

Ontology-Based Analysis Of An English Language Learner Narrative: A Case Study

Muhammad Alrayes

*Assistant Professor, English Language Department, College of Language Sciences, King Saud University, Riyadh, Saudi Arabia.

Email: malrayes@ksu.edu.sa

Abstract

Exploring the learners' needs is mandatory and very essential for languages learning. Utilizing the updated technology for meeting the best learning environments to accommodate languages learners worldwide is one of the top priorities to solve this challenge. Research indicates that learners have unique ways of learning; therefore, investigating learners' narratives is significant for the purpose of meeting individual needs. This paper followed a qualitative-thematic analysis of a case study narrative of an English language learner. It also incorporates the semantic web technologies using ontology-based analysis as a supplementary tool. This approach of using ontology serves to define the analyzed themes with specified relationships between them represented in visualizations from protégé 5.5 software. Thus, this learner's profile of patterns analysis would be a semantic resource for language learning environments as well as useful source for language teachers and researchers in both Information Retrieval and Natural Language Processing tools.

Keywords: Language learning; Narrative; Semantic; Domain Ontology; Natural Language Processing.

1. Introduction

Narratives of learning English is considered a rich representation about English language learners' experiences including their interactions with classmates, teachers, and academic support staff ((5); (15)). This

research study is significant toward improving ELLs in their self-confidence, social identity as well as in the whole journey of the academic career; thus, Narratives serve as a valuable tool for comprehending the cognitive processes of individuals, encompassing their subjective perceptions, lived experiences, and the manner in which they derive significance from said perceptions and experiences (17), cited in (10)).

One of the ongoing challenges in the area of languages learning is to get it customized in order to meet the learners' preferences. The learners' individual characteristics are essential components to be taking into account, as well as their cognitive styles, the level of knowledge, or the most abundant learning style to determine the most suitable learning approach ((6); (23); cited in (1)). Sometimes the same learners have varied preferences during different stages of their learning journeys; this also extends to their goals, experiences and knowledge; therefore, meeting learners' needs of the is of great importance ((4); (9); (1)).

The present study aims to address the aforementioned research gap through the implementation of a narrative inquiry approach, which will explore the complexities inherent in the process of acquiring proficiency in the English language, focusing on a case study of a successful language learner. This expedition exhibits unique attributes across various aspects. The individual was afforded the opportunity to initiate their acquisition of the English language within an English as a Foreign Language (EFL) context. Following several years of primary education, they were given the chance to move to an English-speaking country and pursue their higher education in the United States. Therefore, the main aim of this narrative inquiry is to examine the individual's experience and development in acquiring knowledge about the key factors that impacted their success in acquiring English as a foreign language during their early educational years, as well as their ongoing process of acquiring it as a second language.

2. Literature Review

Numerous research studies have been conducted to investigate the experiences of international students who choose to pursue English language education overseas, as opposed to their counterparts who engage in English language learning within a foreign language context in their home country. The central focus of this study was centred on the utilisation of a qualitative analysis methodology. Therefore, it is reasonable to analyse research that has employed a comparable methodology [\(19\)](#), [\(28\)](#), and [\(27\)](#), have demonstrated that the experience of studying abroad does not invariably yield a definitive enhancement in the attainment of the desired language proficiency. Several studies have indicated that individuals participating in short-term programmes reported feelings of being unwelcome and unfamiliar [\(28\)](#).

Numerous empirical investigations have been undertaken to explore diverse determinants that impact the aptitude of English Language Learners (ELLs). In a particular study, an examination was conducted to explore the significance of learning strategies among Chinese students [\(12\)](#). Furthermore, an alternative research investigation employed a combination of quantitative and qualitative methodologies, incorporating proficiency tests, questionnaires, and interviews as data collection instruments to examine the subject matter [\(11\)](#). The results of these studies suggest that the facilitation of various forms of learning is not exclusively determined by the context alone, but rather influenced by factors such as the nature of interactions, the quality of experiences, and the extent of effort put into utilising the second language (L2). These factors contribute to making one context more favourable than another in terms of language acquisition.# [\(11\)](#), p. 196; Cited in [\(24\)](#).

This research study attempted to answer the following research question:

- How did a successful English language learner describe his L2 learning journey between two contexts of learning; EFL vs. ESL?

3. Methodology

This research study utilized a qualitative approach which is defined by (26) as "qualitative research is a method that can be used to explore how individuals make meaning from their experiences" cited in (10). One type of the qualitative tools is narrative inquiry in which individuals' stories are investigated. Narratives or stories play a significant role in the cognitive processes through which individuals construct meaning in relation to their surroundings, as well as in shaping their self-concept and self-perception ((5); (7); (16); (2); (18); cited in (10)).

3.1 Data collection

The data utilised in this narrative study was obtained through conducting face-to-face interviews with the participant. Before proceeding with this specific stage, the participant was appropriately provided with verbal informed consent, during which they were informed about the privacy and confidentiality protocols implemented to protect their information exclusively for research purposes. The consent was clearly and explicitly documented and included as part of the recorded interview data. The interview was carried out after obtaining explicit consent from the participant, thereby enabling the recording of the conversation. During the inaugural encounter, the interviewer took measures to ensure that the interviewee was adequately apprised and duly reminded of the significance of upholding confidentiality with respect to their personal information as well as the substance of the interview. Following that, we immediately initiated the task of addressing our listed questions, starting with an examination of the historical backdrop pertaining to his educational journey in the acquisition of the English language. The data was subjected to thematic analysis, which was supplemented by ontology-based analysis as an additional analytical approach. This involved incorporating predetermined relationships between themes, which were then visually represented through visualisations protégé 5.5 software.

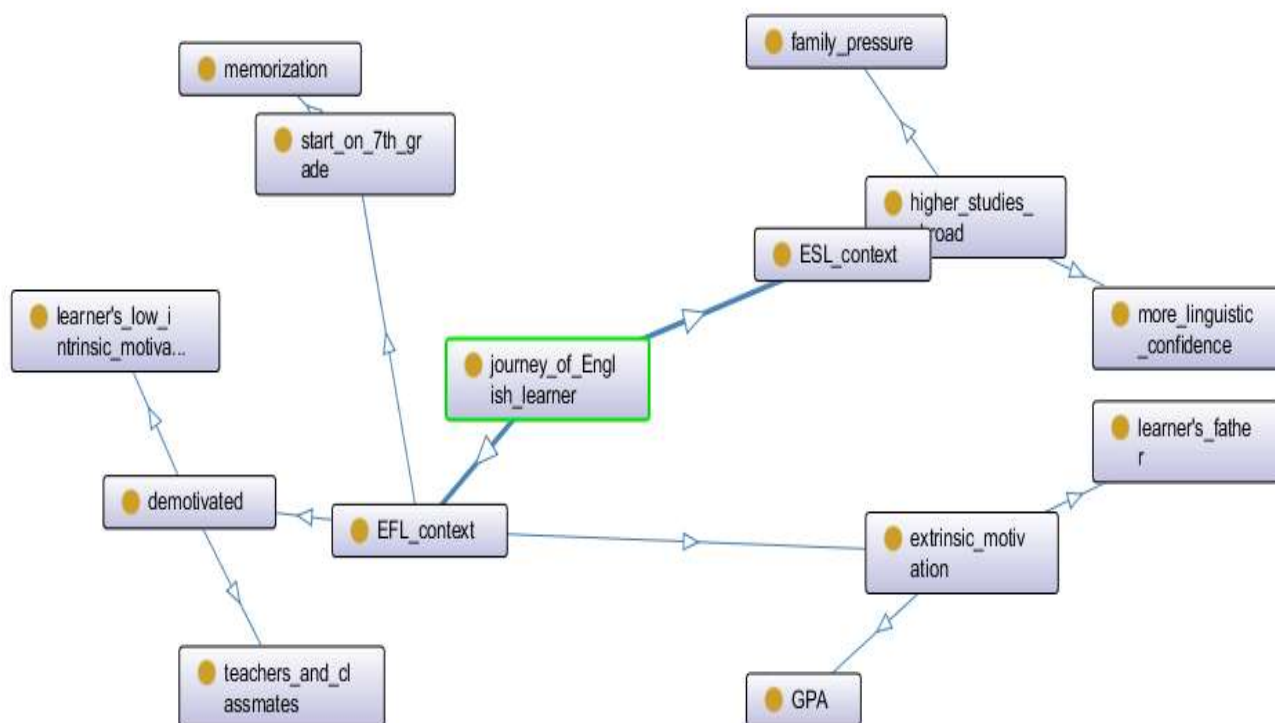


Figure 1. (ontology graph)

3.2 Data analysis and Results

a. Participant's L2 Learning History:

The participant in the study was initially introduced to English classes during their seventh-grade year, in accordance with the mandatory curriculum prescribed by the educational framework of their country. Based on the interview, it is evident that the individual's formal involvement with the English language began after they finished their secondary education, specifically when they enrolled in the English department as part of their undergraduate studies. Before discussing the participant's introduction to the process of developing English language proficiency at the university level, the study participant briefly mentioned the role of his father in encouraging an active approach to English language acquisition for both himself and his sibling, starting from their early years of education, specifically during seventh grade. As an

illustration, the male parental figure of the participant under investigation offered support and aid to their progeny in their endeavours to improve their proficiency in the English language. The provided assistance involved employing various techniques, including active listening, repeatedly transcribing unfamiliar English vocabulary, memorising the words, and consistently integrating them into daily communication without relying on bilingual translation tools, applications, or dictionaries. The aforementioned factor had a significant impact on the improved skill level of the participants in English spelling, as explicitly stated by the individual during the interview. The forthcoming sections will provide a more detailed analysis of this specific aspect, including a thorough examination and comparison with prior research findings.

The study's participant explained how demotivated he was throughout the beginning of stage of learning English as a foreign language. He provided few examples for this case, one of them was about the learners' low level of motivation toward their English class; their teacher was not happy about that situation. Thus, the teacher stated clearly that if any students is not interested to learn English can leave class! The interviewee elaborated: all the learners left the class which tells a lot about how the surrounding environment was negative. Although his father was trying very hard to support his son for learning English, the study's participant commented: the influence from the peers was much tougher and of great discouragement.

The study's participant shed light on his English teachers' negative roles during middle and high schools, he stated that: "they were not motivated themselves and directed us to just achieve greater grades as good test takers regardless of considering how proficient we were nor fluent on English as a foreign language". I enquired about one teacher how he improved his foreign language and literacy skills, he answered through individual effort and self-motive. That is, he focused on memorizing and a lot of repetition of new words to master their correct spelling and keep their meaning.

The subsequent stage in the interviewee's progression through historical stages of English language acquisition took place when he enrolled in the English major during his undergraduate studies. The ongoing presence of his father in his life holds considerable importance during this particular stage. According to the interviewee, his choice to pursue an English major was exclusively motivated by his father's request. The individual's motivation to acquire proficiency in the new language gradually declined, leading to a total lack of intrinsic motivation, as explicitly stated during the interview. Additional clarification on this aspect will be presented in the subsequent section dedicated to discussion. Notwithstanding a decrease in motivation, the individual being interviewed demonstrated resilience and determination by consistently confronting the situation and striving to achieve outstanding academic performance, as indicated by their pursuit of exceptional grades and a high GPA. The steadfast dedication displayed by him can be ascribed to his innate perseverance and resolve, which are fundamental components of his personal character. Additional details regarding this aspect will be expounded upon in the following section that pertains to personal characteristics).

The critical period on the study's participant learning journey was markedly been in university level when he got into the tertiary period. He mentioned that until the third year in college we had the chance to be taught by a full professor who got his PhD from the US; when in fact most of our former instructors were only TAs holding Bachelor's or Master's degree for the most part. He elaborated, this is the first time I have taken linguistics and literature courses which in fact had a positively great impact on my English language learning. He stated that the first positive impression and feeling toward learning English was until this term of the third year in college particularly when I took courses on literature such as poetry, drama, and novel. He, explicitly, said it was this term "the first chance I had both intrinsic and extrinsic motivation during the whole journey of learning English as a foreign language".

Regarding the language aptitude of the participant, there seems to be a dearth of observable evidence suggesting proficiency in the second language throughout their learning trajectory. The participant conveyed their affinity for a particular English literature course, which arose simultaneously and was influenced by the immediate course context and the accessible study materials. Following this, the participant expressed a significant observation regarding the cultural barrier that is linked to the process of gaining proficiency in the English language during his personal journey. The presence of this obstacle has resulted in an increased consciousness of modern literature, as well as access to English media outlets such as films and television shows. The individual additionally expressed that, although they cultivated an admiration for traditional English literature, they persisted in displaying reluctance towards contemporary language usage, including their involvement with English songs. The resistance was rooted in apprehension regarding the potential negative impact of these songs on individuals' personal identity and outlook on life.

After the participant's successful completion of his undergraduate degree in English, the subsequent phase of his English language acquisition process commenced. The individual was extended an invitation to take on a position as a teaching assistant within the department. Despite the fact that this opportunity did not align with their initial plans, they ultimately yielded to familial expectations and the financial benefits associated with this position. Subsequent to the aforementioned determination, the individual encountered a new and distinctive obstacle in his scholarly journey, specifically the endeavour to pursue advanced education in the English language overseas, as mandated by his recent job placement. The individual offered analysis on the dynamic circumstances and endeavoured to interact with a select group of English-speaking individuals residing in Saudi Arabia. Following this, he undertook a new undertaking to pursue his advanced education in the United States, indicating the English as a Second Language (ESL) context as depicted in Figure 1 mentioned earlier. The aforementioned segment, however,

relates to the English as a Foreign Language (EFL) context depicted in Figure 1. The individual reported encountering a cultural shock upon their initial arrival. The empirical findings he made in reality exhibited notable discrepancies from the portrayals he had encountered in traditional English literary works. The aforementioned situation endured for a period of approximately two months until it was successfully resolved by the individual in question. After successfully completing a six-month programme that emphasised fundamental English language skills, the individual in question subsequently enrolled in the Master of Arts programme in Linguistics. The ease of this transition was enabled by their previous experience and familiarity with comparable coursework during their undergraduate studies, leading to an increased level of confidence. The participant conveyed their contentment with their achievements during that specific stage, highlighting a significant surge in their enthusiasm for their selected academic discipline, linguistics. Furthermore, a notable enhancement in their reading proficiency within this particular domain was observed. During this specific stage of his existence, the individual articulated a captivating linguistic observation. The individual demonstrated proficiency in participating in discourse related to linguistic theories and articulating their ideas within the realm of academia. Nevertheless, he admitted a limitation in his ability to speak fluently when discussing topics that extend beyond the domain of linguistics, such as matters pertaining to society and politics. The individual identified a correlation between this matter and their restricted exposure to reading and participating in discussions regarding topics outside the realm of linguistics in their second language.

Regarding the matter of first language interference, the participant conveyed a lack of consciousness regarding any noticeable level of interference stemming from their native language while engaging in spoken or written communication within the domain of linguistics. Nevertheless, when the subject matter shifted away from linguistics to areas like politics, sports, and social issues, the speaker faced notable interference from their native language due to the influence of their personal experiences.

The last question asked during the interview revolved around the most effective approach to teaching English in an English as a Foreign Language (EFL) context, as perceived by the interviewee, with an emphasis on potential learners. In his prompt response, he expeditiously asserted that the instructional approach integrates the utilisation of authentic contexts in the target language to augment proficiency in the four language skills. Moreover, it underscores the importance of expanding one's vocabulary in different domains by means of being exposed to a wide range of written texts and audio materials, including conversations among native speakers on current affairs or educational channels, among other examples. The author ultimately emphasised the importance of remaining vigilant in regards to one's values, identity, and culture when interacting with authentic second language (L2) texts.

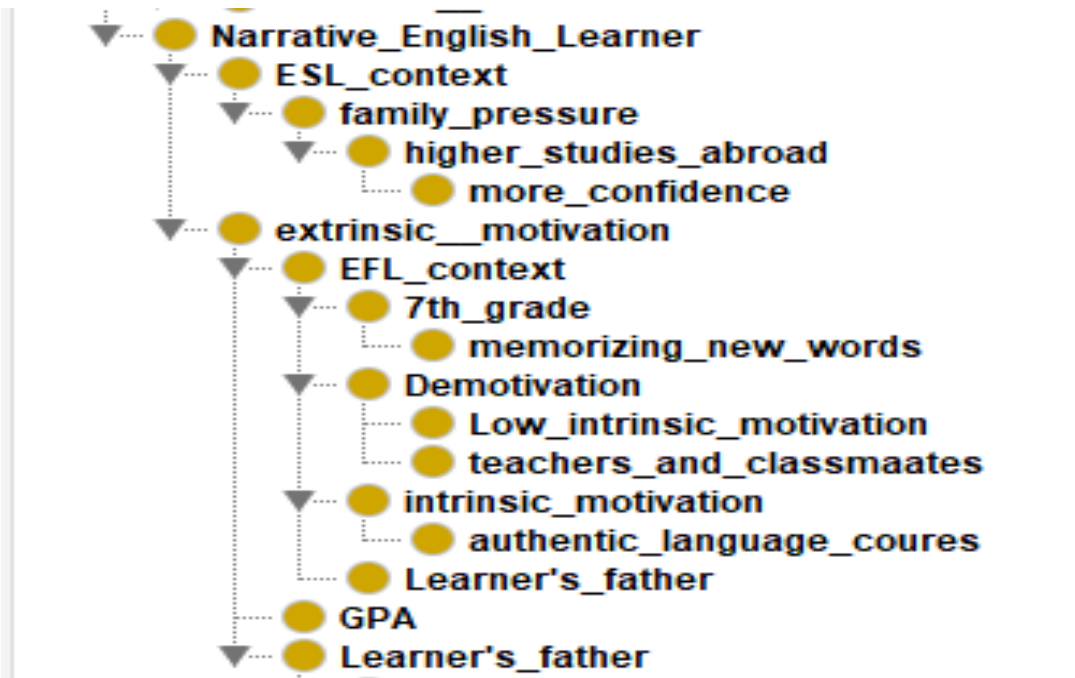


Figure 2. (class hierarchy of ontology)

b. Participant's Personal Characteristics:

The study suggests that the impact of participants' individual traits on their language experience and achievement is noteworthy. A dichotomy is observed in his personal attributes in relation to the acquisition of

proficiency in a second language. The impact of the participant's introverted personality on his English oral communication abilities has been acknowledged by the participant himself. However, it is important to note that his writing and listening skills have not been affected, as he has confirmed and supported this assertion (8). Nevertheless, the individual's self-discipline demonstrated a strong aptitude for acquiring language skills by employing a focused approach to studying primary materials and supplementary resources. The individual's commitment and determination contributed significantly to his academic achievements and excellent grades. These qualities were further enhanced by his competitive and ambitious disposition, ultimately playing a crucial role in his accomplishments in acquiring a second language, as demonstrated in (3).

The manifestation of personal attributes or unique variances among the participants became evident upon contrasting one participant's encounter with a second language to that of their sibling. Both siblings were admitted to the same educational institution and actively engaged in the same language course under the instruction of the same teacher. Nevertheless, significant discrepancies in their individual characteristics were noted, with one sibling displaying a strong ambition to excel academically and attain exceptional grades in the second language course, while the other sibling appeared to be content with achieving a satisfactory level of proficiency. The participant conveyed that his brother demonstrated a lack of concern regarding attaining a grade of C in the subject of English, whereas the participant himself possessed a strong inclination to avoid any grade below an A”.

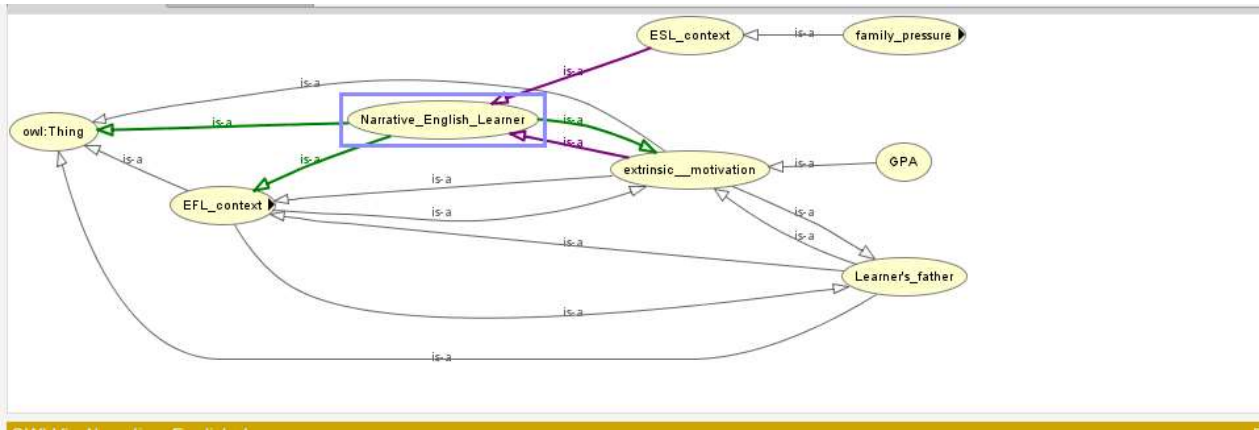


Figure 3. (OWLViz)

4. Discussion of the Study

To effectively address the interviewee's responses to the interview questions, it may be imperative for me to clarify several interrelated domains within the field of linguistics that have impacted their second language acquisition. Before moving forward, it is essential to clarify certain aspects regarding the inherent characteristics of this qualitative study. The acknowledgement of the researcher's voice and subjectivity is crucial in studies of this kind, thus it is advisable to explicitly recognise this aspect for greater accuracy.

The concept of the Willingness to Communicate (WTC) has gained significant recognition within the realm of language acquisition, and its influence on the learning experiences of my participants was readily evident. According to the research conducted by (21), the notion of Willingness to Communicate (WTC) pertains to the inclination of language learners to participate in conversation with specific individuals, utilising a second language (L2) as described by (1998, p. 547, as cited in (22)). The participant exhibits a noticeable reluctance to actively participate in communication utilising the second language. As per the interviewee's account, he articulated his decision to enrol in the course as being driven by a mandatory obligation rather than an intrinsic personal inclination. He additionally expressed that he does not have any intention of employing the English language outside of the

educational setting. This quotation can also be extrapolated to the motivational aspect, which will be expounded upon in a subsequent paragraph. One notable facet of the participant's acquisition of their second language (L2) was their move to the United States. The aforementioned step has clearly demonstrated a beneficial effect on his aptitude in the second language, particularly with regard to his oral communication skills. After conducting a thorough analysis of the incident at hand, my initial focus was directed towards the educational setting in which the process of acquiring a second language occurs. Within the English as a Foreign Language (EFL) learning environment in Saudi Arabia, the individual demonstrated restricted proficiency in verbal communication and demonstrated a noticeable absence of drive to actively pursue enhancement in this area. However, after moving to an English-speaking nation, specifically the United States, which provides an environment for learning English as a Second Language (ESL), significant progress was noted. The observed enhancements can be ascribed to a multitude of factors and priorities, as indicated by the individual, which aligns with the notion of the World Trade Centre (WTC) functioning as a dynamic system. The current dynamic system enables the acquisition of foreign languages, setting it apart from the learning processes associated with other academic disciplines. The process of acquiring languages is widely recognised as a fundamental aspect of human existence. The recognition of the substantial impact that external factors have on the process of language learning is of utmost importance, as will be further elaborated in the following paragraph.

The variability of the learning process of second/foreign languages is influenced by external factors. Furthermore, these individuals demonstrate variability depending on their connection with the individual engaged in the learning process. The influence exerted by the learner's parents appears to be more significant in comparison to that of his cousins, serving as an illustrative example. Moreover, there seems to be a distinction between the role of the learner's self-discipline and that of their parents or peers. This study examined the impact of external factors on the process of

English language acquisition among learners. One notable example related to the engagement of the participant's father figure during the early stages of acquiring the English language. Throughout the duration of the interview, the participants demonstrated a discernible inclination to frequently articulate the phrase 'my father'. The frequent repetition of this event led me to inquire about the underlying cause for its recurrence. The respondent conveyed that their father played a significant role in shaping their present identity and endeavours, particularly their choice to pursue a doctoral degree in the discipline of English. The quotation mentioned above evoked a feeling of astonishment in me, and I felt a great sense of satisfaction when I asked the question. With regard to the previously mentioned occurrence, I would like to present the following analysis. The perception of this incident as a source of motivation can be subject to debate. However, it is crucial to recognise that the motivation in question was triggered by an external factor, namely the father's involvement in this specific situation. Motivation is an unequivocal and pivotal factor that exerts influence over learning outcomes, extending beyond the realm of language acquisition to encompass various other domains. Nevertheless, it is crucial to recognise that external factors also exert a substantial influence on facilitating the progress of second language learners in achieving higher levels of linguistic proficiency and precision. According to [\(13\)](#), Parents play a significant role in shaping their children's attitude development, which in turn has an impact on their language acquisition process [\(14\)](#), as cited in [\(13\)](#).

Motivation emerged as a prominent determinant influencing the participants' achievement in acquiring a second language within the study. This study observed variations in the influence of motivation across different phases of the participants' progression. During the participant's initial encounter with English language instruction as a compulsory subject in school at approximately 13 years of age, it was reported that he possessed a complete absence of intrinsic motivation. This assertion appears to be grounded in reason, as the mandatory nature of the course and the learner's age could

potentially exert an impact on their motivation. Conversely, the participant explicitly expressed the presence of an external incentive that provided him with assistance and fortitude in confronting the difficulties associated with acquiring proficiency in the new language and achieving mastery of the course materials. In his own words, he articulated, "I exerted maximum effort to commit the entire book to memory; I was determined not to forfeit a single point." It is noteworthy how he approached the situation from that particular standpoint. Furthermore, this aligns with the assertion made by (25) regarding extrinsic incentives, wherein rewards, grades, and approval were found to hold great importance for young children. However, as these incentives were readily accessible in the aforementioned classes, their significance diminished over time, with knowledge itself assuming a more prominent role as an intrinsic goal. (25). This quotation by Nikolov accurately characterises the specific circumstances experienced by my participant. In the early stages of his learning, his intrinsic motivation was comparatively lower, while his extrinsic motivation was driven by grades and rewards. Subsequently, as Nikolov articulated, the diminishing importance of extrinsic factors and the prioritisation of knowledge as an intrinsic pursuit became evident. This phenomenon was precisely observed in the case of my research participant upon his enrollment in the English department for his undergraduate studies. The individual expressed, "I experienced a sense of intrinsic motivation as I developed an affinity for the literary works I was engaging with, rendering any external motivation unnecessary".

5. Conclusion:

This narrative study has enhanced my proficiency in linguistic research and facilitated the application of the theories we have studied in a practical experimental setting. I experienced a heightened sense of satisfaction upon electing to undertake this narrative study, as it yielded substantial advancements in understanding the efficacy of qualitative methods in the context of second language acquisition.

The process of participant selection for the study was deemed successful. This project provided me with the opportunity to gain insights into the experiences of a highly successful language learner, as shared through his own perspective. Ultimately, the learner's historical learning journey and the discussion sections mutually reinforced one another in their exploration of the present issue. In conclusion, I aspire to engage in further research endeavours of a comparable nature and would earnestly contemplate undertaking such projects for prospective students upon my return to my home institution.

Limitation:

One of the main limitations of this study was the exclusive reliance on a single methodology for gathering data. I would be inclined to pursue additional supplementary data materials, such as writing samples or observations of participants' real-life contexts, among other potential avenues. Moreover, it is advisable to incorporate a participant who originates from a distinct country or possesses a linguistic background that diverges from that of the researcher's language or culture. In summary, it would be of interest to conduct the interview in a second language and analyse specific elements such as codeswitching, the coherence of ideas and thoughts, in addition to the primary research questions.

List of abbreviations

EFL – English as foreign language

ESL – English second language

ELL – English language learner

TA – teaching assistant

US – United States

WTC - Willingness to Communicate

Declarations

Availability of data and materials

Data are available upon request.

Competing interests

The author declares no conflict of interest in this work.

Authors' Contributions

This is a single-author research paper.

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References

- (1) Alhasan K, Chen L, Chen F. Semantic modelling for learning styles and learning material in an e-learning environment. 2017 Oct 30. [google scholar Article](#)
- (2) Bignold W, Su F. The role of the narrator in narrative inquiry in education: construction and co-construction in two case studies. International Journal of Research and Method in Education 2013;36(4). [google scholar](#)
- (3) Brown HD. Principles of Language Learning and Teaching. USA: San Francisco State University.; 2000. [google scholar](#)
- (4) Brusilovsky P. Methods and techniques of adaptive hypermedia. User Modeling and User-Adapted Interaction 1996;6(2-3). [google scholar](#)
- (5) Caine V, Estefan A. The experience of waiting: Inquiry into the long-term relational responsibilities in narrative inquiry. Qualitative Inquiry 2011;17(10). [google scholar](#)
- (6) Chen CM, Lee HM, Chen YH. Personalized e-learning system using Item Response Theory. Computers and Education 2005;44(3). [google scholar](#)
- (7) Clandinin DJ, Murphy MS, Huber J, Orr AM. Negotiating Narrative Inquiries: Living in a Tension-Filled Midst. The Journal of Educational Research 2009;103(2):81-90. [google scholar](#)
- (8) Dewaele JM, Furnham A. Extraversion: The unloved variable in applied linguistic research. Language Learning 1999;49(3). [Article](#)
- (9) Elkherj M, Freund Y. A system for sending the right hint at the right time. In Proceedings of the first ACM conference on Learning@ scale conference 2014 Mar 4 (pp. 219-220). [article](#)
- (10) Flink P. Latino English language learners' perceptions of self and college environment: A narrative inquiry approach. Northcentral University. 2015. [google scholar](#)
- (11) Freed BF, Segalowitz N, Dewey DP. Context of learning and second language fluency in french: Comparing Regular Classroom,

- Study Abroad, and Intensive Domestic Immersion Programs. Studies in Second Language Acquisition 2004;26(2).[google scholar](#)
- (12) Gao X. Understanding changes in Chinese students' uses of learning strategies in China and Britain: A socio-cultural re-interpretation. System 2006;34(1).[google scholar](#)
- (13) GARDNER R. Motivation and Second Language Acquisition. PORTA LINGUARUM, 8, 9-20. 2007. [article](#)
- (14) Gardner RC, Lalonde RN, Moorcroft R. THE ROLE OF ATTITUDES AND MOTIVATION IN SECOND LANGUAGE LEARNING: CORRELATIONAL AND EXPERIMENTAL CONSIDERATIONS. Language Learning 1985;35(2). [google scholar](#)
- (15) George SD, O'Neill LK. The Northern Experience of Street-Involved Youth: A Narrative Inquiry. Canadian Journal of Counselling and Psychotherapy 2011;45(4).[google scholar](#)
- (16) Gibson W, Brown A. Working with Qualitative Data.; 2009. [google scholar](#)
- (17) Heider F. The psychology of interpersonal relations. New York: Wiley. Social Forces 1958;37(3). [google scholar](#)
- (18) Huber J, Caine V, Huber M, Steeves P. Narrative Inquiry as Pedagogy in Education: The Extraordinary Potential of Living, Telling, Retelling, and Reliving Stories of Experience. Review of Research in Education 2013;37(1).[google scholar](#)
- (19) Kinginger C. Language learning in study abroad: Case studies of Americans in France. Modern Language Journal 2008;92. [google scholar](#)
- (20) Macintyre PD, Burns C, Jessome A. Ambivalence About Communicating in a Second Language: A Qualitative Study of French Immersion Students' Willingness to Communicate. Modern Language Journal 2011;95(1).[google scholar](#)
- (21) Macintyre PD, Dornyei Z, Clément R, Noels KA. Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. Modern Language Journal 1998;82(4).[google scholar](#)
- (22) Mehrgan K. Willingness to Communicate in Second Language Acquisition: A Case Study from a Socio-Affective Perspective. Journal of Comparative Literature and Culture (JCLC) 2013;172(4).[google scholar](#)
- (23) Montazer G. aG, F. Learners grouping in e-Learning environment using evolutionary fuzzy clustering approach. International Journal of Information and Communication Technology, 2011;3, (9-19). [google scholar](#)
- (24) Murray CA. Language learning outside of the classroom: A reflection on language learner complexity. 2010. [google scholar](#)

- (25) Nikolov M. 'Why do you learn English?' 'Because the teacher is short a study of Hungarian children's foreign language learning motivation. Language Teaching Research 1999;3(1).[google scholar](#)
- (26) Shank GD. Qualitative research: A personal skills approach.; 2006.[google scholar](#)
- (27) Tanaka K. Japanese students' contact with English outside the classroom during study abroad. New Zealand Studies in Applied 2007;13(1). [google scholar](#)
- (28) Wang, Singh, Bird, Ives. The Learning Experiences of Taiwanese Nursing Students Studying in Australia. Journal of Transcultural Nursing 2008;19(2).[google scholar](#)