Abstract Here, we review some premises in the production and perception of

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Chapter 13

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The Origin of Human
I.3. CALL Production and Development


In the context of CALL, production and development are closely linked. Prior research has shown that learners who engage in productive language use (e.g., writing or speaking) tend to perform better in language learning tasks compared to those who rely solely on receptive strategies (e.g., listening or reading). This is because production requires learners to use their linguistic knowledge in a more active and creative way, thus facilitating deeper processing and greater retention of the target language. According to Hyltenstam and Gustafsson (1998), learners who are encouraged to produce language are more likely to develop fluency and accuracy in their target language, as they have the opportunity to apply their knowledge in real-world contexts and receive immediate feedback on their performance.

Hence, CALL materials should incorporate opportunities for learners to engage in productive language use. This can be achieved through activities such as role-plays, discussions, and creative writing exercises. By providing learners with the opportunity to produce language, CALL materials can help them develop their language skills more effectively and efficiently.

13.1. Introduction

The development of CALL technologies has significantly contributed to the field of language education. With the advent of the internet and the widespread use of computers, educators have been able to harness the power of technology to create interactive and engaging language learning environments. In this chapter, we will explore the role of CALL in language teaching and learning, and examine the various tools and strategies that can be employed to enhance language instruction.

In the context of CALL, skills in speaking and listening are key components of successful language acquisition. When learning a new language, it is crucial for learners to develop proficiency in both speaking and listening, as these skills are essential for effective communication. In this section, we will discuss the importance of these skills in language learning and explore strategies for improving them, including the use of CALL materials and resources.

In summary, CALL technologies have transformed the landscape of language education, providing learners with a wealth of opportunities to engage in productive language use. By leveraging the power of technology, educators can create dynamic and interactive learning environments that facilitate deeper processing and greater retention of language knowledge. As we continue to explore the role of CALL in language teaching and learning, we will consider the various tools and strategies that can be employed to enhance language instruction and support the development of effective language skills.
III. Call Perception

Computers play an important role in the development of audiovisual production. The integration of multimedia technologies in educational and entertainment media has revolutionized the way we consume content. In this section, we will explore how computers can enhance the perception of audiovisual content.

1. Audio Perception

Audio perception is a critical aspect of multimedia production. The quality and clarity of audio have a significant impact on the overall experience of the audience. Here are some key factors that contribute to effective audio perception:

- **Sample Rate**: The sample rate determines the number of samples per second that are used to represent an audio signal. A higher sample rate provides a more detailed representation of the audio.
- **Bit Depth**: The bit depth refers to the number of bits used to represent each sample. Higher bit depth results in a more accurate representation of the audio.
- **Equalization**: Equalization is the process of adjusting the frequency response of an audio signal. It helps in correcting deficiencies in the audio recording or playback system.
- **Compression**: Compression is used to reduce the dynamic range of an audio signal. It helps in reducing the volume peaks and making the audio more suitable for different listening environments.

2. Visual Perception

Visual perception is another crucial aspect of multimedia production. The quality and clarity of visual content can significantly impact the audience's experience. Here are some key factors that contribute to effective visual perception:

- **Resolution**: Resolution refers to the number of pixels per inch in a digital image. Higher resolution images provide a more detailed and clear representation of the content.
- **Frame Rate**: Frame rate is the number of frames per second in an animation or video. A higher frame rate results in smoother and more natural-looking motion.
- **Color Depth**: Color depth refers to the number of bits used to represent each color component of an image. Higher color depth results in more vibrant and natural-looking colors.

3. Combined Perception

The integration of audio and visual elements in multimedia production is crucial for creating a cohesive and immersive experience. The combination of audio and visual elements can significantly enhance the perceived quality of the content. Here are some key considerations for combining audio and visual elements:

- **Synchronization**: Synchronization is the process of aligning the audio and visual elements of a multimedia production. It ensures that the audio and visual elements are presented in a coherent and natural manner.
- **Consistency**: Consistency refers to maintaining a consistent visual and audio style throughout a multimedia production. It helps in creating a uniform and professional appearance.
- **Interactivity**: Interactivity is the ability of a multimedia production to respond to user input. It can enhance the perceived quality of the content by providing a more engaging and interactive experience.

In conclusion, effective audiovisual production depends on a combination of technical and creative elements. By considering factors such as sample rate, bit depth, equalization, compression, resolution, frame rate, color depth, synchronization, consistency, and interactivity, multimedia producers can create high-quality audiovisual content that engages and entertains the audience.
provide meaningful evidence that the presence of one cell type can modify the response or influence the expression of another cell type. Recent work by Zador and colleagues on the immune cells of Drosophila melanogaster highlights the

**Figure 13.4**

**Synesthesia**

There is little evidence for one-governed streams in the cells of Drosophila melanogaster.
13.5 Attributing intentions to signers

Presentation in language: A is making a point; B is responding. By observing A's signs, B can infer A's intention. This is known as intention projection. When B observes A signing, B projects onto A the intention to communicate. This projection occurs at two levels: (1) at a lower level, B may assume that A is speaking intentionally; and (2) at a higher level, B may assume that A is communicating with the intention of conveying a message. In this way, B can infer A's intention to communicate with the message.

Human system: Nonverbal cues such as facial expressions, gaze, posture, and gestures can influence intention projection. For example, a signer looking directly at the interlocutor and maintaining eye contact may be seen as more intentional than someone looking away. Similarly, a signer who gestures with open hands may be seen as more open and communicative than someone who gestures with closed hands.

Display of intentional behavior: A's intentional behavior is often displayed through body posture, facial expressions, and gestures. For instance, a signer who leans forward and maintains eye contact is seen as more intentional than a signer who leans back and avoid eye contact. Similarly, a signer who uses open gestures is seen as more open and communicative than a signer who uses closed gestures.

Intention projection is a complex process that involves both cognitive and affective factors. It is important to understand how intention projection occurs in different contexts and cultures to better understand communication in diverse settings.
13.6 Prime Communication and the Evolution of Language

At the heart of the differences between the unique combining nature of human language and non-human communication lies the evolution of our ability to produce and process language. The ability to create and understand language is a fundamental aspect of our species, enabling complex thought and social interaction.

When considering the origins of language, it is important to recognize the role of cognitive development. The brain, with its intricate network of neural pathways, is capable of forming the complex structures necessary for language. The process of communication involves the use of symbols (words, gestures, etc.) to convey meaning, and this ability is a key component of human evolution.

In the context of the evolution of language, we can consider the development of language in other species as well. While non-human animals do have forms of communication, they are typically simpler and more direct than human language. The complexity of human language allows for the expression of abstract concepts, emotional states, and intricate social relationships.

The evolution of language has had a profound impact on human society, shaping our history and culture. As we continue to explore the origins and development of language, we gain a deeper understanding of our place in the natural world and the diverse ways in which communication can be used to convey meaning.
The evolution of a group of mind is a key to understanding the human condition. In social groups, cooperation and communication are essential for survival and success. This leads to the development of complex social structures and behaviors.

References

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