## Editor : Muhammad Irsal



# Essentials Psycholinguistics

Dr. Ramli, S.S., M. Pd. I Dr. Woro Kusmaryani. S.Pd., M.Pd. Dr. Vivit Rosmayanti, S.Pd.I., M.Pd.





Psycholinguistics is a field that aims to understand the psychological and cognitive processes involved in language use and comprehension. By studying psycholinguistics, we can investigate various aspects of language processing, such as word recognition, sentence comprehension, and language production. Psycholinguistics uncovers the underlying mechanisms that govern how individuals acquire, understand, and produce language. Moreover, psycholinguistics plays a vital role in education, as demonstrated in studies focusing on learning strategies such as Student-Centered Learning (SCL) in the context of psycholinguistics. Educators can enhance students' understanding and achievement in studying language and cognitive processes by employing psycholinguistic approaches.

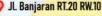
This book contains some essential topics in psycholinguistics, which can assist students in comprehending the cores of psycholinguistics. It briefly explains topics supported by current research that led the students to expose their perspectives, discuss with their groups, and complete the tasks. What is fascinating about this book is the variety of tasks like answering comprehension questions, watching a movie documentary, matching terms and definitions, and reflecting on learning through online applications like Padlet, quizizz, and QR code. Those activities are expected to provide a flawless learning experience in psycholinguistics class.

Essentials of psycholinguistics cover some areas such as how children learn language; the deaf and language: oral, written, and sign; reading principle and teaching; wild and isolated children and critical age for language learning; animal and language learning; children vs adults in second-language learning; second-language teaching methods; bilingualism, intelligence, transfer and language strategies; relationship between language, thought, and culture; where does language come from? Intelligence, innate language ideas, or behaviors; Natural grammar, mind, speaker performance; biological foundation of language neuroscience (brain specialization); treatment, and stress affect learning, motivation, and rewards.





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#### **FOREWORD**

Greetings from the fascinating field of psycholinguistics, which lies at the intriguing nexus of linguistics and psychology. In the pages that follow, we'll go on an investigation into the complicated processes that the human mind goes through when it tries to make sense of language. The ultimate sign of human intelligence, language is both a window and a mirror into the inner workings of the mind. We communicate with one another, share our experiences, and express our opinions through language. However, language generation and comprehension involve a wide range of intricate cognitive processes and systems that work with startling speed and accuracy.

We unravel the puzzles of how humans learn and use language in the multidisciplinary discipline of psycholinguistics, from the quick processing of single phonemes to the intricate production of complex sentences. We can better understand the behind cognitive mechanisms language comprehension, production, and acquisition by looking through the prisms of research, theoretical frameworks, empirical and applications. However, psycholinguistics is more than just a study topic; it's a scientific expedition with far-reaching consequences for our comprehension of human nature and civilization. We can learn more about the inner workings of the human mind, including its biases, limitations, and limitless potential, by solving the puzzle of language processing. We learn how language affects our behavior, how it forms our views, and how it represents the cultural fabric of all of humanity.

Let's be amazed by the creativity and intricacy of the human mind as we begin this investigation of psycholinguistics. Let's celebrate the various languages and dialects that exist in the world and accept their uniqueness as a means of expressing our individuality and making sense of the experiences we have had. And let us never stop marveling at the power of language, a mental bridge, a window into the psyche, and the foundation of human civilization. This exploration of the fields of psycholinguistics will

pique our interest, kindle a passion, and broaden our perspective on what it is to be human

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## **ESSENTIALS OF PSYCHOLINGUISTICS**

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## 1

## HOW CHILDREN LEARN LANGUAGE

### **Learning Objectives:**

- 1. Understand the stages of speech production, from vocalization to babbling to speech, and the corresponding milestones in infants' language development.
- Analyze the transition from babbling to speech, including the acquisition order of consonants and vowels and the role of visible articulators in speech production.
- Examine earlier and later speech stages, including naming, holophrastic functions, telegraphic speech, and morpheme acquisition.
- 4. Explore speech comprehension development, including prenatal exposure to speech sounds and the sequential relationship between comprehension and production.
- 5. Investigate the interconnection between speech production, comprehension, and thought processes in language acquisition.

#### Introduction

We are excited to present this comprehensive learning about "How Children Learn Language." The aim of this chapter is to help you understand how children acquire language skills. Learning language is an amazing achievement, and by studying it from a psycholinguistic perspective, we can uncover the complex ways our minds work. In this chapter, we will explore the different stages of language development in children, look at theories that explain how language learning happens, and examine the many factors

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## 2

## THE DEAF AND LANGUAGE: ORAL, WRITTEN, AND SIGN

#### Introduction

Have you ever considered how crucial learning sign language is? The deaf community uses sign language, commonly referred to as deaf language, as their primary means of communication. Participants will get experience with spoken language, sign language, and written language when engaging with deaf persons. We will use videos and other sources of information to enhance learning as part of our interactive learning strategy.

The Sign language is a visual language used by the people with the speech and hearing disabilities for communication in their daily conversation activities. It is completely an optical communication language through its native grammar. The sign language (SL) is made by specifications of hand and facial idioms to express their views and thoughts of speech and hearing disabled persons with the normal (speech and hearing) people. Most of the normal persons may not clearly understand the sign language. Therefore, there is a massive communication gap between the deaf communities with the general public. There is an inevitability of technology support for speech impairment people as human translators are highly impossible to patronage speech impaired persons in their daily activities in all the time.

ASL is most widely used SL in the world and fourth most usable linguistic in North America. Not only in United States, ASL is also used in Canada, Mexico, West Africa, and Asia. More than 20 other nations including Jamaica, Panama, Thai, Malaysia in which

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## 3

## READING PRINCIPLE AND TEACHING

## A. Writing Systems and Speech

The two primary ideas of sound-based and meaning-based writing systems can be used to categorize the writing systems used throughout the world to represent the spoken words of a language. (Donald & Carol , 2019) Symbols are used to represent speech sounds in systems that use sound, such as phonemes or syllables. Devanagari in India, Arabic in Egypt, the Hangul syllabary in South Korea, the Kana syllabaries in Japan, the Cyrillic alphabet in Russia and Bulgaria, and the Roman alphabet in English-speaking nations and Western Europe are some examples of sound-based writing scripts. (Peter, 2021)

There is a great degree of connection between the written symbols and spoken forms in several languages with sound-based orthographies, such as Finnish and Spanish. (Linda, Anas, & Dyah Aminatun, 2021) The phonemes of the spoken languages of Finland and Spain are represented by the Roman alphabet. In contrast, the syllables of the spoken languages of Korea and Japan are represented by their respective national scripts, Hangul and Kana. (Charles, Script Effects as the Hidden Drive of the Mind Cognition, and Culture, 2020) The Japanese writing system is more difficult since it also uses Chinese-inspired characters (kanji). English has a more erratic sound-based spelling than these other languages, which makes it more challenging to read.

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4

## WILD AND ISOLATED CHILDREN AND CRITICAL AGE FOR LANGUAGE LEARNING

## **Learning Objectives:**

- 1. Understanding human limits and capabilities in language learning.
- Exploring the role of the social environment in language learning so that we can understand how a rich and supportive social environment contributes to better language learning.
- Identifying critical periods in language learning which important for designing effective language learning approaches, especially in the context of second or foreign language learning

### Introduction

The aim is to provide an informative reference for the students. The chapter tends to help students to gain knowledge about interesting cases related to children's wild and isolated language acquisition as well as where the knowledge of language itself actually comes from.

The chapter consists of explanations which are then accompanied by individual and group assignments. The main teaching objectives in this chapter are to provide students with competence in analyzing cases, understanding expert theories, and doing exercises. By the end of this chapter, we hope you have gained a foundation of knowledge in both the theory and processes.

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## 5

## ANIMAL AND LANGUAGE LEARNING

## **Learning Objectives:**

- 1. Students can understand why we need to learn how animals communicated
- 2. Students are able to understand how certain animals communicated
- 3. Students are able to know the difference between how animals & humans communicated

## Material Description:

- 1. Introduction
- 2. How Animals Communicated
- 3. Difference Between Human and Animal Language
- 4. Technology In Helping Human To Learn Animal Language

### Introduction

Animal learning refers to the process by which animals acquire the knowledge and skills necessary for survival, while language learning specifically refers to the acquisition of communication abilities in humans. Examples of animal learning abound in the animal kingdom, such as birds learning to sing by imitating their species' songs, monkeys and apes learning tool usage for obtaining food, and animals mimicking warning calls to evade predators. However, humans possess a distinct capacity for acquiring complex language. Language acquisition begins in infancy, as babies learn to differentiate sounds in their native

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## CHILDREN VS ADULTS IN SECONDLANGUAGE LEARNING

### Introduction

The chapter entitled "Children vs. Adults in Second Language Learning". This is designed to explore the differences and similarities between children and adults in the process of learning a second language. Along with globalization and the growth of human mobility, the ability to communicate in a second language is increasingly important in everyday life.

Second language learning has become an interesting topic in the field of education. There is an ongoing debate about whether children or adults are more effective at learning a second language. Some research shows that children tend to absorb and master a second language more easily, while others argue that adults have advantages in certain aspects.

This chapter will examine some of the factors that influence children's and adults' ability to learn a second language. We will explore the differences in cognitive, social, and psychological aspects that affect their learning process. In addition, we will explore effective learning strategies for children and adults in the context of learning a second language.

This chapter will provide a better understanding of how children and adults differ in learning a second language. With this understanding, we can develop learning approaches that are more effective and focus on the special needs of these two groups. Enjoy learning and hopefully this provides valuable insights into second language learning!

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# SECOND-LANGUAGE TEACHING METHODS

#### Introduction

Welcome to the second-language teaching methods! Learning a second language is a transformative and fulfilling experience that introduces you to new cultures, opportunities, and connections. It is critical for language educators to investigate effective teaching approaches that enable learners to develop their language abilities and attain proficiency.

This chapter describes some of the methods that fall within the scope of second language teaching methods. In second language teaching, there are several methods that can be used by teachers to determine how a lesson will be taught to students. Readers are expected to easily understand and understand some of the methods that have been listed in this chapter which are presented with a concise explanation. These methods will also later be applied by the reader who will later become a teacher or teacher who is looking for the right method to determine how he will transfer the knowledge of the language of both. Not only that, the author will be very grateful if this chapter can be a way that can be used by a teacher to add his insight in second language teaching methods.

By the end of this chapter, you will have a thorough understanding of numerous second-language teaching approaches, as well as their theoretical underpinnings and practical applications. You will be given the knowledge and resources you need to create and conduct successful language education that promotes learners' linguistic growth and cultural competence. Let us engage on this

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8

## BILINGUALISM, INTELLIGENCE, TRANSFER AND LANGUAGE STRATEGIES

### Learning objectives:

- Understand the concept of bilingualism, including its different forms and modalities, and explore the benefits and challenges associated with being bilingual.
- 2. Examine the relationship between bilingualism and cognitive abilities.
- 3. Explore the concept of transfer in language learning.
- 4. Explore the effective learning strategies for language acquisition.

#### Introduction

This chapter will elucidate the fundamental concepts of bilingualism and how bilingual proficiency can influence one's intelligence. We will also explore the notion of cognitive transfer between languages, which entails how knowledge and skills acquired in one language can be transferred and applied in another. Additionally, this chapter will offer insights into effective learning strategies for bilingual individuals, encompassing techniques and approaches that can enhance learning abilities in both languages.

Furthermore, this chapter seeks to provide practical guidance for individuals who wish to enhance their bilingual skills and maximize the cognitive advantages associated with bilingualism. By understanding the underlying mechanisms of transfer and the ways in which bilingualism can enhance intelligence, learners will be empowered to make informed decisions regarding their language learning journey.

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# 1 LANGUAGE, THOUGHT, AND CULTURE

#### Introduction

We're glad you're here as we examine the complex connections between language, thought, and culture. We will delve into the fascinating interaction between these three essential facets of human existence. It's critical to understand that culture and language are fluid concepts. They change over time as a result of social, technological, and historical advancements; they adapt, evolve, and change. Our thoughts and our perceptions of the world are shaped and altered by language and culture as they change.

This Language, Thought, and Culture chapter is prepared to students in understanding the concept assist interrelationships between language, thought, and culture. This chapter discusses various important topics regarding the theories and concepts presented in order to deepen each student's understanding. In addition, this chapter also provides exercises and tests to help strengthen understanding of language, thought, and culture. Learning materials and activities are designed to meet the needs of students and their understanding of this material. The material is presented and adapted by the teaching team by adjusting student achievements. This chapter aims to provide direction and teaching materials in accordance with the learning outcomes that have been prepared.

You are invited to consider how profoundly these facets of human existence interact and influence our lives as you engage in this exploration of language, thought, and culture. We hope to learn

# 10

## WHERE DOES LANGUAGE COME FROM? INTELLIGENCE, INNATE LANGUAGE IDEAS, OR BEHAVIORS?

## **Learning Objectives:**

- 1. To identify important factors that influence human language development.
- 2. To gain a deeper understanding of how humans acquire language knowledge.
- 3. To examine how an individual's level of intelligence can affect their ability to learn and use language.
- 4. To learn how communication behaviours and experiences affect language development.

## Where Does Language Knowledge Come From? Intelligence, Innate Language Ideas, Behaviour?



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Does the infant human use intelligence, innate language concepts, or both? If using intelligence is what it is, are infants born with this ability or do they have the opportunity to develop it? considering that way, what are these concepts, and how

are they created in order to help the child learn language, assuming it is the usage of essential language ideas? Or, is it possible that

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# 11

## NATURAL GRAMMAR, MIND, AND SPEAKER PERFORMANCE

#### Introduction

Welcome to this chapter on natural grammar, mind, and speaker performance. In this chapter, we will explore the psychological aspects of grammar, the historical debates surrounding it, and the interplay between speech production, speech understanding, and language development in children. Our focus will be on evaluating the psychological effects of the current grammatical system and introducing a novel concept called Natural Grammar.

We will examine the psychological suitability of grammar and discuss the contrasting viewpoints within the linguistics community regarding whether grammar should capture speakers' knowledge of a language or be represented in formal terms isolated from psychological entities. We will also delve into the evolution of linguist Noam Chomsky's ideas, from his early opposition to mentalism to his acceptance of mentalistic linguistics and the concept of Universal Grammar.

We will also discuss Chomsky's syntax-based grammar inadequacy as an explanation, emphasizing the difference between competence and performance in language use. We will look at Chomsky's theories' contradictions and psychological inconsistencies, particularly as they relate to language acquisition and the innate language faculty.

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# 12

## BIOLOGICAL FOUNDATION OF LANGUAGE NEUROSCIENCE (BRAIN SPECIALIZATION)

#### Introduction

Language is a remarkable and defining characteristic of human communication. From the simplest conversations to the most complex narratives, language allows us to express thoughts, emotions, and ideas. But have you ever wondered how our brains enable us to understand and produce language?

Welcome to the chapter on the biological foundation of language and its relationship to neuroscience, with a particular emphasis on brain specialization. Language is a distinct and complicated cognitive function that distinguishes humans from other species. It is a critical component of our communication, social interactions, and cognitive development. In this chapter, we'll look at the intriguing topic of neuroscience and how it helps us understand language. We will examine the complicated workings of the human brain and how different regions and networks are involved in language generation and comprehension.

This chapter explores a range of topics on the biological foundation of language. The brain, known as the source of all linguistic creativity, is the focus of this section. After reading this chapter, readers should understand why, despite differences in each language that has been established, the brain serves as the beginning point for all existing languages and is critical to the process of establishing the language that every human being uses. Not only that, but this chapter will also present some thoughts about the relationship between the brain and the nervous system in the

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## UNIT **13**

### HOW TREAT AND STRESS AFFECTING IN LEARNING

#### **Learning Objective:**

- 1. Students can understand more about how stress and threat affect student performance in learning
- Explore how stress and threat can impair higher-order cognitive abilities, such as critical thinking, creativity, and problemsolving skills.
- 3. Students can find out how they can reduce stress in learning.

#### **Material Description:**

- 1. Stress and Learning
- 2. Threat and Learning
- 3. Learned Helplessnes
- 4. Practical Suggestions (solutions for students to reducing stress in learning)

#### A. Stress and Learning

Both for students and teachers, stressful situations occur often in educational environments. There is a lot of pressure to perform since there are so many tests, assessments, and deadlines (Gonzalez, Peters, & Orange, 2016). However, the learning and memory processes that are the foundation of our educational system can be severely harmed by this stress. Stress related changes in learning and memory are hypothesized to contribute to stress related mental illnesses like major depressive disorder or post-traumatic stress disorder in addition to their

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## 14

## MOTIVATION AND REWARDS

#### Introduction

Motivation and rewards are factors that cannot be ignored in achieving learning goals. Strong motivation can be the main driving force for learning and achieving the desired results, while the right rewards can boost morale and provide recognition for effort and achievements.

In this chapter, we will discuss various aspects of motivation in learning, including intrinsic and extrinsic motivation, the factors that influence it, and strategies for generating and maintaining motivation in individuals. We will also explore various forms of rewards that can be given to increase motivation, as well as provide guidance in selecting and giving awards according to learning objectives.

Through well-structured materials, case examples and interactive exercises, this chapter will provide in-depth insight into the concepts of motivation and reward and their application in learning contexts. You will gain an understanding of how to build a motivating learning environment, identify and leverage the factors that influence individual motivation, and practice effective reward strategies.

We hope that this chapter will provide you with valuable knowledge and empower you to create a learning environment that is motivating, supportive and rewarding accordingly. By applying the principles learned in this chapter, you will be able to optimize engagement and achievement in the learning process.

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#### **GLOSSARIUM**

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Cerebellum

Synapses

Neutral Networks

Biological

Language

Human

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Neurons

Frontal Lobes

Temporal Lobes

Parietal Lobes

Brainstem

Occipital Lobes

Learning

Neuronbiological

Mind

Enabling communique

Cultural transmission

Grey Matter

White Matter

Elements

Engagement

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