International Journal of Humanities and Cultural Studies

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Editorial

Dear Colleagues and Readers

It is my pleasure to present Volume 9, Issue 2 of the *International Journal of Humanities and Cultural Studies* (IJHCS). As usual, the journal included many articles dealing with interdisciplinary issues written by authors from different countries and different disciplinary affiliations. The contributions of our thirty authors enormously enriched the content and perspectives of the IJHCS.

I sincerely thank our respected authors for selecting the IJHCS, our reviewers for reviewing the selected articles for this issue and the Administrative Board for its contribution to helping the IJHCS achieve this success. The next issue will be published in December 2022 and your valuable contributions are welcome till 25 November 2022.

With Best Regards,

Dr. Hassen Zriba
Editor-in-Chief
The International Journal of Humanities and Cultural Studies (**IJHCS**)

The Impact of Digital Storytelling on Developing Young Learners' Emotional Intelligence

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Abstract

This research is aimed at ascertaining whether it is possible to foster emotional intelligence in teenagers through technology. This research is aimed at ascertaining whether it is possible to foster emotional intelligence in teenagers through technology.

Today's children seem to lack the ability to empathize, negotiate and cooperate, and they often cannot feel optimistic and about the future. This void is maybe due to the shortage of integrating stories on the level of emotional intelligence (EI). The study of this skill among young learners (YLs) has been widening its scope o account for the different facets of the relationship between this concept and the proper technique that can help learners develop their learning skills. The present article tries to examine the impact of digital storytelling (ST) as a teaching strategy on young learners' emotional intelligence development. It focuses also on showing the benefits of implementing this tool in English language classrooms and how all these concepts can affect positively the learners' language acquisition, and retention and makes the learning experience more engaging and interesting for both, teachers and learners.

Keywords: Digital storytelling, young learners, emotional intelligence.

1. Introduction

Young learners develop EI early in life, and the concept of EI has been linked to academic achievement. However, today's children seem to be unwell emotionally. This shortage can harm not only their academic development but also their relationships (Ghosn, 2001). Digital storytelling is one of the teaching methods that have been formed with the development of technologies to make learning more effective. It combines storytelling with multimedia capabilities such as text, audio, video, animation, and film (Ohler, 2013).

Many studies have investigated the effectiveness of digital storytelling on students, and many have shown that digital storytelling has a greater effect on students' learning (Istenic Starcic et al., 2016), creativity (Schmoelz, 2018), motivation (K.P.K.P. Liu et al., 2018), social intelligence (Mruck, & Mey, 2019) and emotional intelligence (Mashalpourfard, 2019).

Storytelling (ST) has the potential to foster EI by providing surrogate emotional experiences that shape the brain's circuitry for empathy and help the child gain insight into human behavior. It also promotes language learning by enriching YL's vocabulary and modeling new language structures. Moreover, this technique can provide a motivating and safe context for language learning (Ghosn, 2001).

Stories can address messages and values to children (Mashalpourfard, 2019) and storytelling is an implicit way of teaching that motivates the learner to explore more (Schmoelz, 2018). In addition, stories are usually heard better because they are simple and fluent and they may raise children's mental and emotional skills and make them familiar with sounds, words and language (Schmoelz, 2018).

Flynn (1999) discovered that intelligence quotient (IQ) scores have increased from one generation to the next for all the countries, but ironically while the learners are getting smarter, their emotional skills are sharply declining, which makes them vulnerable to depression, disappointment, and moral fragility in society among other repercussions. Therefore, Emotional intelligence has an important role in the success of children in the future since it will help them all the complex and challenging life experiences.

Martinez (2007) used several stories to pique the interest and enthusiasm of English language learners. To conclude, positive outcomes were observed. Throughout the course, the pupils were motivated, participating in activities and meeting all the requirements. They not only liked the idea of working through a story, but their perceptions of the course book shifted as assignments were presented in new and innovative ways. He pointed out that while using a story-based method, unit subjects must be significant because this technique connects students' experiences and interests to the English language.

2. Digital storytelling

Since the mid-1900s, short audio-visual narratives have been used as tools to develop skills in digital literacy and creativity (Schleser, 2012a). This is called digital storytelling. The term 'digital storytelling' is often used to refer specifically to a method that results in a 2- to 5-minute audio-visual clip combining photographs, voice-over narration, and other audio' (Lambert, 2009).

It can take many forms and it has many benefits. One benefit of storytelling is its flexibility, which means the use of a visual arts-based method allows participants to choose the story they wish to tell, define how they tell it and select data that they feel best represents

their story (Edmonds, 2014). Another advantage of storytelling that is considered one of its strengths is the ability to connect storyteller and audience (LaMarre & Rice, 2016).

2.1 What is storytelling?

When dealing with storytelling we naturally think of the word "story". A story is a narrative account of one sequence of events. It can be real or imaginary. However, a good tale is always a core element of truth, even if it was fiction. The message or the moral that the story passes on has to be consistent and authentic (Mcmiken, 2015).

A story mobilizes emotions, characters, and sensory details to clarify and simplify facts. That's why a story grabs individuals of all ages and interests, draws us all along its plot, and effectively conveys key messages (FrogLeaps, n.d). Stories are considered the smallest unit by which humans can express and share their experiences and knowledge of the world. Thus, storytelling represents a means used to describe personality, ideology, and the background or history of a person's life (Greenhalgh, 2009).

Furthermore, storytelling refers to the art of passing on a piece of information, message or wisdom, in a pleasant way to captivate the audience's attention and fully engage them. Indeed, the fact that it is called an "art" means it requires imagination, skill, and most importantly practice. It is not something one can grasp in one sitting, or even after one course. It's a trial-and-error process of mastery, it demands training and practicing to achieve competence. But definitely, it is worth the hard work since storytelling can impact positively the teaching and learning experience in various ways (Duppydom, 2019).

In the same context, storytelling is seen as one of the oldest forms of teaching. In fact, the earliest communities used to apply storytelling to answer children's questions on creation, life, and the afterlife (James, 2013). Added to that, it is described as a creative teaching and learning tool that conveys a moral to a specific audience or guarantees the reflection on an event. It also represents an effective means to generate a lesson, construct multiple emotions and promotes diverse points of view (Boris, 2017).

From a scientific perspective, our brains are hardwired for stories, considering them as a way to organize and process information and help us to guide ourselves. They facilitate making sense of the complex world (Alviani, 2018). Humans focus on understanding and recognizing patterns and new ideas and concepts, and stories offer such patterns. They are built on causes and effects, which means that one event leads to another. And in this context, we as humans think unconsciously in narratives all day long. This idea will be explained in the following section.

2.2 How does the brain respond to stories?

Storytelling connects the listener to information differently. To understand how we have to understand what happens neurologically when children listen to a story.

As an individual in a lecture, two small parts of the brain are activated, Wernicke's and Broca's area (Stout and Chaminade, 2012). This is where information is processed. When listening to a story, the entire brain starts to light up. Each of our lobes will light up as we sense and our emotions are engaged. For example, as someone talks about a phone falling and hitting the ground with a thud, our occipital and our temporal lobes are lighting up as though we are seeing that falling phone and hearing it hit with a thud. There is this term, neural

coupling, which says, as listeners our brains will light up exactly when the storyteller starts telling something (Karen, 2021).

Storytelling offers to the listener that kind of artificial reality. In fact, if someone talks about someone else who is walking through the snow and with each step, the snow is crunching under his shoes, and big, wet flakes are falling on his cheeks, our brains as listeners, are now lighting up as though we are walking through the snow and experiencing these things. That's why we can watch an action movie without moving, but our hearts are racing as if we are the stars on-screen since this neural coupling has our brains lighting up just like we are having that activity (Stephens, 2010).

While individuals listen to a story, they automatically gain empathy for the storyteller. The more empathy they experience, the more oxytocin is released in their brain. Oxytocin is the chemical happiness and the more it exists in the human organism, the more trustworthy the person sees the speaker. And that's the reason why storytelling is such a critical skill for teachers because the very act of telling a story makes their students trust them more and rely on what is given by them (James, 2014).

2.3 Benefits and Challenges in English Language Learning.

Storytelling has the potential to foster imagination, humanize individuals, develop empathy and understanding, boots values and ethics, and revive creative processing.

In this context, Borba (2001) sees that 'the tale of virtue" will make a positive change in the kids' world, since it facilitates understanding of the power of virtue and make them believe that they are willing to positively influence the world.

Furthermore, according to Sobol et al (2004), storytelling has multiple uses in YL's education. They affirm that this technique provides a conceptual framework for processing, which will help YLs to build an overall meaningful experience. In other words, it motivates them to mentally map experiences and identify images in their inner heads. Telling stories can provide YLs with effective language models and thoughts that they can rely on and imitate.

In addition, King and Down (2001) reveal that storytelling is a non-threatening mirror. That is, those who enjoy storytelling can reflect and recognize themselves better through the experience in the story, without having to go through the same incident in the real life by themselves. They also say that by non-threatening mirrors individuals can reinterpret the experience and gain a clearer understanding of it.

From another angle, Parkin (2006) considers storytelling as an interactive art show, which is a two-activity that connects and engages both storyteller and audience based on interaction and cooperation to build a whole story.

In the English language classroom, the implementation of storytelling creates an engaging and pleasant learning environment and offers meaningful and comprehensible input (Hashemian, 2015). Stories have the potential to activate the language mechanism of acquisition and retention. They also facilitate for YLs the induction of language elements from the data provided by the stories (Krashen, 1981).

Storytelling has special pedagogical values for the foreign language classroom. As Rossier (2002, p.1) points out, it is an effective educational method since it uses stories that are believable, rememberable, enjoyable, and pleasing. This credibility comes from the fact that stories deal with human experiences as authentic sources of knowledge. Stories make information easier to remember because they involve the learners in the actions of the

characters. In this way, the story will inspire positive expressions of meaning (Routledge, 2016).

Language learners can benefit from digital storytelling since they motivate them to develop the competence of understanding spoken language and engage in processing skills. In link to this context, Castro (2002, P. 52) reports on a study conducted in Colombia indicating that "listening to stories develops children's listening and concentration skills and their ability to receive and understand information expressed in words. Besides, with the stories, children develop learning strategies such as listening for general meaning, predicting, guessing meaning and hypothesizing".

Using storytelling in TEYL can facilitate recall and builds connections between emotions and empathy. It also promotes reflective learning the use of processing, and dialogue comprehensive management (McDrury and Alterio, 2003).

Even though this technique has such a positive impact on the teaching and learning experience in TEYL, but it may encounter some difficulties when used in the classroom, and for sure, it does not just refer to an external object that the teacher can use in class and obtain the desired result. In fact, storytelling, in the first place, requires a set of skills, long hours of practice before using it, carefully picking the suitable stories and accompanying it with the necessary equipment in order to create and present a convincing, attractive, seductive, and concrete story that arouses the emotions of the student (spectator), as well as achieving the lesson's goals (Cheng, 2019).

While digital storytelling is getting more and more popular, it is crucial to emphasize the possibility of failure that can occur without the renewal of educational aids about technological advancement (from software, platforms, and programming to the conception of ideas) or the pedagogical objective established to orient learning and the modernization of teaching methods to keeping it with trends (EDU Trends, 2017).

There is also an external factor that contributes to the challenges in delivering stories. The environment plays an important factor in a comfortable teaching and learning situation. A great environment for conducting a lesson using storytelling is when students are gathered in one area comfortably, listening to the teacher (Shahrill. M and Clarke D. J., 2019).

Furthermore, shortage of time during the teaching session is one of the most prevalent reasons why teachers avoid narrative. Due to the charged school program, teachers are pressed by time and there is no time for a good storytelling session in which students can participate in a discussion to reinforce their comprehension (Kohlberg 1976; and Subadrah et al., 2014)

3. Emotional Intelligence

Emotions, according to Grasha and Kirschenbaum (1980), emotions are seen as effective labels that we assign to internal and external stimulus-response patterns. They motivate us to move towards our goals and are accompanied by psychological, cognitive, and overt body physical processes.

In the same vein, Goleman (1996) believes that emotion refers to a specific feeling and thought a biological and psychological state, and a tendency to act. Altogether, emotions are responses to stimuli provided by the environment that allows individuals to decide the life choices of their own lives. (Endang Sulistianingsih, Sanday Jamaludin, & Sumartono, n.d.)

The term "intelligence" refers to the ability to think, learn from experience, solve problems, and adapt to new situations. It is important since it affects many human behaviors

(Stangor, 2014). Intelligence covers a lot of competencies: higher-level abilities such as abstract reasoning, mental representation, problem-solving, decision making, learning ability, emotional knowledge, creativity, and adaptation to successfully meet the demands of the environment. In the same context, psychologist Robert Sternberg has defined intelligence as "the necessary mental abilities for adaptation to, as well as shaping and selection of any environmental context (Ruhl, 2020).

The term "emotional intelligence" has been defined in different ways. According to Salovey and Mayer (1989), it refers to a set of skills that contribute to the accurate assessment and expression of emotion in oneself and others, the effective moderation of our and others' emotions, and the manipulation of feelings to motivate, plan and achieve in one's life.

Daniel Goleman (1995:9) sees EI as "a person's ability to manage his/her feelings so that those feelings are expressed appropriately and effectively". He continues to explain that "knowing what one's feelings are and using that knowledge to make good decisions".

Research continues to define the concept but the most practical definition comes from Freedman and Jensen (2005) who state that 'Emotional intelligence is consciously choosing thoughts, feelings and actions to get optimal results in your relationships with yourself and others'.

Goleman (1995), in his book **Emotional Intelligence,** explains the five domains of emotional intelligence:

> 1. Knowing one's emotions: Self-awareness is the keystone of emotional intelligence. It is the ability to recognize feelings as they happen in real-life situations.
>
> 2. Managing emotions: Handling feelings appropriately is an ability that builds on self-awareness. It is being able to manage strong feelings so that we can soothe ourselves, maintain balance and not be overwhelmed or paralyzed by them.
>
> 3. Motivating oneself: Self-motivation and mastery is about being goal-oriented, keeping focused and channelling emotions toward desired results. It leads to being highly effective and productive.
>
> 4. Recognizing emotions in others: Empathy is the fundamental people skill. It means being able to recognize emotions in others and understand others' point of view.
>
> 5. Handling relationships: Managing emotions in others is the art of relationships. It is the ability to handle a range of social relationships and to interact smoothly with others. (P. 52)

Being an emotionally intelligent learner, thus, means being aware of one own emotional make-up (both positive and negative): happiness, frustration, confidence, sadness, etc., and being able to recognize and deal with them appropriately (self-regulation). Being emotionally intelligent means that an individual needs achievement and persists in the face of adversity (motivation). It also means being able to identify and understand the emotions other people experience, in other words, it is the ability to put oneself in their shoes (empathy). Having high emotional intelligence means being more sensitive to emotional signals from the social environment, thereby, it helps to become a better colleague, brother, sister, friend, or even parent in the future (social skills).(Duppydom, 2019).

In short EI, according to Bar-On et al., (2007), is linked to individuals' abilities to understand themselves and others, easily adjust to environmental changes, and manage emotions.

3.1 Why it matters?

When thinking of EI, we usually think of the necessary skills that adults need, but we have to bear in mind that this intelligence starts its development in childhood. That's why nurturing EI in children is important for their success in interpersonal and social relationships later in their adulthood (Nabuzoka and Smith, 1995). In the same vein, Henniger (1999) writes 'Emotional development in young children consists of gradual growth in the ability to recognize, label and appropriately respond to The Big Picture 3 their feelings. Each of these steps is important to their emotional health and must be learned through repeated interactions with others' (p. 340).

Scientifically speaking, EI is considered as the interconnection between thinking and feeling. This idea comes out from the assumption that feelings influence nearly every dimension of human experience. Furthermore, 80 percent of an individual's social behavior and actions engender from one's EI, while just 20 percent is the result of rational intelligence. Altogether, we're considered emotional creatures as human beings. (Asma Ben Jebra, 2020)

Unfortunately, most educational systems look for developing these types of intelligence: linguistic and logic-mathematical. Conversely, education should encourage YLs to explore the different areas of intelligence. Emotional education helps children to acquire self-awareness, confidence, empathy, self-control and the ability to assert themselves without conflict (Reiser, 1993).

In this context, Goleman (1998) mentioned that EI involves the following elements: self-awareness, empathy, handling relationships, managing feelings, and motivation. That's why teaching YLs how to be emotionally intelligent means teaching them how to understand their feelings, constructively express them, and recognize what originates these emotions.

 The five principles of EI that can be taught to YLs include self-awareness (the ability to recognize our emotions), self-regulation (the ability to control our reactions to our emotions), internal motivation (the ability to think about and identify what's causing us to feel the way we do), empathy (the ability to understand the emotions of other people), and social skills (using emotional intelligence to build strong social relationships). This way YLs will have the ability to work through challenges and respond successfully to complex situations.

Additionally, YLs can learn these five competencies practically at any age, to a specific level. In fact, preschool teachers can begin this EI developing journey by encouraging toddlers and young kids to use words in order to express how they feel in any situation. This way kids can get used to the act of recognizing their feelings regularly which represents a key part of what Dr. Daniel Siegel, author of *Parenting from the Inside Out*, calls "name it to tame it" (2013)

Yet, just like GPS, EI can guide individuals, help them pass obstacles, and move toward success. It allows them to size up challenging situations, put them in perspective, and seek ways to solve the detected problems. (Understood, 2020)

3.2 Becoming an Emotionally Intelligent Teacher.

Different skills (mentioned above) contribute to developing any teachers emotionally intelligence. Self-awareness, for example, is one of the most important skills. Goleman (1995,

P. 51) states, 'Self-awareness in short means being aware of both our mood and our thoughts about the mood'. That means when teachers have good self-knowledge, they can better understand their students, and when they understand them, they can understand them.

> "Knowing my students and my subject depends heavily on self-knowledge. When I don't know myself, I cannot know who my students are. I will see them through a glass darkly. In the shadows of my unexamined life – and when I cannot see them clearly, I cannot teach them well". (Palmer, 1998, P. 2)

Ellison (2001) states that if teachers want to teach learners how to be emotionally intelligent, they first need to be emotionally intelligent. He sums up the idea in this statement: "I cannot give what I don't have. My success with students depends on my own personal intelligence" (P.16). Self-awareness, thus, can be improved when teachers ask themselves questions, observe their feelings and reactions to different situations.

Managing emotions is another skill that has to do with the teacher's ability to handle their feelings. Teachers can mismanage their emotions but it is normal as they can be overwhelmed by negative feelings such as anger, frustration, stress, anxiety and so on. The role of the teacher here is to know how to stay balanced as Goleman (1995) puts it, 'Downs as well as ups spice life', but adds 'but need to be in balance" (P. 63). To stay balanced, teachers need to change their perceptions so that their feelings can be changed as both thoughts and feelings are interrelated (Bahman, 2008).

The third skill that teachers need to have is self-motivation. Bachman (2008) states that Self-motivated people walk faster towards their goals than those who lack enthusiasm. Moreover, he confirms that teachers can make a difference in the lives of children in their care when they manage to find value in what they are doing. Teachers' desire to develop self-motivation will help learners to grow and flourish. . As Ellison (2001: 5) states, 'I teach children. The children are my focus. This is a very different attitude from ''I teach math''. My focus makes a world of difference.'

Additionally, Teachers can have a great influence on how children learn and feel about school. It all depends on their relationship with learners. Bachman (2008) argues that teachers who can understand how they feel, how they think, and what messages they are trying to convey through gestures, facial expressions, or tone of voice are called "empathic teachers". In this way, children may take in and process information easily. Goleman (1995: 111) suggests 'mastering this empathic ability smooths the way for classroom effectiveness' and this develops their learning ability.

In other words, if teachers work on empathy, it can develop well. Their emotional state has a great impact on their academic achievement and learning process. The basis of empathy is being aware of oneself so that teachers can read the learners' feelings. Goleman (1995) 'The more open we are to our own emotions, the more skilled we will be in reading feelings'.

Unlike all other EQ skills, handling relationship is a skill that incorporates all the other skills. Indeed, if teachers have a positive relationship with themselves they can have a positive relationship with others. Feelings and emotions are transmitted to the outside world. 'We send emotional signals in every encounter and those signals affect those we are with' (Goleman, 1995: 111). When teachers are happy or angry the learners can feel it so they can either take negative or positive emotions. Thus, managing emotions is the same as handling relationships. Teachers should try to read the non-verbal signals that the kids are transmitting

to them. As Goleman (1995) explains: "handling emotions in someone else – the fine art of relationships – requires the ripeness of two other emotional skills ''self-management and empathy" (P. 12).

To sum up, being an emotionally intelligent teacher has many benefits as it allows them to be happy and enthusiastic. It also gives them the tool to make a turn in the lives of the learners they teach. This can lead to a successful relationship between the learner and the teacher. Mahatma Ghandi says in this context: "You must be the change you wish to see in the world!"

4.   Discussion

There is enough evidence that the storytelling technique provides a richer and more engaging educational environment as it improves the YL's abilities to think, imagine, analyze, critique, and ultimately become more sensitive, empathetic, and confident (Goleman, 1998). Yet, applying this approach poses multiple challenges, such as the general attitude of teachers toward the importance of this approach, the concept of EI, and the relation between these two concepts.

Nowadays, no one can deny the role of technology in education (Shahsavar et al., 2010) and a lot of YLs "prefer to receive materials digitally where it is acceptable" (Nourinezhad et al.2021). Indeed, texts, audios, animations and films open the way for the transfer of educational concepts and clear the path for active learning among learners (Jager et al., 2017); moreover, using digital storytelling in education has caused "a revolution in learner's learning process" (Salehi, 2017, P. 112). With the application of graphics, images, and animations, educational multimedia can stimulate learners and establish a positive attitude toward educational materials among them (C.C. Liu et al., 2019).

Unfortunately, EI and ST are highlighted generally in the business and marketing field. These two concepts are not taken into consideration in education, even though they can sharply influence the academic and personal career of YLs when included in their education. Furthermore, most of the studies done on EI and ST, have taken these concepts on their own rather than about teaching.

5.   Conclusion

It is widely known that storytelling has positive effects on primary YLs by engaging them in the lessons, sparking their creativity and improving their literacy and linguistic skills. However, before realizing a digital storytelling-based lesson, teachers should bear in mind that they need to properly prepare themselves, by training and rehearsing over and over, picking the appropriate story to tell in terms of length and students' English language level.

Discovering storytelling and applying it in real practice show that stories can really engage and create connections and bounds and foremost, manipulate emotions. Theoretically, it sounds like a magical tool that can solve all the teaching problems. Otherwise, from a beginner teacher's experience with teaching through digital storytelling, it may show a lot of difficulties, but it is worth the hard work and effort because after implementing it in class, it can foster young learners' emotional intelligence skills, as well as providing authentic situations to apply the learned contents.

This research offers the chance for teachers to try to find solutions and choose concepts and approaches that are sometimes neglected and deserve to be highlighted. We got to know how emotional intelligence matters in every single aspect of our lives, as adults and as young learners. That's why I tried to find an effective tool that connects YLs to their own emotions and their surroundings and pushes them to reflect on them, as well as relating them to what they were taught at school, more specifically in English.

This should trigger serious research to be done in order to raise awareness of educators about establishing storytelling projects, in which stories are developed for young learners that can go hand in hand with the school curriculum. This storytelling-based approach is meant to change the traditional teaching process and provides both teachers and learners with a vivid teaching and learning experience.

References

Alviani, C. (2018). The Science Behind Storytelling. Protagonist Studio

Antzeta, A, & Balluerka, N, & Gorostiaga, A, Alonzo-Arbiol, I. (2015). Classroom Emotional Intelligence and Its Relationship with School Performance. *European Journal of Education and Psychology*, 9, 168.www.elsevier es/ejep

Bahman, S. & Maffini11.H. (2008). Developing Children's Emotional Intelligence. Continuum International Publishing Group.

Bar-On, R, & Maree,J, G., & Jesse Elias, M. (2007). Educating people to be Emotionally intelligent. Library of Congress.

Ben Jbara, A. (2020). Emotional Intelligence as an Approach of Preventing Extremism in the Tunisian Educational System. Centre for Applied Policy Research.

Boris, V. (2017). What Makes Storytelling So Effective For Learning? Harvard Business Publishing. Corporate learning.

Cheng, M and Chuang, H. (2019) "Learning processes for digital storytelling scientific imagination," EURASIA Journal of Mathematics, Science and Technology Education, vol. 15, no. 2, pp. 1-17.

Daniel J. Siegel. (2013). Parenting from the Inside Out: How a Deeper Self-Understanding Can Help You Raise Children Who Thrive: 10th Anniversary Edition Paperback

Ellison, L. (2001). The Personal Intelligences. Thousand Oaks, CA: Corwin Press.

Erickson, E. (2018). Effects of Storytelling on Emotional Development. Retrieved from Sophia, the St. Catherine University Repository: https://sophia.stkate.edu.maed.256.

Gable, S. (1999). The heart of parenting: raising an emotionally intelligent child, by John Gottman, Ph.d., with Joan declaire, New York. Early Childhood Research Quarterly, 14(4), 575-578.

Ghosn, L. (2001). Nurturing Emotional Intelligence through Literature. Lebanese American University. https://www.researchgate.net/publication/242540340.

Goleman, D. (1995) Emotional Intelligence: Why it can Matter More than IQ. New York: Bantam.

Haj Sassi, S. (2016) Teachers' Perceptions of self-observation as an Appraisal Tool. Arab World English Journal, 7(1), 341-357.

Hashemian, M. (2015). Story-Telling Approach to Teaching English to Young EFL Iranian Learners. English Language Teaching 9(1):221

Istenic Starčič, A., Cotic, M., Solomonides, I., & Volk, M., et al. (2016). Engaging preservice primary and pre-primary school teachers in digital storytelling for the teaching and learning of mathematics. British Journal of Educational Technology, 47(1), 29–50. https://doi. org/10.1111/bjet.12253.

Jager, A. D., Fogarty, A., Tewson, A., Lenette, C., & Boydell, K., et al. (2017). Digital storytelling in research: A systematic review. The Qualitative Report, 22 (10). Retrieved from https://nsuworks.nova.edu/ tqr/vol22/iss10/3.

James, M. (2014).Why Storytelling in the Classroom Matters. George Lucas Educational Foundation.

Karen, E. (2021). How your brain responds to stories -- and why they're crucial for leaders.

Lambert, J. (2009). Where it all started: The centre for digital storytelling in California. In
J. Hartley & K. McWilliam (Eds.), Story circle digital storytelling around the world (pp. 79–90). Oxford: Wiley-Blackwell.

LaMarre, A., & Rice, C. (2016). Embodying critical and corporeal methodology: Digital storytelling with young women in eating disorder recovery. Forum Qualitative Sozial-forschung/Forum: Qualitative Social Research,17(2), 7.

Liu, C. C., Yang, C. Y., & Chao, P. Y., et al. (2019). A longitudinal analysis of student participation in a digital collaborative storytelling activity. Educational Technology Research and Development,67(4), 907–929. https://doi.org/10.1007/s11423-019- 09666-3

Mashalpourfard, M. (2019). Effectiveness of storytelling on the components of communication skills in educable mentally-retarded children. Avicenna Journal of Neuro Psycho Physiology, 5(1), 19–28

Mayer, J., and Salovey, P. (1997) 'What is emotional intelligence?', in J. D. Mayer and P. Salvoey (eds), Emotional Development and Emotional Intelligence, New York: Basic Books.

McCown, K. S., Freedman, J. M., Jensen, A. L. and Rideout, M. C. (1998) Self Science; The Emotional Intelligence Curriculum. San Mateo, CA: Six Seconds.

Mohammed Al-Amri, H. (2020). Digital Storytelling as a Communicative Language Teaching Based Method in EFL Classrooms.SSRN Electronic Journal.

Mruck, K., & Mey, G. (2019). Grounded theory methodology and self-reflexivity in the qualitative research process - SAGE research methods. (n.d.). Retrieved from https://methods.sagepub.com/book/ the sage-handbook-of-grounded-theory-2e/i3445. xml.

Nourinezhad, S., Hadipourfard, E., & Bavali, M., et al. (2021). The effect of audio-visual feedback on writing components and writing performance of medical university students in two different modes of instruction flipped and traditional. Cogent Education, 8(1), 1–21.

Routledge, P. (2016) Exploring Positive Psychology: The Science of Happiness and Well-Being. ABC-Clio

Schmoelz, A. (2018). Enabling co-creativity through digital storytelling in education. Thinking Skills and Creativity, 28, 1–13. https://doi.org/10.1016/j.tsc. 2018.02.002.

Schleser, M. (2012a). Collaborative mobile phone film making. In E. Milne, C. Mitchell, &
N. de Lange (Eds.), Handbook of participatory video. Blue Ridge Summit, PA: AltaMira Press.

Shahrill.M and Clarke D. J. (2019) "Pedagogical features that influence mathematics classroom practices-A Bruneian perspective," Kasetsart Journal of Social Sciences, vol. 40, no. 2, pp. 341-348.

Stephens, G. (2010) Speaker-Listener Neural Coupling Underlies Successful Communication Proceedings of the National Academy of Sciences 107(32):14425-30

Salehi, H. (2017). Effects of using instructional video games on teaching English vocabulary to Iranian pre-intermediate EFL learners. International Journal of Learning and Change, 9(2), 111–130

Shahsavar, Z., Tan, B. H., & Aryadoust, S. V., et al. (2010). Investigating the factor structure of the blog attitude scale. Turkish *Online Journal of Distance Education*, 11 (4), 12–24. https://eric.ed.gov/?id=EJ1042455.

Zarifsanaiey, N. et al. (2022). The effects of digital storytelling with a group discussion on social and emotional intelligence among female elementary school students.

L'importance de l'apprentissage des langues de spécialité et des techniques de communication à l'Université

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Résumé

Dans cet article, nous allons insister sur l'importance de l'apprentissage des langues et des techniques de communication à l'université et sur la mise en place des programmes de formations permettant l'apprentissage des langues et les outils de la communication, du travail, et des échanges internationaux et ayant pour objectif de former un citoyen communiquant qui peut s'adapter à n'importe quelle situation professionnelle.

Mots clés : Techniques de communication, apprentissage des langues étrangères, outils de communication, situation professionnelle, citoyen communiquant.

Abstract

In this article, we will insist on the importance of learning languages and communication techniques at university and on the implementation of training programs allowing the learning of languages and the tools of communication, work, and international exchanges and aiming to form a communicative citizen who can adapt to any professional situation.

Keywords: Communication techniques, foreign language learning, communication tools, professional situation, communicating citizen.

Introduction

Communiquer, c'est transmettre un message, qu'il soit oral ou écrit, à un individu ou à un groupe d'individus. Cependant, qui dit communication, dit compréhension mutuelle, c'est à dire que le récepteur soit en mesure de comprendre les informations données par l'émetteur. Ainsi, Les deux « acteurs » de l'acte de communication (l'émetteur et le récepteur) doivent disposer d'une langue commune et doivent être capables de décoder et de comprendre le sens du message. La langue est donc un outil qui permet aux gens d'entrer en rapport les uns avec les autres et de s'ouvrir aux autres.

Dès lors, communiquer c'est poser une question pour obtenir une information sur un sujet ou parce que l'on veut vérifier une hypothèse ou chercher à savoir quelque chose et à échanger des informations.

La professionnalisation des cursus universitaires ainsi que la centration sur l'apprenant et ses besoins conduisent de fait à un enseignement des langues tourné vers un usage spécialisé. En fait, l'objectif consiste à aider l'apprenant à s'approprier l'objet de savoir (la langue de spécialité) en l'organisant et en le hiérarchisant en fonction de ses connaissances préalables.

L'objectif que je fixe dans ce présent article est de réfléchir sur l'importance de l'apprentissage des langues de spécialité à l'université tout en insistant sur la place des techniques de communication dans le monde du travail.

L'article se centre d'abord sur la place des techniques de communication dans le monde du travail.

Il insiste par la suite sur l'utilité et l'importance de l'apprentissage des langues de spécialité à l'université.

I- La place des techniques de communication dans le monde du travail :

Savoir communiquer est une qualité que tout cadre devrait maîtriser. En effet, le recours à ce talent est très fréquent pour celui qui doit assumer un minimum de responsabilités. Que ce soit à l'écrit ou à l'oral, communiquer est la base de toute relation.

Dès lors, une bonne communication s'avère essentielle. Prenons l'exemple des cadres ou des ingénieurs au sein d'une entreprise. Chacun de ces derniers doit soit :
- Comprendre son équipe et la convaincre du bien-fondé d'une orientation
- Négocier avec son supérieur des délais supplémentaires …
- Communiquer par écrit avec des fournisseurs ou clients,
- Résoudre un conflit entre deux collaborateurs
- Présenter un projet ou un nouveau produit à l'aide d'un speech

On parle de la qualité et du talent du communicateur, mais il s'agit souvent d'une question de techniques de communication. Dès lors, tout doit être calculé : par exemple on doit faire attention à la rédaction qui doit être claire et percutante selon le canal choisi, au langage non verbal, à l'analyse transactionnelle, à la Programmation Neuro Linguistique, etc.

A ce titre, il est possible de se former pour maîtriser ces outils essentiels à la performance personnelle et par la suite à la réussite professionnelle. Tout commence par un message transmis par un émetteur à destination d'un récepteur. Prenons à titre d'exemple le schéma de communication de Jacobson.

Modèle de la communication de Jacobson

$$\text{Contexte}$$
$$\downarrow$$
$$\text{Destinateur} \leftarrow \text{Message} \rightarrow \text{Destinataire}$$
$$\downarrow$$
$$\text{Canal}$$
$$\downarrow$$
$$\text{Code}$$
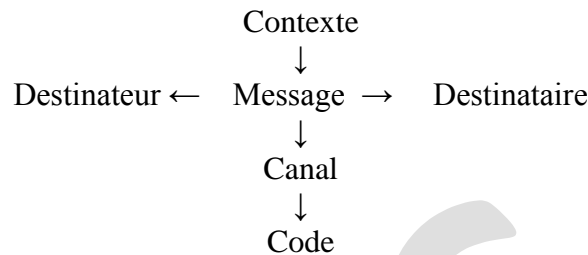
- Le destinateur : celui qui envoie le message oralement ou par écrit, il peut s'agir d'un individu ou d'un groupe (entreprise).
- Le destinataire : celui qui le reçoit. Il peut s'agir d'un individu, d'un groupe, d'un animal ou même d'une machine (ordinateur)
Mais au cours d'un dialogue, les rôles alternent; le destinateur devient destinataire et ce dernier devient destinateur quand il prend la parole.
- Le contexte : c'est l'ensemble des conditions matérielles dans lesquelles le message est produit (Lieu+temps)
- Le message : c'est le discours, le texte, ce qu'il «faut faire passer», lorsqu'il y a un message, cela suppose un codage et un décodage, d'où la présence du code.
- Le canal : c'est la liaison physique et psychologique entre le destinateur et le destinataire. Un moyen oral ou écrit. Autrement dit, c'est la voie matérielle par laquelle va circuler le message de l'émetteur vers le récepteur (téléphone, lettre, image, radio, écran...)
- Le code : Ensembles de signes et de règles de combinaison de ces signes. La langue Française (par exemple). Toute langue est un code puisqu'elle se compose du répertoire des mots (le vocabulaire) et de leurs règles d'agencement (la grammaire). Dans la communication non linguistique, d'autres codes sont utilisés, de type auditif, gustatif, olfactif et visuel.
Il est important de soigner le message dans toute sa globalité : canal via lequel on va diffuser (email, simple mémo, rapport écrit, courrier papier...), clarté de l'information partagée (vocabulaire utilisé, informations diffusées, longueur du message, ton, etc.), "packaging" du message (lisibilité, couleurs, illustrations, etc.)...

Nous devons aider l'étudiant à faire la relation entre le monde du travail et les langues. Leur usage est en constante évolution et varie selon les environnements dans les grands domaines du droit, de l'économie, des sciences et techniques, de la médecine. La langue est indissociablement liée aux situations de travail car sans communication il est impossible de faire fonctionner un collectif, d'accomplir les tâches nécessaires d'organisation et d'y créer et maintenir un lien social. Chaque communauté de pratique a ainsi un usage d'une langue spécifique et chaque nouvelle personne intégrant ce groupe devra apprendre à manier les divers codes en vigueur.
Par exemple, lors d'un stage en entreprise, l'élève doit s'adapter aux codes et au

registre de langage qui y dominent et doit renoncer, dans ce contexte, au langage familier voire codé qu'il utilise avec ses camarades de classe. Il faut donc savoir trouver les mots justes dont les caractéristiques sont les suivantes: clarté, concision, considération.

Pour communiquer, il est indispensable de:

- Être sensible à l'interlocuteur, ce qui signifie être à l'écoute (repérer les signes verbaux et non verbaux), s'écouter (autocontrôle), s'adapter (changer pour s'adapter aux besoins et attentes de l'interlocuteur).

- S'affirmer, ce qui signifie que nous devons savoir ce que nous voulons dire, et surtout, ne pas dépasser certaines limites (on peut exprimer calmement ses sentiments).
- Articuler, c'est-à-dire maîtriser sa voix (débit, ton, diction, éviter les mots parasites).

Le schéma de Philippe Breton nous présente la fonction/le rôle de tout discours/toute parole.
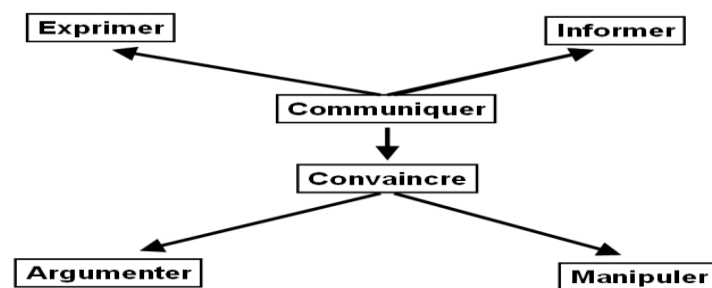
En fait, l'étudiant doit adopter une conduite réfléchie de la pratique de l'écrit, produire des textes corrects et cohérents, construire ses compétences progressivement dont on cite:
- savoir parler et communiquer,
- faire face à différentes situations dans différents contextes,
- faire la différence entre les différents types de communication,
- apprendre à rédiger une demande de travail, une demande de stage, une lettre de motivation etc.

L'apprenant doit s'habituer à prendre la parole, à participer à des débats et à s'exprimer, à acquérir des compétences discursives à l'écrit et à l'oral. Par exemple :
- La rédaction d'une demande de travail
- La rédaction d'une offre de travail
- La rédaction d'un compte rendu
- La rédaction d'une lettre qui permet à l'entreprise de communiquer avec l'extérieur (fonction commerciale, remerciements, relance…)
- La rédaction d'un courrier officiel sur papier : convocations, licenciements, etc. .Il faut faire attention ici car le vocabulaire sera adapté à la situation et syntaxe doit être précise.
- La rédaction d'un Email/courriel quelque soit pour rendre compte d'une réunion, ou pour communiquer avec des prestataires externes, avec ses collègues, son équipe, sa hiérarchie etc.
- La présentation powerpoint (ou tout autre logiciel) : à utiliser essentiellement

comme support lors d'une présentation orale, mais aussi lors d'une présentation de sa société, son service, son équipe.

L'étudiant doit adapter sa rédaction en fonction du sujet (c'est-à-dire du message) et du destinataire (c'est-à-dire à qui le message est destiné). Tout dépend du contexte et du genre du discours en question (compte rendu d'une réunion, présentation d'un nouveau projet, invitation …). Dès lors, le vocabulaire et les structures de phrase ne seront pas les mêmes selon qu'il s'agit d'une convocation avant licenciement, d'un simple débriefing de réunion, de la présentation d'un nouveau projet ou encore d'une invitation à une réunion.

La méthode de formation à adopter consiste à préparer l'étudiant à s'intégrer dans le domaine professionnel, à l'aider comment il peut réussir sa communication, à produire un discours clair et cohérent dans des situations de communications variées et à pouvoir faire face à différentes situations dans différents contextes.

L'efficacité d'une communication orale dépend de l'utilisation des bons mots, d'un ton et d'un débit appropriés. Quant à l'écrit, il est important de soigner non seulement le fond, mais également la forme de la communication.

Ajoutons aussi que pour réussir n'importe quelle communication, professionnelle, amicale ou familiale, il faut être conscient de ses émotions, avoir le contrôle de ses émotions, avoir la maîtrise de soi, être conscient des émotions d'autrui, être capable de se prendre en main pour interagir avec les autres, être sensible à ses émotions et à celles des autres, être empathique, être capable de faire preuve de diplomatie, savoir comprendre les autres et avoir de bonnes relations interpersonnelles, pouvoir résoudre des conflits de façon positive. On parle ici de l'intelligence émotionnelle. La figure qui va suivre présentera les différentes émotions :

Roue des émotions de Plutchik
Traduction par Scriptol.fr

[Modèle de circumplex en deux dimensions]

[Modèle de circumplex en trois dimensions]
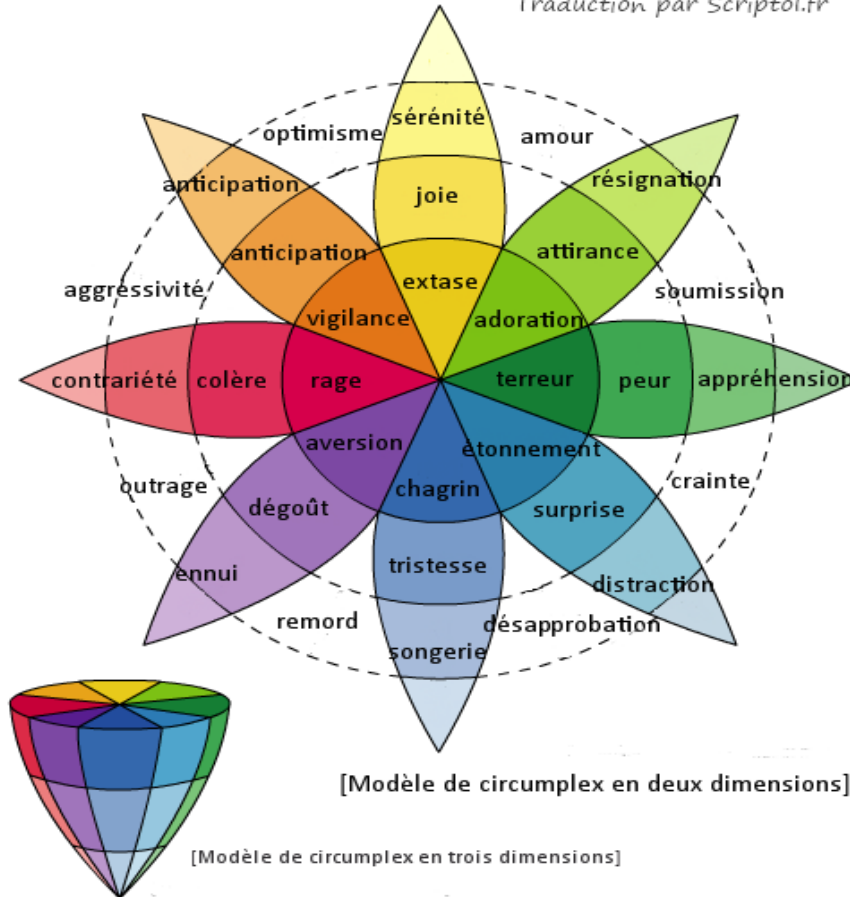
On insiste ici sur la concordance entre le message verbal et le non-verbal.

En fait, le langage non verbal permet et facilite la communication entre personnes de langues différentes. On parle du paralangage qui consiste à communiquer sans parler, il concerne notre apparence, nos gestes, nos expressions du visage (les mimiques). Par exemple, par le choix de notre tenue, nous voulons donner une certaine image de nous-mêmes. La «gestuelle» est aussi un véritable paralangage qui accompagne le message verbal, le complète. Savoir le décoder, c'est favoriser la communication. Elle se manifeste par des postures; celles-ci concernent la tête, le buste, le bassin, les jambes et les bras.

II- L'importance de l'apprentissage des langues de spécialité à l'université

L'apprentissage des langues, dans l'enseignement supérieur en particulier, est un aspect primordial de la formation de l'étudiant. Les langues de spécialité, les compétences transversales, les stages en entreprise, les outils de communication numérique, présentent des domaines de recherche que nous devons prendre en considération. Une meilleure connaissance réciproque entre la formation et les pratiques au travail est donc nécessaire.

Pour amener l'étudiant à s'exprimer et à maîtriser la langue de spécialité, il faut passer par la langue, c'est-à-dire la syntaxe de la phrase pour la première année du premier

cycle et par la morphologie verbale, la morphologie nominale et les éléments de vocabulaire (connotation, dénotation, synonymie, antonymie, homonomie…) et les techniques de communication pour la deuxième année.

Le français est utilisé comme moyen de connaissance, autrement dit, la langue est utilisée pour l'apprentissage des connaissances relevant de différents domaines (mathématique, physique, médecine …). Mais on note un besoin de renforcement linguistique de manière à faciliter l'apprentissage des connaissances de spécialité. C'est pourquoi on insiste sur le développement d'une compétence linguistique dans un domaine précis de connaissance pour les apprenants ou les étudiants. Le français général n'arrive plus à satisfaire les besoins d'un public en quête d'apprentissage ciblé et en étroite relation avec la spécialité. Il s'agit des langues de spécialité (populairement appelées « jargons ») qui sont propres à chaque secteur tels que le langage technique, le langage scientifique et médical, le langage juridique et financier, le langage littéraire, etc. Commençons tout d'abord par la définition des langues de spécialité. Galisson et Coste définissent la langue de spécialité de manière générale comme :

« Une expression générique pour désigner les langues utilisées dans les situations de communication qui impliquent la transmission d'une information relevant d'un champ d'expérience particulier » (1976, 511)

Quant à Cabré, elle insiste sur l'aspect terminologique des langues de spécialité :

« Les langues de spécialité sont les instruments de base de la communication entre spécialistes. La terminologie est l'aspect le plus important qui différencie non seulement les langues de spécialité de la langue générale, mais également les différentes langues de spécialité. » (Cabre, 1998: 90)

Petit définit la langue de spécialité comme suit :

« Constitue une langue de spécialité tout ensemble d'objets linguistiques et/ou langagiers défini par son rapport à une « spécialité ». Le français des affaires, le français scientifique et technique, sont ainsi du français de spécialité ; l'anglais juridique, l'anglais médical, de l'anglais de spécialité, etc. » (Petit, 2006, 03)

Nous allons évoquer comme exemple de langues de spécialité le langage juridique et le langage technique.

1- Le langage juridique

Le langage est un moyen de pensée, d'expression, de communication et de transmission de l'information. Les idées et les représentations n'existent pas en dehors de la langue. Le droit et la conscience juridique existent dans une forme de langue et sont exprimés par la terminologie et la phraséologie juridiques. En fait, la langue juridique est l'ensemble des moyens lexicaux, syntaxiques et stylistiques qui forment un texte juridique. Chaque texte a des bases lexicales, grammaticales et logiques organisées d'une façon déterminée en vue de transmettre l'information. Et c'est en fonction de l'objectif fonctionnel, que les textes juridiques varient selon l'organisation, les principes et la terminologie.

Mais on doit préciser que la langue juridique fait partie de la langue littéraire (c'est-à-dire la langue naturelle et normative). Elle répond à toutes les règles orthographiques, grammaticales et aux règles de ponctuation.

Le langage juridique se singularise par un vocabulaire spécialisé et par une structure syntaxique discursive singulière. C'est un langage professionnel dont la singularité a éveillé, ces dernières années, un grand intérêt dans des disciplines comme la linguistique.

Le langage juridique français se caractérise par :

- La neutralité et la froideur du style du document juridique.
- La cohérence de la présentation
- La précision et la simplicité de la présentation ce qui influe sur la qualité et l'efficacité du texte juridique.
- La clarté de l'exposition
- L'économie des moyens de la langue
- L'utilisation non intensive de la ponctuation
- L'emploi des phrases courtes
- L'emploi des phrases impersonnelles dans lesquelles l'auteur est absent.
- Les expressions ne s'adressent à personne

Le lexique de la langue juridique est formé par :

- La langue quotidienne
- Les termes purement juridiques et les termes d'autres spécialités (techniques et scientifiques).
- Les termes d'origine étrangère.
- Les clichés juridiques

Le jargon professionnel juridique est un discours relativement ouvert à un groupe social ou professionnel qui diffère du discours habituel par une composition spéciale des mots et des expressions. C'est une langue codée qui ne se comprend que dans un milieu professionnel bien déterminé. Par exemple les avocats utilisent dans leur langue des mots et des expressions qu'ils ont apprises lors de leurs contacts avec des criminels, et des alcooliques.

Le droit est étroitement lié à la langue qui le véhicule et qui constitue son mode d'expression et son milieu d'existence. Le discours du droit est, en fait, porteur d'une dimension culturelle qui se reflète non seulement dans les mots ou les termes propres à un système juridique, mais aussi dans la façon de les exprimer. D'ailleurs, nous pouvons dire que la langue du droit est soigneusement façonnée, même si elle reste hermétique et ambiguë.

2- **Le langage technique**

C'est sans aucun doute la langue de spécialité la plus utilisée, étant donné le volume de traduction représenté par les catalogues, modes d'emploi et autres manuels, lesquels sont rédigés selon un style bien particulier et présentent un vocabulaire hautement spécialisé.

Le style de ce langage doit être informatif, c'est-à-dire qu'il doit être complètement neutre et objectif car il a pour but d'informer ou de donner des explications. Son contenu doit être clair et précis, ses phrases plutôt courtes et on parle de la fonction référentielle (données objectives, définitions, chiffres, dates, noms, etc.). Le discours doit être impersonnel.

Quant à la terminologie, elle doit correspondre au vocabulaire utilisé habituellement par les spécialistes du secteur, mais elle doit surtout respecter le principe de la monosémie des termes, à savoir qu'un terme ne peut désigner qu'un seul et unique concept afin d'éviter toute confusion et de lever toute ambiguïté. Et pour assurer l'uniformité terminologique lors de la traduction de gros volumes, les linguistes élaborent généralement un glossaire répertoriant les termes techniques dans la langue de départ et dans celle d'arrivée avant de procéder à la traduction.

L'une des principales responsabilités des universités est de préparer les étudiants à occuper différentes fonctions dans la sphère socio-économique (Tremblay, Groleau & Doray, 2014), de le préparer à s'intégrer dans le domaine professionnel, à savoir comment il peut réussir sa communication et produire un discours clair et cohérent dans des situations de communications variées.

Prenons l'exemple de la communication au sein de l'entreprise. On demande à un manager de savoir communiquer. Savoir communiquer avec sa hiérarchie, son équipe, les autres intervenants dans l'entreprise et aussi les autres acteurs en-dehors de l'entreprise. Encore faut-il définir sur quoi repose une communication efficace. Il ya cinq points essentiels pour poser les bases d'une communication efficace au sein d'une entreprise. Tout d'abord, on doit avoir un objectif précis. Les grands communicateurs ont une idée claire de l'objectif de leur intervention, parfois très longtemps à l'avance. Ensuite, il faut développer son acuité sensorielle ce qui va permettre d'évaluer l'impact de nos interventions. En plus, il faut développer sa flexibilité comportementale. Aussi, il faut respecter le modèle du monde de l'autre. Enfin, on doit respecter son écologie c'est-à-dire il faut respecter notre environnement, nos valeurs, nos croyances de manière à ne pas se trouver dans des "mal-être" sous prétexte d'atteindre à tous prix notre but.

Ces cinq points sont applicables par tout le monde : dirigeant, cadres supérieurs, managers de proximité, collaborateurs etc.

Conclusion

Dans ce travail, nous avons essayé de mettre en relief et d'insister sur l'importance de l'apprentissage des langues de spécialité et des techniques de communication afin de bien former les futurs et les vrais professionnels.

Références

- Robrieux, Jean Jacques, Rhétorique et Argumentation, 2ème édition Nathan/Her, Paris 2000.

- Champagne, Claudette L'Argumentation et la communication, mai 2004

- Plantin, Ch., Essais sur l'argumentation, introduction à l'étude linguistique de la parole argumentative. Ed. Kimé, 1990.

- Breton, Philippe, « Les différents registres de la communication. », in L'argumentation dans la Communication. Ed. Repères.

- Bautier, Roger, De la Rhétorique à la communication, Grenoble: PUG, 1994.

- Bautier Roger, Cezinare Eliszabeth, Les logiques d'une conception moderne de la communication. , Paris, PUG, 2000.

- Miége, Bernard, La pensée communicationnelle. Paris. PUG., 1995

- Une logique de la communication, Paul Watzlawick, Janet Helmick Beavin, Don. D. Jackson; trad. par Janine Morche- Paris, ed du Seuil, 1972.

- CICUREL, Francine & DOURY, Marianne. (2001). Interactions et discours professionnels: usages et transmission. Paris : Presses Sorbonne Nouvelle.

- CHEVALLARD, Yves. (1985). La transposition didactique : du savoir savant au savoir enseigné. La Pensée Sauvage.

- GALISSON, René et COSTE, Daniel. (1976). Dictionnaire de didactique des langues. Paris, Hachette.

- GAUTIER, Laurent. (2014). Des langues de spécialité à la communication spécialisée: un nouveau paradigme de recherche à l'intersection entre sciences du langage, info-com et sciences cognitives? Etudes Interdisciplinaires en Sciences humaines, Collège Doctoral Francophone Régional d'Europe Centrale et Orientale en Sciences Humaines(CODFREURCOR), 1, pp.225-245.

- LERAT, Pierre. (1995). Les langues spécialisées. Paris, PUF. LERAT, Pierre. (2016). Langue et technique. Préface by Alain Rey. (Collection Vertige de la langue). Paris: Hermann.

- MERCELOT, Gérard. (2006). Négociations commerciales et objectifs spécifiques. De la description à l'enseignement des interactions orales professionnelles. Bern: Peter Lang.

- MOURLHON-DALLIES, Florence. (2008). Enseigner une langue à des fins professionnelles. Paris, Didier.

An Experimental Study on Improving Students' Self-Confidence Speaking in TPO Class, First-Year LMD Students at the University of Tlemcen, Algeria as Case Study

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Abstract

The purpose of this study is to bridge the gap between the teaching activities and the students' self-development by looking into approaches to improve the students' self-confidence in speaking classes in general and TPO courses in particular, at the English department at the University of Tlemcen. Due to this, a study was undertaken with first-year LMD students at the Abou Bakr BelkaidTlemcen Faculty of English Foreign Languages in a quasi-experimental method. To meet this end, data will be collected through (30) learners'questionnaires along with specially designed speaking confidence-tests are meant to gauge the students' perceptions and potential abilities. The findings highlight an important factor that might inhibit learners' self-confidence when it comes to speaking in the classroom. The psychological obstacles were coined to describe the most common psychological challenges that prevent students from communicating during oral sessions. Shyness, anxiety, a lack of self-confidence, a fear of making mistakes, a lack of interest in the subject, and a lack of motivation are all examples of students' interviews.

Keywords: Self-confidence, Techniques of Oral Production, Speaking, EFL Algerian Learners.

Introduction

English is widely used as a worldwide language in this era of globalization, which is significant. Currently, it is thought that developing the four primary language skills of listening, writing, reading, and speaking through a variety of communicative activities and strategies is essentially required for the mastery of that language as a continuous learning process in ESL/EFL classroom settings. The capacity to grasp speaking confidently is a challenging issue that both teachers and learners must deal with in foreign language teaching and learning. Most of the time, this challenge prompts teachers to consider the ideal classroom activities that students could require to boost their confidence and, as a result, advance their language skills. Now, it is believed that the mastery of that language as an ongoing learning process in ESL/EFL classroom settings requires the development of the four principal language skills, namely listening, writing, reading and speaking, by resorting to a wide range of communicative activities and strategies (Belmekki, 2018).

Context of the Study

In foreign language teaching and learning, the ability to master a speaking skill is a difficult task that both teachers and learners have to face. Most of the time, this difficulty leads teachers to think about the appropriate classroom activities which students may need to increase their self-confidence and, consequently improve their language proficiency. Hence, the use of a variety of communicative activities like discussing issues or classroom debates may help EFL students to gradually enhance their oral ability, and become effective communicators in that target language with a high degree of self-esteem (ibid).in this respect, Brown (2001, p.268) argues that speaking has many different components, including two main areas: accuracy and fluency, from a communicative standpoint. Accuracy refers to the correct use of language, grammar, and pronunciation, whereas fluency refers to the capacity to continue speaking spontaneously.

The students' input in the speaking class is extremely crucial. The teacher's role is merely to facilitate the teaching process. As a result, of participation in English-speaking class, individuals have to develop their self-confidence. According to Goleman in Mieke (2006, p. 45), self-confidence is the belief in oneself and one's talents. It may refer to how people perceive themselves and their abilities; each person has a distinct level of confidence. Experience and living circumstances both have a role in the growth of someone's self-confidence. It is tied to each individual's psychological experience. Shyness, communication difficulties, social anxiety, and a lack of assertiveness can all be symptoms of low confidence.

When compared to students with low self-confidence, students with high self-confidence have more drive and intention. More confident students may be more active in class and more excited about learning. It will promote the teaching and learning process. In this vein, individuals who have a high level of confidence may speak calmly and clearly with simple language years (1988, p.358). The findings of research conducted at the University of Tennessee by Louise Katz (2000) Public speaking anxiety is quite widespread among students, and the general public, Martin's Public Speaking Anxiety. In the same vein as the findings of this study, 20 to 85 percent of people suffer nervousness when speaking in public. These student concerns may lead to students avoiding certain subjects or even majors that demand oral presentations, never speaking in class, or embarking on a vocation that requires occasional speaking in front of a group. Students who are afraid to speak in public shun social activities as well.Andrianto and Dewi (2006) conducted a study on public speaking anxiety at

the faculty of Universitas 4 MuhammadiahPurwokerto to investigate the association between mentality and public speaking nervousness (UMP). This study investigates the relationship between mindset and public speaking anxiety, demonstrating that the better a student's mindset, the lower the degree of anxiety experienced, and vice versa, the worse a student's ability to think, the greater the amount of anxiety faced while speaking in public. Moreover, Ratnasari (2009) summarizes the findings of his study, which show that there is a link between self-confidence and interpersonal communication abilities. Individuals with self-confidence can overcome their fears or negative beliefs about themselves and others to interact effectively. In this study, the researcher focuses on the relationship between students' self-confidence and their speaking ability by providing the most powerful techniques to boost students' confidence while speaking. In this regard, Richards (2016) argued that conversations, with all their different aspects, formats and specifications, a reliable to guide learners towards a higher level of mastery of the skill and, consequently; towards higher levels of communicative performance regarding the improvement of students' self-confidence degree. Furthermore, the third edition of the Collin Cobuild English Dictionary for Advanced Learners (2001, p.1468) defines Speaking as the act of giving a speech or a discussion. Giving a speech or giving a talk is a way of sharing someone's ideas. They are conveying the speaker's mental message to the listener. A monologue or a conversation can be used in the speech. The speakers in a monologue speech merely want to communicate their ideas, whereas, in a dialogue, both the speaker and the listener must understand what they are talking about in order to have a communicative conversation.

Conversation as a teaching/learning classroom technique is one of the most important activities in the whole process of mastering the language. It is believed that in such settings and while implementing such activities, the exchange of ideas takes place in a systemic and structured way. According to Lakshman*et al,* while involved in a group discussion, the students are often required to speak constantly on a topic with appropriate strategies.

The most crucial aspect of language learning is teaching English conversation (Milova, 2018). Unfortunately, this way of teaching is far more difficult to implement than teaching grammar and writing skills. It takes both teachers' and students' energy to deliver conversation lessons or organize discussion activities that encourage all members of the class to make use of English effectively (ibid). Furthermore, there are a significant number of Ukrainian and Western foreign language-teaching methodologists and linguists who concentrate their basic research and papers on language acquisition on the topic of teaching conversation in English language classrooms using conversational strategies. Among them are the following: E.Anthony, S.Ann, E. Anthony, K. Beare, G. Brown, A. Chaney, P. Cole, J. Dobson, G. Gibson, H. Kayı, W.R. Lee, M. Magher, D. Nunan, A.Palmer, L.Regan, P. Sze and others. There are many reasons behind choosing these techniques by the researcher. Besides, Harizaj, et al (2015) conducted research on the implementation of group discussion as a way to improve students' writing; they found that through the implementation of group discussion, the students develop social communicative skills which help them to express their ideas. Also, Frydaki (2016) states that the experimental group he used in his research achieved a significant improvement in literature understanding after the implementation of group discussion. Similarly, during discussions, the students are likely to interact, participate, receive and respond to the information shared by the different members of the group, and this is a core component of an active learning environment (Mckeachie and Svinichi 2006). The highest and most creative stage of the language learning process is teaching conversation. Likewise, Milova, 2015, p.170 describes the ideas and steps of teaching conversation using

numerous conversational techniques. Teachers are required to use specific conversational tactics such as small group discussions, role-plays, simulations, improvisations, debates, interviews, and others to achieve the goal of developing learners' conversational skills (ibid). Moreover, teachers play a huge role in choosing the right topics for class discussions. Students are likely to show higher levels of attentiveness, engagement and motivation as they relate to the material and topics that are being discussed to their own experience provided they are relevant to their interests and expectations (Bligh, 2000). In this way, Adelab and Matthias (2013) claim that the discussion technique is an appropriate way to involve students in polemical topics, which are conducive to having a better, grasp of the target language. This is simply because such an approach is going to help and encourage them to communicate more easily and efficiently. On the hole, AJ. Hoge (effortless.com) claimed that most learners think that vocabulary and grammar are essential to learning the language. What determines success, however, he states, is not language study per se, but it is rather the psychological aspect involved in this process. The learners' motivation, passion and enthusiasm for English are what create the mastery of, and ultimately success in speaking English. In addition, some aspects hinder students' speaking ability, one of which is the lack of confidence as the students are often embarrassed or laughed at when they make mistakes (Shabrina 2008). However, and contrary to those with a low level of self-confidence, students with a high degree of self-confidence can engage easily and actively during the learning activity (Doquarini, 2013).

Methodology

a- Subjects

The study focuses on first-year students at Algeria's Tlemcen University. There were 30 learners selected at random. This comprised people between the ages of 18 and 21, Baccalaureate graduates from a variety of fields (such as the humanities, life sciences, and foreign languages), and those who had been studying the English language for a total of seven years before returning to school. In total, our students studied English for four years in middle school and three years in secondary school. They all essentially share the characteristics and outcomes of having studied in the same educational system because they all attended government schools. The learners' first foreign language is French, and their second is English. Arabic is the national and official language of the Peoples' Democratic and the Republic of Algeria, making it their native tongue. Students in their first year of college are exposed to the basics of the English language through courses that are designed to build on what they learned in high school. These modules include grammar, oral expression, written production, linguistics, human social sciences, study skills, research methods, reading comprehension, and information and communication technologies. They are also focused on the acquisition of fundamental linguistic qualities. It is important to note, nevertheless, that the participants had already learned some fundamental concepts about honing their speaking abilities through classes on oral expression or ICT.

b- Procedures and Selected Materials

One of the most difficult problems any researcher can encounter when doing a study of this kind is selecting the right sample. According to Dornyei (2007, p.96), "the population is the group of people that the study is about, and the sample is the set of participants that the researcher analyzes in an empirical investigation". Thirty 30) EFL students from the University of Tlemcen make up the sample for the current study. The type of tools a

researcher chooses will depend on the nature of the research, and this is because the data gathering stage of the research is crucial since it will determine the findings and conclusions that the study will produce. This is why each researcher must choose carefully what kind of data they intend to collect and use for their project. Research or measurement instruments or tools are the techniques researchers use to gather data. As a result, and following the multimethod approach required by the nature of the research, which calls for multiple sources of data collection, the researcher has chosen a wide range of instruments to both to vary the sources and enable the collection of the broadest range of information samples. They are essential for research because they make data collecting dependable so that it may be examined afterward (Aina, 2004). This includes the use of questionnaires for our EFL learners in the control and experimental groups at the start of the study. One of the most popular methods for gathering information from study participants is the use of questionnaires. In general, they look for the opinions of people in a sample or a population on matters directly connected to the research study's aims (Aina, 2004, p. 348). Since the purpose of the questions in these questionnaires is to collect information from the participants, they must be valid and trustworthy for the information gathered to support the research's findings.

This study's objectives include learning more about the fundamental causes of first-year students' poor oral expression abilities as well as ways to improve students' speaking abilities. Another key objective is to determine whether teachers incorporate communicative activities into their lesson plans. This study's objectives include learning more about the fundamental causes of first-year students' poor oral expression abilities with low self-confidence as well as ways to improve students' speaking performance.

Results and Discussions

Table 1: Do you feel embarrassed when you speak English in class?

	Frequency	Percentage (valid)
Disagree	14	46,67
Agree	10	33,33
<no codes>	6	20,00
TOTAL (valid)	30	100,00
Missing	0	-
TOTAL	30	-

Table 1 shows that 14 students disagree with the claim that they feel embarrassed when they speak in the class compared to 10 students who feel embarrassed while 6 students did not answer this question. This table is illustrated in the following figure.
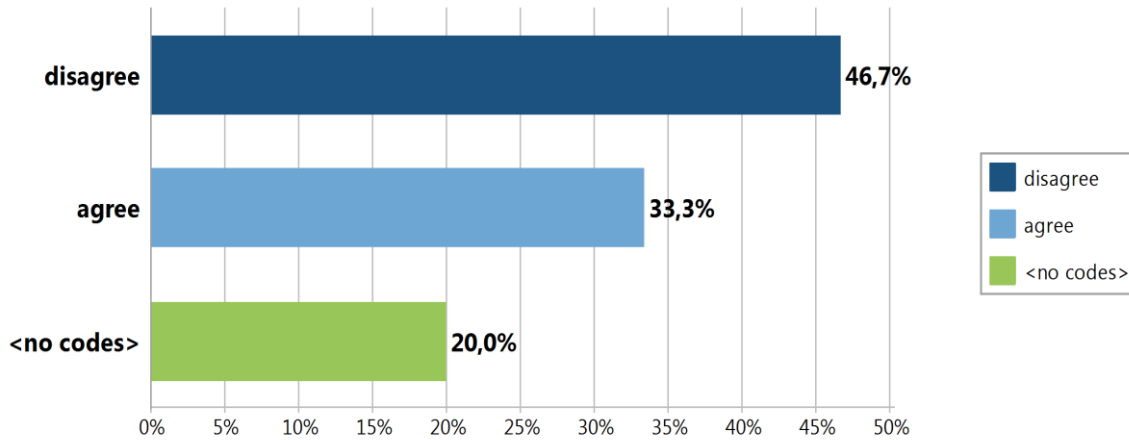
Figure 1: I feel embarrassed when I speak English in the class

Figure 1 shows the percentage of the question I feel embarrassed about when I speak English in class. It reports 46, 7% of students do not feel embarrassed while 33, 3% feel embarrassed and 20% did not answer this question. This finding highlights the fact that most students feel at ease when they talk. Those who feel embarrassed show a high percentage and measures should be done in order to help these students overcome this feeling and encourage them to participate in TPO. In this regard, Bennaoui's results (2012, p.17), students share their viewpoints, thoughts, and even emotions through a variety of practices and methodologies, without sacrificing the use of authentic materials and The primary goal of Oral Expression is to develop students' English skills by engaging them in a variety of practical courses in which they must debate, discuss, and present their ideas to overcome students embarrassing in speaking.

Table 2 : Do you feel that your classmates speak English better than you do?

	Frequency	**Percentage**
Agree	15	50,00
Disagree	3	10,00
DOCUMENTS with code(s)	18	60,00
DOCUMENTS without code(s)	12	40,00
ANALYZED DOCUMENTS	30	100,00

According to table 2, 15 students think that their classmates speak better than they do while 3 students don't think so. 12 students didn't answer this question. Schematically, this table is represented in the following figure.
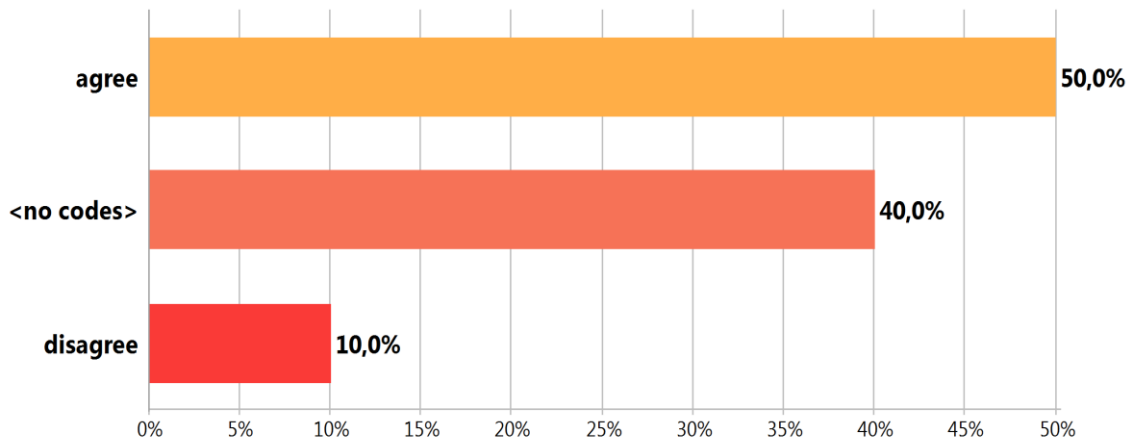
Figure 2: Do you feel that your classmates speak English better than you do?

Figure 2 shows that 50 % of the students feel that their classmates speak English better than they do compare to 10 who feel the opposite. 40% missed answering this question. This finding reflects the high percentage of the students who think that their peers have better speaking skills than they do which can play as an obstacle to learners' speaking confidence and will lead them to limit their participation and motivation to speak There is evidence for this in the ELT literature, which emphasizes the role of student motivation in maximizing the learning process. (e.g. Dornyei, 1994, 2001; Ellis, 2000; Oxford, 1990; Richards and Schmidt, 2002; Gardner 2003, among others). It has then been shown that while numerous factors can lead to the achievement of the learning process's ultimate goals, self-confidence remains the most critical factor in getting learners to be fully engaged in the learning process, as many educators, educational psychologists, and other researchers have shown that self-confidence, along with motivation up to a degree, is the predictor that "correlates higher with language achievement."Masgoret and Gardner 2003, as well as Dörnyei 1990).

Dornyei (2001, as quoted in Rezig, 2015, p. 34), believes that the relationship between motivation and second/foreign language learning is cyclical, moving up and down, influencing and being influenced by language achievement. Similarly, Ellis (2000) contends that motivation entails the attitude of affective states that influence the degree of effort that learners make to learn in L2 (p. 75). As a result, motivation is linked to the initiation, course, strength, and consistency of actions.

According to the perspectives expressed above, motivation is a significant factor that affects learners' level of commitment and their ability to learn successfully. Speaking motivation is the ability to talk openly without fear of embarrassment.

To dig deeper into the learners' feelings when they speak, an analysis of learners' feelings of confusion and nervosity when they speak is shown in the following table.

Table 3 : I feel nervous and confused when I am speaking in English

	Frequency	**Percentage**
Agree	15	50,00
Disagree	3	10,00
DOCUMENTS with code(s)	18	60,00

| DOCUMENTS without code(s) | 12 | 40,00 |
| ANALYZED DOCUMENTS | 30 | 100,00 |

Table 3 points out that 15 students feel nervous and confused when speaking in English compared to 3 students who don't feel nervous and confused. 12 students did answer this question. Schematically, this table is represented in the following figure.
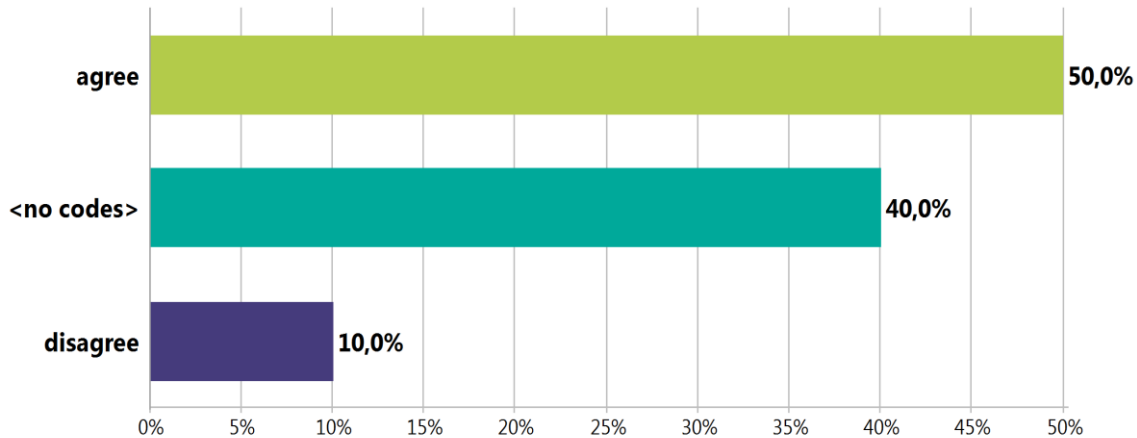

Figure 3/ I feel nervous and confused when I am speaking in English

Figure 3 shows that 50% of the learners agree with the fact that they feel nervous and confused when they speak English in the classroom, while 10% don't feel nervous and confused and 40% did not give their answers. This finding highlights an important factor that might inhibit learners' self-confidence when it comes to speaking in the classroom. The "psychological obstacles" was coined to describe the most common psychological challenges that prevent students from communicating during oral sessions. Shyness, anxiety, a lack of self-confidence, a fear of making mistakes, a lack of interest in the subject, and a lack of motivation are all examples. Similarly, according to Juhan (2012, p.101), shyness is an emotional issue that many students experience when required to talk in EFL classrooms (as cited in Bourezzane, 2015, p.43). Shyness, like the other psychological causes, inhibits students' oral involvement. Students prefer to stop speaking because they are self-conscious while speaking in front of their peers. That is to say shyness, anxiety and feeling afraid to speak lead to a lack of self-confidence.

Teachers should find ways to make students at ease and comfortable to help them to overcome confusion and nervosity when they speak. Another factor that was analysed concerned learners' fear that their classmates will laugh at them when they speak.

The results are shown below. This table is schematically represented in figure 4.7.
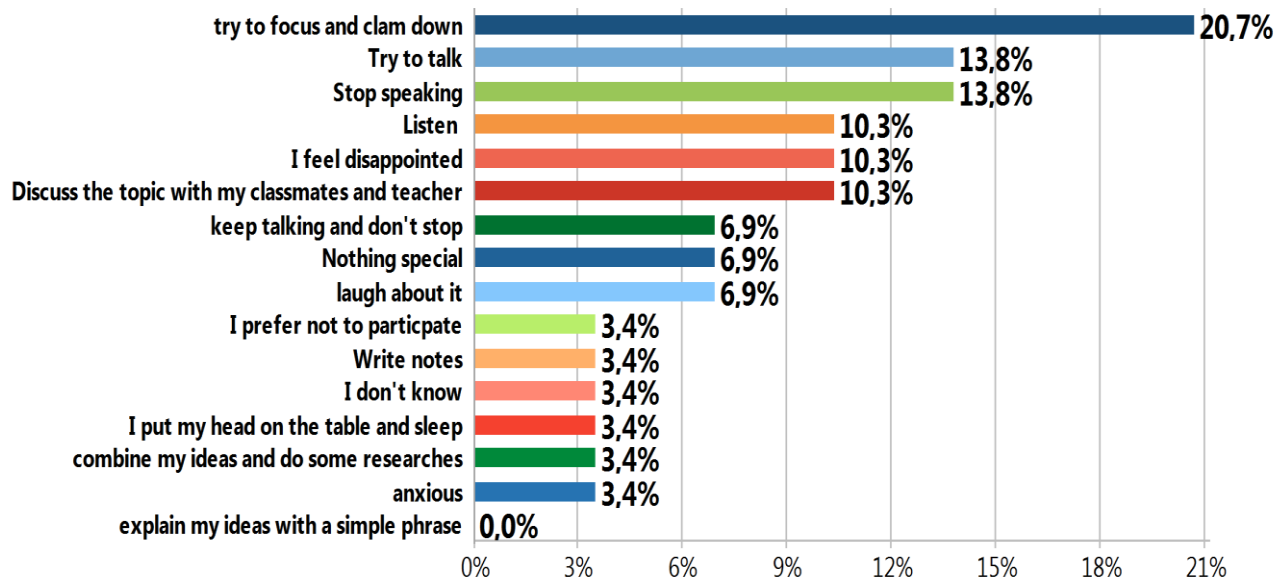
Figure 4: When discussing a topic and you feel that you are less confident, what do you do?

Figure 4 shows that the percentage of references in which learners adopt the reaction of "I try to focus and calm down" which is equal to 20, 7% followed by "I try to talk" with 13,8%, "stop speaking", "listen" and "I feel disappointed" with 10,3%. The lowest percentages refer to "keep talking and don't stop", "nothing special" and "laugh about it" with 6,9% and "I prefer not to participate", "write notes", "I don't know", "I put my head on the table and sleep", "combine my ideas and do some researches", "anxious" and "explain my ideas with a simple phrase" with a 3,4% each. This figure is illustrated in the following word cloud.

Figure 4 shows that the utterance "I try to focus and calm down" is the most highlighted one, followed by "stop speaking" and "I feel disappointed".These results show that learners' lack of confidence is an important factor that prevents them from talking and speaking English in class. This might explain why many students try to avoid talking and participating in the class because they lack confidence and they fear to lose their face in front

of their classmates. It will be more interesting to involve learners in teamwork, debates and group discussions to be more at ease when talking.

It becomes urgent for teachers to think about ways to increase learners' self-confidence when implementing speaking activities. Among these ways, teachers can use teamwork, debates and discussions which are found to be the most preferred activities in the English classroom as illustrated in table 5.

Table 5: What do you think when the teacher praises your speaking progress?

	Documents	**Percentage**
more confident	12	46,15
motivate me to progress	7	26,92
Feel happy	6	23,08
Proud	3	11,54
I appreciate it	3	11,54
Shy	3	11,54
Helpful	2	7,69
work harder	2	7,69
Listen to him and try to calm	1	3,85
Nothing	1	3,85
I correct my speaking mistakes	1	3,85
DOCUMENTS with code(s)	26	100,00
DOCUMENTS without code(s)	4	-
ANALYZED DOCUMENTS	30	-

Table 5 presents learners' reactions when their teacher praises their speaking progress. In fact, feeling more confident has the highest frequency as it has been reported 12 times followed by motivating me to progress 7 times. The third most frequently occurring reaction is feeling happy 6 times. Feeling proud, I appreciate it, and feelings shy have been reported 3 times each. The reactions of helpful and working harder have been mentioned 2 times each, while the lowest occurring reactions are listening to him and trying to calm him, doing nothing and I correct my speaking mistakes with 1 occurrence each. Schematically this table is reproduced in figure 5.
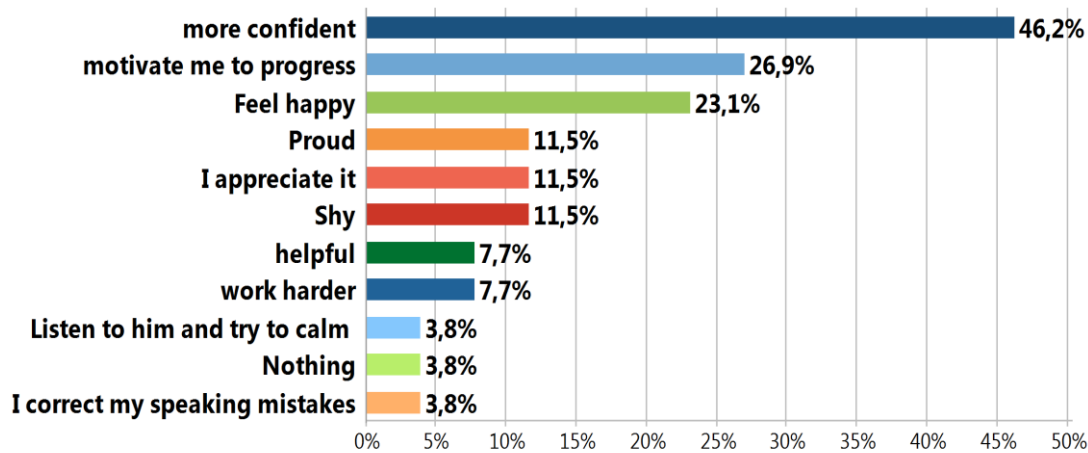
Figure 5: What do you think when the teacher praises your speaking progress?

Figure 5 shows that feeling more confident has reached 46,2% followed by motivating me to progress with 26,6%. The third most frequently occurring reaction is feeling happy with 23, 1%. Feeling proud, appreciative and feeling shy have reached 11, 5% each, while helpful and working harder accounted for 7,7% each. The lowest percentages concern listening to him and trying to calm him, doing nothing and I correct my speaking mistakes with 3, 8% each. This figure is illustrated in the following word cloud.
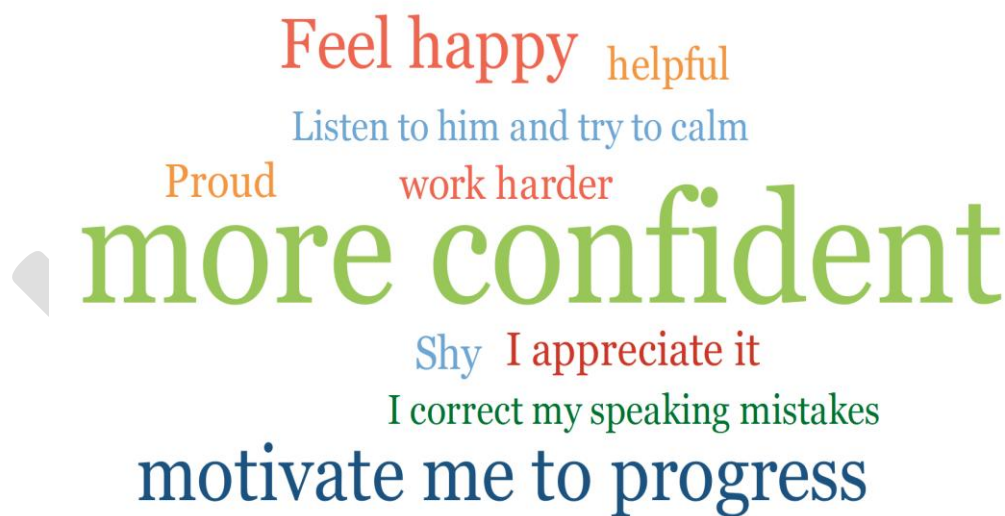
What do you think when the teacher praises your speaking progress?

As shown in figure 5, feeling more confident is the most frequently occurring learners' reaction when their teacher praises their speaking progress. Motivate me to progress comes the second reaction and feeling happy comes third. Such a finding points out the importance of praise and positive teachers' reactions to the student's self-confidence and speaking performance. The teachers must praise their students in order to help them gain self-confidence which appears to be one of the success factors to achieve high speaking competence. In this review, Caring is the act of bringing out the best in students by affirming and encouraging them (stronge, 2007, p.23). Successful teachers care for their students and caring has a significant impact on students' self-esteem. As a result, teachers should

demonstrate to students that they care about their learning and development (ibid). Stronge (2007) said in the same way that successful teachers practice focused and sympathetic listening to show students that they are concerned about students' lives in general, not just what happens in the classroom (p.23). Stronge (2007, p.24) also added recognizing the issues and questions, as well as knowing students formally and informally. Caring is important in increasing learners' trust and success in learning tasks. As a result, it is important to care for the students and praise them by even calling their names, which seems to be a simple thing by the teacher but this plays a huge role in the psychology of the learner because this care will aid in the development of their self-confidence. Caring encourages students to be more confident and successful as the first-year LMD students at the University of Tlemcen responded in this research work. In this line, praise in the classroom is a very effective way to keep pupils motivated and confident in their talents. Any pleasant and complimentary statements addressed to the kids to encourage them, such as "good," "excellent," and so on, are examples of praise. "Good," "good job," and "thanks" are all instances of unlabeled praises that teachers may deliver to pupils, according to Knight and Lee (2008, p.38). Praise motivates learners to work harder because they know their efforts are valued. "As a result, you can employ behaviors," Lee and Knight (2008) wrote in response to this remark (ibid). When a teacher utilizes praise during a student's presentation, it will support them and boost their self-confidence.

In countries where English is taught as a foreign language, whatever learners' profiles are drawn, whatever objectives are set and whatever techniques and tasks are resorted to having to answer the particular needs and expectations of the learners in that setting (see the second chapter). Education specialists, including teachers, have to make up for whatever discrepancies there might be as far as the practice and communicative aspects of their teaching processes are concerned. Because the learners have very few opportunities to use the language outside the classroom, they need to be taught how to deal with the awkward or difficult situations they might find themselves in when they travel abroad and have to use the target language (English in this case) for real-life tasks. This type of pressure is absent when the teaching of the language takes place in countries or in settings where the learner is constantly immersed in the language daily. To wrap up, the first-year LMD students at the University of Tlemcen prefer teachers' encouragement and caring, because these praises make them more confident, and motivate them to progress and feel happy and proud of themselves.

Conclusion

The current study is an investigation conducted by first-year students at ABU BEKR BELKAID UNIVERSITY. It looks into how to make the students feel at ease so that they can speak more effectively and with greater confidence. Engaging in communicative circumstances while learning to speak will help the learner activate their methods and develop their communicative abilities. Students must actively utilize language that is correct in its grammar and pronunciation to build their speaking skills. They can foster an environment where students can connect and talk freely without feeling any constraint or shyness, making them the ideal choice for that purpose. Students who are learning English as a second language (EFL) should be given situations that encourage speaking. They might be able to help kids understand their worries and develop coping mechanisms for them. They can help kids retain positive self-perceptions and avoid pessimistic notions. When conducting oral exercises, they should create a relaxed and entertaining environment and provide interesting tasks that give all students more time and opportunity. In light of this, several suggestions and

recommendations have been made in an effort to allay learners' concerns and give teachers the tools they need to teach speaking skills confidently and effectively.

References

Allwright, R. (1984). *the importance of Interaction in Classroom Language Learning.*

Alden, M, J; (1997). How to speak how to listen: a comparison to the classic bestseller how to read a book. New York: Touchstone Rockefeller center.

AppliedLinguistic5:156-71«www.http://applij.Oxfordjournals.org/cgi/pdf-extract/5/2/»
Allwright, D. & Baily, K.M. (1991). *Focus on the Language Classroom*. Oxford: Oxford University Press.

Baker, J. and Westrup.H. (2003). *Essential Speaking Skills: A Handbook for English Language Teachers.* London: Continuum International Publishing

Bowman, B., Burkart, G., & Robson, B. (1989).*TEFL/ TESL: Teaching English as a Second Language*. USA: Centre of Applied Linguistics.

Bygate, M.(1987). Speaking. Oxford: Oxford University Press.Brown, H. D. (2000). *Principles of language learning and teaching*. (4th Ed.). San Francisco: Addison Wesley Longman, Inc.

Brown, H. D. (2000). *Teaching by Principles: An Interactive Approach to Language Pedagogy* (2nd Ed.). San Francisco: Pearson Education.

Brown, H. D. (2007). *Principles of Language Learning and Teaching*. San Francisco: Pearson Education.

Celce-Murcia, M. (ed). (2001). *Teaching English as a Second or Foreign Language*, 3rd edition. Boston, MA: Heinle&Heinle.

Coulthard, M. (1977*).An Introduction to Discourse Analysis*. London: Longman

Echevarria, J.,Vogt, M.E. & Short, D.J. (2008). Making Content Comprehensible for English Learners: The Siop Model.NewYork: Pearson Education.

Ellis, R. &Fotos, S. (1999). *Learning a Second Language through interaction*. Oxford: Oxford University Press

Ellis, R. (2003). *Task-Based Language Learning and Teaching*. Oxford: Oxford University Press

Ellis, R. &Barkhuizen, G. (2005*). Analyzing Learner Language*. Oxford: Oxford University Press

Harmer, J. (2001). *The Practice of English Language Teaching*. Harlow: Pearson Education Ltd.

Harmer, J. (2009*). How to Teach English*. London: Longman.

Hedge, T. (2000). *Teaching and Learning in the Language Classroom*. Oxford: Oxford University Press

Hughes, R. (2002). *Teaching and Researching Speaking*. New York: Pearson Education.

Lindsay, C. & Knight, P. (2006*). Learning and Teaching English*: A Course for Teachers. Oxford: Oxford University Press

Littlewood, W. (1999). *Communicate Language Teaching*. Cambridge: Cambridge University Press.

Luama, S. (2004). *Assessing Speaking*. Cambridge: Cambridge University Press.

Mackey, A. (2007). *The Conversational Interaction in Second Language Acquisition*. Oxford: Oxford University Press

McCarthy, M. (1991).*Discourse Analysis for Language Teachers*. New York: Cambridge University Press.

Naegle, P. (2002). *The New Teacher¨s Complete Sourcebook*. USA: Scholastic Professional Book.

OMalley, J.M. & Valdez Pierce, L. (1996*). Authentic Assessment for English Language Learners*. MA: Addison-Wesley.

Parrott, M. (1993). *Tasks for Language Teachers*. New York: Cambridge University Press.

Redmond, M.V. &Vrchota, D. (2007*). Everyday Public Speaking*. England: Pearson Education.

Richards, J.C. & Lockhart, C. (1996). *Reflective Teaching in Second Language Teaching Classrooms*. Cambridge: Cambridge University Press.

Richards, J.C. & Rodgers, T.S. (2001).*Approaches and Methods in Language Teaching*.

Retaeved 18 January 2001 from http: // itself, org / Articles / schoepp-songs html.

Schopp, K(2001). Reasons for using songs in ESL /EFL classroom.

Winter. (1999). speaking of teaching: center for teaching and learning, 10 (2) pp 1-4.

Metaphor-Based Schemas and Text Representations in English and Tunisian Arabic: The Case of M.A.Students of English at ISLT

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Abstract

Four experiments were conducted to investigate the role of metaphor-based schemas in text comprehension and representation in English and Tunisian Arabic among 80 Tunisian MA students of English. The study explores specifically, the extent to which topic shifts, familiarity with metaphors and semantic relatedness, are responsible for connecting elements within a text. The data were collected through two tasks: Priming in item recognition task and two off-line questionnaires. Results revealed that: (1) Schemas facilitate recognition judgments for schema-related sentences presented in texts in English and Tunisian Arabic. (2) Priming effect is not evident between words referring to the same domain. (3) Priming effect is evident between words referring to different domains. (4) Priming effect does not result from topic shifts, semantic relatedness, and the degree of familiarity. Interestingly, *connections between primes and targets are attributed to their shared relationship to a metaphor-based schema and not merely to a shared reference to a common subject matter. These findings point to the role of metaphor-based schema in fostering coherence within readers' text representations in English and Tunisian Arabic.*

Keywords: Text comprehension, Metaphor-based schemas, Priming effect, Familiarity, Semantic relatedness, Topic shifts.

1. Introduction

1.1. Scope and Aim

The study fits within the field of language comprehension, in general, and metaphor comprehension, in particular. First, it aims at investigating the role of metaphor-based schemas in text comprehension and representation across two languages: English and Tunisian Arabic. Second, it explores the extent to which semantic relatedness, topic shifts and familiarity with metaphors can affect text representation. Third, it also probes into the difference between native language (i,e., Tunisian Arabic) and non-native language (English) in priming effects.

1.2. Rationale

The rationale for this study stems from an increasing need for language comprehension research in the Tunisian context. Language processing studies are very limited. This study is an attempt to bring about awareness to language processing, in general, and metaphor processing, in particular. Furthermore, there have been few attempts to shed light on the role of metaphors in text comprehension and representation. This study aims to fill this gap, at least partially, by conducting four experiments in English, the most researched language, and in Tunisian Arabic, an under-researched language. Particularly, it investigates the extent to which metaphor-based schemas could create connections within memory representations.

2. Theoretical background

In 1980, the publication of *Metaphors We Live By* (Lakoff & Johnson, 1980) made a milestone in metaphor study. In this book, the idea of "conceptual metaphor" was put forward for the first time. Conceptual Metaphor Theorybrings a turning point in metaphor study. Lakoff's cognitive view on metaphor is regarded as a breakthrough in metaphor study. Since then, metaphor is not only a figure of speech. It is no longer regarded as a mere textual, stylistic decoration considered merely as an ornamental device that is restricted to literature and poetry. Instead, metaphor is understood as a matter of thought and human cognition (Lakoff & Johnson, 1980; Lakoff, 1993) which pervades our everyday lives. Lakoff and Johnson (1980) stated their aims and claimed forthrightly at the outset (p.3) that, "Metaphor is pervasive in everyday life, not just in language but in thought and action". In this view, metaphor becomes a valuable cognitive tool and an inevitable part of everyday human communication,

Metaphor is a conceptual phenomenon (Lakoff, 1980). It is, generally, defined as a conceptual mapping of certain salient features from one vehicle (source) domain to another topic (target) domain. These conceptual metaphors play a special role in organizing conceptual knowledge through the interaction of source and target domains (Gentner, 1983). Allbritton (1995) found that conceptual metaphors are responsible for the existence of schematic knowledge structures. He claimed that these structures may affect the way information about a metaphor's topic domain is processed and represented in memory. The representational structure that maps knowledge about a conceptual metaphor's vehicle domain onto its topic domain can be termed a metaphor-based schema. The domain of time, for example, is often understood through the schema

TIME IS MONEY, in which conceptual structures associated with money (source domain) are mapped onto the domain of time (target domain), and in the process, influence the way time is understood. Allbritton, Mckoon, & Gerrig, (1995)found evidence that metaphor-based schemas can create connections between elements of readers' text representations. That is, metaphors may contribute to the ongoing process of text comprehension (Allbritton, 2007).

Metaphor-based schemas are described as "extended, analogy-like metaphors similar to conceptual metaphors" (Allbritton, 2007, p. 3). Allbritton (2007) assumed that, in Lakoff's theory, conceptual metaphors are described as entrenched -extended metaphors that shape our concepts and experiences. He also postulated that metaphor-based schema, however, is intended to be a broader term, encompassing both familiar extended metaphors such as the conceptual metaphors identified by Lakoff and Johnson as well as coherent but unfamiliar extended metaphors. Metaphor-based schemas are assumed to be part of the world knowledge that readers bring to the process of text comprehension (Allbritton et al.1995).

The research attempts to investigate how metaphors are interpreted have led to three main approaches: the structural mapping view, the attributive categorization view, and the conceptual metaphor view. The structural mapping view sees metaphors as analogies. They are comparisons between two situations that highlight common information and invite inferences from the source (the vehicle) to the target (the topic) (Gentner& Bowdle, 2001).

The attributive categorization view assumes that metaphor interpretation does not require any such pre-existing metaphorical structures between source and target domains that are part of long-term memory (Allbritton, 1995; Glucksberg, McGlone, & Manfredi 1997). Instead, metaphors are comprehended via class-inclusion assertions (Gong & Ahrens, 2007).In other words, attributional models characterize metaphor comprehension as a search for properties of the vehicle concept (source) that can plausibly be attributed to the topic (target) (Bortfeld & McGlone, 2001). According to this view, metaphor-based schemas are not part of readers' pre-existing knowledge but are instead constructed ad hoc during comprehension (Allbritton et al.1995).

Gong & Ahrens (2009) claimed that the conceptual metaphor view, however, proposes that metaphors rely on a set of established mappings between pairs of domains in long-term memory. In other words, metaphors are instantiations of conceptual mappings that are understood via mapping source/concrete domains to target/abstract domains. Thus, comprehension of the metaphor *"This relationship is going nowhere"* proceeds via a preexisting system of correspondences between the conceptual domains of *love (target)*and *journey (source)*(Lakoff,1980). These conceptual mappings play a role in metaphor understanding in discourse. This view predicts that metaphorical expressions with congruent (i.e., consistent) mappings to the prior context are interpreted more easily and effortlessly than ones with incongruent (i.e., inconsistent) mappings to the prior context (Kong & Ahrens, 2009). Studies on idioms (Gibbs, 1994) and metaphors (Allbritton et al., 1995) showed evidence for the congruency effect in

discourse in offline rating, online priming, and reading experiments. But, the attributive categorization approach does not predict a metaphorical congruent effect in discourse (Gong & Ahrens, 2003).

However, the question of which account better explains how metaphors are understood and whether the conceptual mappings between source-target domain pairings are activated in ongoing discourse is still controversial. In this study, conceptual metaphors are predicted to play a role in connecting elements within a text. This facilitating role of metaphors reflects the view of conceptual metaphors that motivated our research.

Allbritton(1995) demonstrated that conceptual metaphors foster connections in memory between elements of a text during comprehension. This entails that words or sentences, sharing a relationship to a metaphor-based schema, were found to be more closely related in memory. Allbritton (2007) extended the findings of his previous research (1995) on the use of metaphors to make connections in text comprehension. The results of his study were consistent with the hypothesis claiming that there are schemas in long-term memory associated with conceptual metaphors. It was also found that these metaphor-based schemas can be accessed to make connections in readers' memory for a text. In a series of experiments, testing participants' memory for texts, Allbritton et al. (1995) and Allbritton (2007) found evidence that metaphor-based schemas create connections between elements of readers' text representations.

The study addresses the central question about conceptual metaphors' role in text comprehension based on the theories and functions discussed above. Indeed, four experiments were conducted to probe into the facilitating role of conceptual metaphors in text comprehension. The previous research on the effects of metaphor in text comprehension proved that conceptual metaphors could connect parts of a text representation, as evidenced by priming in word and sentence recognition tests. The study extended the previous findings with a priming methodology.

  Data were collected using online priming in item recognition tasks and offline questionnaires to investigate the role of conceptual metaphors in creating connections in memory between elements of a text. Thus, three questions were addressed in this study:

1. Do metaphor-based schemas have an effect on text comprehension and representation in memory?

2. Do topic shifts, semantic relatedness and familiarity with metaphors affect text comprehension and representation?

3. What is the difference between the comprehension of texts in Tunisian Arabic and English? Is the role of metaphor-based schema more evident in the native language which is Tunisian Arabic than L2?

3. Methodology

3.1.Experiment 1

3.1.1. Participants andMaterials

Twenty Tunisian students of English enrolled in Master's classes at the"Institut Supérieur des Langues de Tunis" were subjects of the study. Their age ranged from 19 to 25 years old. All students are from LMD (*Licence, Master, and Doctorate*) system. Their native language is Tunisian Arabic and their L2 are both English and French.

The researcher used English and Tunisian Arabic texts to investigate the role of metaphor-based schemas in text comprehension in English and Tunisian Arabic. The English texts were adapted from a study by Allbritton et al., 1995. Before the study, some students of English checked their familiarity with these texts. Only twenty out of forty stories were used and the others were removed because they proved to be quite difficult and unfamiliar.

Twenty texts were prepared in Tunisian Arabic with Arabic calligraphy. They were a translation of the English version. The translation was based on the researcher's intuition as a native speaker of Tunisian Arabic. It was also cross-checked informally by postgraduate students and English teachers to minimize the risk of interference from English expressions. Some attention was paid to the metaphors used in Tunisian Arabictaking into consideration cultural specificity and universality issues. Generally, the data in Tunisian Arabic comes from the conventionalized expressions used in everyday speech. The works of Maalej (2004) and Hamdi (2010) proved to be useful guides to extracting some of the metaphors.

Ultimately, 40 brief texts were used in the four experiments (i.e., 20 experimental and 20 filler passages in English and Tunisian Arabic). Twenty of the passages in both languages contain sentences that are related to a metaphor-based schema with a different schema used in each passage. Many of the English schemas used in the passages correspond to a list of frequently used conceptual metaphors identified by Lakoff and Johnson (1980). The other 20 passages did not refer to metaphor-based schemas, and they served as fillers.

Two versions were written for each passage. One in which the metaphor-based schema is instantiated throughout the passage (the schema-matching version) and another in which the schema is only instantiated in the first part of the passage but not at the end of the passage (the non-matching version). Each passage begins with two or three lines that identified the setting of the story. The third or fourth line introduces the metaphor-based schema which later serves as the priming sentence in the recognition test.

The next three to four sentences of the passage are different in the two versions. In the matching- version, these sentences contain one or more additional sentences related

to the metaphor-based schema. In the non- matching version, they instead create a context in which the final sentence of the passage is unlikely to be interpreted as being related to the metaphor-based schema.

3.1.2. Data Collection Procedure and Analysis

Subjects were tested individually on a computer running PsychoPy 2 software version 1.77 (Peirce, 2009). Instructions for the experiments appeared on the screen in English and were further explained orally by the researcher in Tunisian Arabic. When participants were ready, they pressed any key and a paragraph appeared at the center of the screen. They were told to read each text carefully. And they were instructed that once they pressed a button, they could not be able to backtrack the proceeding text. Reaction time for the test sentence was measured from the onset of the sentence to the button pressed by the participant. On average, participants took approximately 50 minutes to complete each experiment.

When the participant pressed a key after reading the instructions, the trial session started and the first passage appeared on the screen and remained for a fixed amount of time (approximately 31 seconds). This provided enough time for participants to read each passage. When the time elapsed, the first test sentence appeared. After the second trial passage had been presented, the practice session started. Participants were told to press the right cursor to indicate an old judgment (the sentence occurred in the text) or the left cursor to indicate a new judgment (sentence did not occur). Participants were instructed to respond as quickly and accurately as possible. The test sentence remained on the screen until the participant pressed a key, and then the screen was cleared before the next passage was presented.

PsychoPy 2 automatically generated output in an excel file. Two pages were generated. The first output page contains the results of the trial phase. The second page contains the text stimulus, prime or target sentence in English at first and then Tunisian Arabic, correct answers, number of repeats, response key correlation raw(0 or 1), response keys(right or left), response key reaction times mean (milliseconds). The aforementioned data were entered into the Statistical Package for social sciences (SPSS) version 20. Then, data were analyzed using a sample paired t-test.

3.1.3. Results and Discussion

Recognition responses were predicted to be faster when the target sentence was related to the metaphor-based schema that had been instantiated in the priming sentence (matching condition) than when the test sentence was not related to the schema (non-matching condition). To test the aforementioned hypothesis, a comparison was made between the matching and non-matching response means.

 Sample paired t-test analysis showed that reading times for the target sentences in the matching condition in English were faster than in the non-matching condition (535 and 835 ms, respectively) with *t*-test significance (t (19) = 1.93, $p<.01$). The hypothesis,

stating that recognition responses were predicted to be faster when the target sentence was related to the metaphor based schema than not, is confirmed.

Table 1

Sentence recognition times (in milliseconds) in experiment 1

	Version		
Matching		**Non - matching**	**Significance**
English	535	835	1.93
Tunisian Arabic	550	541	.185

*Note. RTs are in milliseconds

In Tunisian Arabic, the prediction was also confirmed by finding correct responses to the target sentences being faster in the matching condition than in the non-matching condition. Table 1 reveals that participants took more time to recognize target sentences in the matching condition (550 ms) than in the non-matching one (541ms) with no significance (t (19) =.185, p = .855).

According to these results, recognition responses are faster in the matching condition, where schema was instantiated throughout the passage, for both English and Tunisian Arabic than in the non-matching condition. That is, the metaphor-based schema has a role in text comprehension. The priming effect found in this experiment suggests that the prime and target sentences are more closely connected within the participants' text representation when they share a relationship to a metaphor-based schema than when they do not.

The findings are in line with Allbritton et al.'s (1995) study concerning faster recognition responses for the primes and targets in the matching condition in English. The results also endorse Allbritton's (2007) study. He found that sentences related to metaphor-based schemas are recognized more accurately if a preceding test sentence is related to the same schema, and this pattern is held for both novel and conventional metaphors. The results also go along with the conceptual metaphor view.

The results of the Tunisian Arabic targets, where there is no priming effect, are consistent with Glucksberg, Brown and McGlone 's (1993) study on English idioms in discourse interpretation. It is also in support of Ahrens and Gong's study (2003) investigating the role of conceptual mappings in metaphor interpretation in discourse. The lack of metaphorical congruency effect for conventional metaphors in the online reading task suggests that conceptual mappings for conventional metaphors are not activated in discourse comprehension. However, there is an effect for novel metaphors. This finding is consistent with Glucksberg *et al* (1993) idiom study, which supports the attributive categorization view that the conceptual mapping may not be accessed. It is also in support of Ahrens and Gong's study (2003) investigating the role of conceptual mappings in metaphor interpretation in discourse.

To conclude, it was found that conceptual mapping is partially activated. The conflicting results can be attributed to three possible reasons, (i.e. task demand, time pressure and familiarity with metaphors). The issue of whether conceptual mappings are activated during the conventional metaphors being read is still not clear. So far, we cannot prove which metaphor approach, (i.e. the conceptual metaphor view or the attributive categorization view), better explains how metaphors are interpreted and comprehended. Further analysis was conducted to report which view the study supports.

3.2. Experiments 2 and 3
3.2.1. Participants and Materials
Twenty Tunisian MA students of English at ISLT participated in this experiment. The materials for the recognition tests consisted mainly of pairs of prime and target words from the passages. Four words were selected from each passage. Among these were pairs of schema-related words from the experimental passages. Two additional words were selected from each passage for use as primes, and each of them was paired with a new test word that did not occur in any of the passages.

3.2.2. Data Collection Procedure and Analysis

The procedure and analysis were identical to that used in experiment 1 except that students were tested on word pairs. Data generated from the English Tunisian Arabic output file consisted mainly of words.

3.2.3. Results and Discussion
For both of these experiments, it was hypothesized that priming is evident not only between words referring to the same domain of the metaphor, in experiment 2 but also between words referring to different domains that are related through a conceptual metaphor, in Experiment 3. The results showed that there is a considerable difference in reaction times between the two versions across the two languages. Participants were significantly faster to judge the matching version than the non-matching version in English and Tunisian Arabic (see Table 2). This is evidence of the facilitating role of metaphor-based schemas.

A sample paired *t*-test was carried out to detect the differences between the pairs of words in the matching and non-matching conditions. When examined individually, both prime and target words coming from sentences that instantiated the metaphor-based schemas were unexpectedly recognized slower (581 ms) than those in the non-matching condition with no *t-test* significance (t (19) = 1.17, p = .524). In the non-matching version, however, prime-target pairs were recognized faster (516 ms). Unlike what was hypothesized, there is no priming effect between words referring to the same domain. These findings are not in line with Allbritton et al.'s study (1995) where priming was evident between words from the same vehicle domain.

Table 2

Target word recognition times (in milliseconds) in experiment 2

Prime-target	Version		t	Sig.
	Matching	Non-matching		
English	581	516	1.17	.524
Tunisian-Arabic	527	582	1.24	.229

*Note. RTs are in milliseconds

For the Tunisian Arabic data, participants took less time to judge the prime target pairs from the matching version (527 ms) than the non-matching version (582 ms) with no *t-test* significance (*t* (19) = 1.24, *p* = .229). Table 2 shows that there was no priming effect in words referring to the same vehicle domain neither in the Tunisian Arabic version nor in the English one.

Table 3

Matching and non-matching mean recognition times in experiment 3

Languages	Versions		t	Sig.
	Matching	Non-matching		
English	973	1053	1.63	.004
Tunisian Arabic	1066	1299	1.76	.002

*Note. RTs are in milliseconds

A further analysis, in experiment 3, was conducted to examine the connections between a concept from the topic domain and a concept from the vehicle domain to see if there is evidence for the priming effect. Results showed that participants took significantly the least time to recognize the test word in the matching condition than in the non-matching condition in English with 973 and 1053 ms respectively with *t*-test significance (*t* (19) = 1.63, *p*< .01). For the Tunisian Arabic data, the same difference was recorded with the matching version having faster recognition time latencies (1066 ms) than the non-matching condition (1299 ms) with *t*-test significance (*t* (19) = 1.76, *p*< .01).

A comparison of the matching versions in English and Tunisian Arabic reveals that the English matching version was faster to be recognized than the Tunisian Arabic one with a mean of (43 and 53 respectively) and no *t*-test significant (*t* (19) = 1.30, *p* = .20). Even though the metaphors in Tunisian Arabic were carefully selected, it remains a question of familiarity and lack of data in Tunisian Arabic that can be possible reasons to account for the difference.

Table 4
Target word mean recognition times (milliseconds) in experiment 3

Prime- target	Versions		t	Sig.
	Matching	Non-matching		
English	448	644	2.94	.008
Tunisian Arabic	533	637	1.33	.001

*Note. RTs are in milliseconds

As it was predicted, a priming effect is more obvious within the English matching condition (448 ms) than in the non-matching condition (644 ms) with test significance (*t* (19) = 2.94, *p* < .01). The same significance was recorded for the Tunisian Arabic in the matching condition than in the non-matching condition with (533 ms) and (637 ms) (*t* (19) = 1.33, p < .01) (see table 4).

Given these results, the priming effect is evident between words referring to different domains. That is, connections of elements of a text are found between a concept from the topic domain of the metaphor and a concept from the vehicle domain both in English and Tunisian Arabic. This priming effect is mainly found in the matching condition where the schema is instantiated throughout the passage. The results support the conclusion that sentences related to the same metaphor-based schema are better connected in the participants' text representation than sentences that do not share a relationship to a metaphor-based schema.

The findings are in line with Allbritton et al.'s (1995) study. The results are relevant to the question of whether conceptual metaphors are accessed during comprehension. Glucksberg et al. (1993) failed to find evidence that conceptual metaphors are accessed following metaphor-related idioms and argued that conceptual metaphors are not accessed during comprehension, consistent with the Class Inclusion Model of metaphor. The possibility remains, however, that something other than the schema could have been responsible for better connections.

3.3.Experiment 4

3.3.1. Participants and Materials
Twenty MA students of English at ISLT took part in this experiment.
The same schema-matching version of each passage was used as in the previous experiments where schema was instantiated throughout the passage. A new neutral version was created by changing the last sentence of the passage. This sentence had the same meaning in both versions of the passage, but instantiated the metaphor-based schemas only in the matching version. The prime and target words were reversed from topic-vehicle, in Experiment 3, to vehicle-topic in Experiment 4. In the new neutral

condition, the primes are the neutral words that replace the vehicle term in the final sentence of each passage (e.g., *solution).*

Two questionnaires on semantic relatedness in English and Tunisian Arabic were administered. Each questionnaire included 65 prime-target pairs in the two languages. The items in English were adapted from Allbritton et al.'s study (1995). The Tunisian Arabic questionnaire consisted of items translated from English and others taken from experiment 4.

Relatedness ratings for the prime-target word pairs in English and Tunisian Arabic were collected from 30 English MA students for each questionnaire in both languages which is a total of 60. Participants rated the two sets of prime–target pairs from experiment 4, along with prime target pairs from the other unrelated experiments and 20 unrelated prime-target pairs from the filler passages, on a scale of 1 =unrelated to 5 = very highly related.

Another 30 students of English rated the familiarity of the metaphors used in experiment 4 in English and Tunisian Arabic (n=60). The researcher gave the participants two booklets. The booklet in English listed the 10 metaphors from the experiment along with 6 other conventional metaphors and 8 less conventional metaphors from unrelated experiments. The booklet in Tunisian Arabic contained also 24 metaphors. Each metaphor was listed in the nominative form (e.g., the theory is a building) along with an example of how the metaphor might be used. A rating scale, numbered from 1=very unconventional to 5=very conventional, was provided below each item and participants were instructed to circle the number indicating how conventional they found that metaphor.

3.3.2. Data Collection Procedure and Analysis

The procedure and analysis were identical to that used in experiments 1, 2, and 3.

3.3.3. Results and Discussion

It was also hypothesized that participants recognize the test word faster when it was cued by a word from a sentence that instantiated the metaphor-based schema than it was cued by a word from a sentence that simply referred to the same topic.

Table 5
Target word mean recognition times (in milliseconds) in experiment 4

| | Version | | | |
Prime- target	Matching	Neutral	t	Sig.
English	815	917	1.38	..0183
Tunisian Arabic	596	720	1.95	..066

*Note. RTs are in millisecond

As illustrated in the table above, results showed that participants took significantly longer when responding to the neutral condition than to the matching condition in English(t (19) = 1.38, p < .02). The same significance was found for the Tunisian Arabic data (t (19) = 1.95, p <. 01). In view of these results, priming effects did not result simply from topic shifts in the neutral condition. However, connections between the primes and targets were attributable to their shared relationship to a metaphor-based schema, and not merely to shared references to a common subject matter. In other words, a metaphor-related word in the final sentence of a text link the sentence to earlier elements of the text better than a neutral word that was not related to the metaphor in English and Tunisian Arabic.

The relatedness rating offline task showed that the prime and target words in the matching condition were judged to be slightly less related than those in the neutral condition in both languages with mean item ratings (36 and 37) respectively and with no t-test significance (t (30) = 1.10, p = .279). Therefore, semantic relatedness did not affect priming.

The mean familiarity rating for the metaphors used in experiment 4 was 40 and 43 for the metaphors in English and 43 and 44 for Tunisian Arabic. Although the familiarity ratings indicated that participants were generally well acquainted with the metaphors from the passages, the researcher wanted to determine whether differences in familiarity had any effect on priming in experiment 4. We separated the items into two groups of 10 based on their conventionality; conventional metaphors used in the experiment, 6 other conventional and 4 less conventional metaphors. Analysis of data revealed no significant main effect for familiarity neither in English nor in Tunisian Arabic. Thus, at least for the metaphors in this experiment, the relative degree of familiarity did not affect priming.

The results allowed us to reject the hypothesis that our priming effects resulted simply from topic shifts, semantic relatedness and familiarity with metaphors. Indeed, no potential source for the priming effect was recorded other than the metaphors themselves which proved to be responsible for such connections of elements within a text. The best way to characterize the relationships between the text elements in our experiments is regarding metaphor-based schemas.

The findings are, in part, in line with Allbritton et al.'s study (1995). They found that metaphor-related words were better recognized if an immediately preceding prime instantiated the same metaphor. Using different materials, and with accuracy rather than reaction time as the dependent measure, conventional metaphor-based schemas again produced priming in both word and sentence recognition (Allbritton, 2007). They argued that the similarity of metaphor schemas in providing a basis for connections among text elements is a good reason to argue that metaphor -schemas are part of the world knowledge that readers bring to the process of text comprehension. This is the view of conceptual metaphors that motivated the research. Several idioms (Nayak & Gibbs, 1990, as cited in Allbritton 2007; Gibbs, 1994) and metaphors (Allbritton et al.,

1995; Kemper, 1989) studies have shown evidence for the congruency effect in discourse in off-line rating and online priming and reading experiments.

4. Implications and Recommendations

The implications of the study are theoretical, pedagogical and methodological. The study offers a unified theoretical framework for the study of metaphor in the Tunisian context. Pedagogically speaking, the study of metaphor processing should move from theory to practice by proposing ways of teaching metaphors in class. The teaching of metaphors should be brought into classrooms and teachers are encouraged to draw learners' attention to metaphors. Methodologically speaking, the presentation method of metaphorical expressions influences the access of conceptual mappings in ongoing discourse.

The researcher did not probe into the factors that may affect such priming effects such as task demand (i.e., a reading task or a judgment task), the method of stimuli presentations (materials presented sentence by sentence or in a paragraph style), and the other possible factors namely; salience, conventionality and aptness of metaphors. In the future, it is advisable to examine these possible factors.

The present study examined the role of metaphor-based schemas in text comprehension with English MA students at ISLT across two languages: English and Tunisian Arabic. In future research, it is advisable to investigate a large size of the population including participants from different institutes for the results to be generalized. The study can be conducted in English, Tunisian Arabic and French to see the priming effect cross-linguistically. Finally, it is recommended that Tunisian writers and researchers should work further on the Tunisian Arabic language and provide natural texts to facilitate the works of researchers on language processing.

5. Conclusion

This study investigates the role of metaphor-based schemas in text comprehension in English and Tunisian Arabic. It also aims at finding the difference between Tunisian Arabic and English. The priming in item recognition task reveals that in English: (1) Metaphor-based schemas facilitate text comprehension in English both with the sentence and prime target pairs. (2) The priming effect is evident only in words referring to different domains. (3) No priming is found in words referring to the same vehicle domain. (4) The hypothesis that the priming effect resulted from the topic shift is rejected. Finally, the relative degree of familiarity and relatedness does not affect text comprehension.

Concerning the Tunisian Arabic data, the important findings of the study are: (1) Metaphor-based schemas are used as a basis for relating and connecting pieces of information in a text. (2) No significant priming effect was found in the prime target pairs referring to the same domain. (3) Regarding the English language, the priming effect is evident in words referring to different domains. (4) Topic change is not a

potential source for the priming. (5) The relative degree of familiarity and relatedness does not affect text comprehension.

References

Ahrens, K., & Gong, S. (2009). *Context and mapping principles*. Hong Kong Baptist University National Taiwan University.

Allbritton, D. W., McKoon, G., & Gerrig, R. J. (1995). Metaphor-based schemas and text representations: making connections through conceptual metaphors. *Journal of Experimental Psychology: Learning, Memory and Cognition,21*(3), 612-625.

Allbritton, D. W. (1995). When metaphors function as schemas: Some cognitive effects of conceptual metaphors. *Metaphor and Symbolic Activity*, 10, 33-46.

Allbritton, D. W. (2007). *Making connections with metaphors: Does conventionality* matter? *Chinese Journal of Psychology*.

Bortfeld, H, & McGlone, M, S. (2001). The continuum of metaphor processing. *Metaphor and Symbol*, *16* (1), 75–86.

Gentner, D. (1983). Structure-Mapping: A Theoretical Framework for Analogy. *Cognitive Science*, 7,155-170.

Gentner, D,& Bowdle, BF (2001). Convention, form, and figurative language processing. *Metaphor and Symbol*, 16(3&4), 223-247.

Gibbs, R. W. (1994). *The Poetics of Mind: Figurative Thought, Language, and Understanding*. Cambridge, England: Cambridge University Press.

Glucksberg, S., Brown, M., and McGlone, M. S. (1993). Conceptual metaphors are not automatically accessed during idiom comprehension. *Memory &Cognition*, (21), 711–719.

Glucksberg, S., McGlone, M. S., & Manfredi, D. (1997). Property attribution in metaphor comprehension. *Journal of Memory and Language,* 36, 50–67. DOI: 0749-596X/97

Gong, S., & Ahrens, K . (2003). *Congruent and incongruent metaphorical sentences processing in discourse: A reaction time study*. Graduate Institute of Linguistics National Taiwan University.

Gong, S., & Ahrens, K. (2007). Processing conceptual metaphors in ongoing discourse. *Metaphor and Symbol*, *22*(4), 313–330.

Hamdi, S. (2010). Time as a moving entity in English and in Arabic: a comparative cognitive analysis: *metaphorik.de19*,7-12.

Kemper, S. (1989). Priming the comprehension of metaphors. *Metaphor and Symbolic Activity*, *4* (1), 1–17.

Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.

Lakoff, G. (1993). The contemporary theory of metaphor. In A, Ortony (Ed.). *Metaphor and Thought* (2nd Ed.) (pp.202-251). New York: Cambridge University Press.DOI: 0-521-405475.

Nayak, N. P., & Gibbs, R. W. (1990). Conceptual knowledge in the interpretation of idioms. *Journal of Experimental Psychology: General, 119*(3), 315-330.

Maalej, Z. (2004). Figurative language in anger expressions in Tunisian Arabic: An extended view of embodiment. *Metaphor and Symbol,* 19**,** 51-75.

Peirce, J.W. (2007) PsychoPy - Psychophysics software in Python. *Journal of Neuroscience Methods*, 162 (1–2), 8–13.

Material Composition Studies of African Arts: Path to Burden of Proof and Heritage Conservation

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Abstract

African arts have been part of major museum collections all over the world; describing African art objects physically alone is not enough. The medium, material content, provenance, stylistics, and contextual studies are needed for classificatory and documentary purposes of African arts. A secured scientific and cultural data of African art objects would provide a database for purposes of identification and taxonomy of African art objects. Procedural papers in material compositional studies and art history were used for this discourse. The modes of research employed are qualitative and evaluative. The discourse concludes with recommendations that research institutes, museums, and African governments need to develop programmes in material compositional studies for African art and museum objects because of their scientific and historical significance.

Keywords: Material analysis, art authentication, African art history, the provenance of art, heritage, conservation.

Introduction

The National Museum of African arts, Smithsonian Institution Washington DC commissioned a building in September 1987 to house collections, exhibitions and research of African art objects. The occasion witnessed the recognition of the past, present and future of African art studies. In a symposium organised for the event, four distinguished scholars of African studies presented papers: A.A. Gerbrands, H.J. Drewal, Rowland Abiodun, and Suzanne P. Blier. The panel of discussants included seasoned Africanists and scholars of African art studies such as Ekpo Eyo, John Pemberton III, Mikelle Smith Omari, and Simon Ottenberg. Submissions and contributions from the panelists resulted in the publication of a book titled: "African Art Studies: The State of the Discipline" in 1987. A review of several comments made by the Africanists in that publication is a pointer that the state of African art studies discipline must be improved to such an advanced level with a kind of holistic investigation that is comparable to other studies elsewhere. Excerpts of comments of the participants form the fulcrum of this discourse.

From Roy Sieber"…papers and comments are here presented as, we hope, a contribution to the state of our discipline and as a fitting publication celebrating the new home in the United States that will be in charge of collection, exhibition and study of African arts" (1987:10).

In the words of Sylvia H. William" The discipline of African art studies does not have a long history: still developing with considerable vigour, the field is drawing upon insights and mode of inquiry from many disciplines; among them are history, anthropology, archaeology, history, and religion (1987:7).

In line with the foregoing, John Pemberton III argues that:" The future study of African art must be understood as a collaborative enterprise between Western scholars and African scholars" (1987:141).

Henry J. Drewal has also observed that the:

> "Studies of meaning in African art are also the product of interdisciplinary thinking…, this is an era of experimentation, dialogue and debate, processual approaches, and a new level of collaboration. To a certain extent, the field of African art studies anticipated this new era primarily in its eclecticism but also in its forays into the process and collaborative effort"(1987: 37-49).

According to Suzanne P. Blier,

> "We have seen as well the growth of a body of different perspectives on African art: structural analysis, and ethno-scientific treatises, semiotic studies, stylistic overviews, historical analyses, and functional perspectives, to name but a few";"…art history is in an enormous intellectual reevaluation";"…despite considerable historical and art historical evidence against it, there is an assumption (again another myth of the primitive) that African societies and their arts are conservative, that is, they exhibit relatively little real innovation"…" New avenues of investigation in African arts are

vital both to the discipline of art history and to the future of African Art"…, "although the term primitive art was eradicated from thoughtful anthropological inquiry…years ago, it is still very much a part of contemporary art-historical writing and thinking"(1987: 91-102).

Further, Ottenberg argues that:

"…most African art displayed in museums appears in predominantly white-run museums for a largely white audience" …, few Westerners, however, will ever know African languages or have insights into African religious beliefs and knowledge. According to Pemberton III (1987:140), "The complexity, the rich variety, and the interrelatedness of forms of cultural expression in African societies require students in African humanities, above all in art history to adopt a catholic approach to studying African art" (1987:128-131).

In a contrary reflection, Pemberton III (1987:138) recounts his conversation with Sir Ernst Gombrich[1] in 1985 who asked the question "Is there African art? To what are we referring when using the term art?" While reflecting on the question, Pemberton III thought Gombrich was quite wrong when he seemed to deny the African artist the capacity to create an object that 'forced (us)' to let our imagination play around it. While the dialogue lasts between them, Pemberton asked Gombrich whether he had seen the exhibition *Treasures of Ancient Nigeria,* put up by Ekpo Eyo in 1980. The following conversation ensued between Pemberton and Gombrich about the exhibition "*Treasures of Ancient Nigeria"* (all italics are of the authors):

"I *(Gombrich)* was overwhelmed. The Ife bronzes and terra-cotta heads and many of the Benin sculptures were very impressive." I *(Pemberton III)* asked whether these sculptures were thought of as art. He *(Gombrich)* paused and then said, "Yes."…" Do you believe that the Ife and Benin pieces were the work of Africans?"Gombrich asked. I*(Pemberton III)*replied"…all historical and archaeological evidence pointed to such a conclusion. He *(Gombrich)* observed that artistic ideas often accompany the transmission of technologies and that perhaps the artistry of the sculptures could be attributed to foreign, that is, non-African sources. I *(Pemberton III)* responded that iron and bronze technology did appear to have come to West Africa from the northeast. The use of technology to create objects of the level of sophistication found among the Ife and Benin peoples, however, depended upon a particular social and political history – a cultural context where religious symbols, discursive thoughts, and artistic imagination were nurtured. "Yes, that is so" he *(Gombrich)* agreed.
(Pemberton III, 1987:138)

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[1] Sir Ernst Hans Josef Gombrich (1909-2001) was an Austrian-born art historian who lived most of his life working in the United Kingdom; he published many works of art and cultural histories; notable among which is *The Story of Art* first published in 1950; and, *Art and Illusion* (1960).

From the ensuing comments above, one can see the interplay of traditions of African essence and reality with accompanied myths and stereotypes about Africans and African arts. All the Africanists quoted from the foregoing forayed into the future of African art studies with visionary declarations enshrined in the richness of African arts and artists. As observed earlier by Blier (1987: 91-102), the latter comments seemed to have deep roots in racial prejudice: a kind of derogatory perception inherited from Western history which is outright denials of meaningful, intellectual, scientific, cultural, and historical proofs of everything African. Such avoirdupois comments and perceptions are common with early European philosophers and aestheticians, many of whom had never stepped onto the soils of Africa and the majority of those who came arrived towards the latter part of the 19th and early 20th centuries with myths and stereotypes about Africa. Without deep knowledge of what African arts portend in meaning, aesthetic contemplation, and scientific bases. The contributions of such armchair scholars to world knowledge could be classed as monumental lies, myopic, and prejudice of stupendous whole which emanated from the writings of early European philosophers. Such is the German philosopher, Georg Wilhelm Friedrich Hegel in his *Philosophy of History* (1956); and the Scottish philosopher, David Humes in *Essay and Treatises* published in 1768. It has therefore become exigent to examine material compositional information of African arts through the lens of literature.

Literature Review

A sizable number of studies have focused on the material nature (composition information) of works of art from Africa. For instance, Underwood (1949) examined the bronzes of West Africa; Fagg and Underwood (1949), and Moss (1949) studied the Olokun heads from Ile-Ife; Willett (1959) and Barker (1965) examined Ife Bronze figures, and Shaw (1970) examined the Igbo Ukwu Bronzes; while the focus of Willett (1964) is on the spectrographic analysis of Nigerian bronzes. Werner and Willett (1975) investigated the composition of brasses from Ife and Benin; while the study of Willett and Fleming (1976) chronicled the important Nigerian copper-alloy castings dated by thermoluminescence.

Others include the studies on lead isotope analyses and plausible metal sources of Nigerian bronzes and the characterization of various copper alloys in West Africa (Goucher *et al.* 1978, Joel *et. al.* 1995, and Willett & Sayre 2006). Craddock and Picton (1986) examined medieval copper alloy production and West African bronzes. Olabanji*et al.*(1990) focused on the correlation of elemental patterns of Esie statues with surrounding rocks using PIXE and XRF techniques. Ige *et al.* (1998) and Ige& Swanson (2008) analysed the composition, use and provenance of Esie sculptural soap stones. Ige, Ogunfolakan and Ajayi (2009) conducted an ICP-MS analysis of the chemical characterization of some potsherd pavements in Yorubaland, southwestern Nigeria; while Olaleye-Otunla(2020) analysed the material properties of Yoruba pottery objects.

Some museum laboratories in industrialised countries have also developed technical examination alongside art historical studies for the determination of the material constituents and provenance studies of art objects. TheHarper and Meyers' report of Sasanian silver (1981); Stone's report of Renaissance bronzes (1982); the Chinese bronze studies reported by Bagley (1987); and, the Investigation of Himalayan bronzes by Reedy and Meyers (1987) are

good examples. The studies on the effective use of technologies for understanding artifacts (Fehrenbach2010); the chemical compositional studies of earthenware ceramics from Southeast Asia (Stork *et al.* 2010); and the origins, craft economies, and craft production systems of bronze metallurgy (White and Hamilton 2009); as well as studies of stone, glass beads and other ornaments (Bellina 2003), have identified the potentially abundant sources of technical data in earthenware ceramics. All these studies have demonstrated the position of provenance examination with stylistic studies.

African Art Conjectures Resolved through Material Content Research

Some conjectures about African arts have been resolved through the careful examination of the material contents of such works of art. Two notable instances are the *Ori Olokun* in Ile-Ife, and, the existence of an early Glass-working tradition among the Yoruba in southwestern Nigeria. Firstly, the case of *Ori Olokun* purportedly excavated in Ile-Ife and copied by Leo Frobenius between 1910-12; this event had been visited for over a hundred (100) years and still raging in peoples' minds, local and international (Read 1911; Frobenius 1913; Moss 1949; Fagg& Underwood 1949; Williams 1974, Werner & Willett 1975; Willett & Fleming 1976; Willett 1967,1976; Shaw 1978; Goucher *et al.* 1978), with continued exacerbation in further technical studies (Craddock &Picton 1986; Craddock & Hook 1995; Joel *et al.* 1995; Craddock *et al.* 1997; Craddock 2009; Drewal&Schildkrout 2010; Platte 2010). Craddock *et al.*(2013) revisited the *Ori Olokun*with full scientific and technical examination and concluded beyond doubt that the existing *Ori Olokun*is the original and not a copy as envisaged by Fagg& Underwood (1949).

Secondly, the conjectures about the existence of an early Glass-working civilization among the Yoruba of southwestern Nigeria are much attributed to the importation of glass materials and the technology involved. Frobenius' (1913) account of Ile-Ife gave credence to the existence of glass-encrusted crucible fragments in shafts dug in Olokun Grove; there are also reports of necklaces, armlets and anklets made of glass beads recovered from excavated sites in Ile-Ife (Garlake1974, 1977; and, Willett 1977, 2004). Davison *et a*l. (1971) and Davison (1972)however argued that Ile-Ife beads originated from medieval Europe. To resolve issues surrounding the provenance of Ife beads, Lankton&Dussubieux (2006) emphasized the originality of Ife glass beads among the other bead compositional groups found globally. According to Babalola et al. (2018), from established data of the earliest beads recovered from south of Saharan Africa, they have fingerprints that reflected compositions from established production areas common with the eastern Mediterranean, Middle East, and East Asian territories (Dussubieux*et al.* 2008; Robertshaw *et al.*, 2009, 2010; Wood 2016). Lankton*et al*. (2006) established the existence of local primary glass production peculiar to (Ile-Ife) southwestern Nigeria.

Discussion

The praxis, connoisseurship and history of works of art from Africa have been established with the human sensory organs for many years. According to Lo (2004), with advanced technology, current physics research has found their ways into the traditional humanity stronghold of arts and archaeology. In the observation of Vansina (1984), works of

art must be helped as much as historical inquiries can reveal. African art studies are still being viewed under the traditional methods of investigation and modes of inquiry which gives more room to doubts and conjectures. This study however argues that there have been recent acceptable standards of examining works of art other than the conservative human sensory organs. Investigatory constructs of African arts have proven to be more advanced in position globally, that is, scientific ways of confirmation, and burden of proof. Apart from the formal, iconographical and iconology analysis, the 21st century Art historical studies treat challenging trends in its development with the use of technology for studying works of art. This conviction is borne out of the fact that recent art historical investigation is not complete without material compositional studies. Vansina (1984:24) argues that the description of an object should go beyond mere impressions given to the eyes alone, but to understand/confirm the medium of works of art. Traditionally, cursory inspection has been seen as adequate in African art historical studies but recent developments have proven that laboratory studies enrich the discovery and description of the true nature of materials used in works of art.

The 1987 experience at the Smithsonian Institution Washington DC's National Museum of African art which featured influential and highly rated Africanists projected the future of African art historical discipline. Forayed into the future, the discussants envisaged the possibility of exploring probe technologies to understand the material nature of works of art from Africa. However, it is a recognized fact that the provenience and provenance of African arts are shrouded in mysteries, especially as expressed by Blier (1987: 91-102) in the case of primitivism about African art objects.

The prospecting for material constituent information for African art got little scholarship; the ever-continuous traditional investigation of African art has laid emphasis more on iconographic analysis with formal attributes, and that of ethnographic contexts; while the insignificant focus on medium examination calls for concern. From that purview ignoring the material information of a work of art with other hidden information about how its constituent materials are different from others in its category may constitute a severance of the genetic affinity between a work of art, the material used, as well as all its identifiable constituents. The question of what is the exact material nature of a particular work of art is much sought after today considering such questions as to what is in a work of art. There is a need to understand the origin, mode of fabrication, material constituents, identifiable similarities and differences from other works of art from the same source and what style(s) gave rise to such creativity.

This discourse, therefore, is an introspection of material compositional studies - a multidisciplinary process with well-defined intellectual boundaries towards establishing heritage evidence, preservation and conservation. Placing this discourse within its context, it will be pertinent to define and understand the nature of this new scientific African art study. The intellectual dictates involved in this discipline therefore should be a compendium of studies that embraces art historical studies, archaeology, museum studies, anthropology, material science, geology, art authentication, art forgery and theft, and the physical sciences. This kind of scientific study would lead to an enhanced, comprehensive provenance and provenience determination of African arts with the effect of projecting the genuineness of African works of art.

All over the world, there are institutions dedicated to the collection, storage, display, research and exhibition of natural and cultural materials that are dated back many decades. The museum cares for all aspects of human endeavours and art is no exception. However, part of the problems faced by African art studies with other enterprises catering to works of art are frauds, theft, fakes, forgery, conjectures, vandalism, misidentification, jurisprudence, and lack of standardised art historical analysis. Where such situations arise, material compositional information queries are much desired. Vansina (1984) argues that art history seeks to provide information about authenticity, place and period of production, the producer/artist, artist's style and medium of production, as well as the meanings inherent in such work(s) of art. Further, art history seeks to provide information about the socio-cultural context under which such works were created, with the examination of the inherent idiosyncrasies when compared with other common works of art. Of course, yes! these are the qualities of a work of art creation both internal and external that must be subjected to scrutiny.

There is a dearth of discourse on material information of African art objects as scholars seemed less concerned about material compositional information of works.The exact source of many works of art in museums cannot be determined. A notable example is the Nok terracotta and ceramic sculptures of which no material analysis has been conducted to establish the origin of the parent clay material used, despite their dating and the significance ascribed to them in African art history.

Prejudice and Oversights in Previous African Art Studies

When African art objects arrived in Europe around 1470, they were not considered works of art but regarded as curios from distant nations (Vansina 1984). However, with growing interest and an increase in knowledge, historical studies of African art objects developed; and by the 18th Century, museums all over Europe started acquiring works of art from Africa as specimens of material culture.

By happenstance, during the 1897British soldiers' punitive expedition to the Benin Kingdom; thousands of works of art were illegally amassed from the Benin palace museum. By 1905, the 20th-century European Avant-garde artists discovered the richness of African artistic rendering of forms such that it received a boom. However, this does not come without the attendant anomaly, the social contexts, meaning and material content information about African works of art were out of focus(Lewis 1990). The discoveries of naturalistic Ife heads contributed to the realisation of great works of art in (and from) Africa[2]. In the early1950s, African art gained consideration as part of the anthropological discipline but its art historical investigation received little attention. The turn of the 1950s witnessed the attention of anthropologists and archaeologists who saw the relevance of African art studies and resultantly opened up its historical investigation.

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[2]Frobenius (1913) Voice of Africa I & II reported the first sets of antiquities (bronze and terracotta heads) discovered in Ile-Ife in 1909 and 1938

During the 1990s there were interventions by Adrian Gerbrands (1917-1997)[3],and Frank Willett (1925-2006)[4]. These archaeologists-anthropologists and many others addressed the gap between anthropology and African art historical studies. The studies of African art from that point thus developed to an enviable standard before ascendancy was thwarted by art mercantile. Paradoxically, African art mercantile development eventually stifled aspects of African art history and the provenance and provenience studies of African arts.

Over the years, the museums, private collections and galleries had served as archives and repositories for many African works of art. Resultantly, several African works of art were shielded from negative influences such as destruction, and theft. Ideally, the prerequisite to the storage of works of art (especially when large numbers of works are involved)is that when objects/works of art are collected, they should be given some data labels containing collection date, source or origin and other relevant field information; these fields are lacking in several collections housing African works of art. Such data labels present bases for frameworks in art historical scholarship and could eventually be the standard for assessing any other undocumented works of art collected. What is referred to as the cataloguing system in museums and repositories is a systematic referencing that gives regard to the dating of works of art, their description, iconography, critical reviews and how such works of art/objects compared with others in the same category.

Provenance is associated with any piece of art; the determination of provenance in African art historical studies is essential to understanding the source of a particular work of art/object. The provenances of several African works of art are yet to be carried out. For instance, in ceramics or terracotta works of art, the comparison of local soil geology, and clay samples with compositional analysis of the constituents in such works will provide a clear-cut view of what each work is made of; this will allow investigation into the production sources and techniques, as well as the direction of movement of such objects during the artistic development of its place of origin. Sadly though, material content information is left out in African art studies for a long time; the high value attached to African antiquities had continued to encourage illegal prospection, excavation, forgeries, and keeping of trade origins secret on a large scale. Most documented information on African art objects and antiquities has been modified by art and antiquity vendors to boost their illicit business. Many African works of art that exhibit classicism, their provenience remained questionable[5].

The rich and inviting art market in Africa had given more room for fakes, forgeries, and several conjectures about many African works of art. Greedy African artists and their

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[3] Adrian Gerbrands, Dutch, Leiden University Professor of cultural anthropology (1966 to1987) and a museum curator between 1947-1966.

[4] Frank Willett (CBE,FRSE), British, an anthropologist, ethnographer, archaeologist; and a Professor of Art History, African Studies and Interdisciplinary Studies at Manchester University. He was the former Director of Hunterian Museum and Art Gallery at the University of Glasgow (1976-1990); Curator, Royal Society of Edinburgh (1992- 1997); and Vice-chairman, Scottish Museum Council (1986-1989). He has several publications about African arts to his credit. These include *Ife in the History of West African Sculpture* (1967); *African Art: An Introduction* (1971); *The Art of Ife: A Descriptive Catalogue and Database*; and, *A Chapter of Accidents: Archaeological Discoveries in Ife* (2006).

[5] A very good case is that of Ori Olokun purportedly excavated in Ile-Ife and copied by Leo Frobenius between 1910 and 1912. See Craddock et al. (2013).

European cohorts also aid illicit art ventures: several works of art introduced into the art markets have make-belief origins, with speculated dating. Regrettably, art curators, collectors, and many owners of such works of art/antiquities approach the market with warp art-historical information. Therefore, to expose and militate against the problems, the investigation of objects and works of art needs forensic examination in standardized laboratories.

The description and provenance studies of many works of art and antiquities in Africa have remained largely elusive. The dating of works of art, material composition information studies and art historical scholarship must be seen as complementary. African Art historians have not given due attention to scientific probing of works of art because of the paucity of funds. Other challenges against executing such research projects include the absence of facilities and expertise, as well as a lack of institutional willpower on the part of the Government. The problem of anonymity in African art, especially among traditional artists, has also made provenance more cumbersome. Worst is the experience with indigenous African ceramists and potters whose works adorn many collections; only works such as paintings and sculptures received little attention.

Looking at the genetic and immanent stages of formal analysis, describing works of art without information about their constituent materials would lead to disruption of the relationship in formal analysis. In the contextual analysis of works of art, the definition of an art object with its attendant material compositional information enables a fixed registration for that object far above cursory inspection. Laboratory analyses will dictate further information about the basic materials, techniques and every other influence associated with such works of art. In that regard, the work of provenance, provenience and material analysis may be considered comprehensive when the work of identification and documentation is completed.

The foregoing may however be considered in addition to other pieces of evidence from photographs and digital measuring instruments giving rise to the chronology (absolute or relative) of objects/works of art in a particular collection. Many techniques of examination of works of art are now identified and accepted the world over which allows the chorology of familiar objects or works of art to be arranged against each other with the inclusion of other information from oral, written and laboratory tests for holistic art history. When all these are put in place, these exercises are referred to as Art authentication.

Authenticity ascertains that the true source, authorship, and other information about an object is true to what it claims to be or profess. It is a concept developed shortly after the Renaissance, and by the 14th century, there were more demands for works of art, with growing interests in antiquities; these informed an increase in the monumental value of works of art. Works of art produced by deceased artists became more relevant; a development that created an increase in value, and thus subsequent acquisition of works of art from distant nations extending to contemporary time. One of the traditional purposes of art was to propagate religions, as such, little values are attached to the identities of artists. The art patrons knew the artists with their products: renowned art masters were recognised to have apprentices that understudied them and used their master's techniques. Many works produced by such apprentice(s) in the similitude of their masters' techniques are often presumptuously

attributed to such masters. To differentiate the products of masters from that of their apprentices', art authentication is thus an important exercise that could say exactly the differences.

Art authentication reveals more about analytical dimensions of art production: connoisseurship, curatorial, legal, ethical, theft, historical and others. The discipline of art authentication is multi-disciplinary: it requires special skill, training, facilities, policing and prosecution in its dictates. Several disciplines have been attached to art trade and management: conservationists, law enforcement agencies, analytical chemists, criminologists, forensic experts, legal authorities, prosecutors, as well as art historians and others have much to do about art authentication. Unfortunately, many of these disciplines are lacking in many African settings in the areas of art production, sale, and conservation.

Art authentication reduces the incidence of art theft and pilferage; besides it discourages art fraudulent practices and boosts the art trade. In the admission of evidence in the court of law, Art litigations require that art authentication presents particular context and content of material compositional information about an object under query. Also for provenance and provenience determinations in art historical studies which is much lacking in African contexts, all the burden of proof so needed are provided by art authentication. Regrettably, the trend in art forgery, theft, misidentification, and so on has not abated in Africa, and elsewhere around the world, because art objects and antiquities have assumed objects of commercial entities. Due to so much evidential burden involved in art criminal prosecutions, it has become a difficult exercise even though art forgery attracts severe penalties. Crime in the art industry has thus grown astronomically and in several dimensions around the world today.

In the art authentication process, several methods, techniques and technology such as carbon dating, X-ray, X-ray diffraction (XRD), X-ray fluorescence (XRF), Stable Isotope Analysis (SIA), Thermoluminescence (TL), Ultraviolet Fluorescence (UF), Infrared Analysis (IA), Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Atomic Absorption Spectrophotometry (AAS)among others are used in confirming documentary evidence in art fakes and forgery cases. Stork and Johnson (2006) argue that occluding–Contour Analysis (OCA) is a sophisticated method derived from forensic analysis of digital photographs which analyses the outer boundary of the light pattern of an object's photograph. Further, Upadhyay and Singh (2011) posit that video authentication is an essential tool in surveillance, forensic investigations, law enforcement, and context ownership. Video authentication establishes a given video content is the originally captured moving image recorded to discredit any form of video tampering.

Findings

Generally, while collecting museum specimens, objects are removed out of their social and natural contexts to a secondary context – museum buildings and showcases. The occurrence, history and the nature of the raw materials used for such objects as well as the place/origin, and their disposition are information that is going to bring about the reasons behind their production and acquisition. There are now institutionalized provenance projects in many establishments dealing with the art industry: for one simple reason, provenance helps in

determining the authenticity of a work of art, the historical importance, legitimacy, movement of such works overtime and every other event surrounding contacts with such works of art are brought to the fore. Good examples can be found in the Metropolitan Museum, Harvard University Art Museum and a host of others in art and antiquity management. Today, repositories collect objects and generate a database that is curated. Any data that is generated in the event of managing a collection need provenance and that is to be done scientifically (Upadhyay and Singh 2011). There is now a compelling need for authentication of works of art, museum objects, and any archival material for their historical studies.

In Africa holistic studies of material composition analysis have not been embraced, therefore, this discourse expounds on the prospects of material compositional information for art history and museum studies. In this part of the world, museum-related material information seems to suffer oversight, documentation, conservation[6]and analytical studies. For example, pottery studies are of great relevance to ceramists, archaeologists, museum experts and conservators for the valuable information it provides for the understanding of several aspects of the human past. Pottery, textile, and other African arts have value, functionality, and embellished decorations with regional, symbolic and spiritual connotations; they have much to tell about the civilization of African people, yet they are presently suffering from the material content investigation.

Summary and Conclusion

It has been observed that the inability of museums to carry out material composition tests and forensic examinations on collected art objects in many parts of Africa is a result of no standard conservation laboratories. However, the efforts of the Nigerian National Commission for Museums and Monuments (NCMM) among others need to be commended in tackling theft, forgery, and the challenges of storage and exhibitions of artworks. This discourse establishes that scholars and practitioners of art historical studies in other parts of the world today no longer use the traditional means of sensory organs in making observations and judgments. European, Middle Eastern and Caribbean researchers have embraced the use of technologies to enhance their art historical studies. Art historical studies have gone hi-tech and multidisciplinary using the physical sciences' methods and techniques of the probe for material compositional information going beyond the traditional formal and iconography analysis. Complementing dating of artifacts, material compositional analysis, and computer algorithms are now used to investigate the nature of various works of art. Museums in Africa are awaiting such tests; many art departments and institutions dealing with antiquities are aware of these facilities which are already in operation in highly industrialised countries. African governments need to take proactive measures in establishing research centres with such facilities because of the derivable advantages. Material compositional analysis has very wide applications in Geology; Soil testing, Agriculture, Fine and Applied Arts, Physical Sciences, and Pharmaceutical industries among others.

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[6]On the challenges of conservation and preservation of works of art, see Oyinloye and Ijisakin(2012).

In Africa, the adoption of, and the establishment of material compositional analysis will deter forgeries, theft, and fraud in the art industry: once an analysis is carried out, a chemical fingerprint is established (like DNA code in the biological sciences) for each particular work of art and be organised into databases made accessible to the art world. Certificates of provenance and authentication will therefore be required before works of art are put on sale or auctioned. Apart from that, this approach will deter art thieves and forgers from carrying out their nefarious acts. Furthermore, this development will create the foundation for literature that could be used to conduct future studies as scholastic opportunities for material compositional studies of works of art and antiquities still abounds.

References

Babalola, A. B., Dussubieux, L., McIntosh, S. K., and Rehren, Th. (2018). Chemical analysis of glass beads from Igbo Olokun, Ile-Ife (SW Nigeria): New light on raw materials, production, and interregional interactions. *Journal of Archaeological Science* 90 (2018) 92-105. https://doi.org/10.1016/j.jas.2017.12.005

Bagley, R. W. (1987). Shang Ritual Bronzes in the Arthur M. Sackler Collections, Cambridge: Harvard University Press.

Barker, H. (1965). Examination of the Ife Bronze Heads. *Man*, 65, 23-4.

Bellina, B. (2003). Beads, social change and interaction between India and South-east Asia. *Antiquity* 77, 285-297.

Blier, S. P. (1987). "African Art studies at the Crossroads: An American Perspective" In *African Art Studies: The State of the Discipline.* Washington: National Museum of African Art, Smithsonian Institution.

Craddock, P. (2009). *Scientific Investigation of Copies, Fakes and Forgeries.* Butterworth Heinemann, Oxford.

Craddock, P. T. and Hook, D. R. (1995). Copper to Africa: Evidence for the international trade in metal with Africa. In: D.R. Hook & D.R.M. Gaimster (eds), *The Scientific Study of Artefacts from Post-medieval Europe,* British Museum Occasional Paper 109, London,181-93.

Craddock, P. T. and Picton, J. (1986). Medieval copper alloy production and West African bronze analyses - part II. *Archaeometry*, 28, 1, 3-32.

Craddock, P.T., Ambers J., Hook, D.R., Farquhar, R.M., Chikwendu, V. E., Umeji, A.C. and Shaw, T. (1997). Metal Sources and the bronzes from Igbo-Ukwu, Nigeria. *Journal of Field Archaeology*, 24, 405-29.

Craddock, P. T., Ambers, J., van Bellegem, M., Cartwright, C. R., Hudson, J., La Niece, S. and Spataro, M. (2013). The Olokun head reconsidered. *Afrique: Archeologie& Arts*, 9, 13-42, Varia. https://doi.org/10.4000/aaa.266

Davison, C. C. (1972). Glass Beads in African Archaeology: Results of Neutron Activation Analysis, Supplemented by Results of X-Ray Fluorescence Analysis. PhD. Dissertation, University of California, Berkeley, United States.

Davison, C. C., Giauque, R. D., and Clark, J. D. (1971). Two chemical groups of dichroic glass beads from West Africa. *Man*, New series 6, 645-659.

Drewal, H. J. and Scildkrout, E. (2010). *Kingdom of Ife*. British Museum Press, London.

Drewal, H. J. (1987). "African Art Studies Today" In *African Art Studies: The State of the Discipline.* Washington: National Museum of African Art, Smithsonian Institution.

Dussubieux, L., Kusimba, C. M., Gogte, V., Kusimba, S. B., Gratuze, B., and Oka R. (2008). The trading of ancient glass beads: new analytical data from South Asian and East African soda-alumina glass beads. Archaeometry 50,797-821.

Fagg, W. B. and Underwood, L. (1949). An examination of the so-called Olokun head from Ife, Nigeria. *Man*, 49, 1-9.

Fehrenbach, S. (2010) Compositional Analysis of 35 Ceramic Sherds from PhumSnay, Prohear, ChoeungEk, and Village 10.8, Kingdom of Cambodia, using Instrumental Neutron Activation Analysis – A Technical Report Submitted to the Ministry of   Culture   and   Fine Arts, Kingdom of Cambodia July 2010, University of Hawai'i at   Mānoa Royal University of Fine Arts Lower Mekong Archaeological Project,1.

Frobenius, L. (1913).*The Voice of Africa* I. Hutchinson, London.

Garlake, P.S. (1974). Excavations at Obalara's Land, Ife: an interim report, *West African Journal of Archaeology*, 4,111-148.

Garlake, P.S. (1977). Excavations on the WoyeAsiri family land in Ife, Western Nigeria, *West African Journal of Archaeology*, 7, 51-96.

Goucher, C. L, Teilhet, J. H., Wilson, K. R. and Chow, T.J. (1978). Lead Isotope Analyses and Possible Metal Sources for Nigerian "Bronzes". In: G.F. CARTER, *Archaeological Chemistry II*, American Chemical Society, Westerville, Ohio, 278-92.

Harper, P. and Meyers, P. (1981). Silver Vessels of the Sasanian Period. Royal Imagery, Vol I, New York: Metropolitan Museum of Art.

Ige, O. A., Ogunfolakan, B. A., Ajayi E.O.B. (2009).ChemicalCharacterization of some potsherds pavements from parts of Yorubaland in Southwestern Nigeria. *Journal of Archaeological Science* 36, 90-99.

Ige, O.A., Okrusch, M., Schuller, U., Smacdicke, E., and Cook, N. (1998]. The metamorphic mafic-ultramafic rocks of Ife-Ilesa Schist Belt, SW. Nigeria. *African Journal of Geo.*, Paris Vol.26: 593-618.

Ige, O.A., and Swanson, S. E. (2008). Provenance studies of Esie sculptural soapstone from southwestern Nigeria. *Journal of Archaeological Science* 35. 1553-1565. Elsevier Ltd.

Joel, E.C., Sayre, E.V., Vocke, R.D. and Willett, F. (1995). Stable lead isotope characterisation of various copper alloys used in West Africa: an interim report. *Journal of the Historical Metallurgy Society*, 29 (1), 25-33.

Lankton, J. W., Dussubieux, L. (2006). Early glass in Asian maritime trade: a review and an interpretation of compositional analyses. *J. Glass Stud.* 48, 121-144.

Lankton, J. W., Ige, O. A., and Rehren, Th. (2006). Early primary glass production in Southern Nigeria. *J. Afr. Archaeol*. 4, 111-138.

Lewis, P.H. (1990). A Definition of Primitive Art 1, *Fieldiana Anthropology*, Vol.36, No.10, Chicago Natural History Museum, 231-232.

Lo, Dennis (2004). The Role of Physical Science in the Study of Cultural Heritage, *AAPPS Bulletin* June 2004, 21-25.

Moss, A. A. (1949).Further light on the 'Olokun' head of Ife. *Man*, 49, 120.

Olabanji, S.O., Olanrewaju, V.O., Onabajo, O. O. (1990). PIXE analysis of museum soapstone sculptures from Esie, Southwestern Nigeria. *Nuclear Instruments and Methods in Physics Research* B47, 415-420

Olaleye-Otunla, O. J. (2020). *Yoruba Pottery Objects: Material Compositional Studies of Yoruba Pottery Objects.* Mauritius: Scholars' Press, 117pp.

Ottenberg, S. (1987)."Response by Simon Ottenberg" In *African Art Studies: The State of the Discipline.* Washington: National Museum of African Art, Smithsonian Institution, 1987.

Oyinloye M. A. and Ijisakin E. T. (2012). Preservation of Contemporary Artwork: a reflection on Painting. *Ife Studies in African Literature and the Arts, (ISALA),* 7, 92-99.A Journal of the Department of English, Obafemi Awolowo University, Ile-Ife, Nigeria.

Pemberton III, J. (1897). "Response by John Pemberton III" In *African Art Studies: The State of the Discipline.* Washington: National Museum of African Art, Smithsonian Institution.

Platte, E. (2010). *Bronze Head from Ife*. British Museum Press, London.

Read, C. H. (1911). 'Atlantis' rediscovered. *Burlington Magazine*, 18, 330-335.

Reedy, C.L. and P. Meyers (1987). An interdisciplinary method for employing technical data to determine the regional provenance of copper alloy statues. In Recent Advances in the Conservation and Analysis of Artifacts, compiled by J. Black: 173-178.London: Summer School Press.

Robertshaw, P., Magnavita, S., Wood, M., Melchiorre, E., Popelka-Filcoff, R. S., and Glascock, M. D. (2009). Glass beads from Kissi (Burkina Faso): chemical analysis and archaeological interpretation. In Crossroads: Cultural and technological developments in 1st millennium BC/AD West Africa. *Journal of African Archaeology* Monograph Series 2, 105-118.

Robertshaw, P., Wood, M., Melchiorre, E., Popelka-Filcoff, R. S., and Glascock, M. D. (2010). Southern African glass beads: chemistry, glass sources and patterns of trade. *J. Archaeol. Sci.* 37, 1898-1912.

Shaw, T. (1970). *Igbo Ukwu*. Faber & Faber, London.

Shaw, T. (1978). *Nigeria.*Thames& Hudson, London.

Sieber, R. (1987), "Introduction" In *African Art Studies: The State of the Discipline.*Washington: National Museum of African Art, Smithsonian Institution.

Stone, R.S. (1982). Antico and the development of bronze casting in Italy at the end of the Quattrocento. *Metropolitan Museum Journal* 16:87-116.

Stork, D. G., Coddington, J. and Bentkowska-Kafel, A. (2010). Computer vision and image analysis of art, SPIE/IS&T, Bellingham, WA.

Stork, D.G. and Johnson, M.K.(2006). Computer vision, image analysis, and master art, Part II, *IEEE Multimedia,* 14(3), 12–17.

Underwood, L. (1949). *Bronzes of West Africa*. Alec Tiranti, London.

Upadhyay, S. and Singh, S. J. (2011). Video Authentication − An Overview. *International Journal of Computer Science & Engineering Survey* (IJCSES) Vol.2, No.4, November 2011.

Vansina, J. (1984). *Art History in Africa*, London, and New York: Longman.

Werner, O. and Willett, F. (1975). The composition of brasses from Ife and Benin. *Archaeometry*, 17 (2), 141-56.

White, J.C. and Hamilton, E.G. (2009). The Transmission of Early Bronze Technology to Thailand: New Perspectives. *Journal of World Prehistory* 22:357-397.

Willett, F. (1959). Bronze figures from ItaYemoo, Ife, Nigeria. *Man*, 59, 308-11.

Willett, F. (1964). Spectrographic analysis of Nigerian bronzes. *Archaeometry*, 7, 81-3.

Willett, F. (1967). *Ife in the History of West African Sculpture.* Thames and Hudson, London.

Willett, F. (1976). True or False? The false dichotomy. *African Arts*, 9 (3), 8-14.

Willett, F. (1977). Baubles, Bangles, and Beads: trade Contacts of Medieval Ife. The University of   Edinburgh for the Center of African Studies, Edinburgh.

Willett, F. (2004). *The Art of Ife: A Descriptive Catalogue and Database* (CD-ROM). Hunterian Museum and Art Gallery, University of Glasgow, Glasgow.

Willett, F. and Fleming, S.F. (1976). A catalogue of important Nigerian copper-alloy castings dated by thermoluminescence. *Archaeometry,* 18 (2), 135-46.

Willett, F. and Sayre, E.Y. (2006). Lead isotopes in West African copper alloys. *Journal of African Archaeology*, 4 (1), 55-90.

Williams, D. (1974). *Icon and Image*. Allen Lane, London.

Williams, S. H. (1987). "Forward" In *African Art Studies: The State of the Discipline*. Washington: National Museum of African Art, Smithsonian Institution.

Wood, M. (2016). Glass beads from pre-European contact sub-Saharan Africa: Peter Francis's work revisited and updated. *Archaeological Research in Asia* 6, 65-80