, in some settings, violence, including sexual and domestic violence [6]. The adverse effects of adolescent childbearing extend to the health of their infants. In LMICs, stillbirths and deaths in the first week and first month of life are 50% higher among babies born to mothers younger than 20 years than those born to mothers aged 20–29 years, and the younger the mother, the greater the risk [5].

The WHO Guidelines: Rationale and Methods

The new guidelines were developed according to WHO's Grading of Recommendations, Assessment, Development and Evaluation process that includes a systematic review of the evidence that informs the formulation of recommendations by an expert panel [78]. Earlier policy and programmatic guide-

KEYWORDS

- ✓ You must choose 3-5 keywords.
- ✓ These will decide whether your paper will be cited in the future or not.
- ✓ When academic researchers search for a paper in online engines they will enter keywords so if you put the right one your paper will appear to them and they will cite your work.
- ✓ Select a number of words or terms that characterize the main domains to which the paper pertains some of the keywords should be present in the title.
- ✓ Use the same keywords that you use to find a paper
- ✓ Similar to yours in a web browser.

INTROUCTION

- Maximum 3-4 paragraphs.
- 100-200 words to introduce your topic.
- 500-1000 words of literature review.
- Last paragraph should be the aim of the study (general objective).

Common Mistakes in Introduction

- Too much or not enough information.
- Unclear purpose.
- Lists.
- Confusing structure.
- First-Person anecdotes.

COMPONENTS

- History (Statistics)
- Importance
- Gaps in knowledge
- Why this is a problem?
- Clearly state the importance of the paper to the development of the field.
- What are your contributions to the development of the fields?
- What current limitation does your work overtakes.
- What s new in your work?

What ? (brief)

- Problem statement and main purpose
- Describe the problem you address in the paper.
- As in the abstract, use the first sentence for that purpose.
- Only then give background information.

Why?

- Motivation and scope.
- Why do you address that problem? Why is it relevant to the field?
- What application does this research problem have?
- What application does this research problem have?
- What's the scientific, social, economic cultural, etc impact of addressing this problem?

Meaningful and Critical Literature Review

- How is the problem currently being addressed?
- Most relevant works/exhaustive review
- What limitation do you see in current approaches?
- Sometimes in a sub-section(Literature Review or Related Work).

What? (more detailed)

- Objectives.
- Summarize the main and secondary objectives of the paper.

Sample for Background

- **Background**
- The consequences of war are not limited to impaired physical health. War may also impair the mental health of affected individuals. The negative consequences for mental health can be significant, especially when the victims are children. Living in an unstable environment during childhood has detrimental effects on children, especially on their cognitive development. A few studies have examined the effects of war and terrorism on child cognitive development. Joshi and Donnell [1] concluded that any war or act of terror, as a sudden, unpredictable, and dramatic event, has a tremendous negative impact.

Continued...

- at various levels, including the community, family, and individual. Children are usually the most affected by these experiences. Delaney-Black (2) examined the relationship between violence exposure, trauma-related distress and standardized test performance among 299 urban first-grade children and their caregivers. Exposure to violence affected the child's IQ and reading ability. A child experiencing exposure to violence and trauma-related distress at or above the 90th percentile would be expected to have a 7.5 point decrement in IQQ and a 9.8 point decrement in reading achievement. Delaney-Black concluded that for young children, exposure to violence and trauma-related distress was associated with substantial decrements in IQ and reading achievement.
- During the past three decades, the health of Iraqi people has substantially deteriorated. Since 1980, the country has been caught up in a continuous wave of war.

Last Paragraph of Introduction

- This aim of this study was to assess the effect of living in an insecure environment on child intelligence quotients (IQ). We focused on the effects of living in an un-stable security situation on the mental health and physical safety of household members and the services provided to the house

METHODS

- 200-400 words
- Methods
- Ethics
- Statistics

❖ **Common Mistakes**

- Too little information.
- Information from Introduction.
- Verbosity.
- Results/ sources of error reported.

How?

- Provide full details: don't leave “blanks” in the description of your methods
- It is useful if someone unfamiliar with your work reads it.
- Make your paper as self-contained as possible (depending on the space you have)
- Structure this section : use sub-section according to the different components of your methods.
- Describe study population and location

Continued..

- Study design.
- List of questionnaires used and form where adopted?
- Any pre test done? Validation?
- Sampling methods.
- State ethics approval from which institute
- Did all participant signed the consent form?
- Statistics.
- What test you used and type of your study variables.

SAMPLE FOR METHODS

- **Methods:**
- A cross-sectional survey was conducted among children aged 7-8 years from five different primary schools in Baghdad City during September October, 2011. Questionnaires were used to assess the living environment and IQ was assessed using standardized measures. Self-administered questionnaires were distributed to the participating children's parents.
- A list of all schools in the city of Baghdad was obtained from the Ministry of Education. Baghdad is divided into five educational areas, and one school was selected from each of them. Simple random sampling was used to select the five schools. The five educational areas represent people living a range of conditions, and include of both high and low socio-economic groups.
- From each selected school, a complete list of student names was obtained. Stratified random sampling according to grade was then used to identify 106 children from each school. To avoid a possible influence of puberty on the measures of interest, children aged 7-8 years were selected as the study population.

Continued...

- The Raven's Colored Progressive Matrices (CPM) test was used to obtain child IQ score, with a maximum total Score of 36 points. The test consists of 36 items in three sets of 12: A, AB and B, It is designed for use with young children for anthropological studies and for clinical work. It can be used with people who for any reason cannot speak the English language 10, Any score higher than the 75th percentile is considered to indicate.

RESULTS

- No need to explain each table in details only headlines.
- 500-1000 Words.
- First paragraph describe the characteristic of the sample.
- Response rate.

Common Mistakes in Results

- Raw data
- Redundancy
- Discussion and interpretation of data
- No figures or tables
- Methods/materials reported

TABLES

- Maximum of 4-5 tables.
- Title of each table must be self explanatory.
- Table should not be large (maximum 6 column and 12 rows).
- Include confidence interval and p value where possible.

DISCUSSION

- Maximum 3-4 Paragraphs.
- 500-1000 words.
- 1st paragraph: the study main findings
- 2ND paragraph: the study limitations.
- 3RD and 4th paragraph: compare your results with previous studies

Common Mistakes in Discussion

- Combined with Results.
- New results discussed.
- Broad statements.
- Incorrectly discussing inconclusive results.
- Ambiguous data sources.
- Missing information.

CONCLUSION

- 200 words
- 1 paragraph
- Maximum 3-4 sentences

Goals

Summarize your contributions to the the field.

Propose possibilities of future work.

Continued...

**“The conclusion section is very easy to write: all you have to do is to take your abstract and change the tense from present to past.”
[Schulman.196]**

Tips for Summarizing

- Consider including your own perspective.
- Do not be afraid to write a short conclusion-less is more.
- Assume readers have either read the paper or know from the title/abstract what it's about.
- only if necessary, add a brief summary of the key finding.
- Not more than one or two sentences.
- Without hype or undue speculation, discuss the impact of your results and what this adds to the body of knowledge.
- What could these results lead to?

REFERENCES

- Usually 20-40 maximum.
- Use APA Style (6H EDITION).
- Maximum 10 Years (latest 2005 or 2006).
- References should be limited to the most relevant.
- You should not cite references they have not read.
abstracts should not be used as references.
References are to be cited consecutively in the text in brackets.
- In the text (John, 2009) or (John et al., 2009)

Mendeley Reference Manager

- Mendeley Reference Manager is a free web and desktop reference management application.
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AUTHORS

YEAR

TITLE

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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N. Canac, K. N. Abazajian	2016	Observational Signatures of Gamma Rays from Bright
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	M. Fumagalli, A. Boselli et al.	2017	Cosmic-ray Ant 8 er
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<input type="checkbox"/>	<input type="checkbox"/>	N. Canac, K. N. Abazajian	2017	Gemini and Lowell Observations of 67P/Churyumov-G
<input type="checkbox"/>	<input type="checkbox"/>	L. Chen, A. Kospal, et al.	2015	Observational Signatures of Gamma Rays from Bright

2 reference selected

9

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Annotations

Notebook



JOURNAL ARTICLE

10

Observational Signatures of Gamma Rays from Bright Blazars and Wakefield Theory

N. Canac, K. N. Abazajian et al [See more](#)

APS Division of Plasma Physics Meeting 2017

[Read](#)

ABSTRACT

Gamma-ray observations have detected a strong variability in blazar luminosity in the gamma ray over time scales as short as several minutes. We show, for the first time, that the correlation of spectrum with intensity is consistent with the behavior with luminosity of blazar SEDs along a blazar sequence for low synchrotron peak blazars. We show that the observational signatures of variability with u_x are consistent with wakefield acceleration of electrons initiated by instabilities in the blazar accretion disk. This mechanism produces time variations as short as intervals of 100 seconds. The wakefield mechanism also predicts a reduction of electron spe... [Read more](#)

FILES

[Ross-Adams et al 2017.pdf](#)[DMRes.pdf](#)

CATALOG ID

ArXivID: 10.1103/PhysRevLett.116.061102

DOI: 10.1103/PhysRevLett.116.061102

ISBN: 1471-0072 (Print)\n1471-0072 (Linking)

References at the end of the Manuscript

- **Journal Article**

Smith, A. C., Jones, W. P., & Brown, B. P. (1996). Community Health Surveys. Archives of Internal Medicine, 26(8), 201-207.

- **Book**

Imperato, P. J. (1983). The Administration Of A Public Health Agency. A Case Study Of The New York City Department Of Health. New York, NY: Human Sciences Press.

- **Article or Chapter in a Book**

Imperato, P. J. (1983). The Administration Of A Public Health Agency. A Case Study Of The New York City Department Of Health (Pp. 26-62). New York, NY: Human Sciences Press.

General Rules

- Introduction: Maximum 5 paragraph
- Maximum 10 references in introduction.
- Last paragraph in research question.
- In discussion not more that 2 references for each factors.

Writing Style and Audience

- Checklist:
 - Void of anecdotes or stories.
 - Reports facts not outlandish conclusions.
 - No misspellings.
 - Grammatical accuracy.
 - Meets formatting guidelines.
 - Avoids using the first person.
- Who's the audience?
 - Write for your target audience.

Word Choice

- Examine vs. Analyze
 - Activity to gain knowledge vs. Describing the analysis of that knowledge.
- Bloom's Taxonomy
 - Knowledge
 - Comprehension
 - Application
 - Analysis
 - Synthesis
 - Evaluation

Word Choice

- Bloom's Taxonomy
 - **Knowledge:** Recitation of fact
 - Found, identified, labeled
 - **Comprehension:** State a problem or interpret fact
 - Discuss, predict, compare
 - **Application:** Apply old information to solve new problems
 - Solve, show, examine, classify
 - **Analysis:** Used to explain patterns or meaning
 - Analyze, investigate, compare, contrast
 - **Synthesis:** Making predictions or discussing possibilities
 - Predict, plan, devise, propose
 - **Evaluation:** Drawing conclusions, making recommendations
 - Justify, verify, argue, recommend, determine



Thank you