### **UNIVERSIDAD SAN FRANCISCO DE QUITO USFQ**

**Colegio de Posgrados** 

Visual Communication in the English Learning Classroom

Mecanismo de Titulación: Proyecto de Investigación y Desarrollo

## Morteza Mansouri

### Simeon Floyd, PhD Director de Trabajo de Titulación

Trabajo de titulación de posgrado presentado como requisito para la obtención del título de Enseñanza de Inglés como Segunda Lengua

Quito, 17 de ene. de 2022

# UNIVERSIDAD SAN FRANCISCO DE QUITO USFQ COLEGIO DE POSGRADOS

# HOJA DE APROBACIÓN DE TRABAJO DE TITULACIÓN

### Visual Communication in the English Learning Classroom

# Morteza Mansouri

Nombre del Director del Programa:	Scott T. Gibson
Título académico:	PhD in English
Director del programa de:	Maestría en Enseñanza de Inglés como Segunda Lengua

Nombre del Decano del colegio Académico:	Cristen Dávalos O'Neill
Título académico:	PhD in Research in Geography
Decano del Colegio de:	Ciencias Sociales y Humanidades COCISOH

Nombre del Decano del Colegio de Posgrados:
Título académico:
Decano del Colegio de:

Hugo Burgos Yánez PhD in Media Studies Posgrados

# © DERECHOS DE AUTOR

Por medio del presente documento certifico que he leído todas las Políticas y Manuales de la Universidad San Francisco de Quito USFQ, incluyendo la Política de Propiedad Intelectual USFQ, y estoy de acuerdo con su contenido, por lo que los derechos de propiedad intelectual del presente trabajo quedan sujetos a lo dispuesto en esas Políticas.

Asimismo, autorizo a la USFQ para que realice la digitalización y publicación de este trabajo en el repositorio virtual, de conformidad a lo dispuesto en la Ley Orgánica de Educación Superior del Ecuador.

Nombre del estudiante:

Morteza Mansouri

Código de estudiante:

00215769

C.I.:

1759906322

Lugar y fecha:

Quito, 17 de ene. de 2022

# ACLARACIÓN PARA PUBLICACIÓN

**Nota:** El presente trabajo, en su totalidad o cualquiera de sus partes, no debe ser considerado como una publicación, incluso a pesar de estar disponible sin restricciones a través de un repositorio institucional. Esta declaración se alinea con las prácticas y recomendaciones presentadas por el Committee on Publication Ethics COPE descritas por Barbour et al. (2017) Discussion document on best practice for issues around theses publishing, disponible en http://bit.ly/COPETheses.

### **UNPUBLISHED DOCUMENT**

**Note:** The following graduation project is available through Universidad San Francisco de Quito USFQ institutional repository. Nonetheless, this project – in whole or in part – should not be considered a publication. This statement follows the recommendations presented by the Committee on Publication Ethics COPE described by Barbour et al. (2017) Discussion document on best practice for issues around theses publishing available on http://bit.ly/COPETheses.

#### DEDICATORIA

This study is wholeheartedly dedicated to my parents, who are my best coaches. They gave their best to me as an individual who thrives for advancement in life. They generously provided their amazing support resulting in me, vigorously moving forward.

To my life mentor, Bob Proctor, who paved the way for me to draw the best out of myself. I was able to be more, do more and have more by applying his success philosophy.

And finally, I intent to thank all my dear professors who guided me through this journey. A journey in which I learned how to be an effective professional in the society so that more people can bring results that stick.

#### **RESUMEN**

La amplia gama de clases de inglés ha llamado la atención de los especialistas no verbales sobre varias discusiones. Este estudio tiene como objetivo comparar y contrastar los métodos de comunicación no verbal y cómo se pueden utilizar en el aula de aprendizaje de inglés. Se establece que la comunicación visual, como elemento esencial de las aulas centradas en el alumno, juega un papel fundamental para sacar lo mejor de los alumnos en el aula. Uno de los aspectos de la comunicación visual, que es el comportamiento de la mirada, se exploró vívidamente en este artículo. Los hallazgos indican que el comportamiento efectivo de la mirada ayuda a promover interacciones educativas más prolongadas entre estudiantes y maestros. Dos métodos de enseñanza distintos; centrado en el maestro y centrado en el estudiante se discuten de manera controvertida en este estudio. Mi objetivo fue resaltar el hecho de que la comunicación visual tiene el poder de elevar la calidad de la interacción educativa entre estudiantes y profesores. Este documento caracteriza las recomendaciones eficientes para llevar las aulas centradas en el estudiante al siguiente nivel.

Palabras clave: Comunicación visual, comunicación no verbal, comportamiento de mirada centrado en el estudiante, centrado en el profesor.

#### ABSTRACT

The broad range of English classes has brought several discussions to the attention of nonverbal specialists. This study aims to compare and contrast methods of nonverbal communication and how they can be used in English learning classroom. It is established that visual communication, as an essential element of student-centered classrooms plays a critical role in drawing the best out of the learners in the classroom. One of the aspects of visual communication which is gaze behavior was vividly explored in this paper. The findings indicate that effective gaze behavior help promote longer educational interactions between students and teachers. Two distinct teaching methods; teacher-centered and student-centered are controversially discussed in this study. My objective was to bold the fact that visual communication has the power to lift the quality of educational interaction among students and teachers. This paper characterizes efficient recommendations to take student-centered classrooms to the next level.

Keywords: Visual communication, nonverbal communication, student-centered, teachercentered, gaze behavior.

### TABLA DE CONTENIDO

Resumen	6
Abstract	7
Introduction	9
Literature on visual comminucation	10
Approaches and methods for studying visual communication	31
Compare and contrast approaches	43
Implications for language teaching	47
Conclusiones	53
Referencias	56

#### **INTRODUCTION**

The purpose of this study is to compare and contrast methods of studying nonverbal communication and to review approaches to visual communication in the context of ESL teaching. This project will initially compare general methods for the study of visual communication before narrowing focus to the ESL classroom specifically. This project will consider different aspects concerning methodology in visual communication studies.

The field of visual and multimodal communication, sometimes known informally as "nonverbal communication", is one which has been of interest in the teaching community for many years. However, accumulating relevant and useful data concerning visual communication and its practical applications can prove challenging. The primary research methods for looking at visual communication include simple observation of interaction, sometimes with sketches, as well as more systematic video observations of gesture, bodily positioning and other related phenomena, more experimental observations of participants in response to different approaches from stimuli like watching speakers use visual communication and a novel new method: eye tracking. All these methods are offering unique benefits and drawbacks and consequently, some methods are more effective in certain situations than others.

First, this project will begin with the definition of language and visual communication according to some famous researchers such as Enfield, Kendon, and Strives. Then, it explains some research done by them and their ideas about the background and importance of visual communication in teaching. Then it explores the role of visual communication in second language acquisition and researchers' ideas about it. Next, the characteristics of the two main teaching approaches as student-centered and teacher-centered will be discussed and researchers' beliefs about them. Following that, Adam Kendon's study about gaze behavior and Paul Ekman's study about human emotions will be discussed. Furthermore, there will be a comparison and contrast of teacher-centered and student-centered methods in teaching, the students' feedback, and visual communication in these two methods. Eventually, some recommendations for teachers to use visual communication in their classes according to ideas and beliefs of researchers like James Asher, Golden-meadow, Paul Ekman will be presented.

#### Literature on visual communication

Enfield (2009) believed that a planned system of communication used by humans, based on speaking, sign, and gesture is language. He claims that communication is composite between different modalities, including the visual modality. The structure of language is its grammar, and the units are its vocabulary. Concisely, visual communication is a kind of expression that allows people to communicate with each other through gestures and other bodily behavior including not just hands and torso but also elements like eye contact, facial expressions, and so on.

Kendon (2004) believed that Gesture is visible bodily action intimately involved in the activity of speaking including hands, head, or other body parts to show what people feel or mean. Kendon (2004) stated that composite utterances are utterances that are made from several signs of many types, it means that in any conversational movement speech, gestures, gazing, intonation patterns, physical position are involved in the utterance. By the mixture of these contributors' types, the meaning is made. So, in general, the composite utterance is language, gesture, etc. Visual communication is a way of communication of ideas that can be achieved through sight. It can include eye contact, map, chart, facial expression, signals, poster, painting, and short films. All these have a beautiful message. These can be more effective than words at communicating more effectively, Ekman (1956). There are many

ways to communicate and one of them is a combination of different transferring means called multimodal communication. It may be a combination of vocalizations, words, word attempts, pointing to pictures or photos or objects, sign language, natural gestures, bodily communication, and facial expression (Okrent, 2002).

Studying facial features and other kinds of visual bodily communication and their relationships in comparison to time-based responses is a prominent research method. Researchers can measure time responses in relation to gaze, gesturing, and other significant aspects of visual communication. One prominent example of this can be found in Stivers' study of cultural variation in turn taking behavior. Stiver and their team measured the mean response time elicited by conversationalists in different languages. Specifically, Stivers and their team compared video recordings of previous conversations and subsequently timed how long participants took to respond. This methodology proved effective because by comparing response times, Stiver and their team confirmed their "universal turn taking" hypothesis was valid, i.e., turn taking mechanisms are fairly consistent across different languages and cultures. They considered nonverbal elements in both the questions and the responses. (Within 500 milliseconds) (Stivers, et al, 2009).

Five Types of Visual Communication According to Kendon (1972):

1- Gesticulation: Spontaneous movements of the hands and arms that accompany speech.

2- Language-like gestures: using gesture that is integrated into a spoken utterance, replacing a particular spoken word or phrase.

3- Pantomimes: Gestures that represent objects or actions, with or without following the speech.

4- Emblems: Familiar gestures such as "V for victory, thumbs up and down, and different rude gestures (these are often culturally specific).

5- Sign languages: Linguistic systems, such as American Sign Language.

Even showing hesitancy, perhaps by shaking the hands, can also show students that they are on the right track. With regards to classroom management, the use of gestures is essential, especially in loud and rowdy classes which can prove troublesome to manage. Interestingly enough, one of the most common gestures, pointing at students, is not considered effective or appropriate. Students preferred to be gestured with an open palm as opposed to pointing by a two to one ratio (66.67% preferred open palm to finger pointing), Elfatihi (2006). By utilizing more gestures instead of talking, teachers can reduce their teacher talk time and make the ESL classroom more student-centered.

#### The use of video assisted classroom observations

Given its application in a classroom environment, video assisted classroom observations allow researchers to make significant notes about visual communication trends in students. Researchers looked at questions and responses in conversation generally by studying audio and video recording. This method can be applied to a classroom setting. The procedure for this methodology is fairly straightforward. Researchers select about five to fifteen groups of students according to their interest and availability to participate in the study. Participation is voluntary and researchers are constantly interviewing students and asking them their opinions on how to participate. For example: test methods or seating arrangements. After recording the interviews, students watch them and their text is transcribed for reference purposes. In 2007, Morgan performed a study using this methodology. In this particular study, 22 third grade classrooms were observed over the course of a three-year period. Bodily communication helps us to understand one another but it is very complex. There are hundreds of different signals our bodies can send. For understanding each other better, there are only two signals everybody needs to learn:

"comfort" and "discomfort". People show comfort signals when they like the person they're interacting with, they enjoy their present activity or interaction and there is nothing to bother them. Discomfort signals tell you that something is wrong. People show discomfort signals when something is bothering them, when they're not feeling happy, or when they are not enjoying their present activity or interaction. To confirm the comfort level of their student volunteers, Morgan and team analyzed student visual communication using Wethrell's (1998) notions of troubled or untroubled positioning. The basic premise of this positioning is that people have visual "tells" when they are comfortable or uncomfortable in a situation. This study provided tangible results because it allowed Morgan and their team to associate certain behavior with troubled or untroubled positioning. For example: Fidgeting, slacking, tapping and gaze aversion were all non-verbal behaviors which the team was able to associate with troubled positioning. This research methodology has enormous practical applications because when we can determine what behavior often correlate with what psychological state, we can interpret data in a more tangible way. This methodology is also very practical because it allows for some variation in the frequency of observation, study size and assessment method. Elfatihi (2009) performed a similar experiment with Moroccan third grade students. However, instead of a recall interview, Elfatihi had student volunteers complete questionnaires of their experiences. This method's flexibility and practicality gives it widespread appeal, but its potential invasiveness stands in stark contrast to the next method.

Another notable methodology involves "flipping the script" of sorts. This method involves showing different participants different videos and seeing how they respond. Each video should contain a neutral topic (something not directly related to the participants or an area of study). These topics range from a basic healthcare lecture to something about the city or local environment. The important thing is that the lecture content should not be so advanced as to overwhelm participants. The participants are shown videos in which the amount of gesturing and visual communication of the speaker noticeably varies. The number of videos should be two or three and the length of the lectures should not exceed five minutes so that participants can stay engaged with the material. After each video lecture, participants are assessed by a small multiple-choice test, although this is subject to alteration if needed. The test scores from both videos are compared to see if a statistical significance can be observed. Rueckert et al in 2017 observed a significant statistical difference which reinforced their hypothesis that gestures are important in facilitating effective understanding. This method has the benefit of being easy to proctor, non-invasive and it offers a unique perspective. This methodology can help educators and public speakers everywhere to see whether or not visual communication helps people pay attention to content.

Advanced eye tracking is a relatively novel method that is starting to come to the foreground of observations of visual communication in classroom settings. Before, the primary impediment to eye tracking was that people had to be "strapped in" to a machine which limited their movements. As this was uncomfortable, eye tracking experiments were uncommon. In contrast, eye tracking currently is much less invasive and is often portable and wearable. It has been used in a variety of experiments to observe unconscious patterns of eye movement in response to different stimuli. Two areas of particular focus in eye-tracking experiments are fixations on the eyes themselves and the mouth. This allows researchers to observe correlations that occur between mouth and eye movements. One potential drawback of this method is that researchers must invest in the eye-tracking equipment. For a secure place to perform observations and record results, it is best to have a dedicated research lab set up. The social eye-tracking laboratory which Gironzetti and their team established at the University of Texas A & M is an example of this (Gironzetti, 2016). To record results in an authentic way, researchers want to position eye tracking equipment in a non-intrusive way. Two eye cameras and eye tracking devices, positioned on supports in between two seated

participants, is an effective way to set up the experiment. These devices should be positioned and angled in such a way that they do not impair the vision of the participants, just below the sight line is considered ideal. The number of eye movements and the corresponding mouth movements can then easily be measured and input into an appropriate algorithm for analysis. Most researchers prefer to use software for this algorithm and the subsequent analysis. A popular software to use is Tobii studio (Olsen, 2012). According to Oslen (2012), one photo can tell much more than a stream of eloquent words and we can visualize the facts, emotions, ideas, and concepts by using design, copywriting, photos, and videos. Visual communication is communication in which ideas and information can be read or viewed through the means of visual aid. The reason all these methods and background have been mentioned so far, is to clarify that visual communication plays an important role in everyday life of educators. By applying the principals of visual communication, most teachers can draw the best out of their learners and bring results that stick.

#### The background of Visual communication in English teaching

Azeez (2018), mentions that visual communication plays an essential role in building the character of students. To show respect for the teacher and indicate that they have confidence in the teacher's role, students will often imitate some of their teacher's habits and mannerisms. This can happen at either a conscious or subconscious level (Gao, 2017). So, in this way, effective visual communication from the teacher can elicit a more productive and comfortable learning environment for the students.

What do the majority of learners do when faced with an uncomfortable situation? Why do my students change their visual communication when they are uncomfortable? This proves especially true when they are asked a question that puts them in an uncomfortable situation. Section 1.2: Important facts to know about visual and nonverbal communication:

The simplest and most used definition of nonverbal communication defines it as "communication that does not rely on words or language". For this reason, American sign language is not considered nonverbal communication even though no speaking occurs (Burgoon, Guerrero, Manusov, 2011). American Sign Language is a visual language with the signing and through the eyes, the brain processes linguistic information. In transferring the information, all the shape, placement, and hand movements play important roles as well as facial expressions and bodily movements. Sign language is not a widespread language because each country and region have their own specific sign language and dialect, much like the many spoken languages all over the world. Every language has its own specific grammar rules and syntax, and American Sign Language does, too. Like all languages, Sign Language is a living language that grows and changes over time. Nonverbal communication can also have a variety of interactions with verbal communication. Depending on the context, nonverbal communication can reinforce, substitute, complement, accent, or contradict previous verbal communication (Enfield, 2009).

Indeed, for all the potential benefits of effective visual communication and nonverbal communication, it is important to talk about what types of nonverbal communication are not conducive to language learning and how they can affect individuals and communicative interactions as a whole. Nearly all communicatively ineffective and potentially hostile behavior incorporates nonverbal communication or visual communication. A common example is bullying. Bullying has been shown to nearly always include either a sustained stare or uninvited invasion of a person's personal space (Einarson, Hoel and Notelaersa, 2009).

#### Why is visual communication so important?

The visual modality is such a key element to study for several reasons relating to general communication as well as second language pedagogy. Firstly, visual communication is something which is used by speakers of all languages. A second reason visual communication is so important is that it is managed mostly at an unconscious level. Indeed, (Gao, 2017) states that a vast majority of visual communication is either something instinctual and involuntary or is learned through our observations of other people. Additionally, nonverbal cues, especially iconic gestures, can sometimes be more transparent than words. This is also especially true of the expression of emotions, a topic which will be expanded upon below. Something that may be related to this is the fact that nonverbal communication is used from an early developmental stage (Colegrove, 2016). A child communicates with its mother through cries, eye contact and touch (Grebelsky-Lichtman, Shenker, 2017). A formal verbal communication is only developed later (Elfatihi, Colegrove, Havighurst, 2016). In Chen & Watts (1992) believed that our bodies and visual communication make people communicate with each other more than we realize. Mehrabian (1972) has done a lot of research and his experimental results show that the three elements of the tone of voice, speech, and non-verbal behavior are the basis of face-to-face emotional communication between people. In his book Silent Message, Albert Mehrabian states that in an emotional relationship with another person, only 38% of our message is transmitted through tone of voice, 55% through body communication, and only 7% through words. This shows the importance of visual communication (non-verbal messages) in our daily communication (Chapter 3, p.43).

Visual communication is an important tool people can use to communicate more effectively with each other to complement spoken language. It is not technically a kind of "language" in most cases, but instead provides an important complement to language through gestures, postures, facial expressions, and eye-contact. Miller (2005: p.28) states that there are some essential reasons that apply to non-verbal communications: Words can be restrictive, inversely, nonverbals and their signals can be extremely powerful. The message we transfer non-verbally can be more accessible in some instances and the signals sent by the non-verbal communication can express our feelings, too. In order to send complex messages, we need to use our nonverbal communication tools. Enfield (2009) argued that to understand meaning we need to start with the utterance or speech act as the unit of analysis.

#### The functional uses of visual communication

Accompanying its presence in every language and culture, visual communication has developed numerous quotidian uses. Some commonplace uses of visual communication are conversational cues, negotiations, commerce and the classroom (specifically ESL or EFL classes). You might even use visual communication in a friendly card game! Visual communication and nonverbal communication have now become essential evaluations in the business world. "No matter how much an interview is structured, nonverbal cues cause interviewers to make attributions (DeGroot, Groody, 2009, Page 179). On the whole, nonverbal communication has a very prominent role in different situations such as daily communication, education, business, negotiation, and so on.

Another effective use of nonverbal cues is to help recognize and highlight elements of spoken language. Every language has its nuances and subtleties, and an effective understanding of visual communication enables one to "read between the lines" (Stahl, 2005)." Now let's imagine you go to watch a movie. The language of the movie is different from your own and there are no subtitles. One would immediately get bored and leave the theater. The important fact here is that paying attention to nonverbal communication can

come to the rescue. Most people can understand to some degree what is going on in a situation by observing the visual communication of others.

Visual cues can also prove to be an effective medium to convey emotion(s). While words are an excellent medium to convey complex thought, nonverbal communication is often the main thing we use to show strong emotions. Think of disgust for example. Words to express disgust such as "ew" or "nasty" may prove insufficient for the situation. A simple gesture like mock gagging or a curled nose can convey that emotion in a much stronger and efficient way. According to Storch (2011), disgust is an emotion that is related to the brain and relies on distance and avoidance. This feeling warns us to avoid threats. The disgusting reaction is rejection, and the person being rejected has symptoms such as nausea and vomiting. The feeling of disgust can be easily recognized by facial expressions. Wrinkling of the nose upwards, turning the mouth upside down, and squinting eyes are conditions that are caused by disgust. Additionally, effective nonverbal communication can be highly effective in showing a person's personality, intentions, and attitude (Ambady, Bernieri, Richeson, 2000). People will interpret almost any and all nonverbal behavior as means of conveying information. Interestingly enough, even a lack of assertive nonverbal communication can be interpreted in a meaningful way, and so even remaining still can be communicative. A lack of expression is often interpreted as disinterest or an attempt at aloofness (Keating, 2006). Another interesting fact is that emotions can often "spread" between people in a closed environment like a classroom. This has led to a phenomenon called "emotion contagion" (Barsade and Gibson, 2012), in which a positive or negative emotion rapidly spreads within the confines of a work or study space. Later in this paper, the role of bodily communication in Ekman's works will be discussed.

#### The eyes

The importance of the eyes in nonverbal communication cannot be overstated. There is a common expression that "the eyes are the mirror into the soul". The eyes often communicate meaning more effectively than words and are especially adept at displaying emotions such as fear, joy and anger (Elfatihi, 2006).

A person's blinking rate is an indicator of a person's cognitive load (Rosenshin, 2001). The more one person blinks, the more stressed they are showing themselves to be. Pay attention to your students` blinking rate. When you ask them something and they need to pay close attention or refer back to prior knowledge they are willing to blink more. However, blinking can serve a variety of roles in addition to showing stress. In a study in 2001, Doughty found that humans blink more in a conversation context than they do staring at a target or reading. This supports the idea that blinking can have several socio-communicative functions (Doughty, 2001) of particular importance, when considering the role of blinking in nonverbal communication is the duration of the blinks themselves. Homke, Holler and Levinson studied the length and significance of blinks in their 2017 study. They found that long blinks are more than twice as likely to occur in conjunction with confirmation behavior (such as nodding or saying "uh huh") than short blinks (Homke et al, 2017). This supports the idea that long blinks are used to reinforce other nonverbal communication. Blinking or prolonged blinking can also be used as a buffer to prevent someone from feeling foolish. Rather than stuttering or using a filler word, some respondents prefer to perform a few blinks instead (Brown and Levinson, 1987). Whether this action occurs consciously or subconsciously is still being researched. This blinking also breaks eye contact and can help to alleviate some of the perceived pressure associated with extended eye contact (Clark, 1996).

Eye contact is another aspect of visual communication that is key in conveying meaning. The use of eye contact in communication is often referenced using another term:

oculesics (Andersen, 2008). Excessive or abnormal amounts of eye contact can make people feel uncomfortable. In some countries extended eye contact is used to show interest or understanding, whereas in others, extended eye contact can be considered rude or unbecoming. In addition to the aforementioned roles, eye contact can play the role of a turn organizer (Kendon, 1981). A speaker will often make prolonged eye contact with the interlocutor when he or she wants to stop talking or elicit a response. If the interlocutor avoids the gaze from the speaker, it can be a subliminal cue for the speaker to continue. In the context of an ESL classroom, students will often maintain eye contact with the teacher when they require more clarification and avert or drop their gaze when they feel that they understand the subject matter (Elfatihi, 2006, page 37).

#### The face

The face can easily be considered one of the most complicated parts of the human body. The face provides an input location for a majority of our senses and is also responsible for a vast majority of our communication, both verbal and nonverbal.

A great deal of nonverbal communication can be conveyed through the face by the eyebrows or mouth. Indeed, when looking at a photograph of someone these are typically the first two attributes which we notice. Haller and Rombad (1980) classified facial expressions into five essential categories:

 Basic expressions. These expressions are considered rudimentary and can be produced by all humans. They can convey a wide array of emotions ranging from positive (sincerity, empathy), negative (disgust, fear), and mixed emotions (confusion, impatience).

- Secondary expressions. These expressions are more nuanced and used almost exclusively by adults. Emotions like relief, admiration and despair would all fall within this category.
- 3. Reinforcing expressions. These reinforce something which a person has said verbally.
- 4. Relative expressions. Relate to another expression or give a unique expression for the context. Examples are helplessness and remembrance.
- Complementary expressions. These are context dependent. Boredom is a good example.

When the smile is only limited to the mouth, it can be an indicator that the person is just trying to appear happy. However, one of the unique features of the smile is its versatility for a variety of situations. For this reason, Robert E. Axtell (1998, p118) refers to it as the "ultimate gesture". It is worth noting that many different kinds of smiles exist. Smiles can be sincere or non-sincere (also referred to as Duchenne or non-Duchenne) and analyses of smiles have been used from everything to analyze a family's happiness in a family photo to predicting a couple's likelihood for divorce based on a photograph (Harker and Keltner, 2001). Unmasking the Face is a guide to recognizing emotions in the face. It is an interesting and readable work by Paul Ekman and Wallace V. Friesen about faces and emotions. The photographs used in this book show the general pattern of the main emotions and show how, with changes in the forehead, eyebrows, eyelids, cheeks, nose, lips, and chin, the main emotions such as surprise, fear, anger, disgust, sadness, contempt, and happiness in faces appear. Images that distinguish between surprise and fear, anger and disgust, sadness and fear, and eliminate the common confusion in recognizing the emotional states of the face. According to Ekman (2011), surprise is a feeling that belongs to a large family and does not have only one type of facial expression, but has various states such as question surprise,

surprise with surprise, surprise with confusion, small, medium, and severe surprise. In Unmasking the Face, the complexities of facial expressions are shown in the pictures, and you will see how different emotions are combined in one facial expression to create combined states such as sadness-anger, anger-fear, surprise-fear, and so on.

Eye contact and gaze behavior, in general, are important aspects of human interaction, and the eye region is used as an informative signal to understand the mental states of other individuals in determining the social meaning of faces, including the information regarding facial expression. Ricciardelli, Lugli, Pellicano, Iani, and Nicoletti (2016) stated that the processing of facial expressions may be fundamentally different depending on whether we decode the meaning of the expression as relevant to us or not, supporting a strict interaction between gaze direction and facial expression which flexibly affects the number of attentional resources devoted to face processing. The fact that the different facial expressions with direct or averted gaze were presented randomly may have performed all the ones with direct gaze warning or threatening due to a fast and "dirty" categorization in positive (not harmful – faces with an averted gaze) versus negative (potentially threatening – faces with a direct gaze). According to Ricciardelli, Lugli, Pellicano, Iani, and Nicoletti (2016), both stare and gaze mean to fix both eyes on an object, intently, exhaustively with curiosity. "Gaze" and "Stare" are the same, fundamentally, but you cannot use "Gaze" when you look rudely at someone.

Of particular importance when analyzing nonverbal communication in a person's face is the function and use of gaze. Gaze differs in eye contact in that gaze focuses on looking at someone's face including the eyes but not limited to them. Gaze may include looking at someone's eyes, eyebrows, nose, chin or lips or more generally, looking in someone's direction, or looking at other objects and people in the environment. Gaze can signify a variety of behaviors and objectives. Some common functions of gaze are:

1. Signify that someone is willing or interested in engaging in conversation (Cary, 1978).

- 2. Regulate turn taking, which is to say expressing a desire to speak or have the other person continue speaking (Beattie, 1978).
- 3. Indicate attraction, interest or familiarity (Kleinke, 1986).

Gaze behaviors are commonly used to engage the audience in the conversation. They can enforce and lift the quality of interaction.

#### The role of visual communication in second language acquisition

Most teachers interact with their students without fully taking into account the importance of their non-verbal communication skills. They are also unaware of the fact that the questions that they ask their students can make them fluent and change their communication quality. An essential part of education is English teaching, and besides this, visual communication performs a helpful role to improve students' character in education. 1. Visual communication is ubiquitous in education and 2. English education is widespread. Through visual communication, individuals come to understand, feel, and interact with each other better.

#### Visual communication in ESL instructors

Teachers who are aware of their visually expressive practices can communicate better and more effectively with their students. Observations have shown that novice or inexperienced teachers tend to be more aware of their use of visual communication while experienced teachers incorporate the use of nonverbal communication almost seamlessly (Elftahiti, 2006). "Teachers must be aware of nonverbal communication tools in the class for two fundamental reasons: to become better receivers of students' messages and to gain the ability to send positive signals that reinforce what the students are learning while at the same time becoming more aware to avoid ineffective visual communications that stop their learning" (Tai, 2014: p. 1206). A subsection of teaching in which visual communication can aid greatly, is in rapport building. Rapport building, especially in the ESL classroom, is extremely important to build an atmosphere of trust and support (Wilson, 2011). If students feel comfortable in the classroom, they will feel more comfortable making mistakes which they can learn from, and teachers can spend less time engaging in disciplinary actions and more time teaching and reinforcing the subject matter.

Guo Xuehua (1999) claims that professional and qualified foreign language teachers are those who use visual communication when they are teaching. Teachers perform many roles within the classroom utilizing their visual communication to get their messages across. They may fill the role of a dancer, an actor, or a conductor. Whatever it takes to make their students understand and participate.

One of the most effective uses of visual communication is gesturing. Specifically, gesturing using the head or hands. Indeed, this phenomenon has been studied many times, usually in children. Children have performed significantly better on tests in which speech and gestures were used as opposed to tests in which the material was taught exclusively using verbal communication (Ping and Goldin-Meadow, 2008). This is more generally in educational contexts, not just in ESL. Hand and head gestures can perform three unique functions within the context of the ESL classroom: presentation of new material, providing feedback, and classroom management (Moran, 1984, page 257).

Gestures can be particularly useful in introducing new vocabulary to students. Think for example of the word "wind". An easy word but difficult to explain using other words. If the teacher uses gestures like blowing from their mouth or generating a gust of wind in class using realia, they can introduce the new material in a fun, productive and relevant way. Gestures can also be useful for emphasis of new content, particularly ambiguous or theoretical concepts. Two specific contexts in which this has a highly applicable use are in mathematics and ESL classrooms. If an instructor wants students to identify a set part of speech or variable every time so that they have fewer mistakes in the construction of sentences or equations, they can associate it with a gesture to aid reception in their learners (Wakefield, et al 2018). If they want students to remember "x" the teacher can make an x gesture using their arms. If they want students to identify the subject of every sentence, the teacher can "draw" an s in the air using their finger. Things like this are easy enough to apply and make learning more receptive for the students. For feedback, simple hand gestures can say a lot. Thumbs up or thumbs down to indicate approval or disapproval are simple and effective.

Nonverbal communication also provides another medium for instructors to perform effective communication. Any experienced teacher knows that asking the question: Does everyone understand? Is never an effective method to check for comprehension. However, by observing nonverbal cues in students, teachers can elucidate the extent to which they understand. Ekman (1999) stated that the eyebrows are particularly useful in this regard. People tend to raise their eyebrows when they understand, whereas a furrowed brow may indicate confusion or a lack of confidence.

A simple and practical application of visual communication in the ESL classroom is when students are encouraged to use visual communication during short talks or dialogues (Guangkang, 1999). Say for example in a dialogue a student is pretending to have a stomachache, the instructor should encourage the student to rub their own stomach and perform other gestures which one would associate with an upset stomach (hunching over, moaning, etc.). Not only will this make for a more engaging dialogue or conversation, but this will also make the dialogue more personalized for the students and take some of the pressure off of them.

#### **Points of comparison**

The purpose of this section is to indicate what points of comparison are being used in this study. The two specific approaches which this project will focus on are the following: A student-centered analysis method and the instructor/researcher centered lecture analysis method for visual communication. Both of these methods were introduced in the introductory portion of this paper. There is more explanation about this in section 4. These two methods were selected because they offer the greatest combination of practical application, cost, and ease of facilitation. The visual communication of the participants themselves can be observed in a response to stimuli or participants can gauge the effectiveness of others, particularly in a public speaking context. Naturally, both perspectives are valuable. However, with limited time and resources, one must be given precedence. The comparison of these two methods will focus on the approaches used, constants and variables in the experimental design, reliability of data collection and the results themselves, cost-benefit analyses and any other comparisons which are deemed relevant. This paper will also indicate potential uses and implications in the context of an ESL classroom.

In this regard, the teacher has an important and fundamental role, because in addition to the role of guidance, support, reinforcement; he is responsible to organize students' learning activities and the harmonious development of their communicative skills.

The teaching method is a regular, purposeful pre-designed process and an interaction between teacher and learners that aims to create desirable changes in learners (Mynbayeva, Sadvakassova, Akshalova, 2018), and these changes are learning changes in three areas: cognitive, emotional, and dynamic. Grossberg (2018) stated that when teachers and educators are aware of the different levels of goals in the field of teaching, they will prepare the training in accordance with its different levels and will give the learner the opportunity to acquire all the cognitive, emotional, and dynamic skills. The teacher has two main ways to achieve the goals set in the teaching process; Using traditional and inactive methods (teacher-centered) or using active and applied teaching methods (student-centered). In the following, there will be an explanation to these two different methods and how their visual communication works in the classroom. The two main paths of education: A. Teacher-centered B. Student-centered.

#### A. Teacher-centered (Lecture-based)

In the definition of a teacher-oriented class, it is safe to mention that in such a class, all decision is made by the teacher: he is who decides what to teach and how to teach. In this way, students have no role in choosing the topic and the teaching methods in the class. In such a class, the needs of students are not considered. What is most desired are materials that are taught. Therefore, if students learn the desired material, the educational goal is met. In such a system, teachers pay less attention to students' psychological, social, and emotional needs. Their satisfaction is not desired, and they often get frustrated and upset. "In this system, students learn things and they soon forget, because for them and the teachers, the goal is just to pass the exam and the students are not able to use the learned skills in everyday life" (Boradi, 2017).

Moreover, the lecture-based method is ineffective because the ratio of the students' number to the teacher may be very high. Teachers cannot always teach the desired content with prior planning. The lecture-based method is flexible depending on the time, place, and equipment set. Students may find a sense of protection and care in the lecture hall by making sure that their attention and presence in the lecture are appropriate and effective. Lecturing opportunities may also strengthen social skills, aesthetic taste, interest, self-confidence, and reduce feelings of loneliness. All of these may be part of the benefits of the lecture-based method which is a teaching method.

#### **B.** Student-centered method

Another teaching method is the active or student-centered method. Active teaching method refers to a method in which students play an active role in the teaching process and the teacher plays the role of a mentor. There is a two-way interaction between students and the teacher.

Cevdet Kirpik (1993) stated that by looking at the history of education in the world, we see that at a time when education was not yet formally established, people were learning the necessary techniques, knowledge, and skills experimentally. There was no one named teacher and the other, student. Moreover, there was no such place as a school or classroom, anyone who knew more material or techniques was a teacher and anyone who wanted to learn something was a student. Nature was also considered as a school or classroom. In fact, an active teaching method was used. Therefore, it can be said that the use of active teaching methods dates to informal education. In the past, men like Socrates, Jean-Jacques Rousseau, John Dewey, Jean Piaget, and Bruner understood the importance of active teaching methods and used them (Marilyn Page, 1990).

In a student-centered system, the needs of students are paramount, and they are actively involved in the design and implementation of the program. Implementing such an approach does not mean that the student is responsible for everything. They feel more responsible and gains more satisfaction. Such a student, when successful, considers himself responsible. In this system, the student is the target. The student does not learn the material to get a grade and take an exam, but he realizes the importance of the application of information and is able to solve problems when faced with them (John McCarthy,2015). Overall, in this teaching method, teachers encourage students to learn by letting them share in decisions, believing in their ability to lead, and experiencing how it feels to learn. In this teaching

method, personalized learning means high quality teaching that is responsive to the different ways students achieve their best (Park, 2004).

Since the educational system is flourishing in order to understand the student and lead him to self-improvement, the teacher always pays attention to the causes and how the students behave and never ignores their behavior. In such a class, it is not only the teacher who is in contact with each student, but the students are all in contact with each other and with the teacher.

One of the useful methods for using in student-centered classes is the use of the TPR method that students can be more and more active in the classroom by using movements and visual communication. James Asher (1968), believed that TPR is the best language teaching method for students, especially children because it is dynamic and children are encouraged by their teacher to give non-verbal answers in addition to verbal answers. By demonstrating language, students are thought to understand meaning through different parts of the brain, in harmony between physical and mental analysis.

Asher based this approach on his observations of children's language development. He observed that in most cases, children's interaction with parents or other adult is a combination of physical and verbal aspects. The child responds physically to the parents' words, and the parents continue the child's answers with more words. In this way, he created a two-way relationship between the parents' words and the children's movements based on the action and the feedback of the action. When you learn your mother tongue as a child, you not only hear the words but also observe your parents' movements to understand what they communicate. When you start learning a language, you do not respond immediately with your words, but usually with your gestures until you learn the words. This also applies to the classroom, and the visual communication of the teacher and the student, both in the student-centered and

teacher-centered methods, plays an essential role in establishing communication and transmitting concepts and feelings.

Using classroom gestures in this way helps the teacher prevent learners from misunderstanding. When giving instructions, the teacher also performs the relevant movements. For example, when he wants to tell you to open the books, he has to open his book while he is giving the instruction. In this method, students are active and not just listeners and inactive.

Visual communication in each class reveals students' feelings and thoughts. Students' emotional state is reflected through visual communication. Every movement is a valuable key to understand each person's emotions. The teacher always pays attention to the causes and how the students behave and never ignores their behavior. In such a class, it is not only the teacher who is in contact with each student, but the students are all in contact with each other and with the teacher. If classroom communication is effective, students will learn new values and social skills. Using classroom gestures in this way helps the teacher prevent learners from misunderstanding.

#### Approaches and methods for studying visual communication

Visual communication can have different meanings in different cultures. As in conversation, the semantic burden of words in different cultures should be considered, the visual communication culture of people from different countries should also be considered, too because not paying attention to these behavioral values causes misunderstanding and a lot of annoyance among people. The use of visual communication in any environment may not be appropriate unless it is compatible with the moral and behavioral values of the audience.

30

Students can also discover innovative ideas from the gestures they have during the lesson or from the gestures they see from their teachers. Thus, gestures do not just reflect the student's perception of a problem but can also change certain perception.

Dr. Myo Thein Gyi (2018) stated that the teacher by using the method of "brainstorming and rhetoric" (that is; he raises a question and allows students to express all the good and negative ideas that come to their mind) and securing the space by the use of his bodily movements and gestures instills calmness in his students but does not evaluate their opinions in any way. Finally, their answers written on the sheet are collected. The teacher selects the best answer by comparing all the solutions, and in this way, the students' minds are directed towards fluidity and creativity.

Safe and friendly education is a good platform to strengthen and spread the spirit of initiative, innovation, and creativity of students. The teacher, as a creator of conditions and facilitator of students' learning, can pave the way for students to express themselves through modernity, humor, flexibility, not forcing students to maintain and accumulate mental intelligence, avoiding stereotyped strategies, and teaching methods. Teacher increases their self-confidence, stimulates the curiosity of learners, and finally combines education with creative education and fosters creativity in students (Thein Gyi, 2018).

When Joe Farry (Cooperative Student Fellowship Campus Minister at Furman University) began teaching 25 years ago, he realized that his students were not paying attention to his lessons. But instead of being disappointed, he completely changed the teaching method and used different music and media. Years ago, Farry almost quit teaching because he could not get his students interested in grammar lessons and at that time something inspired him. "Farry (2004) stated that initially, he realized that the problem is himself and he has to solve this problem from today on by looking for things that connect the student to the real world. Then the student himself helps him find such projects. Farry began with music and asked students to compose songs based on classical poetry. Today he teaches art, 3D printing, writing, drama, and engineering in his classes, and students are free to create whatever they like.

For decades, the role of observation versus action in learning has been a key issue in educational practices (Dewey, 1938). The relationship between visual and motor inputs is a major issue created in the cognitive sciences (Gallesse, Fogassi, and Rizzolatti, 1996). Our purpose in this part of the article is to review and critique two research on the effect of using visual communication in learning instructional studies.

Susan Goldin Meadow is a distinguished professor and researcher in the field of language psychology at the University of Chicago, and most of her research is on the impact of environmental and biological changes on language development. If human beings simply sit and watch the other one's movements without entering into a discussion, they will still understand the meanings. But if we want to prove that such hand movements play a major role in the discussion, we must show that the listeners can understand the meaning of the movements when they participate in the discussion. In the study (Gesturing lighten the loads), Goldin Meadow and her colleagues asked teachers to individually explain equality in mathematical equations for children. At the same time, they made a video of the teachers' activity. As the teachers explained to the children through their speech and gestures, the researchers examined the children's reactions. The child's ability to repeat the teacher's explanation was considered, albeit cautiously, to carry the understanding of the explanation (Susan Goldin-Meadow, Howard Nusbaum, Spencer D. Kelly, and Susan Wagner, 2001, p.516).

During this study, when the teacher used only hand movements, children were able to repeat the teacher's method in 20% of cases. This percentage may seem small, but when we consider that in 25% of cases, children were able to repeat in speech alone and without any

32

movements, this figure will attract attention. In addition, most of the children repeated the teacher's explanations with gestures, which confirmed that the children have fully understood the explanations. When children actively participated in the conversation, they were able to extract information from the teacher's movements.

Moreover, sometimes the child's attention to the teacher's movements can be impaired, and if the teacher's hand movements are inconsistent with his speech, the student's understanding will decrease. For example, in the Equation (? +7=4+6+7), while explaining the meaning of equality between two parties, the teacher mistakenly moved his hand - like children who solved this problem incorrectly - in succession below all numbers. In such a situation, the student paid attention to the teacher's words and received only his hand movement message, and when solving the problem by himself, he surprisingly got the number 24, that is, he added all the numbers together and did not pay any attention to the teacher showed with his hand. It is concluded that movement is a potential source of information for the students.

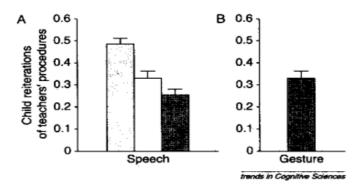


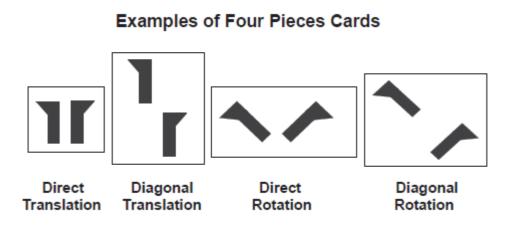
Figure 1: Average repetition of teacher's explanations of problem solving by the children.(A) The ratio of repetition by the children when there were consistent movements (light gray) and inconsistent movements besides the teacher's speech (dark gray). The white column refers

to the time when speech was not accompanied by any movements. (Susan Goldin-Meadow and Melissa A. Singer, 2003, p.515)

#### Critical point of view about the first study:

In this study, if the teacher's speech was accompanied by a consistent hand movement, it would be easier to repeat it than when there was no movement. Therefore, if the speech is accompanied by a consistent movement, it will naturally be easier for the audience to understand. Conversely, in cases where the teacher's movements are inconsistent with his speech, the child's perception will be even weaker than when the teacher does not make any movements. Accordingly, if the movement is not consistent with the content of the speech, it is detrimental to understanding and the situation is even worse than when there is no movement.

In the next essay (Doing gesture promotes learning a mental transformation task better than seeing gesture), Golden-Meadow and her colleques examined the effect of hand movement on mental rotation activities versus just observing it. One hundred and fifty-eight 6-year-olds in Chicago participated in this study, participants were given 18 pre-test items, 6 training items and 18 different post-test items. Each item consisted of two identical pieces that the child could move up and down or rotate to form the target. There were four different types of movements to reach the target shape (see Figure 1):



In the first experiment, each child was given a pre-test. In questions 13 to 18, children were asked to explain how they responded to each problem. The second tester then taught the children how to solve a question and then gave them a new question to solve. The experimenter always showed the correct target in his turn but did not give any feedback to the child in the child's turn. After the training, the first experimenter returned and performed the post-test.

In the pre-test and post-test, the pieces card and the target card were placed on the table in front of the child at the same time, and the pieces of card were the closest to the child. In the first test, the tester said the following: "Look at the pieces" (while pointing to the pieces of card). "Now look at the shapes" (While pointing to the target card). "When you put these pieces (pointing to the pieces of card) together, you can create one of these shapes (pointing to the target card). At this point, no feedback was given on anything.

The goal of the researchers was to compare the effect that doing versus seeing a relevant gesture will have on learning. To achieve this goal, they had to give children the opportunity to make and observe a work-related movement of mental transformation.

The experimenter either did the Move gesture or asked children to do the Move gesture themselves. To evaluate whether learning was influenced by seeing or producing a particular gesture, half of the children saw the experimenter made a Point gesture and half were asked by the experimenter to make a Point gesture themselves.

For each child, the total number of correct and incorrect questions he or she solved was determined and evaluated. The researchers found that children who were asked to produce a gesture while solving a question were more beneficial in that approach, and they were significantly more motivated and successful than those who were only asked to point. Therefore, the results show that the gestures produced by the individuals themselves can play an important role in understanding education (Golden-Meadow, Susan C. Levine, Elena Zinchenko, Terina KuangYi Yip, Naureen Hemani and Laiah Factor,2012, p.6).

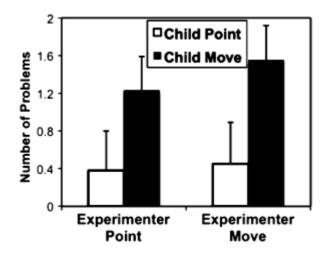


Figure 2: Improvement from pretest to posttest. The figure displays the mean number of problems on which children in the four conditions improved after training. Error bars are standard errors.

#### Critical point of view about the second study:

Systematically speaking, such these types of research pave the ways for using visual communication in educational setting and having a more proficient, practical, and useful educational system. In class, most of students are often more alert to what teachers do than

what they say. To arouse students' interest in learning and to help them learn better, teachers have to do their best to think of as many ways as possible to motivate students' enthusiasm.

## Scientific approaches to the study of nonverbal behavior

Psychotherapy is the most verbal experience of the twentieth century. A number of top psychiatrists in recent years have taken their patients to Philadelphia to visit a research lab at the Eastern Pennsylvania Psychiatric Institute. There, psychiatrists and patients hold treatment sessions while videos are played in the background. However, what filmmakers are primarily interested in is nonverbal communication: posture change, tone, movements, eye movements, and the like. They see body movement as a sub-language that can be translated by a trained translator.

For example, in a particular film, the psychiatrist met a family - mother, father, daughter, and grandmother - together for the first time. Time and time again, during the interview. The mother gestured to attract the emotional attention of the therapist, she stretched her legs and gently shook her ankles and spoke in a seductive tone for 20 or 30 seconds. Then, suddenly, she calmed down, pulled her legs towards herself, clasped her hands to the sides. The withdrawal was so complete that she seemed autistic.

According to Ray Birdwhistell (a senior researcher and scientist at the Eastern Pennsylvania Psychiatric Institute and director of the Human Relations Studies Project there,1970), People talk and move, and you and I respond, and we know that most of the time, words express only the smallest part of our communication. How do we know if someone else is listening to us or if he or she really means what he or she is saying? Sometimes the symptoms are undeniable, but most of the time we rely on "intuition". Scientific research now offers a clearer understanding of what lies behind our institutions. And many researchers have expressed their views on the use of visual communication in communication, which will be briefly analyzed:

### Adam Kendon's approach to the study of nonverbal behavior

Adam Kendon is one of the foremost researchers in the field of gesture psychology. Educated at the University of Cambridge and the Universities of Oxford in the field of biology and experimental psychology, the subject of his dissertation is Communication Behavior in Face-to-Face Interaction - Interests that he will pursue in the coming decades. He has been noted for his study of sign language and how it relates to spoken language.

According to Kendon (1967), the interlocutor is usually looked at about 50% of the time during social interactions. Recent works on gaze during social interactions have shown that gaze patterns can convey interest and status. Gaze can adjust the emotional tone of the encounter and express the speaker's intention to continue or not to continue the conversation.

Most of the work, except for Kendon's, are limited to the study of gaze duration: the percentage of total time spent in reciprocal gaze, which is called eye contact. This is a small percentage of the total time in most cases. In addition to the percentage of total time, the length and frequency of views can be measured. Moreover, the length and frequency of gaze vary greatly depending on whether the person is talking, listening, or seeing the gaze of others (Kendon,1967).

In this study, fifteen people were used. Eleven people (six women, five men) interacted with each of the other four people (two men and two women) and created a total of 44 interactions. None of the 11 knew any of the four. People were introduced and asked to get to know each other. Then they talked for 30 minutes. These people were seen from behind a one-sided screen by three observers. People knew they were being monitored, but they did not know which aspect of their behavior observers were studying. One of the observers was in a

position where he could look through the monitor above the first student's shoulder and press his key when the second student looked at the first student, and when the second student looked away from the first student, he released the key. The second observer did the same for the first student. The third observer had two keys, one of which he pressed when the first student and the other when the second student started talking.

The four keys were connected to an electronic recorder (SETAR). The device created a tape with five punched holes that indicated the number of times each key was pressed and their duration, thus providing a complete report of each subject's interaction and gaze patterns. The punched tape was processed by the computer to present the actions in Table 1:

Table	1. Gaze and action measures
Percentage action	The amount of time the subject spoke as a percentage of the total time.
Mean action	The mean length of the subject's utterances.
Frequency of action	The number of times per minute the subject spoke.
Percentage gaze	The amount of time the subject looked at the other subject as a percentage of the total time.
Mean gaze	The mean length of the subject's gazes at the other.
Frequency of gaze	The number of times per minute the subject looked at the other subject.
Percentage gaze while speaking	The amount of time the subject (A) looked at the other (B) while he (A) was speaking, as a percentage of the amount of time A spoke.
Mean gaze while speaking	The mean length of the subject's gazes at the other while speaking.
Frequency of gaze while speaking	The number of times per minute of his (A's) speaking time the subject (A) gazed at the other.
Percentage gaze while listening	The amount of time the subject (A) looked at the other (B) while the other (B) was speaking as a percentage of the amount of time B spoke.
Mean gaze while listening	The mean length of the subject's gazes at the other while the other was speaking.
Frequency of gaze while listening	The number of times per minute of the other's (B's) speaking time the subject (A) looked at B.
Percentage eye contact	The amount of time the subject looked at the other, while the other was looking back at him, as a percentage of the total time.
Mean eye contact	The mean length of the subject's gazes at the other, while the other looked back.
Frequency of eye contact	The number of times per minute the subject looked at the other while the other was looking back at him.

Kendon (1967) believed that different aspects of looking are interrelated, although the subject's gaze patterns are also influenced by the other person's behavior. There is evidence from correlation data that shows that looks and patterns are interconnected in complex ways. Information on the perception of gaze patterns shows that people who look at others with long gazes are more interested by others than people who look repeatedly short.

Shared attention carries cognitive information and increases affective experiences such as emotional states (Shteynberg, 2018). " Behaviors to produce the experiences of interpersonal closeness in other people are called nonverbal immediacy" (Andersen, & Jensen, 1979). Nonverbal immediacy behaviors, such as eye contact are interdependent with teachers' communication skills. McCluskey, Dwyer, & Sherrod (2017) stated that teachers' nonverbal immediacy increases the students' experiences of cognitive and efficient learning and engagement in learning and studying mathematics. Mehrabian (1972) said that eye contact transfers experiences of affiliation, positive attitude, and warmth towards the other person. "With eye contact, the teacher communicates to students that they are in the core of her attention and the interaction or information implicates them" (Adams, Nelson, & Purring, 2013). The teacher's gaze towards the students, while listening to them, boosts their experience of close interpersonal relationships with the teacher (McIntyre et al., 2017). Teachers also see that eye contact with students is in connection to good teacher-student contact. Korthagen, Attema-Noordewier, & Zwart (2014) believed that the quality of the contact between the teacher and students form one link between teacher behavior and student learning. Eye contact, in addition to increasing the accuracy and attention of learners to educational goals, can also be a means of class control.

## Paul Ekman's scientific approach to the study of nonverbal behavior

The main focus of Paul Ekman's studies is human emotions; Always, he uses the title of Emotion Psychologist in introducing himself. But among the various fields, his main focus is on showing emotions on the face and excitement. Paul Ekman's argument was not simply that emotions show themselves in the faces. Rather, he emphasized that showing emotion on the face was completely instinctive and without knowing it, we are able to express emotions from birth using facial expressions and nonverbal means.

Ekman has spent almost 50 years of his life studying facial features. He showed that unlike other signs and symptoms of visual communication, facial features are independent of the culture of nations. All the people of the world raise their eyebrows in time of anger, and all the people of the world, from infancy to old age, raise the middle part of their eyebrows when they experience grief, they frown.

He examined thousands of images and based on that he designed a model of coding called "Facial Action Coding System" or "FACS" Which helps people recognize emotions in each other's faces faster. Paul Ekman identified seven basic emotions in humans and showed that these emotions are common to all of us and are manifested in our face in the same way.

The list of our common feelings is as follows: Fear, surprise, anger, contempt, joy, sadness, disgust. For each of these emotions, he has identified the symptoms that appear on the face and the muscles that contract or deform. When we talk about instinct, we separate the expression of emotions from the discussion of culture, and its nature becomes a pervasive physiological and transcultural feature. Ekman states that identifying the motivation for lying is much more important than detecting lying. Because it is ultimately by identifying the motivation of behavior that we can manage it and reduce the likelihood of its recurrence in the future.

Such studies of scientists have improved the educational system and teachers have become more and more experienced in being more responsive and exploring the case root of the issues that occur in ESL classrooms.

# **Compare and Contrast Approaches**

Teaching in the past, according to education experts, meant the transfer of information, but new education experts believe that the teacher should teach the student how to know, not just transfer formulas and information. The teacher should help the student to experience and learn through their experiences. Therefore, paying attention to the quality and method of teachers' teaching should be considered very necessary and serious. In addition, planners and officials are obliged to provide the necessary opportunities for teachers to become more familiar with new and creative teaching methods and patterns and prepare the conditions and facilities for the successful implementation of these methods.

Today, many designers and administrators of education programs are dissatisfied with common teaching methods and therefore, they welcome innovation and modernity in this field. The efficiency of methods such as: lectures, transfer of information from teacher to student, memorization, and emphasis on archives which are the foundation of traditional teaching methods have been challenged and questioned for a long time. To compensate for the shortcomings of such methods, some experts recommend the use of new teaching aids such as films, slides, audio-visual tapes, and others recommend discussion, question-andanswer methods, individual and group experiments, and the active (student-centered) method in general. They have replaced the teacher-centered methods with the student-centered method. In the previous sections of this study, two methods of active teaching (studentcentered) and inactive (teacher-centered) were introduced. In the following, there will be a compare contrast between these two methods.

The eyes are the most important part of our face. An old saying goes, "Eyes are the window to the soul." Eye contact plays an important role in the relationship between teacher and students. In a student-centered classroom, there is more eye contact due to the students' activity and more communication and conversation with the teacher, and as a result, the teacher has a greater sense of understanding of the students, and the teacher knows well how to use eye contact in the classroom. But in a teacher-centered classroom, because the teacher is more active and therefore has less interaction with students, less eye contact is made between them, and due to the inactive classroom environment, students may avoid eye contact. Therefore, in a student-centered class, having more eye contact between the teacher and the students causes a more positive relationship and a sense of friendship between the teacher the teacher and the students. Further recommendations will be given in section 5 of this study.

In teaching, changing the mental state and vibrancy of the teacher has a great impact on the learning spirit of students. In student-centered classrooms, since both the teacher and the student are at the center of the activities and more positive energy is exchanged between them through their cooperation in the administration and implementation of the curriculum, the classroom atmosphere is fresh, and the teacher is emotionally engaging all learners. In teacher-centered classes, on the other hand, because the teacher has more responsibility for managing and transmitting the concepts alone, he gets tired sooner and may become boring and the class may not have the energy to continue. Therefore, in long-term teacher-centered classes, students are also negatively affected by their teacher's fatigue and monotonousness.

Motivation increases the student's effort and energy. It is the motivation that encourages the student to do even the most difficult homework with interest and enthusiasm or to constantly shrug off. Because of the importance of teaching students' cognitive processes in student-centered classes, their motivation to do activities increases dramatically, and motivated students pay more attention to the lesson and try to understand the lesson. Instead, in teacher-centered classrooms, because students are not very active and feel lethargic and unmotivated, they only artificially try to get past the learning process. So, creating a good feeling in students increases their motivation to continue their education or their future choices. Therefore, student-centered classes can greatly help students realize their ideas and choices.

Students are not and cannot be the same, so it is quite obvious and natural for a student to be more active than another due to his or her innate abilities. But in addition to these inherent abilities, environmental factors also play an important role in this regard. This means that there are ways to help students not be passive in the classroom and living environment. Student-centered classes, as the name implies, enable students to be active and involved in educational processes, and students will gain more confidence that they have been able to find and understand their abilities. While in teacher-centered classes, students do not play an important role in the classroom educational activities, and this causes students to be passive and bored. Since the school is the second home of students, the educational system must operate in such a way that the life of students should be spent in active learning environments so that students learn to be active from the beginning and take responsibility for doing some activities in the classroom so that they will not be shy in the future.

In an ideal educational world, the number of students in each class is ultimately 15-20. In some areas, due to the lack of welfare facilities, both in terms of school construction and the weak economy of families, classrooms have become crowded. Since there may be no way to increase the number of classes and teachers in that area, an appropriate method should be used by the teacher in order to control the class and teach, as far as possible. The appropriate practical method in this type of class is to use the teacher-centered method or the lecture in which the teacher only speaks and the only major role in education is played by him and the students are only listeners and do not have physical activity. However, in student-centered classes, because there are fewer students, students participate in teaching and are not just listeners and are physically active. As a result, the only effective way to teach crowded classrooms is to use a teacher-centered or lecture-based method.

Piaget (2013) argued that "when we teach a child something, we deprive him of the pleasure of discovering it." Education is a huge bridge between ignorance and knowledge, and it is the student who must awaken science from within with inner effort. In student-centered classes, learning for the student is associated with activity and discovery, and by creating small groups, attention is paid to the individual differences of students, and this increases the ability to reason and discover answers. But in teacher-centered classes, students are inactive and do not have group activities. Group activity in student-centered classes, unlike teacher-centered, prevents students from getting bored in the classroom and increases their participation in solving exercises, and their anxiety decreases during exams and their self-confidence increases.

Rosenshin (2001), an education thinker, said that good teaching is obvious to the learner, but successful learning emerges from the learner's speech and behavior. Rosenshine means that there is a big difference between "good teaching" and "successful teaching". In student-centered classes, the student digests the subject of learning in such a way that he can give its meaning to himself, his life, his city, his people and to connect with his community, not only will he learn the subject in a way that he will never forget, but he will also become more and more interested in learning and will go in search of newer information. In teacher-centered classes, due to the popularity of the subject and the teacher's mastery of educational

items, students can learn well, too, but the amount of this effective learning is more in student-centered classes. To achieve this, active and practical teaching methods should be used. But if the lessons are in a way that students are forced to learn in a way that they have never understood in their true meaning or to act in ways that do not relate to "themselves", they may feel that they are useless and fruitless. According to this, student-centered method stands out as more effective.

Visual communication with students combines theory and practice, making learning sustainable and diverse. Proper use of this type of communication can lead to creativity in learners and provide the basis for solving the problems and bottlenecks of the educational system. The use of educational videos is one of the uses of visual communication that creates diversity in the educational process, and this in itself creates motivation. To achieve educational goals, due to individual differences among students, the possibility of sustainable learning for a larger number of students is provided. The use of educational videos also creates a link between education and facts, and this has an effect on making learning meaningful and long-lasting.

## **Implications for language teaching**

Teaching is not only a teacher activity in the classroom but also a reciprocal activity on the part of the teacher and the students in which there is interaction between the students and the teacher. Teaching methods can be divided into two main groups: active teaching methods(student-centered) and passive teaching (teacher-centered) methods.

Traditional and passive teaching methods, in other words, teacher-centered, cannot make students think and create and nurture creativity in them. According to Paulo Ferreira (1968), passive learning is learning in the banking model. Over the course of a semester, students gradually store the material in their minds and return it to the exam. Passive and nonpractical methods extinguish the potential creativity that has been instilled in every human being from birth. It is the only active and applied (student-centered) method that leads to the development of thinking and creativity in humans. Creativity is a potential ability that has been given to all human beings from birth, but most human beings lose this quality during their growth period (Abraham Maslow,1943). The passive teaching method makes the student obedient and dedicated to the teacher and prevents the creativity of individuals. In teachingcentered classes, students' visual communication is negative because they are inactive and bored in comparison to student-centered classes. As discussed before, visual communication has an impact on the process of learning and teaching. In the following, some recommendations for teachers to be more successful in the process of teaching and some recommendations for using visual communication in English language teaching will be provided.

## Recommendations for teachers about their visual communication

Teachers should pay attention to the following principles in using visual communication in order to refresh the classroom atmosphere, improve the relationship between teacher and students, and improve the effectiveness of teaching.

## **Increasing assurance**

A knowledgeable teacher first should be confident and show his assurance in his voice, gesture, and postures; otherwise, he cannot transfer his knowledge and experience to the students effectively. Although visual communication cannot replace words, our students are not blind. Visual communication should be used in the right place. The teacher should have assertiveness, he should be a leader and take the time in his teaching and leading the

class, he should take the time to maintain effective eye contact, his gazes, and even his pauses. Every confident teacher must have some effective pauses in his speech in order to catch others' attention.

Cook, Mitchell & Goldin-Meadow (2008) stated that the effect of gesture on learning will emerge over time. In their study "Gesturing makes learning last", they found that children who gestured and were gestured during learning were much more likely to maintain their learning than children who did not gesture or were not gestured during learning. This study suggests that gestures may be particularly important in influencing memory over time. Gaze and pauses in speech are such gestures.

Pause in speech helps to express emotions better. One needs to use natural pauses to convey their feelings to the audience, not artificial pauses. Speak in the same way that you speak in front of your family and friends. Pausing and being silent is sometimes better and more important than talking. A speaker must learn this skill well, so that he can use it in their speeches and become a professional (Goldin-Meadow, S, AlibaliMW, 2013).

### Using uptalks

Another way to potentiate the teacher messages is using uptalks. In uptalks, the teacher speaks with rising intonation without a doubt in his sentences. when he uses it, he will make his students pay attention to him more. A teacher should do his best in order to have an effective communication. The purpose of these recommendations is not to create or show a fake identity of ourselves to others, but quite the opposite. Knowing how to communicate with others, teachers can formulate the message they really want to convey through their visual communication, just as they do with phrases in the lectures. Dr. Paul Ekman (1991) in an article called " face, voice, and body in detecting deceit" said that a person who speaks loudly wants to attract attention, and people who speak loudly are angry people who express

their inner enmity towards others and themselves through a loud voice and show militancy. In addition, these people are from large families who need to support themselves and speak louder than their siblings in order for someone to hear their voice and pay attention to them. This experience often leaves them feeling insecure because they want to be the center of attention. According to Ekman's findings, a loud voice can be used in a positive way or a negative to attract the attention of the audience. Teachers can use effective uptalks to engage the students to the lessons.

### Recommendations for using visual communication in English language teaching

In this part of the article, we examine the role of visual communication in learning English, and whether visual communication and establishing an effective relationship between teacher and student (main characteristic of student-centered class) can be detrimental in learning English or not.

Teachers should make teaching and learning English fun and entertaining. Creating an attractive and enjoyable environment for learning will have amazing effects. They should use the latest ideas from the world, consult with their colleagues or get ideas from old games and methods, and combine them with newer ideas. In the following, there are some recommendations for using visual communication in active English classes:

## Educational equipment and effective communication

According to James Asher (1968), TPR is the best method for children to learn the language by creating an active, dynamic, and amusing class environment, and children are encouraged to move and participate during the learning.

For teaching the family members, the teacher can put some puppets on the desk and say" these are my family members", then she says "the first one is coming". After that, she picks up the grandpa puppet and shows it to the students and asks them "who is he?", and she says to the students "raise your hand to answer" and students participate in the class by raising their hands and some gestures like this voluntarily, then teacher speaks instead of grandpa and introduces him with a hoarse but funny voice and says "hello, this is grandpa" to the students and greets, and then the teacher asks students to come to shake hands and kiss him. Everyone comes to grandpa to greet and kiss.

It is a simple way to make students active in the English classroom by producing a funny environment with the help of active methods like TPR. Teachers can go on with other puppets and teach them all by producing different voice tones and watching the positive visual communication of students.

#### Eye tracking in making sentences

According to Goldin-meadow (1999), eye tracking is such an important clue for the student that when the teacher stops his hand movement on the board, for example in teaching mathematics, his attention begins to drift. There is also the possibility that the student loses interest and feels confused until the teacher continues his hand movement for pointing to teach on the board. We can use this technique in teaching sentence order, too. For making sentences, the teacher writes a scrambled sentence on the board in the parts of speech, for example: [I-pizza-lunch-day-eat-every-for] and then reads it once by moving his hand under each part. Students will follow the teacher's hand with their eyes and repeat." Is this sentence correct? Then the teacher asks them", Students answer "no" in a group then the teacher asks them "what is the correct sentence?", in groups or individuals, students answer, and the

teacher will acknowledge them. To confirm the answer, he shows his thumb up, and then the teacher writes the numbers under the words to make the correct sentence.

I-pizza-lunch-day-eat-every-for

1 3 5 7 2 6 4

After that, the teacher moves her hand under the correct order of the words by following the numbers and students cooperate again by following her hand and reading the sentence. This is another way to make students active and engaged in the lesson.

## Drawing pictures and teaching them (visual teaching)

Another useful and practical way of teaching in English classes is the use of drawing and painting, especially in different colors, the subject of learning goes to students' minds and they enjoy the process, too. For example, for the subject of asking permission, the teacher can draw some paintings of some verbs and teach them by the structure of "may I". The teacher can draw someone opening or closing the door or window, a bottle of water to drink, a toilet door on the board, and write " May I" on a card with a stick back of it. Then, the teacher can put the card next to each picture on the board and asks students to accompany and answer by raising their hands. " May I open the door?" "May I drink water?" " May I go to the toilet?". After students answer, the teacher thanks them and shows her thumb up to confirm them.

Susan Goldin-Meadow (2003) emphasized about the importance of visual communication in teaching by using visual teaching aids. Teaching aids are of great interest to students and draw their attention to the main topic. They prepare the necessary basis for gradual and complementary learning and thus make learning permanent. They provide students with real experiences and as a result, it makes them active. They cause the continuity of thoughts. They are effective in the development and growth of meaning in the student's

mind. They teach students skills completely and effectively. They provide students with experiences that are not possible in other ways.

## Conclusion

Visual communication is an effective way of transferring information by using body movements such as eye contact, facial expressions, gestures, gaze behavior, and so forth. Enfield's, Ekman's, Stivers', and Goldin-meadow's scientific studies helped the pedagogy of language development and found out the importance of using nonverbal communication in teaching. In teaching according to the finding of these researchers, eye contact is one of the most important characteristics of visual communication; because, like the movements of the limbs, it is not quite controllable and finally reveals the truths, and gestures which come to help the verbal language in order to make students enjoy learning. Nonverbal communication can be used both in student-centered and teacher-centered methods, but in student-centered classes teaching is more effective because students have the main role in the process, and they are physically engaged in the lesson. Therefore, students' feedback and visual communication in this active method are positive in comparison to the traditional method (teacher-centered method). According to the findings of famous researchers like Asher, Goldin-meadow, and Ekman, visual communication can be very practical in ESL classrooms, and teachers can use their creative power in order to combine the subject matters and invent new ways in teaching such as the recommendations mentioned above and also to control the class better.

Azeez (2018) pointed out that visual communication plays a key role in building students' personalities, consciously or unconsciously. If students like and trust their teacher, they often imitate some of their teacher's habits (Gao, 2017).

To examine it, scientists and psychologists have done a lot of research on people and students' visual communication in different situations, especially in education. Goldenmeadow and her colleagues examined the role of visual communication in mathematics, and they found that students paid more attention to the movement of the teacher than what she said. They summed up the numbers of two equations without noticing the mark of equality between the equations. The other research was about the effect of doing gestures and just seeing the instructor's gestures in learning a mental transformation task. In that research, those students who were asked to see the instructor's hand movements and then imitate what the instructor did were able to make the shapes in the correct form by rotating the cards than those students who were just asked to see the instructor's gestures and hand movements during the teaching.

Such research paved the way for using visual communication more in teaching methods both student-centered and teacher-centered methods. In the study of visual communication in the student-centered and teacher-centered method, it was found that creating an educational situation that made students active in learning caused high success.

Student-centered classrooms are not a new phenomenon, and for years teachers have realized that students do not learn to the best of their ability in classrooms that run traditionally. Students learn more by doing, and they will learn more if they discover something on their own. Among the characteristics of a student-centered classroom are the following: Learning in active teaching methods is based on exploration. Therefore, in these methods, how to learn is more important than learning. When a student can explain what he or she has learned to others, his or her learning is much deeper than when it happened through listening or reading. In the student-centered method, students have direct and fundamental involvement in learning, and the teacher puts the learning paths in front of the students to use the power of their creativity and initiative to search for the path and method of learning. Since in such classes, students have individual and group activities and the class is attractive to them, they are more motivated to learn and explore, and their visual communication is positive, and they do not show fatigue and boredom from the class, unlike teacher-centered classes that the teacher has a fundamental role in the control and process of education and students are mostly listeners and do not have special activities in the classroom. Students' visual communication are negative because of their inactivity in the process of teaching, and they quickly become tired and unmotivated.

The influence of visual communication on learning is undeniable, especially in student-centered classes. Influential teachers always use their visual communication to communicate with students, and this makes students feel more secure and supportive. These teachers believe that always smiling at students and making eye contact with them simply indicates that you care about your students. The teacher's ability to communicate positively with the student is a kind of effective interaction; It is a vital aspect of the teacher-student relationship, interacting positively. A confident teacher can succeed in organizing students and making a positive impact on them by combining verbal and non-verbal communication in English classes in the ways such as playing roles and drawing. It also has a significant impact on students' English learning and success. Since visual communication in each class can help reveal students' degree of engagement in the learning process, how can a teacher in a distance learning class increase learning efficiency?

## REFERENCES

- Ambady, N. (2000). Toward a histology of social behavior: Judgmental accuracy from thin slices of behavioral stream. In F. J. Bernieri & J. A. Richeson (Eds.), Advances in Experimental Social Psychology (Vol. 32, pp. 201–271). Advances in Experimental Social Psychology.
- Andersen, P. A. (2008). Nonverbal communication: Forms and functions. Waveland Press, Inc.
- Anderson, P., Gannon, J., & Kalchik, J. (2013). Proxemic and haptic interaction: The closeness continuum. In Nonverbal communication: (pp. 295–329). DeGruyter.
- Asher, J. J. (1968). The total physical response method for Second language learning. https://doi.org/10.21236/ad0674868
- Axtell, R. E. (1998). of Body Language Around the World. Seeing Ourselves: Classic, Contemporary, and Cross-cultural Readings in Sociology, 116-120.
- Azeez, R. (2018). Incorporating body language into EFL teaching.
- Barsade, S. G., & Gibson, D. E. (2012). Group affect: Its influence on individual and group outcomes. Current Directions in Psychological Science, 21, 119–123.
- Beattie, G. W. (1978). Floor apportionment and gaze in conversational dyads. British Journal of Social and Clinical Psychology, 17(1), 7–15. <u>https://doi.org/10.1111/j.2044-</u>8260.1978.tb00889.x
- Brown, P., & Levinson, S. C. (1987). Politeness: Some universals in language usage (Vol. 4). Cambridge University Press.
- Brew, A. C., & Kantrowitz, A. (2014, May 22). Drawing connections: New Directions in drawing and Cognition Research. TRACEY. Retrieved November 28, 2021, from <u>https://www.academia.edu/2374877/Drawing\_Connections\_new\_directions\_in\_drawing\_and\_cognition\_research</u>

- Burgoon, J. K., Guerrero, L. K., & Manusov, V. (2011). Nonverbal signals. In Handbook of interpersonal communication: (pp. 239–280). M. L. Knapp & J. Daly, Thousand Oaks, CA.
- Cary, M. S. (1978). The Role of Gaze in the Initiation of Conversation. Social Psychology, 41(3), 269. <u>https://doi.org/10.2307/3033565</u>
- Clark, H. H. (1996). Using language. Cambridge University Press.
- Clark, H. H., & Krych, M. A. (2004). Speaking while monitoring addressees for understanding. Journal of Memory and Language, 50(1), 62–81. https://doi.org/10.1016/j.jml.2003.08.004
- Colegrove, V. M., & Havighurst, S. S. (2016). Review of nonverbal communication in parent–child relationships: Assessment and intervention. Journal of Child and Family Studies, 26(2), 574–590. <u>https://doi.org/10.1007/s10826-016-0563-x</u>
- Curhan, J. R., & Pentland, A. (2007). Thin slices of negotiation: Predicting outcomes from conversational dynamics within the first 5 minutes. Journal of Applied Psychology, 92, 802–811.
- DeGroot, T. (2009). Can nonverbal cues be used to make meaningful personality attributions in employment interviews? In J. Groody (Ed.), Journal of Business and Psychology (24th ed., pp. 179–192). Journal of Business and Psychology.
- Department for Education and Skills. (2004). A national conversation about personalised learning.
- Doughty, M. J. (2001). Consideration of Three Types of Spontaneous Eyeblink Activity in Normal Humans: during Reading and Video Display Terminal Use, in Primary Gaze, and while in Conversation. Optometry and Vision Science, 78(10), 712–725.
   <a href="https://doi.org/10.1097/00006324-200110000-00011">https://doi.org/10.1097/00006324-200110000-00011</a>

- Einarsen, S., Hoel, H., & Notelaersa, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire
- Ekman, P. (1999). Emotional and conversational nonverbal signals. Gesture, Speech, and Sign, 45–55. <u>https://doi.org/10.1093/acprof:oso/9780198524519.003.0003</u>

Ekman, P. (2017). Facial expressions. Oxford Scholarship Online. https://doi.org/10.1093/acprof:oso/9780190613501.003.0003

- Ekman, P., O'Sullivan, M., Friesen, W. V., & Scherer, K. R. (1991). Invited article: Face, voice, and body in detecting deceit. Journal of Nonverbal Behavior, 15(2), 125–135. <u>https://doi.org/10.1007/bf00998267</u>
- Elfatihi, M. (in press). The role of nonverbal communication in Beginners' EFL Classrooms Salé Junior high schools as a case. Sidi Mohamed Benabdellah University Faculty of Letters and Humanities – Dhar Elmahraz. Fes English Department Staff Development and Research in Higher Education.
- Enfield, Nick J. 2009. The anatomy of meaning: Speech, gesture, and composite utterances. Cambridge: Cambridge University Press.
- Enjoyment. Paul Ekman Group. (2021, November 13). Retrieved from <a href="https://www.paulekman.com/universal-emotions/what-is-enjoyment/">https://www.paulekman.com/universal-emotions/what-is-enjoyment/</a>.
- Gao, H. (2017). Nonverbal Communication in Foreign Language Teaching and Learning On the Importance of Body Language. Advances in Social Science, Education and Humanities Research (ASSEHR), 95, 1–4.
- Gironzetti, E., Attardo, S., & Pickering, L. (2016). Smiling, gaze, and humor in conversation. Metapragmatics of Humor, 235–254. <u>https://doi.org/10.1075/ivitra.14.12gir</u>

- Goetz, T., Frenzel, A. C., Hall, N. C., Nett, U. E., Pekrun, R., & Lipnevich, A. A. (2013).
  Types of boredom: An experience sampling approach. Motivation and Emotion, 38(3), 401–419. <u>https://doi.org/10.1007/s11031-013-9385-y</u>
- Goldin-Meadow, S., Nusbaum, H., Kelly, S. D., & Wagner, S. (2001). Explaining math:
  Gesturing lightens the load. Psychological Science, 12(6), 516–522.
  <a href="https://doi.org/10.1111/1467-9280.00395">https://doi.org/10.1111/1467-9280.00395</a>
- Goldin-Meadow, S., & Singer, M. A. (2003). From children's hands to adults' ears: Gesture's role in the learning process. Developmental Psychology, 39(3), 509–520. https://doi.org/10.1037/0012-1649.39.3.509
- Goldin-Meadow, S,AlibaliMW. (2013) Gesture's role in speaking, learning, and creating language. Annul. Rev. Psychol. 64:257–83
- Goman, C. K. (2011). The silent language of leaders: How body language can help or hurt how you lead. John Wiley & Sons.ire–Revised. Work Stress, 23, 24–44.
- Grebelsky-Lichtman, T., & Shenker, E. (2017). Patterns of nonverbal parental communication: A social and situational contexts approach. Journal of Social and Personal Relationships, 36(1), 83–108. <u>https://doi.org/10.1177/0265407517719502</u>
- Grossberg, S. (2018). Desirability, availability, credit assignment, category learning, and attention: Cognitive-emotional and working memory dynamics of orbitofrontal, ventrolateral, and dorsolateral prefrontal cortices. Brain and Neuroscience Advances, 2, 239821281877217. <u>https://doi.org/10.1177/2398212818772179</u>
- Guangkeng, H. (1999). The Basis of English Teaching and Learning Method. Ji Nan University Press.
- Haataja, E., Toivanen, M., Laine, A., & Hannula, M. S. (2019). Teacher-student eye contact during scaffolding collaborative mathematical problem-solving. Lumat: International

Journal of Math, Science and Technology Education, 7(2).

https://doi.org/10.31129/lumat.7.2.350

- Harker, L., & Keltner, D. (2001). Expressions of positive emotion in women's college yearbook pictures and their relationship to personality and life outcomes across adulthood. Journal of Personality and Social Psychology, 80(1), 112–124.
  <a href="https://doi.org/10.1037/0022-3514.80.1.112">https://doi.org/10.1037/0022-3514.80.1.112</a>
- Hömke, P., Holler, J., & Levinson, S. C. (2017). Eye Blinking as Addressee Feedback in
  Face-To-Face Conversation. Research on Language and Social Interaction, 50(1), 54–
  70. https://doi.org/10.1080/08351813.2017.1262143
- Keating, C. F. (2006). Why and how the silent self speaks volumes. In The Sage handbook of nonverbal communication: (pp. 321–339). In V. Manusov & M. L. Patterson.
- KENDON, A. D. A. M., & COOK, M. A. R. K. (1969). The consistency of gaze patterns in social interaction. British Journal of Psychology, 60(4), 481–494. <u>https://doi.org/10.1111/j.2044-8295.1969.tb01222.x</u>
- Kendon, A. (2004). Visible action as gesture. In Gesture: Visible Action as Utterance (pp. 7-16). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511807572.002
- Kleinke, C. L. (1986). Gaze and eye contact: A research review. Psychological Bulletin, 100(1), 78–100. <u>https://doi.org/10.1037/0033-2909.100.1.78</u>
- Lee, N. Y., & Han, J. Y. (2017). Nursing students' learning motivation, class participation, and class satisfaction on flipped class and teacher-centered class. Korean Association For Learner-Centered Curriculum And Instruction, 17(8), 253–267. https://doi.org/10.22251/jlcci.2017.17.8.253
- Mehrabian, A., & Wiener, M. (1967). Decoding of inconsistent communications. Journal of Personality and Social Psychology, 6(1), 109–114. <u>https://doi.org/10.1037/h0024532</u>

- Mehrabian, A., & Ferris, S. R. (1967). Inference of attitudes from nonverbal communication in two channels. Journal of Consulting Psychology, 31(3), 248–252. <u>https://doi.org/10.1037/h0024648</u>
- Mehrabian, A. (1972). Nonverbal communication. Piscataway, NJ, Aldine Transaction, 1972
- Morgan, A. 2007. "Using Video-stimulated Recall to Understand Young Children's Perceptions of Learning in Classroom Settings." European Early Childhood Education Research Journal 15 (2):213–226. doi:10.1080/13502930701320933
- Mynbayeva, A., Sadvakassova, Z., & Akshalova, B. (2018). Pedagogy of the twenty-first century: Innovative teaching methods. New Pedagogical Challenges in the 21st Century - Contributions of Research in Education.

https://doi.org/10.5772/intechopen.72341

(PDF) nonverbal communication (1). ResearchGate. (n.d.). Retrieved November 16, 2021, from

https://www.researchgate.net/publication/341370597\_Nonverbal\_Communication\_1.

Olsen, Anneli. 2012. "The Tobii I-VT Fixation Filter. Algorithm description." Retrieved from Tobii White Papers Library,

http://www.tobii.com/Global/Analysis/Training/WhitePapers/

Tobii\_WhitePaper\_TobiiIVTFixationFilter.pdf?epslanguage=en.

Page, M. (1990, May 10). Active learning: Historical and contemporary perspectives. ERIC. Retrieved November 5, 2021, from https://eric.ed.gov/?id=ED338389.

Piaget's theory of cognitive development. (2013). Piaget's Theory, 32–57.

https://doi.org/10.4324/9780203715796-5

Ping, R., Goldwin-Meadow, S., & Beilock, S. (2014). Understanding gesture: Is the listener's motor system involved? Journal of Experimental Psychology: General, 143, 195–204.

- Richardson, S. (1993). Active civic learning for secondary school students. The Social Studies, 84(5), 196–201. <u>https://doi.org/10.1080/00377996.1993.9956259</u>
- Richmond, V. A., & McCroskey, J. C. (2004). Nonverbal behavior in interpersonal relations (5th ed.). Pearson.
- Rueckert, Linda, et al. "Gesture Enhances Learning of a Complex Statistical Concept." Cognitive Research: Principles and Implications, vol. 2, no. 1, 2017, https://doi.org/10.1186/s41235-016-0036-1.
- Stahl,A. (2005). Science and philosophy: Adversaries, companions, or strangers?: An essay on modern philosophy of nature. BioBItField
- Smith, J. (2013, March 11). 10 nonverbal cues that convey confidence at work. Forbes.Com. <u>http://www.forbes.com/sites/jacquelynsmith/2013/03/11/10-nonverbal-cues-that-</u> <u>convey-confidence-at-work/</u>
- Stewart, G. L., Dustin, S. L., Barrick, M. R., & Darnold, T. C. (Eds.). (2008). Exploring the handshake in employment interviews. In Journal of Applied Psychology (pp. 1139– 1146). Journal of Applied Psychology.
- McKay, D., & Storch, E. A. (2011). Handbook of Child and Adolescent Anxiety Disorders. Springer.
- Stivers, T., Enfield, N. J., Brown, P., Englert, C., Hayashi, M., Heinemann, T., Hoymann, G., Rossano, F., de Ruiter, J. P., Yoon, K. E., & Levinson, S. C. (2009). Universals and cultural variation in turn-taking in conversation. PNAS, 106, 10587–10592.
- The effect cognitive load has on eye blinking. (n.d.). Retrieved November 4, 2021, from https://pearl.plymouth.ac.uk/bitstream/handle/10026.1/14015/TPSS-2013-Vol6\_1\_206-223Ledger.pdf?sequence=1&isAllowed=y.

- Wakefield, E., Novack, M. A., Congdon, E. L., Franconeri, S., & Goldin-Meadow, S. (2018).
  Gesture helps learners learn, but not merely by guiding their visual attention.
  Developmental Science, 21(6). <u>https://doi.org/10.1111/desc.12664</u>
- Wetherell, M. 1998. "Positioning and Interpretive Repertoires: Conversation Analysis and Post-structuralism in Dialogue." Discourse and Society 9 (3): 387–412. doi:10.1177/0957926598009003005.
- Wilson, J. H. (2011). Building rapport in the classroom and student outcomes. PsycEXTRA Dataset. <u>https://doi.org/10.1037/e653722011-001</u>