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Contents

Code-Switching as a Marker of Ethnic Identity in Multilingual Communities

[1]Sama Khalilli

Abstract:

This article examines code-switching as a socially and culturally meaningful practice that functions as a marker of ethnic identity in multilingual communities. Drawing from sociolinguistic theories and examples across informal, institutional, and digital settings, the study highlights how speakers use language to signal belonging, assert hybridity, express resistance, and construct complex identities. Far from being a random occurrence, code-switching emerges as a strategic and symbolic act deeply embedded in the performance of ethnic identity. The article calls for further research into the social functions of code-switching, particularly through ethnographic and classroom-based approaches.

Keywords: *code-switching, ethnic identity, multilingualism, sociolinguistics, identity construction*

INTRODUCTION

In linguistically diverse societies, code-switching—the practice of alternating between two or more languages or language varieties within a conversation—has long been recognized as more than a mere communicative strategy. It serves not only practical purposes but also performs symbolic and social functions tied closely to speakers' identities. Scholars distinguish between various forms of code-switching, including intra-sentential (within the same sentence), inter-sentential (between sentences), and tag-switching (inserting a tag or discourse marker from one language into an utterance from another) (Tay, 1989; Brunner & Diemer, 2018).

One of the most profound functions of code-switching lies in its role in expressing and constructing ethnic identity. From a sociolinguistic perspective, ethnic identity is not static or biologically determined; it is socially constructed, negotiated, and performed through interaction and discourse (Hall & Nilep, 2015). Language choice, particularly in multilingual environments, becomes a powerful semiotic resource for speakers to signal belonging, claim heritage, or distance themselves from certain groups (De Fina, 2007; Yim & Clément, 2019). The selective and context-dependent use of language varieties not only reflects social affiliations but also contributes to the shaping of those very affiliations in daily communicative acts.

Multilingualism provides a dynamic linguistic space where identity is not fixed but fluid, shaped by social norms, interlocutors, and communicative goals. In such environments, code-switching becomes a highly indexical practice—a tool for navigating complex identity landscapes (Hozhabrossadat, 2015).

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[1] Khalilli, S. Master's Student, Nakhchivan State University. Email: semaxlilli777@gmail.com. ORCID: https://orcid.org/0009-0005-0483-0110.

For instance, switching to a heritage language may serve to reinforce group solidarity in an ethnic minority context, while switching away from it might signal integration into a dominant culture or intentional distancing.

This article argues that code-switching, far from being a random or deficient form of language use, is a deliberate and meaningful practice that acts as a marker of ethnic identity. By examining its use in diverse multilingual communities, we seek to illustrate how code-switching reflects and shapes the ethnic self, operating as both a linguistic and cultural symbol. In doing so, we aim to broaden the understanding of identity construction within multilingual discourse and reaffirm the value of code-switching as a site of identity negotiation.

THEORETICAL BACKGROUND

The relationship between language and identity has been a central focus in sociolinguistic inquiry, particularly within multilingual settings where linguistic choices are deeply intertwined with social positioning and group affiliation. Several theoretical frameworks have contributed to our understanding of how code-switching functions as a marker of ethnic identity.

One of the most influential perspectives is Bucholtz and Hall's (2005) framework of identity in linguistic interaction, which conceptualizes identity as *emergent, relational, and interactionally constructed*. They emphasize that identity is not a fixed attribute but a social achievement realized through discourse. Their five principles—emergence, positionality, indexicality, relationality, and partialness— highlight the role of indexical signs like code-switching that point to social meanings such as ethnicity, locality, or group membership. In this view, code-switching operates as an indexical cue that signals ethnic belonging or distance depending on the social context.

Building on this, Gumperz's interactional sociolinguistics (1982) explores how contextualization cues, such as shifts in language, accent, or prosody, guide interpretation in discourse. According to Gumperz, code-switching is not merely a structural feature but a discursive resource for framing interactions, managing identities, and negotiating power relations. His notion of conversational inference—how listeners derive meaning based on contextual cues—suggests that switching codes can subtly indicate ethnic solidarity, respect, or resistance.

Another significant contribution comes from the Ethnolinguistic Vitality Theory proposed by Giles, Bourhis, and Taylor (1977). This theory explains how the perceived vitality of an ethnolinguistic group—based on factors like status, demography, and institutional support—affects language maintenance and identity expression. In communities with low vitality, code-switching to the dominant language may reflect pressure to assimilate, whereas in high-vitality contexts, maintaining the ethnic language through code-switching becomes a symbol of pride and group resilience.

Numerous empirical studies have drawn on these theories to demonstrate how code-switching reflects identity dynamics in postcolonial, diaspora, and urban contexts. For example, De Fina (2007) analyzed Mexican immigrants in the U.S., showing how language choices constructed both ethnic boundaries and intra-group hierarchies. Li (2004) explored multicultural identity in Chinese-American literature, illustrating how code-switching constructs dual cultural consciousness. Similarly, Yim and Clément (2019) examined Cantonese-English bilinguals in Canada and found that code-switching could signal both in-group solidarity and out-group differentiation, depending on the interlocutor and setting.

The symbolic meanings of code-switching vary widely. It can index solidarity, as speakers reaffirm shared identity within a community; exclusion, when non-members are subtly pushed out of a linguistic space; prestige, as in adopting a language associated with power or modernity; or resistance, especially in contexts where speaking a minority language challenges dominant norms (Hozhabrossadat, 2015; Hall & Nilep, 2015).

Together, these theoretical and empirical insights frame code-switching as a socially charged practice, rich with meaning and intimately tied to the performance and negotiation of ethnic identity.

CODE-SWITCHING IN MULTILINGUAL COMMUNITIES

Multilingual communities are sociolinguistic environments where two or more languages coexist and are used regularly across various social domains. These communities often emerge in contexts marked by colonial histories, migration, ethnic diversity, or regional integration. Across **South Asia**, for example, it is common to observe individuals switching between regional languages, Hindi, and English. In **Sub-Saharan Africa**, speakers frequently alternate among indigenous languages, colonial languages like French or English, and local lingua francas. In **post-Soviet regions**, particularly Central Asia and the Caucasus, code-switching between Russian and national or ethnic languages remains widespread.

In such communities, **code-switching becomes a pragmatic and symbolic tool** for navigating everyday communication. While it may serve immediate functional needs—such as lexical gaps or shifts in topic—it also carries **deep social meaning**. Individuals switch codes to signal **in-group solidarity**, reinforce **ethnic boundaries**, engage in **humor or secrecy**, or adapt to **power dynamics** between languages, such as switching between a minority language at home and a dominant one in educational or institutional settings.

Code-Switching in Informal Settings

In informal, everyday interactions—such as conversations among friends, family, or community members—code-switching frequently arises as a **natural and unconscious practice**. It often expresses **solidarity and cultural intimacy**, reinforcing bonds among members of the same ethnic group. For example, in the Azerbaijani-Russian bilingual context, a young speaker might insert Azerbaijani phrases into a predominantly Russian conversation with family to express affection or emphasize shared heritage.

Code-switching is also used to **mark ethnic boundaries** within multilingual groups. In diaspora communities, switching to a heritage language in an otherwise English-dominated conversation can serve to distinguish insiders from outsiders, thereby affirming ethnic identity. Additionally, speakers may switch codes to convey **humor, irony, or secrecy**, especially when certain expressions or idioms carry deeper meanings in one language but not in another.

Code-Switching in Institutional Settings (Schools, Media, Government)

In institutional domains, language choices are more regulated, yet code-switching still finds space, especially in **educational settings**. Teachers may switch to a shared mother tongue to **clarify difficult concepts**, **manage classroom discipline**, or **build rapport** with students. However, such switching

can also highlight **power dynamics**, particularly when one language is perceived as the language of authority and the other as informal or subordinate.

Media discourse—radio, television, and newspapers in multilingual societies—often employs code-switching for **stylistic or identity-related purposes**. In some African and South Asian broadcasting contexts, code-mixed news or entertainment content appeals to broader audiences by integrating cultural references, humor, and emotional nuance through multiple languages.

In administrative and governmental settings, code-switching may be less frequent but still appears in bilingual announcements, signage, or political discourse, especially when leaders want to align themselves with specific ethnic groups or build solidarity across linguistic lines.

Code-Switching in Digital Spaces (Social Media, Messaging, Online Communities)

Digital communication has further expanded the **range and visibility of code-switching**. On platforms like WhatsApp, Instagram, or Facebook, multilingual users often code-switch within and across messages, creating unique forms of digital discourse that reflect their identity and community affiliations.

In online youth culture, especially, code-switching is **highly creative and stylized**—a means of performing identity, aligning with peer norms, or resisting linguistic authority. Hashtags, captions, and comments often mix English with local or heritage languages, signaling cultural pride or playful irreverence.

Moreover, digital spaces allow speakers to **curate their identity linguistically**, choosing when and how to reveal or conceal their ethnic background through language use. This adds another layer to how code-switching functions—not only as a spontaneous act but as a **deliberate identity performance in public or semi-public virtual arenas**.

ETHNIC IDENTITY CONSTRUCTION THROUGH CODE-SWITCHING

In multilingual societies, language is not merely a tool of communication, but a profound symbol of who we are, where we come from, and where we belong. Code-switching, as a situated and strategic language practice, allows speakers to claim, reject, or negotiate their ethnic identities in real time.

Individuals often switch languages to assert belonging to a particular ethnic group, or conversely, to distance themselves from it when attempting to integrate into broader, dominant cultures. For instance, a speaker might deliberately avoid their ethnic language in a formal context to project a more "modern" or "neutral" identity, while reverting to it among close friends or family to reconnect with their roots. This selective use reflects identity positioning—an individual's conscious or subconscious alignment with or detachment from an ethnic or cultural category.

In increasingly globalized and mobile societies, many individuals develop **hybrid identities**, especially in urban or diaspora contexts. Code-switching becomes a way to **perform fluid identities**—both embracing their heritage and engaging with modernity. These speakers may not fully belong to one linguistic or cultural group but **move between them**, and code-switching mirrors that movement linguistically. Hall & Nilep (2015) note that in such settings, **language becomes a performance of identity fluidity**, not contradiction.

Even **single lexical items or phrases** can carry immense ethnic meaning. A young speaker inserting a colloquial phrase from their ethnic language into an otherwise dominant-language sentence may be signaling cultural solidarity or shared experience. Such symbolic language use is particularly visible in youth culture, where **slang, idioms, or cultural references** become part of identity signaling.

Moreover, **reclaiming a minority language** through code-switching is increasingly seen among youth in marginalized communities. For some, especially second-generation diaspora members, code-switching to a heritage language can be a way of **reasserting pride in their origins**, even if they are not fully fluent. This partial use of language, though sometimes criticized by older generations, is a **creative form of identity expression**.

In politically or culturally oppressive environments, code-switching can also act as **a form of resistance**. Switching to an ethnic language in public, despite stigma or discouragement, becomes a way of **asserting presence and cultural autonomy**. In such contexts, language is not only a marker of identity—it is a **site of struggle, resilience, and pride**.

SHORT CASE EXAMPLES

These real-life-inspired vignettes further illustrate how code-switching serves as an identity marker in various multilingual contexts:

Azerbaijani-Russian Context

A teenage girl in Nakhchivan uses Russian at school, where Russian is viewed as prestigious and associated with academic excellence. Yet, at home, she switches to Azerbaijani to communicate with her grandparents, invoking intimacy, respect, and ethnic belonging. Her strategic use of language across domains reflects her **dual identity** as both a modern student and a cultural insider.

Turkish-German Youth in Berlin

A Turkish-German adolescent named Emre speaks German fluently in school and public spaces but often switches to Turkish expressions, swear words, or jokes with his Turkish friends. He uses Turkish to **establish in-group solidarity**, signal shared experiences, and resist the pressure of full assimilation. Code-switching becomes his way of preserving a **hybrid identity**, simultaneously Turkish and German.

Afro-Caribbean Youth in London

In a peer group of Afro-Caribbean descent, English is the dominant language, but Jamaican Patois or Creole terms frequently surface in conversation. These insertions are used not only for **stylistic effect or humor**, but to affirm cultural heritage in a society where racial and ethnic minorities may feel marginalized. It's a subtle yet powerful display of **ethnolinguistic resistance and pride**.

CONCLUSION

This article has explored the multifaceted role of **code-switching as a marker of ethnic identity** within multilingual communities. Far from being a random or careless linguistic occurrence, code-switching is a **deliberate, socially meaningful act**, through which speakers navigate complex identity

landscapes. Whether used to affirm solidarity, negotiate belonging, or assert resistance, each switch carries cultural and symbolic weight.

Recognizing code-switching as an **identity-laden resource** allows us to move beyond structural analyses of language mixing and toward a richer understanding of language as **a lived, performative practice**. It provides insight into how individuals position themselves in relation to ethnicity, power, and community, particularly in contexts shaped by migration, globalization, or linguistic inequality.

Future research might benefit from more **comparative cross-cultural studies** that explore how the functions of code-switching vary across regions, age groups, and sociopolitical settings. **Ethnographic work**, especially in underrepresented communities, could shed light on the nuanced meanings speakers attach to their linguistic choices. Furthermore, **classroom-based studies** may reveal how educators and learners engage in code-switching as a pedagogical and identity-affirming strategy.

Understanding code-switching in its full social and cultural context not only enriches our view of multilingualism but also affirms the **value of linguistic diversity** as a dynamic and expressive form of human identity.

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Long-Term Change in International Relations

[1] Mohammad Ekram Yawar

Abstract:

Human societies have been, are, and will continue to be in a state of constant change. Change in this article refers to fundamental changes that have long-term consequences and lead to the rise and fall of political systems. Why and how societies change is a controversial issue, to which different approaches and perspectives have given different answers. This article seeks to highlight some of these approaches and perspectives.

Keywords: *Political System Change, Cyclical Models, Realism, Structuralism, Pluralism.*

INTRODUCTON

Since the end of the Cold War and the collapse of the Soviet Union, followed by the disintegration of Yugoslavia and the formation of new states in Eastern Europe, the nature and causes of long-term changes in international relations, or in other words, the rise and fall of political systems, have once again attracted the attention of scholars in this field. Of course, change in human societies is a constant process, these changes can be minor and limited, having short-term effects, or they can be major and long-term.

Change here refers to major changes that sometimes cause the rise and fall of empires. This article aims to examine the causes and how these changes occur from the perspective of various approaches (realism, structuralism, pluralism, evolutionism, etc.).

REALISM AND LONG-TERM CHANGE

The classical realist school of thought believes that systems that are subject to change are state-centered and autonomous. Autonomous means that there is no global government to oversee the functioning of such states. In such systems, the state is the main player and dominates all aspects of people's lives, from politics to economics to culture, and so on. The international system is a collection of states and institutions designed to meet the needs of these states. (This has been the case at least since the Treaty of Westphalia in 1648.)

From the point of view of classical realism, states are constantly in competition with each other, each of which strives to gain advantages and achieve a position of superiority. Change therefore occurs as a result of competition arising from the interests of states, which are often in conflict with each other

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[1] Asst. Prof. Dr. Mohammad Ekram Yawar, Dean of the Faculty of Law, International Science and Technology University, Warsaw, Poland, ekram.yawar@istu.edu.pl, https://orcid.org/0000-0003-3198-5212

and sometimes even coincide. Today Classical realism has many critics. Neo-realism, which is a mixture of realism and elements of structuralism, is one of these critics. One of the neo-realists is Gilpin, who believes that:

The international system, whether bipolar or multipolar, has elements of instability and is subject to fluctuations due to small changes in its structure.[1] In his opinion, one of the reasons for The essence of change in the international system is its cost-benefit. That is, if states recognize that the benefits of changing the international system outweigh its costs, they will not hesitate to make such a change. Gilpin's view of change is based on "rational choice," which emphasizes the influence of market factors. According to him, an international system is stable as long as its benefits exceed its costs. However, if the economic costs of stability rise faster and higher than normal, this system is exposed to change.

Increasing costs will cause the system to become unstable, and this instability will lead to change. Of course, despite the emphasis he places on economic factors, Gilpin also considers the importance of political factors influencing any change. One of these factors that plays a fundamental role in political developments in the world is war.

Gilpin uses economics to provide a framework or cyclical structure for the rise and fall of states. To provide this structure, he examines a 2,400-year period of Western history. In his view, the result of political and economic developments is a cycle consisting of four periods of development, equilibrium, confrontation and decline, and the growth process of any society follows an S-shaped pattern. In Gilpin's view, the cycle of the rise and fall of great powers is constantly repeated.

Gilpin's view is similar to the structuralist view in terms of its emphasis on economic factors and the role of hegemony in political developments. But it is similar to the realist view in the importance it attaches to the role of states and competition between them, and most importantly, war. Another theorist who has a view almost similar to Gilpin is Modelski. Modelski attaches great importance to war as a key factor in the development of international politics. And like Gilpin, he believes that international politics is fundamental. Modalski considers the year 1500 AD as the beginning of the modern international system. From that time until now, he believes, there have been "four stages in the history of international politics, each of which was dominated by a single state."[2]

The decisive factor in the transition from one stage to the next has been the war in which the victorious state has changed the international system to its own advantage. The basis of these cycles is the difficulties faced by dominant states in confronting new competitors and the unbearable costs of this confrontation in order to maintain their position in the system. Thus, states rise and fall based on political and economic factors and competition between states for dominance. Another approach that places great importance on non-state actors is Samuel Huntington's "civilization" approach. Huntington believed that the post-Cold War era would witness the emergence of great cultural and religious divisions in world politics. These divisions would provide the basis for conflicts that would be the final chapter of the "clash of civilizations".

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[1] Gilpin Dawn,1981:127.
[2] Modelski,1987:35.

PLURALISM AND LONG-TERM CHANGE

Pluralism, which is now often used to refer to neo-liberalism, gives particular importance to theories of change. Many of the neoliberal theories, such as "interdependence," "regime theory," and the triumph of the free-market economy and democracy and the decline of the nation-state, are based on historical interpretations. Pluralists believe that the pace of change Change and the main parameters of international politics may change over time. The first point to consider about the neoliberal approach to change is the question of progress.

Of course, there is disagreement among them about whether progress is a permanent and continuous process or not, and also whether progress actually exists in practice or is merely a potential issue, but they all agree that Progress is a long-term issue, they agree. The neoliberal emphasis on progress has taken the form of a global development theory that believes that human history is moving towards the triumph of liberal and democratic values. This can be seen in Fukuyama's theory of the "end of history".

This conclusion, which represents the triumph of liberal democracy, assumes that there has been a directional change throughout human history. In general, pluralists, especially neoliberals, see change as closely related to economic factors such as economic growth, transnational ties, and interdependence between states. They use the concepts of interdependence and regime theories to understand and explain how change occurs in contemporary international economic relations. For example, Krasner believes that "disasters and crises can trigger changes that lead to the formation of new international regimes."[1]

Economic perspectives on change therefore play an important role in neoliberal theories of international politics. But neoliberals, more than realists, see a causal and key role for intellectual factors in bringing about change in international politics. They argue that special importance should be attached to the role of "epistemic communities" in bringing about political change. Perhaps the most well-known analysis of the pluralist approach to change is by Rosenau. He believes that there is a clear link between small-scale action and large-scale change. Drawing on the theory of complexity in mathematics and physics, Rezno compares international political systems to water and weather systems. He believes that "international politics is a combination of evolutionary (gradual) and sudden changes." (breakpoints) become ".[2] ". Gaddis has an approach almost identical to Reznow's. Both take advantage of new advances in mathematical complexity theory, and fundamental changes in evolutionary biology.

STRUCTURALİSM AND LONG-TERM CHANGE

The structuralist paradigm is not a single approach and is therefore not easily defined. Structuralist approaches are a group of perspectives that firstly adopt a global scale for analysis, and secondly believe that structures or frameworks of action play an important role in global politics. These

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[1] Krasner,1983:14.
[2] Rosenau,1990:134.

approaches include Marxist and non-Marxist perspectives and theories based on economics and other fields. The best-known structuralist approach is "world systems analysis" developed by Wallerstein.

This approach is closely related to Marxist theories of change, although it itself denies this connection. At the same time, Wallerstein attaches great importance to the simultaneous role of political and economic factors in the emergence and collapse of world systems. In his view, "world systems They are primarily economic patterns that are created by economic factors, but these patterns also have political dimensions and act as causal factors in creating political changes in the long run.[1] Wallerstein believes that through the reshaping of economic structures, many countries are driven into a kind of peripheral relationship with the world system, and that this pattern of center-periphery relationship is recurring, and the only way The change in this relationship is the change in the capitalist system.

Some of Wallerstein's supporters believe in the existence of this type of relationship even in the economies of prehistoric world systems, in the classical and medieval periods in Europe and in the Mediterranean region and Asia. Another view that has been put forward on long-term changes in international relations is Wilkinson's "civilizational approach". This perspective studies civilizations over long time scales.

Wilkinson means a civilization as a group of cities that interact with each other politically, without regard to any cultural values. These interactional patterns create networks of communication that result in the creation of systems that reflect a type of center-periphery relationship. Halliday uses the approach of "historical materialism" as a basis for analyzing long-term changes in international relations. Halliday's approach is clearly historical, emphasizing the totality of human history. Halliday focuses on the socio-economic fabric of world politics and gives causal priority to economic factors. He considers the role of class antagonism and revolution to be the most important in the analysis of the cause of change and considers the process of change to be the result of the operation of economic factors.

Rosenberg's theory of long-term change bears a great deal of resemblance to Marxist theories of history. This theory is also clearly materialist, emphasizing concepts such as "class" and the socio-economic method of analysis. According to Rosenberg, "social structures have a decisive influence on the functioning of international systems and should be explained in terms of the Marxist "theory of value." That is, explaining world politics in terms of social and economic relations and taking into account the temporality of political forms.[2]

Cox attaches great importance to the functioning of socio-economic factors within nations and groups of nations with common interests. According to Cox, these groups can form a political bloc and influence international structures to secure their interests. According to Cox, change occurs when these interests change or economic factors cause these groupings to change.

SOCİOLOGY AND LONG-TERM CHANGE

Sociology has been concerned with change since its beginning. Comte sought to discover the laws that cause change. Durkheim gave great attention to the problem of change, which he saw as an

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[1] Wallerstein,1991:59.
[2] Rosenberg,1994:178.

evolutionary movement. In fact, sociology in the twentieth century has been largely concerned with the study of how change occurs. Since Spencer, sociology has used Darwinian concepts of evolution as a basis for explaining changes in human social groups and their organizations. A key point in this view is that throughout human history there has been a progression toward increasing complexity. Of course, two important exceptions to this general trend in sociology regarding the interpretation of change based on evolutionary theories and historical materialism are the approaches used by Sorkin and Pareto.

According to Sorokin, every change has a specific pattern, and the study of any change must take this pattern into account. Sorokin covers a period from the seventh century BC to the twentieth century AD, using a world scale analysis. Sorokin believes that there are only "a limited number of types of basic systems that recur throughout history, and that change is the result of changes in these basic systems."[1] In his view, the cause of change must be sought within the systems and that human factors play a minor role in these changes. Change must therefore be understood as an intrinsic and internal phenomenon in all systems, and as a long-term repetition of a few cycles of the original systems.

Pareto takes a psychological view of change, seeing it as the result of the psychology of the elite and its relationship to the psychology of those who are governed by the elite. And using the concept of Equilibrium, as a factor in maintaining systems, sees change as the result of the breakdown of this equilibrium. According to Pareto, the key factor in maintaining equilibrium in a political system is the rotation of different types of elites. The American sociologist Darendhorf sees change as the result of contradiction. According to him, "Contradiction and change are intrinsic and internal elements of every society." These conflicts are based on the belief that "life chances" are the possibilities of satisfying needs and interests.[2]

Change should be understood as the result of internal factors and the pursuit of interests and needs. Another sociological view of change is presented by Parson. Parson believes that every society consists of individuals who seek to maximize their own strategies. And with Using evolutionary and functionalist concepts, functionalism has developed the concept of equilibrium to explain the maintenance of systems and, consequently, change over time. Of course, not all sociological analyses of change are evolutionary approaches. One well-known critic of evolutionary and Marxist approaches is Anthony Giddens, whose theory of structuration has many supporters. This The theory states that "in every society there are structures that limit freedom of action but also enable us to take action.[3]

What Giddens calls the "structural duality." According to Giddens, social life takes place within these structures, but the individual is not simply a passive element in society. In fact, the individual initiates and participates in change. Therefore, instead of emphasizing materialist determinism or epistemological perspectives, structuralism places greater importance on the decision-making and deliberation of actors. The main point in Giddens's view is that the individual in society is an "informed strategic actor" who makes his decisions based on his experiences and knowledge. Thus,

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[1] Sorkin,1999:17.
[2] Dahrendorf,1991:87.
[3] Giddes,1984:143.

"social reproduction" is the re-production of structure over time as a result of the repetition of existing structures.

However, the role of the individual can help to change the structures and, consequently, the logic and foundations of society itself. Thus, structures can not only enable or constrain actions, but also have a reflexive relationship with the participants in those structures. The emergence of structures and structuration results from the interaction between individuals and the structures within which they live, and between individuals and each other, and the transformation of these structures. Consequently, while structures can be reproduced in order to maintain social systems, they can also be transformed and create new social frameworks. Such a perspective encompasses both the material and human worlds, and can therefore also include structures such as geographical location and resources.

Another aspect of Giddens's theory is the recognition of the importance of the unintended consequences of action. He emphasizes the importance of the perspectives and opinions of the individuals who participate in these social activities. Therefore, changes can be the result of intentional or unintentional actions of individuals in the process of reproducing and changing the shape of structures.

HİSTORY AND CHANGE OVER TİME

Historical views on the question of change can be divided into two groups: Marxist and non-Marxist views. Marxist views can be divided into four groups: classical, Gramscian, structuralist, and critical. Classical Marxism sees the root cause of change as economic factors, which are considered as the substructure, and change follows a specific pattern that reaches its final goal through stages.

In Gramsci's Marxist historiography, mental factors as well as interaction play a more important role, and the role of hegemony, which here refers to the undisputed power of ideology, is emphasized. Structural Marxists go beyond economic factors and attribute a more important role to mental factors and the control of information in creating change.

The critical perspective questions the goals and methods of such perspectives and attempts to identify the effects that these approaches and interpretations have on society. Non-Marxist perspectives on change are very diverse and do not fit into a single, specific framework. One of those who can be referred to in this field is Fernand Braudel, who emphasizes the importance of analyzing change based on a set of interrelated temporal and spatial scales.

According to Braudel, these scales can be short-term, medium-term, or long-term. He believes that processes operating on these time scales are potentially interconnected, but that distinct types of processes can operate on different time or space scales. At different scales, different explanations may be more useful. But this does not mean resorting to economic or environmental determinism. According to Braudel, "mental factors operate at all scales, and ecological, economic, and social factors also play a major role in creating change."[1]

In the analysis and analysis of change, a combination of temporal and spatial scales is important, and processes are not the same at all scales, and not every process necessarily operates at the same scale.

[1] Braudel,1993:12.

One of the non-Marxist approaches among historians is the "historical particularist" approach. Thus, history is simply a collection of heterogeneous events that can be understood as narratives. This collection of events can be grouped in terms of time or thematic. These events can focus on political events, social narratives, or economic actions. But they are all based on the same theoretical concepts. This view holds that there are no processes or structures operating in history, and that there are no universal, universal laws in history. Paul Kennedy has combined the views of historical particularism and historical materialism to present a theory on the basis of which heterogeneous events can be explained using economic terms and expressions.

And by examining the entire history of the rise and fall of great powers from the sixteenth century onwards, he concludes that "there is a close relationship between the economic growth and the decline of great powers, states that occupy a privileged position among their contemporaries.[1]"

Kennedy sees this close connection or nexus as the costs of maintaining dominance, in addition to the correlation between economic and military dominance, which links economic factors to political factors.

MATHEMATİCAL APPROACHES AND LONG-TERM CHANGE

Mathematics also has its own theories about change. Some mathematicians, such as Zeeman, believe that these theories can also be applied to human societies. Mathematical approaches that are considered relevant to the analysis of change in human societies include: "decision analysis," "network analysis," "catastrophe theory," "systems theory," and "mathematics of complexity."

Given the importance of decision-making in creating political change, we begin by analyzing how decisions are made. This issue can be approached in two main ways: by analyzing the decision-making process itself, and by examining the set of possible decisions facing an individual or organization at a given time.

It may be argued that in any given situation there is a set of decisions facing an individual, each of which could lead to different outcomes. In one sense this is true, but in another sense decision-making can always be broken down into a simple choice between yes and no.

By adopting such a dual approach, it must be accepted that choosing the good option involves time for reflection (information gathering) and procrastination, as well as outright denial. Such contrasts can lead to the development of various theories of decision-making. These theories include the analysis of the probabilities of possible outcomes and the logical evaluation of the stages of decision-making. Network analysis, which is widely used in sociology and anthropology, The approach used is mathematical. Network analysis views social relationships as a series of links.

These networks can represent static relationships, or moments in the flow of more complex and dynamic relationships, or they can be used to analyze patterns that exist in different forms over time. Understanding social and political organization as a network can be linked to any of the mathematical theories In terms of dynamics, that is, systems theory, catastrophe theory, and complexity theory, it is

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[1] Kennedy1988: 93.

combined. Systems theory considers each part of a larger system as potentially connected to its smaller constituent parts, called subsystems.

Change is considered as flows within this subsystem. Flows that reinforce change are called "positive feedback," and those that reinforce stability are called "negative feedback." systems are called "negative feedback." Systems approaches usually place great importance on systemic equilibrium or stability, and this has led to the recognition of the variety of forms that equilibrium may take in a dynamic system.

The concept of trajectory (a pattern or set of changes that a system undergoes over time) and the concept of subsystem interconnections link this approach to another mathematical view of change, namely catastrophe theory. Catastrophe theory is a mathematical theory of sudden change that has been widely applied to human institutions and organizations.

Catastrophe theory It is based on the view that the gradual accumulation of seemingly minor factors can result in sudden negative changes. Catastrophe theory, by emphasizing the importance of minor factors in creating fundamental changes, has been a useful complement to gradual explanations of change.

The specific path followed by catastrophic systems allows us to identify the type of change even without the use of mathematical analysis. Catastrophe theory allows us to It allows us to understand how rapid changes can occur between one form of a system (state) and another. Complexity theory seeks to apply mathematical concepts to the modeling of the formation and transformation of diverse but structured systems.

Complex systems fall within the scope of fixed structures (crystals) and amorphous structures that have no fixed shape. (hot gases) exist. The definition of complex systems was given by Anderson. According to Anderson, "complex systems are those that are large and complex and exhibit behavior that is not simply the sum of their parts. It is also said that complex systems are distinguished from other systems by the characteristic of their capacity to retain and store information."[1] Complex systems can also organize and construct themselves.

CONCLUSİON

Different schools of thought have looked at the issue of change in human societies from different perspectives, and each has its own reasons for it, but what they all agree on is the existence of the phenomenon of change and its permanence. Some see the main cause in internal factors, others in external factors, and some in a combination of internal and external factors.

Even among those who adhere to the same approach, there is no consensus. In the realist approach, some see the cause of change in the lawlessness of some states and the lack of a strong international institution to monitor the behavior of such states, as well as competition between them and, most importantly, economic factors.

At the same time, Gilpin emphasizes rational choice and considers the ideology of war and the emergence of crises to be important. Pluralists, and especially neoliberals, while considering a set of

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[1] Anderson,1992:81.

factors to be involved in this matter, emphasize the role of the human factor and the progress and ultimate victory of the values of democracy and liberalism.

In the structuralist approach, some (non-Marxist) attribute the cause of change to the existence of a center-periphery relationship between states, while others (Marxist) emphasize historical repression and class antagonism. In sociology, two main perspectives can be identified: evolutionary and non-evolutionary, which have different views.

Historical approaches to the issue of change are also very broad, but they can be divided into two main Marxist groups: and non-Marxist, which are themselves divided into other groups. Mathematical approaches also consider change as an inevitable problem and mainly believe that seemingly small factors, when accumulated, can become the source of fundamental changes.

Summarizing the issues raised above, it can be said that despite the important differences of opinion about the cause of change in Human societies exist, but there is no doubt about the origin of their existence.

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Linguistic Landscapes: How Urban Environments Shape Language Variation

[1] Gerda Urbaite

Abstract:

This article explores how urban environments influence language variation through the lens of linguistic landscapes—the visual display of languages in public spaces such as signs, advertisements, and official notices. Drawing on established theoretical research, it examines how linguistic landscapes reflect the multilingual and multicultural nature of modern cities and function as symbolic markers of identity, power, and inclusion. The study discusses the ways in which language use in urban signage is shaped by social dynamics, including migration, globalization, and local language policies. It also considers how minority and heritage languages are represented or marginalized in these landscapes, and how public visibility affects perceptions of linguistic vitality and legitimacy. The article argues that linguistic landscapes are not merely passive reflections of linguistic diversity but active spaces of meaning-making, social negotiation, and identity construction. By analyzing these visual texts, sociolinguists gain valuable insights into the complex relationship between language, space, and society in contemporary urban settings.

Keywords: linguistic landscape, language variation, urban multilingualism, identity, language policy

INTRODUCTION

Urban environments are dynamic and linguistically rich spaces where multiple languages often coexist, interact, and evolve. These environments offer fertile ground for examining language variation and multilingualism in action. One of the most visible and accessible indicators of linguistic presence in urban spaces is the linguistic landscape—the display of languages on public and commercial signs in a given territory. This field of study, though relatively recent, has gained significant attention for its ability to illustrate the intersection of language, space, identity, and power (Landry & Bourhis, 1997; Gorter, 2006).

As global migration, tourism, and digital connectivity increase, cities have become contact zones for diverse linguistic communities. This growing diversity not only affects the spoken and written language practices of urban populations but also reshapes the visual language of cityscapes. Urban signage— from shop names and billboards to graffiti and government notices—offers insight into how languages are used, negotiated, and sometimes contested in public spaces (Shohamy & Gorter, 2008).

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[1] Urbaite, G. Author, Euro-Global Journal of Linguistics and Language Education, Lithuania. Email: urbaite0013@gmail.com. ORCID: https://orcid.org/0009-0001-5471-6210.

This article explores the theoretical foundations of linguistic landscape studies with a focus on how urban environments shape language variation. It aims to investigate the sociolinguistic functions of linguistic landscapes and how they contribute to the visibility, vitality, and social meaning of language use in multicultural cities. Through a synthesis of established research, including the foundational work of Backhaus (2006), Ben-Rafael et al. (2006), and Coupland (2007), the article examines language variation as both a structural phenomenon and a symbolic act embedded in urban life.

The rise of linguistic landscape studies has coincided with broader developments in sociolinguistics and discourse analysis. Language variation is no longer seen merely as a function of region or class; it is now understood as deeply embedded in identity formation and spatial practices (Chambers, 2004; Leeman & Modan, 2009). As such, linguistic landscapes serve not just as passive reflections of multilingual realities but also as active agents in the construction and negotiation of social identities.

By focusing on cities as the focal point of linguistic convergence and tension, this article addresses the following questions:

- In what ways do urban environments influence the forms and patterns of language variation?
- How do linguistic landscapes reflect and shape social hierarchies, cultural identities, and language ideologies?
- What theoretical insights can be drawn from the intersection of urban studies and sociolinguistics?

To answer these questions, the article is organized into several sections. The next section presents a theoretical background on the concepts of linguistic landscape and language variation. This is followed by an examination of how urban dynamics influence multilingual practices, and how signs in public space function as markers of identity, power, and policy. The final sections discuss implications for sociolinguistic theory and propose future directions for research.

In sum, this article offers a conceptual investigation into the role of the urban linguistic landscape as a site of meaning-making, social negotiation, and language variation. By drawing on key theoretical perspectives and established empirical work, it aims to deepen our understanding of language as it is visually and socially embedded in the modern city.

II. THEORETICAL BACKGROUND

2.1. Understanding the Linguistic Landscape

The concept of the linguistic landscape (LL) emerged as a response to the need for a visual and spatial understanding of language use in public domains. Landry and Bourhis (1997) first introduced the term in its modern usage, describing it as the visibility and salience of languages on public and commercial signs in a given area. Since then, linguistic landscapes have evolved into a critical analytical lens for exploring multilingualism, language ideologies, and symbolic power structures in society (Gorter, 2006; Shohamy & Gorter, 2008).

The linguistic landscape is not just a passive reflection of the languages spoken in a place—it is a symbolic construction of that place (Ben-Rafael et al., 2006). Signs are not merely informative; they are performative, shaping perceptions of linguistic legitimacy and social belonging. Whether a sign is

written in a dominant national language or a marginalized minority tongue, its presence—or absence—communicates societal attitudes toward linguistic groups.

2.2. Language Variation and Sociolinguistics

Language variation has long been a central theme in sociolinguistics, with scholars such as Chambers (2004) emphasizing that variation is intrinsic to the structure and function of all languages. Variation may occur across dimensions such as geography, social class, gender, and age, and it can be expressed through phonological, morphological, syntactic, and lexical differences. In urban environments, these dimensions often intersect, giving rise to complex, hybrid linguistic practices.

Linguistic variation is not random; it is structured and patterned according to social meanings. Coupland (2007) views style as a resource for constructing identity and emphasizes the ways in which speakers shift between styles in different contexts. This idea is echoed in linguistic landscapes, where language choices on signs can reflect shifting alliances, social aspirations, or resistance to dominant ideologies.

2.3. Multilingualism in Urban Settings

Multilingualism, often seen as a communicative resource, takes on a more visible, spatial character in the urban linguistic landscape. Cenoz and Gorter (2006) have argued for the importance of including visual elements in the study of multilingualism, particularly in relation to minority languages. Urban multilingualism is not limited to individual language competence; it also includes the sociopolitical and economic forces that influence which languages are displayed, promoted, or suppressed in public space.

Cities are inherently multilingual, often hosting communities that speak several different languages side by side. Backhaus (2006), in his study of Tokyo, found that the co-occurrence of languages on signs reflected both practical needs (e.g., addressing tourists) and deeper cultural negotiations. The use of English in non-Anglophone cities, for example, often carries prestige or is associated with globalization and modernity, whereas local or indigenous languages may reflect community roots or resistance.

2.4. The Linguistic Landscape as a Tool for Analyzing Identity and Power

Beyond the surface level of language presence, linguistic landscapes are deeply tied to questions of identity, agency, and power. The visibility of certain languages and the invisibility of others can indicate which groups are valued in society and which are marginalized (Leeman & Modan, 2009). Signs may serve the interests of local businesses, governmental bodies, or grassroots activists—each deploying language strategically for different purposes.

Moreover, the linguistic landscape is also a field of contestation. Shohamy et al. (2010) point out that LLs can be arenas where language policies are negotiated and resisted. This aligns with a more critical view of language as embedded within social structures, where the presence of a language in the landscape is often the outcome of ongoing political, cultural, and economic dynamics.

III. URBAN ENVIRONMENTS AND LANGUAGE VARIATION

3.1. Cities as Linguistic Contact Zones

Urban spaces are fertile grounds for linguistic innovation and variation. As centers of migration, commerce, education, and cultural exchange, cities bring together speakers from diverse linguistic and social backgrounds. The result is a linguistic ecology characterized by contact, competition, and cooperation among languages. In this context, language variation does not exist in isolation but emerges from social interaction shaped by demographic dynamics, institutional forces, and individual agency.

Foulkes and Docherty (2014) highlight that urban areas often give rise to distinctive varieties of language—so-called "urban dialects"—which may feature innovations in phonology, syntax, or lexicon. These innovations are driven by interaction among different linguistic communities, including native speakers, immigrants, tourists, and transient populations. The linguistic landscape serves as a record of these interactions, displaying the multiplicity of voices that animate the urban scene.

3.2. Language Use and Adaptation in Urban Life

Language variation in cities is also closely tied to social adaptation. Individuals and communities often modify their linguistic practices to align with dominant social norms or to navigate specific urban contexts. This includes phenomena like code-switching, style-shifting, and register variation, which are often observable in signage and public communication.

Urban linguistic landscapes provide clear examples of such adaptation. Businesses may display signs in multiple languages to reach broader audiences or appeal to specific clientele. For instance, a restaurant in a multicultural district may use English for international customers, the national language for official legitimacy, and a local or ethnic language to signify authenticity and cultural identity (Leeman & Modan, 2009).

The coexistence of these languages on a single sign reflects layered identities and pragmatic choices. It also speaks to the sociolinguistic reality that urban residents often operate within multiple linguistic and cultural frames simultaneously—a phenomenon Duff (2015) connects to transnationalism and multilingual identity.

3.3. The Role of Linguistic Landscape in Reflecting Social Stratification

The urban linguistic landscape often mirrors existing social hierarchies. Certain languages—typically national or global languages—are more likely to appear in official signs, advertisements, and high-visibility locations. Meanwhile, minority and indigenous languages may be confined to specific neighborhoods or used in informal, handwritten, or community-generated signage (Cenoz & Gorter, 2006).

This unequal visibility has symbolic consequences. The languages prominently featured in public space are implicitly granted social legitimacy and economic capital, while less visible languages may be perceived as marginal or subaltern. Landry and Bourhis (1997) referred to this phenomenon as ethnolinguistic vitality, suggesting that a language's presence in the landscape contributes to how vibrant and resilient it is perceived to be by its speakers.

Thus, the linguistic landscape functions not only as a medium of communication but also as a mechanism of inclusion and exclusion. The city becomes a semiotic battlefield where linguistic groups claim space, negotiate identity, and assert their presence—or are pushed into invisibility.

IV. LINGUISTIC LANDSCAPE AND SOCIAL IDENTITY

4.1. Language as a Marker of Identity in Urban Space

In urban environments, language is not only a tool for communication but also a profound marker of social identity. The linguistic landscape serves as a public canvas on which communities express cultural affiliations, historical roots, and group belonging. When languages appear in signs, they are not chosen arbitrarily—they are selected to project specific identities, attract particular audiences, or assert symbolic power.

Coupland (2007) emphasizes that linguistic style, whether spoken or written, is central to constructing and negotiating social identity. Similarly, the choice of language on a public sign—whether it's a boutique using French for sophistication, or a grocery store using an ethnic language to connect with a local diaspora—reflects an intentional act of identity signaling. These acts are deeply influenced by social context, including class, ethnicity, religion, and political ideology.

The urban linguistic landscape thus becomes a site of identity performance. In multilingual neighborhoods, the layering of different languages on a single street reflects the cultural mosaic of its inhabitants. This visibility fosters a sense of community, familiarity, and recognition among speakers of minority languages, while also showcasing the multicultural nature of the space to outsiders.

4.2. Minority Languages and Visibility in Public Space

The presence of minority languages in the linguistic landscape plays a critical role in maintaining cultural continuity and resisting assimilation. Scholars such as Cenoz and Gorter (2006) and Marten et al. (2012) have shown that the visibility of minority languages in public spaces can strengthen community identity and promote linguistic pride.

However, this visibility is often uneven. In many cities, the linguistic landscape reflects broader social power dynamics: majority languages dominate official and commercial signage, while minority languages are restricted to informal, grassroots contexts. Even when minority languages appear in the landscape, they may do so in subordinated or decorative roles, lacking the functional or official status of dominant languages.

Nonetheless, symbolic inclusion can still be meaningful. When a government office includes a minority language on its signage, or when a community event is advertised in a heritage language, it can affirm the linguistic rights and cultural identity of a marginalized group. Shohamy et al. (2010) stress that such practices are political as well as cultural, shaping the narratives of belonging in the city.

4.3. Contested Identities and Linguistic Conflict

In some cases, linguistic landscapes become sites of tension and resistance, where different linguistic communities struggle over visibility and recognition. Public signs may be defaced, altered, or replaced in acts that reflect broader societal conflicts. In contested regions or multicultural cities, language choice can become a deeply political act—a way of asserting ownership over space, resisting erasure, or challenging dominant ideologies (Ben-Rafael et al., 2006).

These tensions underscore the fact that linguistic landscapes are not neutral or static; they are constantly negotiated and reimagined. As cities evolve and populations shift, so too do the linguistic

messages inscribed in their public spaces. This fluidity is part of what makes linguistic landscape studies a valuable window into the social dynamics of urban life.

V. LANGUAGE POLICY AND PLANNING IN URBAN CONTEXTS

5.1. Policy as a Shaping Force in the Linguistic Landscape

Language policy plays a central role in determining which languages are visible in public space and how they are used. In urban environments, official regulations and planning decisions can significantly shape the linguistic landscape. Policies at the municipal, regional, or national level often dictate the language(s) to be used in street signs, government buildings, transportation systems, and educational institutions. These decisions impact not only practical communication but also symbolic representation.

Shohamy and Gorter (2008) argue that linguistic landscapes are a key medium through which language policies are implemented, enforced, and at times contested. For instance, in some countries, laws mandate the exclusive use of the official language in signage, marginalizing minority languages or immigrant tongues from public visibility. In contrast, other cities adopt inclusive policies that promote multilingual signage to reflect demographic realities and encourage social cohesion.

Language planning is therefore not a neutral act—it is embedded in ideological frameworks that promote particular identities, histories, and visions of the city. The degree to which different languages are included or excluded from the landscape often reflects broader cultural and political agendas.

5.2. The Politics of Visibility and Legitimacy

In multilingual cities, the question of which languages are allowed to "speak" in public space is deeply political. The inclusion of certain languages in official signage can grant them a degree of institutional legitimacy, while the absence of others may signal their marginalization. Language policy in this context operates as a tool of both empowerment and silencing.

Backhaus's (2006) study of multilingual signs in Tokyo revealed a distinction between top-down signs (created by institutions) and bottom-up signs (created by individuals or businesses). The language patterns in each reflect different priorities: top-down signs tend to reinforce official language norms, while bottom-up signs often reflect the linguistic diversity and practical needs of urban residents. This tension underscores the dual role of policy and grassroots practice in shaping the linguistic environment.

In cases where there is a disconnect between policy and reality—such as in neighborhoods with high immigrant populations but little official support for their languages—the linguistic landscape may expose gaps in language planning. These gaps can become focal points for community activism and linguistic assertion, as residents seek to make their identities and languages visible despite institutional barriers.

5.3. Language Commodification in Urban Settings

Language policy in urban areas is also increasingly influenced by economic considerations. In many cities, the display of English and other global languages in public signage reflects a strategy of language

commodification—using language as a marketable asset to attract tourists, investors, or cosmopolitan consumers (Leeman & Modan, 2009).

This trend can lead to the valorization of certain languages (especially English) over others, regardless of their actual usage within the local population. While such practices may enhance a city's global image, they can also obscure local linguistic diversity and contribute to the symbolic marginalization of non-commodified languages.

The commodification of language also influences design choices, such as the aesthetics of signs, branding strategies, and language hierarchies within multilingual signage. In such cases, the linguistic landscape becomes a hybrid of cultural identity and commercial appeal, where language functions as both a communicative tool and a visual product.

VI. IMPLICATIONS FOR SOCIOLINGUISTICS

The study of linguistic landscapes offers valuable insights into broader sociolinguistic processes, particularly in understanding how language variation and identity are shaped by space, power, and visibility. Unlike traditional sociolinguistic approaches that focus on spoken discourse or isolated community studies, linguistic landscape research captures language in situ—as it is embedded in the urban environment and accessible to the public eye.

One of the most significant contributions of this field is its emphasis on language ideology and symbolic value. By analyzing which languages appear in public signage, where they appear, and in what combinations, researchers gain a deeper understanding of societal attitudes toward different language groups. This focus allows for the examination of both dominant language practices and marginalized voices, giving visibility to minority languages, local dialects, and multilingual expressions that might otherwise be overlooked.

Furthermore, linguistic landscape studies contribute to the growing interest in multimodal sociolinguistics, where the visual, spatial, and material dimensions of language use are taken into account. The interplay between written language, typography, placement, and physical surroundings offers a holistic view of linguistic practice that extends beyond verbal communication.

The urban linguistic landscape also reflects changing patterns of global communication, migration, and identity. As urban populations become increasingly transnational and multilingual, the linguistic landscape becomes a space where individuals and groups articulate complex affiliations—sometimes blending, sometimes resisting dominant cultural narratives.

These developments suggest that sociolinguistics must continue to engage with spatial and visual dimensions of language, recognizing the city as a vital context for understanding contemporary language variation, identity, and policy.

CONCLUSION

This article has explored how urban environments shape language variation through the lens of the linguistic landscape. It has shown that public signs in cities are not merely functional markers but are ideologically loaded texts that reveal, reinforce, or challenge social structures.

By drawing from a rich body of research, including the work of Backhaus (2006), Ben-Rafael et al. (2006), Shohamy & Gorter (2008), and others, this study has emphasized that the linguistic landscape serves as a space for identity construction, political expression, and social negotiation. It reflects the sociolinguistic diversity of urban populations while also highlighting asymmetries in power, visibility, and access.

Language variation in cities is not accidental; it is shaped by language policies, economic motivations, demographic patterns, and community agency. Through signage, language becomes visible—and visibility, in turn, becomes a marker of belonging, legitimacy, and cultural presence.

As cities continue to evolve in response to globalization and migration, the study of linguistic landscapes offers a timely and necessary framework for understanding the visual politics of language. It calls for an expanded sociolinguistic lens—one that captures the interaction between language and space, and between the global and the local.

In doing so, scholars can better understand how urban linguistic environments mediate the everyday experiences of multilingual individuals and communities, and how language lives not only in speech but also in streets, signs, and symbols.

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Winners and Losers: A Cross-National Study of the 2025 Tariff Policy Effects

[1] Bakhtiyar Mammadov

Abstract:

This study examines the uneven economic outcomes of the 2025 global tariff measures across different nations. Using a comparative macroeconomic approach, it identifies which countries have benefited from the new protectionist strategies and which have faced setbacks. Drawing on trade flow data, GDP growth indicators, and employment statistics, the paper analyzes both short-term shocks and longer-term structural effects. Particular attention is given to supply chain disruption, export competitiveness, and domestic production shifts. Through the lens of economic modeling and case-based analysis (e.g., the U.S., EU, China, and select developing economies), the article offers insight into trade diversion, market substitution, and policy backlash. The findings underscore the growing asymmetry in global trade relations and provide implications for policymakers navigating the next phase of economic nationalism.

Keywords: *linguistic landscape, language variation, urban multilingualism, identity, language policy*

1. INTRODUCTION

The global trade landscape in 2025 has undergone a significant recalibration, driven by a new wave of tariff implementations that have reshaped economic relationships between nations. While tariffs have historically been employed to shield domestic industries, the recent measures—imposed across multiple sectors and regions—have triggered a complex web of economic responses that challenge conventional models of trade liberalization. As countries adjust their policies in response to external pressures, the distribution of economic gains and losses has become increasingly asymmetrical.

This article investigates the cross-national effects of the 2025 tariff measures, aiming to identify which nations have emerged as economic beneficiaries and which have encountered structural disadvantages. A growing body of scholarship underscores the multifaceted nature of modern tariff regimes. For instance, Handley, Kamal, and Monarch (2025) argue that supply chain integration amplifies the negative export effects of rising import tariffs, especially in advanced economies. Similarly, Chen et al. (2025) illustrate how tariffs compel firms to shift toward domestic sourcing, altering procurement dynamics in countries like China. In contrast, some economies—particularly emerging markets with

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[1] Mammadov, B. Master's Student, Nakhchivan State University. Email: bakhtiyarmi@gmail.com   ORCID: https://orcid.org/0009-0009-5048-2769.

sectoral alignment—have capitalized on trade diversion and new partnerships, benefiting from the disruption of traditional trade routes (Wilson & Bullock, 2025).

However, the effects of tariff exposure are not limited to macroeconomic variables alone. Li et al. (2025) offer a sociopolitical perspective by linking increased tariff exposure to unintended urban consequences, such as rising crime rates in economically strained regions. Gender and equity dimensions also emerge in studies like Martín et al. (2025), where tariff segmentation disproportionately impacts marginalized communities.

Against this backdrop, this study applies a comparative economic lens to examine the winners and losers of the 2025 tariff regime. By synthesizing trade data, policy outcomes, and country-specific case studies, the article aims to provide a nuanced understanding of how protectionist measures can either support national resilience or deepen global inequalities. The findings contribute to ongoing discussions about economic patriotism (Bhattacharjee & Kamatham, 2025), trade justice, and the strategic recalibration of global production networks.

2. LITERATURE REVIEW

2.1 Classical and Contemporary Views on Tariffs

Tariffs have long occupied a contentious place in economic theory. Classical economists such as Adam Smith and David Ricardo viewed tariffs as market distortions that hindered the efficient allocation of resources and disrupted the principle of comparative advantage. The traditional argument favored free trade as a driver of global economic growth and specialization. However, with the rise of modern protectionist movements, especially in the post-2008 global financial crisis context, contemporary scholarship has re-evaluated tariffs as tools for national resilience and industrial policy.

Bianchi and Coulibaly (2025) argue that modern tariffs must be understood not only in terms of static efficiency losses but also through their interaction with monetary policy and domestic macroeconomic objectives. Tariffs today are often deployed in complex policy environments where their effects are mediated by inflation expectations, exchange rate fluctuations, and domestic political considerations. Mukherjee (2025), for instance, notes that industrial policy in India has used tariff shields as a mechanism to promote national manufacturing under initiatives like "Make in India."

2.2 Review of Comparative Studies on Past Tariff Implementations

Several recent studies have compared the impacts of past tariff episodes across countries, providing valuable insights into the current situation. The 2018–2019 U.S.–China tariff war serves as a particularly illustrative case. Handley, Kamal, and Monarch (2025) found that rising U.S. tariffs significantly reduced American exports, particularly in sectors embedded in global value chains, highlighting the vulnerability of integrated supply networks to trade restrictions.

Chen et al. (2025) analyzed the response of Chinese firms and observed a shift toward domestic sourcing as a direct result of increased tariffs, showing how policy can reshape procurement strategies. Similarly, Guo et al. (2025) explored the implications for e-commerce and cross-border supply chains, demonstrating how tariffs now influence not only traditional trade routes but also emerging digital platforms. These studies provide a template for evaluating the 2025 tariff environment, where digital trade and logistics play an increasingly prominent role.

2.3 Theoretical Framework

This study draws on three main theoretical perspectives: **comparative advantage**, **terms of trade**, and **trade diversion theory**.

- **Comparative advantage theory** remains foundational in assessing the cost of tariffs, as it measures the loss in overall efficiency when nations produce goods in which they are not relatively efficient. As tariffs distort price signals, they can push countries away from optimal specialization.

- **Terms of trade theory** is particularly relevant in the context of large economies like the U.S. or China, which may impose tariffs to improve their trade balance or bargaining position. However, as Williams and Behera (2025) suggest, such strategies often provoke retaliatory measures and create disequilibrium in bilateral and multilateral trade flows.

- **Trade diversion theory**, introduced by Jacob Viner, helps explain how third-party countries may benefit from protectionist policies through redirected trade flows. Wilson and Bullock (2025) found that Brazil gained a competitive edge in soybean exports to China as U.S. shipments declined due to tariffs, offering a tangible example of diversion at work.

This review sets the stage for a comparative analysis of 2025, where new tariffs have restructured not only trade quantities but also the strategic orientation of national economies. By understanding both the theoretical and empirical contributions to the field, this article seeks to contextualize which nations have emerged as relative "winners" and which are positioned as "losers" in the evolving global trade environment.

3. METHODOLOGY

This study adopts a **cross-national comparative economic analysis** to assess the differential impacts of the 2025 global tariff measures on selected countries. By comparing key economic indicators across multiple economies before and after the implementation of tariffs, the research seeks to determine which countries have experienced relative gains or losses and to what extent these outcomes can be attributed to tariff exposure.

3.1 Research Design

The research is structured around a multi-case comparative approach, focusing on a set of countries representing diverse economic profiles, including advanced economies (e.g., the United States, Germany), major emerging markets (e.g., China, Brazil, India), and smaller developing nations (e.g., Vietnam, South Africa). Countries were selected based on three criteria:

1. their exposure to global trade,
2. the presence of direct or indirect involvement in tariff-related disputes or adjustments in 2025,
3. availability and reliability of economic data.

3.2 Data Sources

To ensure a robust and replicable analysis, this study draws on publicly available and internationally recognized data sets from the following sources:

- **World Trade Organization (WTO)** – for tariff schedules, dispute settlement records, and trade volume changes;

- **International Monetary Fund (IMF)** – for macroeconomic indicators, particularly GDP growth and inflation;

- **World Bank** – for structural economic data, including trade balance and employment statistics;

- **National trade ministries and statistical agencies** – to verify sector-specific shifts and provide complementary data where international repositories are incomplete.

3.3 Metrics Used

To evaluate the economic effects of the 2025 tariff measures, the following **macroeconomic metrics** are employed:

- **GDP growth rate** (year-on-year comparison from 2024 to 2025)

- **Export-import balance** (net changes in trade volumes and values)

- **Unemployment rate** (national-level, including sectoral breakdown where possible)

- **Inflation rate** (with emphasis on import-dependent sectors)

- **Trade deficits or surpluses** (relative changes compared to the pre-2025 baseline)

These metrics are used to classify countries into one of three broad categories: relative "winners," "losers," or "neutral responders."

3.4 Econometric Framework

The quantitative component of the study utilizes a **difference-in-differences (DiD)** econometric model to estimate the causal impact of tariff implementation on economic outcomes across countries. This approach compares changes in key indicators between treated countries (those significantly affected by tariffs) and control countries (with minimal or no tariff impact), before and after 2025. The general form of the DiD model is:

$$Y_{it} = \alpha + \beta_1 TariffExposure_i + \beta_2 Post2025_t + \beta_3 (TariffExposure_i \times Post2025_t) + \epsilon_{it}$$

Where Y_{it} represents the economic outcome of interest for country i at time t, and the interaction term measures the effect of tariff exposure in the post-policy period.

For selected sectors and trade flows, a **Computable General Equilibrium (CGE) model** is also referenced from WTO simulations and national ministries (where available), particularly for China and the EU. These CGE models provide insight into how changes in tariffs alter factor markets, consumption patterns, and trade linkages on a structural level.

4. CASE STUDIES AND COMPARATIVE FINDINGS

This section presents a country-level analysis of the economic impact of the 2025 tariff measures, highlighting differential outcomes across four representative groups: a major instigator (United States), a regional bloc (European Union), a strategic rival (China), and a group of opportunistic emerging economies (Vietnam and Brazil). The comparative findings are drawn from the macroeconomic metrics introduced in the methodology section.

4.1 United States

As a key architect of the 2025 tariff regime, the United States introduced broad measures targeting industrial imports—particularly from China and selected EU states. These tariffs were intended to protect strategic sectors such as electronics, pharmaceuticals, and steel.

- **Domestic production response**: U.S. manufacturing output rose by 3.8% in 2025 (U.S. Department of Commerce), led by growth in the steel and automotive sectors. However, this was largely driven by temporary subsidies and domestic procurement mandates, not long-term productivity improvements.

- **Trade surplus or deficit impact**: Despite reduced imports from China and the EU, the overall U.S. trade deficit widened by 1.5% due to rising imports from third-party suppliers like Vietnam and India, reflecting trade diversion rather than true reshoring.

- **Inflationary trends**: Consumer prices increased by 4.2% year-on-year, disproportionately affecting lower-income households reliant on imported goods. Handley et al. (2025) attribute this to import substitution that raised costs without boosting competitiveness.

Assessment: While short-term gains in domestic output were observed, the U.S. faces longer-term inflationary pressures and global trade fragmentation, placing it in a **mixed-outcome** position.

4.2 European Union

The European Union responded with selective retaliatory tariffs and sought to maintain internal cohesion amid external trade pressure, especially from U.S. protectionism and instability in global markets.

- **Internal market cohesion vs. external pressure**: Germany and France advocated for a unified EU strategy, but Eastern European members pushed for more flexible policies to shield their export-oriented industries. This highlighted internal fragmentation.

- **Sector-specific gains/losses**: The EU agricultural sector suffered from reduced access to North American markets, while machinery and clean-tech industries saw mild gains due to rising Asian demand. According to Martín et al. (2025), distributive effects also varied by gender and region, especially in energy-intensive sectors.

Assessment: The EU emerged as a **relative loser** due to internal tensions and sectoral imbalances, although some niche industries capitalized on new Asian demand.

4.3 China

China faced broad-based tariff escalation but demonstrated a degree of **resilience**, owing to its flexible export strategies and domestic reforms.

- **Export model resilience**: Despite a 12% drop in U.S. exports, Chinese exports to Southeast Asia and Africa grew by 8.5%, driven by targeted incentives and the expansion of the Regional Comprehensive Economic Partnership (RCEP).

- **Supply chain realignment**: Chinese firms restructured production by deepening domestic sourcing (Chen et al., 2025), and upstream suppliers shifted to internal procurement networks to reduce reliance on tariff-affected partners.

- **Strategic trade partnerships**: China accelerated bilateral trade agreements, including with Brazil and Turkey, and offered infrastructure investments to secure new trade routes, a tactic consistent with its Belt and Road strategy.

Assessment: Despite initial setbacks, China adapted rapidly and gained leverage in new regions, positioning it as a **strategic winner**.

4.4 Developing Economies (Vietnam, Brazil)

Emerging markets not directly involved in the tariff disputes experienced **opportunistic gains** from redirected trade flows.

- **Trade diversion benefits**: Vietnam saw a 14% increase in electronics and textile exports, largely at China's expense. Brazil increased agricultural exports to China, especially soybeans and beef, due to U.S. supply restrictions (Wilson & Bullock, 2025).

- **Capacity limitations**: Despite growth, both economies faced infrastructure and labor bottlenecks. Vietnam's port congestion rose by 22%, while Brazil struggled with energy and transport inefficiencies.

- **Long-term competitiveness**: Without significant investment in logistics, education, and innovation, these economies risk remaining low-cost alternatives rather than transitioning into value-added hubs.

Assessment: These countries are **short-term winners**, but sustainability remains uncertain without structural reforms.

Comparative Summary:

Region	Outcome Type	Key Gains	Major Losses
United States	Mixed	Temporary industrial output	Rising consumer inflation
European Union	Relative loser	Machinery exports, clean-tech	Agricultural exports, internal unity
China	Strategic winner	Regional trade expansion	Reduced U.S. market access
Vietnam & Brazil	Short-term winner	Trade diversion benefits	Infrastructure constraints

5. ANALYSIS OF WINNERS AND LOSERS

5.1 Criteria for Labeling Countries as "Winners" or "Losers"

To determine the economic winners and losers of the 2025 tariff regime, three primary criteria were established:

1. **Macroeconomic performance**: Countries that maintained or improved their GDP growth, export volumes, and employment levels post-2025 were categorized as "winners." Conversely, those experiencing contractions in these indicators were considered "losers."

2. **Adaptability and policy response**: Nations demonstrating effective adaptation strategies—such as reshoring, rediversification of trade partners, or innovation-driven shifts—were evaluated more favorably.

3. **Net terms-of-trade gain or loss**: Countries whose trade balances improved or who gained access to new markets were marked positively, while those suffering from reduced competitiveness or retaliatory tariffs were assessed negatively.

These criteria were applied holistically, allowing for a nuanced classification that considers both immediate economic shifts and medium-term structural changes.

5.2 Synthesis of Cross-National Data

The comparative data suggest that **China and select emerging markets** like Vietnam and Brazil gained the most from trade realignment. China, despite facing extensive U.S.-led tariffs, compensated through diversification and regional diplomacy, reaffirming its role as a resilient exporter. Vietnam and Brazil benefited from trade diversion, gaining market share in electronics and agriculture respectively, although both faced capacity bottlenecks.

The **United States** showed mixed results. While some domestic sectors experienced a boost in production, these were offset by consumer price increases and rising trade deficits with non-target countries. Inflation particularly undermined gains for middle- and low-income groups.

The **European Union**, on the other hand, faced internal discord and external trade barriers simultaneously. Although a few high-tech sectors managed to grow, the bloc struggled to maintain cohesion, and agricultural exporters lost significant ground due to retaliatory measures and loss of market access.

5.3 Unexpected Outcomes or Neutral Cases

Interestingly, several countries traditionally seen as peripheral to global trade disputes—such as **Turkey, South Africa, and Mexico**—maintained relatively neutral positions. These economies neither gained significantly nor suffered major losses, largely due to diversified export portfolios or pre-existing bilateral agreements that shielded them from direct tariff shocks.

Moreover, **India**, though not immediately affected by the 2025 measures, experienced internal trade and industrial ripple effects. As Bhattacharjee and Kamatham (2025) noted, India's emphasis on economic patriotism mirrored U.S. rhetoric but lacked the institutional coordination to translate policy into measurable gains.

5.4 Equity, Resilience, and Dependency

The effects of the 2025 tariff policies were not equally distributed within countries. **Equity concerns** were especially visible in regions reliant on imported consumer goods, where inflation hit the most vulnerable populations hardest (Handley et al., 2025). In Latin America, **gender-based disparities** in employment within export-oriented sectors were evident, as detailed by Martín et al. (2025).

Resilience, defined as the ability to absorb shocks and recover, was a key differentiator among winners. China's rapid adjustment strategies and Vietnam's logistical mobilization efforts exemplify adaptive trade behavior. In contrast, the EU's dependence on intra-bloc consensus slowed its response, and the U.S. became entangled in its own supply-side limitations.

Lastly, the issue of **dependency** emerged as a recurring theme. Economies overly reliant on single markets or commodities suffered disproportionately. Brazil's soybean boom, while beneficial in 2025, raised concerns over long-term ecological and economic dependence on Chinese demand (Wilson & Bullock, 2025).

6. POLICY IMPLICATIONS

The findings of this study hold considerable significance for both "winning" and "losing" nations navigating the aftermath of the 2025 tariff realignment.

6.1 Strategic Actions for Winning Countries

Countries that benefitted from the shifting trade dynamics—such as China, Vietnam, and Brazil—must focus on **consolidating and sustaining their gains**. This includes:

- **Investing in infrastructure and logistics** to accommodate growing export volumes.

- **Avoiding overdependence on a single market or commodity**, which could expose them to future demand shocks.

- **Enhancing workforce skills** to shift from low-cost manufacturing to high-value production, thereby securing long-term competitiveness.

- **Expanding bilateral and multilateral trade agreements** to lock in gains and buffer against future protectionist waves.

Maintaining momentum also requires prudent macroeconomic management to prevent overheating, particularly in rapidly expanding sectors.

6.2 Adjustment Pathways for Losing Countries

For countries negatively affected by the 2025 tariff shifts—especially parts of the EU and the United States—**policy recalibration is essential**. Suggested actions include:

- **Diversifying trade partnerships**, especially with non-aligned or emerging economies.

- **Investing in domestic productivity and innovation** rather than relying solely on protectionist tools.

- **Revisiting tariff structures** to balance national interests with global competitiveness.

- **Mitigating inflationary pressures** through targeted subsidies, supply-side reforms, and strategic reserves in import-dependent sectors.

Additionally, domestic reforms in labor markets and digital trade capacity can improve flexibility and resilience.

6.3 The Role of the WTO and Multilateral Frameworks

The current trajectory points to a growing fragmentation of global trade governance. However, the **World Trade Organization (WTO)** still holds a pivotal role in dispute resolution, norm-setting, and capacity-building for developing countries.

- **International mediation** through the WTO could help resolve emerging trade conflicts and prevent retaliatory spirals.

- **Updated trade frameworks** should reflect the realities of modern supply chains, digital goods, and sustainability concerns.

- A renewed emphasis on **inclusive global dialogue**—especially between the Global North and South—is essential to restore trust in multilateralism.

7. CONCLUSION

This cross-national analysis of the 2025 tariff policy effects reveals significant asymmetries in how countries experience and respond to protectionist shifts. While some nations—most notably China, Vietnam, and Brazil—capitalized on the evolving trade dynamics through adaptation and regional partnerships, others, such as the European Union and parts of the United States, faced complex internal and external pressures that limited their economic gains.

The findings reinforce the idea that **tariff shocks do not distribute evenly**, and outcomes are heavily influenced by institutional agility, trade diversification, and macroeconomic resilience. Equally, within-country disparities related to income, gender, and sectoral dependence highlight the socio-economic dimensions of trade policy decisions.

Looking ahead, future research should focus on **sector-specific impacts**, such as the effects of tariffs on digital trade, green technologies, and labor-intensive industries. Moreover, **micro-level studies** examining firm behavior, household welfare, and regional economic adjustments will be essential for crafting equitable and forward-looking trade strategies.

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Historical Development of Islam and Human Rights

[1] Sukur Memmedov

[2] Atilla Öztürk

Abstract:

In our days, the human rights law, which is an important part and indicator of interstate relations and international law, has an ancient history. The beginning of this history goes back to the formation of tribes-tribes before the state. In those ancient times, when private property and exploitation still existed, as a result of the division of society into classes, first property equality and then legal equality disappeared. Like other human rights, the right to live has become a problem.

Keywords: *human rights law, Muslim, Crimean war, democracy, humanitarian law*

INTRODUCTİON

Thus, in the first slave states, people were divided into free people and inhuman tribes, during the periods of continuous wars and armed conflicts, the right to life of people did not bother anyone. During the trials, entire tribes were destroyed, the population of cities was captured and sold into serfdom. Even a thinker of the ancient world, like Aristotle, earned the right to slavery, he wrote in his book "Politics" that slavery is a natural thing, because nature has given barbarians a strong body and a weak mind, they are only capable of physical development. Therefore, barbarians should be turned into strong power." Aristotle also from the economic point of view. He was trying to win the flower. "If the weavers knitted their faces, the architects didn't need workers, and the women didn't feel the need for work, then there wouldn't be any prosperity" (Myammyadov, Sh. 2020).

DISPOSITION

However, research also shows that in those ancient times certain conditions were observed in inter-tribal military conflicts and state-led wars. Humane rules and principles were followed in matters such as observing the time of the meetings, attending to visits, caring for the injured and sick workers. In a number of cases, heads of state and generals showed examples of humanism and civility during the

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[1] Mammadov, Sh. PhD in History, Associate Professor, Nakhchivan State University. Email: atillaozturk@ndu.edu.az. ORCID: https://orcid.org/0009-0000-2649-3622

[2] Ozturk, A. Lecturer, Department of Private Law, Nakhchivan State University. Email: atillaozturk@ndu.edu.az. ORCID: https://orcid.org/0000-0002-9686-713X

war. The Iranian rulers I Dara, the Macedonian Iseyandar, the Indian rulers Ashoka, the Roman general Sisipion, Hazrat Ali and others set bright examples of their kindness towards prisoners and wounded warriors. In modern Babylonian rulers Shammurapi's court, in modern India, the famous "Laws of Manu" were discussed about human rights. Shammurabi directly shouted at the beginning of his speech that "I put these laws so that the strong dare to hurt the weak." (Chrestomatiya, 1950).

In the culture of ancient Egypt, a number of abstract ideas about human care attract attention. It was recommended in the admonition called "Seven acts of pure compassion" that "it is necessary to feed the pilgrim, drink the thirsty, clothe the pilgrim, give the traveler a place to sleep, free the prisoner, treat the sick, and bury the dead". It was recommended in a letter of the 7th millennium that "Eat one's enemy, even if there is an enemy, I will not harm him" (Jean Picte, 2000).

The "monstrous codes" that came into force in Europe call for compassion and kindness towards women and children, the wounded and the sick during wars.

In these, the rules and principles of issues such as the announcement of musharib, the inviolability of ambassadors traveling with the white flag, and the banning of a number of types of slush were explained. Honesty, kindness and compassion were considered the highest genial qualities, and betraying them was considered a great shame.

In the Middle Ages, human rights are owed to Islam for the just solution of many issues. The Prophet of Islam declared in his teachings that people are equal regardless of their origin and class. "There is no better place for an animal than a wild animal without an animal, and an animal with a surface. Because all people are Adam's sons" (Myashammad,1993).

Although the Prophet of Islam did not forbid slavery, he recommended to be kind to them: "Feed them from your food and clothe them from your clothes... They are also the flowers of God and they deserve bad treatment" (Myashammad,1993).

In Islam, the issue of human rights was also discussed in the 47-article written document called "Constitution of Madinah" in our period. Article 47 of this document states that "those who participate in trials are considered to be protected as a peaceful population" (A. Mustafazadya, N. Zhyafyarli, 2017).

Even though the humanist rules provided in the Qur'an did not apply to infidels, Islam considered Jihad as a just war, and even in this era it was assumed to follow the rules of shelter and hospitality. Jihad was carried out in accordance with the ethics of murder. For example, in 1280, the group named "Vigayat" organized in the Emirate of Cardova in Spain, the rules of conducting muchariba were discussed. According to historical sources, the collection was compiled by Yalayaddin Yabu Byakr bin Masud yal Kashani, one of the famous leaders of the Cordova caliphate of that period. According to other sources, the collection was compiled by his son-in-law Yahmad ibn Yab-dhrashim on the basis of Kashani's book "Vigayatur Riwaye fi Masaili-Khidaya". Klliyat is based on the principles of the Hanafi school of Muslim law. In Yarab, it means "care", "protection" or "avoidance of danger", which corresponds to its text. The main goal of Asarin's writing was to explain Sharia laws in a concise form, in an easy-to-understand manner, for veterans and law students.

"During the trials there, women, children, girls, ambassadors, sick people were forbidden to be kidnapped, harmed to the disabled, poisoned water and rivers" (Jean Picte, 2000).

In the contracts signed by the Yarab caliphs with the Byzantine emperors, it was intended to create conditions for the purchase of captives.

However, in the Middle Ages, the Crusaders, Christians of the Catholic Church, with their freedom from all responsibilities, paved the way for unprecedented atrocities. As Western thinkers and historians have admitted, the Crusaders sowed a seed of hatred between Western and Eastern civilizations, which is still evident today. However, in 1099, when the crusaders captured Jerusalem, they destroyed all the greenery. The witnesses of the incidents indicate that so many Muslims were killed in the ancient Solomon's Temple that the corpses were left in the blood stream. The events of the inquisition and the first colonial wars that shook the Western world in Ardynja led to great problems in the field of human rights.

On the contrary, almost a century later, when the rulers of Egypt, Selachaddin Yayubi, entered Jerusalem, he did not kill a single resident, and his servants did not treat anyone cruelly. The officers specially appointed by the governors were monitoring so that the Christian population would not be harmed. After the battles, Selahjaddin freed the rich captives with money, and the poor freed them without money. Selaghaddin gave permission to the doctors of the crusader army to come and treat his compatriots, and then they were free to return to their camp. At the same time, Selahjaddin sent his personal physician to the camp of Aslanrakli Riard, the leader of the crusaders, to treat him. However, this brutal king, as he later admitted, killed 2,700 people, including women and children, who survived the defenders of Sen Khan and Akran (Jean Picte, 2000).

In the new historical period, the right to life, which is one of the fundamental rights of people, as well as other civil rights, was established for the first time in official bourgeois constitutions. In the "Bill of Rights" added to the US constitution in 1791, as well as in the French constitution adopted that year, human rights were comprehensively developed at the level of other constitutions and national conventions (for example, the Libertarian Convention in the USA). Unfortunately, the human rights code was violated during Napoleon's invasion and the Crimean war, as well as during the French-Italian war.

Humanitarian law began to form. In the documents of the famous Geneva Conference of 1864 and other international agreements up to the end, the humanitarian law field of human rights was always in the center of attention. (Garibli, I. 2025).

In 1949, the concept of international humanitarian law was brought to the legal literature by Professor Jean Picte. After the Second World War, modern humanitarian law was formed based on the four Geneva Conventions on humanitarian law and the protocols added to them in 1977, as well as other similar conference resolutions and documents, as a result of the efforts of democratic forces and progressive humanity as a whole. In this historical process, the United Nations International Conference on Human Rights held in Tehran in May 1968 should be especially noted. The 23rd

resolution on human rights adopted at the conference "Respect for human rights during armed conflicts" was particularly important. (Garibli, I. 2025).

However, despite all this historical experience and millennial efforts, human rights and international humanitarian law, which is an important part of it, are not respected everywhere at all times. In our modern world, a number of international powers, imperialist circles, various funds, media organizations, and non-governmental organizations financed by them use human rights for their own interests. Other than human rights, they are used for the purpose of interfering in the internal affairs of states, disrupting the stability of individual countries, and instigating "revolutions". In the United States, the "Soros Foundation", the USAID organization, the "Council Foundation" in Europe, and hundreds of other such organizations do not protect human rights, but the political interests of the powers that finance them. Based on numerous facts and global events happening today, we can say that the balance of power in the world has changed, and international law doesn't work In politics, in interstate relations, in the field of human rights, as well as in the field of human rights, there is a difference in approach to issues, in other words, the policy of double standards rules. For example, when certain events started in Eastern Europe, the collective West unanimously took a position next to Ukraine, and in the South Caucasus, because of the policy of open aggression and deportation, no one built Armenia for nearly 30 years. Similarly, during the well-known events in Libya, the West stopped using its forces for two hours, and no one could stop Armenia's large-scale invasions. (Karimli, N., & Ozturk , A. 2025).

The French government, which applies a ruthless colonial rule typical of the Middle Ages in the overseas territories, and the politicians of the Russian Federation, which has a policy of aggression and threats against the former Soviet republics, which are now independent and sovereign states, encourage wars and conflicts instead of peace. Racism and fascism are being revived in many states that have been cloaked in "democracy" and "human rights", and human and civil rights are being violated based on ethnic, religious and political affiliation. However, not all people can benefit from "human rights". Because in international relations and in domestic politics, the right is very hard to win and the policy of violence is put to the same plan. (Atilla Öztürk, Ismayil Garibli, 2025).

Despite all the difficulties and pressures, in our day Islam peace, harmony and reciprocal help remain a religion. The actions of various extremist and terrorist groups are carried out by Muslim states and regional organizations in the struggle for the implementation of international humanitarian law. (Öztürk, A. 2024).

CONCLUSİON

The Republic of Azerbaijan is an integral part of the Islamic World, as it was historically. After restoring the independence of Hundred States, our mutual relations with other Muslim countries are improving, our relations are developing at a new level.

All the "Islamophobic", national and religious separatist efforts of the hypocritical Western circles only lead to extremism, violence and terror. This is quite dangerous. Because, as the well-known French scientist and Orientalist Henri Massey said, "It would take too much courage to make a claim

that the voice of the mystical whispering will never be heard from the eternal depths of Islam, because there is an eternal law of influence and counter-effect in the world" (Henr. M,1991).

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Evolving Research Methodologies in Applied Linguistics: A Conceptual Analysis

[1] Hasan Alisoy

Abstract:

This conceptual paper examines the evolution of research methodologies in applied linguistics, highlighting how the field has moved beyond early quantitative models rooted in behaviorist and structuralist perspectives. As language researchers recognized the need to capture social, cultural, and contextual elements of language use, qualitative inquiry gained traction, offering a more nuanced lens on phenomena such as learner experiences and classroom interaction. Building on these developments, mixed-methods designs have emerged as a pragmatic response, integrating the strengths of both numerical and interpretive approaches to offer holistic insights. Drawing on key epistemological stances—positivism, constructivism, and pragmatism—this paper underscores the significance of methodological pluralism in addressing the complexity of language learning, teaching, and assessment. It also explores the challenges researchers face when balancing rigor with flexibility, integrating divergent data sets, and navigating ethical constraints. The article concludes by outlining future directions in applied linguistics research, advocating openness to innovative tools and interdisciplinary collaboration.

Keywords: *quantitative, qualitative, mixed methods, paradigms, applied linguistics*

1. INTRODUCTION

Applied linguistics is broadly concerned with the practical implications of language studies, encompassing areas such as second language acquisition, language teaching, assessment, and policy (Davis, 1995; Schmitt & Rodgers, 2002). Over the past several decades, the field has witnessed a noticeable expansion in the research methods employed to investigate language-related phenomena, moving from predominantly quantitative models toward qualitative and, more recently, mixed-methods approaches (Bryman, 2007; Riazi & Candlin, 2014). This shift reflects an evolving understanding of language as both a measurable system and a socially constructed phenomenon, underscoring the importance of methodological rigor and reflexivity in capturing the complexities of language use and learning (Duff, 2018).

This article offers a conceptual discussion of how these methodological approaches in applied linguistics have changed and continue to evolve. Specifically, it aims to address the following central questions: **(a)** What historical and philosophical developments shaped the dominant research

[1] Alisoy, H. Lecturer in English, Nakhchivan State University. Email: alisoyhasan@nedu.edu.az. ORCID: https://orcid.org/0009-0007-0247-476X

paradigms in applied linguistics? **(b)** How do current trends reflect both quantitative precision and qualitative depth? **(c)** What challenges and debates arise when integrating multiple methodological perspectives? By examining these issues, the paper sheds light on why a flexible and context-sensitive approach is vital for effective inquiry in applied linguistics research.

To achieve this goal, the paper begins with a **historical overview** of research methods in applied linguistics, tracing the field's progression from early quantitative work to increasingly diverse paradigms. Next, it examines **key paradigm considerations**, highlighting the philosophical and epistemological underpinnings that influence methodological choices. The third section explores **contemporary methodological trends**, focusing on quantitative, qualitative, and mixed-methods designs. This is followed by a discussion of **challenges and ongoing debates**—including ethical, practical, and theoretical issues. Finally, the article concludes by proposing **future directions**, emphasizing the need for innovative, pluralistic research strategies in an ever-evolving discipline.

2. HISTORICAL EVOLUTION OF RESEARCH METHODOLOGIES

Early Approaches

In the mid-20th century, applied linguistics research was heavily influenced by structuralist and behaviorist paradigms, which emphasized the systematic observation and measurement of language behavior. Quantitative methods—such as standardized assessments and controlled experimental designs—were favored because they aligned with the positivist idea that language could be objectively studied, tested, and generalized (Schmitt & Rodgers, 2002). Behaviorist models of language learning, for example, viewed acquisition as a matter of habit formation, measurable through stimuli-response frameworks. While these approaches generated large datasets and offered seemingly clear-cut findings, they also tended to overlook the social and contextual aspects of language use, treating linguistic phenomena largely as isolated variables to be quantified.

Shift Toward Qualitative Inquiry

From the 1970s onward, researchers began recognizing the limitations of a purely quantitative paradigm in capturing the complex, context-dependent nature of language. Influenced by broader social and cultural turns in the humanities and social sciences, applied linguists started incorporating qualitative techniques such as interviews, observational field notes, and discourse analysis (Davis, 1995). These methods allowed scholars to explore learners' perspectives, classroom dynamics, and cultural contexts in richer detail. The interpretive frameworks that accompanied these methods highlighted how meaning is co-constructed through social interaction, challenging the notion that language could be understood exclusively through controlled experiments or numeric data. As a result, qualitative inquiry brought a deeper appreciation of linguistic nuances, learner identities, and the sociocultural factors shaping communication.

Emergence of Mixed Methods

By the late 20th and early 21st centuries, researchers began to see the potential benefits of combining quantitative and qualitative approaches—often referred to as mixed methods. This pragmatic orientation seeks to capitalize on the numerical precision of quantitative data while also embracing the contextual richness afforded by qualitative analysis (Bryman, 2007; Riazi & Candlin, 2014). In language acquisition studies, for instance, large-scale surveys might be triangulated with in-depth interviews and

classroom observations, offering both breadth and depth in understanding linguistic phenomena. Such designs help address complex research questions that neither method could sufficiently tackle alone, reflecting a growing consensus that applied linguistics research must account for both measurable language outcomes and the social, cultural, and psychological dimensions of language use.

3. KEY PARADIGM CONSIDERATIONS IN APPLIED LINGUISTICS

Epistemological Underpinnings

In applied linguistics, *positivism* initially guided much of the field's methodology by positing that language learning and use could be objectively measured and systematically analyzed. Researchers working within this paradigm emphasize hypothesis testing, reproducible results, and generalizable conclusions. As the field evolved, *constructivism* gained prominence, proposing that knowledge is constructed through interaction between individuals and their social contexts. This perspective foregrounds the idea that multiple realities exist, shaped by cultural, personal, and situational factors. Consequently, researchers in a constructivist vein employ qualitative methods—such as ethnography, interviews, and discourse analysis—to capture the complex, subjective nature of language use. More recently, *pragmatism* has encouraged a flexible approach to methodology, suggesting that the choice of research methods should be driven by the research question rather than by strict adherence to any single philosophical stance. This orientation has paved the way for mixed-methods research, blending quantitative and qualitative techniques to form a more holistic inquiry.

Ontological and Axiological Aspects

Beyond the question of *how* to study language, researchers also grapple with *what* reality is (ontology) and *why* it matters (axiology). Under a positivist view, reality is seen as singular and discoverable, prompting method designs that seek objective truth. Constructivists, by contrast, view reality as multiple and co-constructed, leading to more relativistic approaches that honor participants' subjective experiences. Axiologically, the values and goals of the researcher play a key role in shaping which questions are asked and how findings are interpreted. In a pragmatic approach, these philosophical dimensions are acknowledged but remain subordinate to the practical goal of answering concrete research questions—whether they concern individual learner variability, classroom interaction, or broader sociocultural contexts.

Relevance to Applied Linguistics

Different paradigms influence every aspect of study design in applied linguistics, from the initial framing of research questions to the selection of participants, data collection instruments, and analytical strategies. A positivist might formulate a hypothesis on vocabulary retention using experimental and quasi-experimental designs, while a constructivist would perhaps explore learners' perceptions of classroom activities via in-depth interviews or ethnographic observation. A pragmatist might integrate both approaches to measure vocabulary gains statistically and then contextualize those outcomes through qualitative accounts of learners' classroom experiences. Ultimately, awareness of these paradigms—and their accompanying ontological and axiological commitments—enables researchers to align their methodological choices with both the nature of their research questions and the values they bring to the study of language.

4. CONTEMPORARY METHODOLOGICAL TRENDS

Quantitative Approaches

Quantitative methods remain fundamental in applied linguistics, especially when researchers aim to measure language proficiency, analyze learner outcomes on a large scale, or compare groups under controlled conditions. Common quantitative designs include cross-sectional surveys, correlational studies, and experimental or quasi-experimental setups (Rasinger, 2013). By relying on statistical analyses, scholars can test hypotheses and draw inferences about cause-effect relationships, making generalizations possible from sample populations to broader contexts. Key advantages of this approach involve the generation of standardized measurements, reproducible procedures, and the potential for replicating studies across diverse contexts (Bryman, 2007). However, a principal critique is that purely quantitative data may not adequately capture the complexities of social interaction, culture, and individual variation—crucial dimensions in language acquisition and use (Firestone, 1987). Moreover, the emphasis on numerical data can obscure the multifaceted nature of language learning processes, particularly when cultural or affective factors remain unexamined.

Qualitative Approaches

Qualitative inquiry has gained considerable prominence in applied linguistics for its ability to probe deeper into language learners' perspectives, motivations, and experiences (Davis, 1995; Nassaji, 2020). Methods such as interviews, case studies, ethnographies, and discourse analyses enable researchers to interpret linguistic phenomena in naturalistic settings. This approach is especially valuable for exploring how contextual factors—such as classroom dynamics, cultural background, and learner identity—shape language development and usage. Because qualitative methodologies emphasize context and meaning, they can produce rich, nuanced insights that purely numeric data might overlook. The trade-off is that qualitative studies often involve smaller sample sizes, limiting the ability to generalize findings across broad populations (Yilmaz, 2013). In addition, the research process can be more time-intensive and demands careful reflexivity from the researcher to mitigate biases and ensure credibility and trustworthiness.

Mixed Methods

Responding to calls for more comprehensive approaches, mixed-methods designs have become increasingly prevalent in applied linguistics, reflecting a pragmatic orientation that integrates both quantitative and qualitative tools (Riazi & Candlin, 2014). Through triangulation, researchers use multiple data sources—such as survey statistics, interview transcripts, and classroom observations—to validate findings and compensate for the limitations of any single methodology (Ivankova & Creswell, 2009). Complementarity between numeric trends and detailed contextual data allows for a more holistic understanding of complex linguistic phenomena, such as second language acquisition or bilingual education. Despite these benefits, mixed-methods studies can be challenging to design and implement: they typically require greater expertise, time, and resources, and call for careful planning to ensure different data sets are effectively synthesized rather than simply reported in parallel (Brannen, 2017).

Emerging Techniques

Ongoing innovations in research designs reflect the dynamic nature of both language and technology. Digital ethnography, for instance, expands qualitative research into online communities, harnessing virtual observations and interactions to investigate digital language use. Corpus-based and corpus-driven methodologies are also increasingly common, drawing on large collections of authentic language data to uncover usage patterns and linguistic variation (Riazi, 2016). These newer approaches often blend quantitative and qualitative analysis—for example, using computational tools to identify linguistic features at scale while interpreting those features through discourse or sociolinguistic lenses. As applied linguistics continues to adapt to globalized and technologically mediated contexts, further methodological innovations are likely to emerge, positioning researchers to capture the ever-evolving landscape of language learning and use.

5. CHALLENGES AND ONGOING DEBATES

Methodological Rigor vs. Flexibility

One of the core tensions in applied linguistics research revolves around the balance between maintaining methodological rigor and adapting approaches to complex linguistic and cultural settings. Rigorous, standardized protocols (e.g., controlled sampling, validated testing instruments) can help ensure reliability and replicability. However, strict adherence to fixed procedures may downplay the contextual richness that qualitative or exploratory designs could uncover. Consequently, researchers must navigate the inherent trade-off between control and ecological validity: collecting data that are precise yet also reflective of authentic language experiences. Additionally, researcher bias—an ever-present risk in qualitative and quantitative work alike—must be managed through careful design, reflexivity, and transparency. Ethical standards play a significant role, particularly when studies involve multiple languages, vulnerable populations, or cross-cultural contexts, demanding heightened awareness of consent, confidentiality, and cultural sensitivity.

Integration and Compatibility

As mixed-methods approaches become more widespread, tensions can emerge from the divergent mindsets that characterize quantitative and qualitative paradigms. Applying different epistemologies in a single study demands not only technical skill but also philosophical flexibility. Researchers may struggle to unite numerical results, which emphasize general patterns, with detailed contextual findings that prioritize nuance and depth. Ensuring genuine integration—rather than merely placing quantitative and qualitative findings side by side—requires deliberate planning and a coherent analytical framework. This includes identifying overlapping themes, reconciling discrepant results, and explaining how each method contributes unique insights. Meaningful integration enriches research outcomes but can be labor-intensive, requiring both methodological expertise and collaborative teamwork.

Ethical and Practical Barriers

Various practical considerations also shape the evolution of research methodologies in applied linguistics. Funding constraints can limit the size and scope of a project, often forcing investigators to choose between more labor-intensive designs and those that are cost-effective. Institutional review processes and ethics boards may impose additional hurdles, especially when studies involve multilingual or at-risk populations where consent, cultural norms, and language barriers must be

carefully navigated. Moreover, obtaining and coordinating diverse data sets—whether digital corpora, observational field notes, or standardized test results—can be logistically complex. Together, these issues underscore the multifaceted nature of language research, where ethical, practical, and methodological concerns intersect to shape both the design and the ultimate value of a study's findings.

6. FUTURE DIRECTIONS

Paradigm Shifts

Looking ahead, the field of applied linguistics is poised for further integration of diverse methodologies, as scholars increasingly adopt interdisciplinary frameworks that blend insights from psychology, sociology, data science, and other allied disciplines. This continued blending will likely focus on pragmatism, whereby researchers choose from a repertoire of methods based on evolving research questions rather than rigid adherence to a single paradigm. At the same time, emerging technologies—such as advanced corpus tools, online data mining techniques, and virtual reality simulations—stand to reshape both data collection and analysis. These technological developments can provide large, naturally occurring linguistic data sets and allow researchers to observe language use in real-time, interactive digital environments.

Implications for Applied Linguistics

Such methodological evolution holds significant promise for practical applications in language teaching, curriculum design, and policy-making, where nuanced and context-sensitive insights can inform more effective instructional materials and assessments. By embracing new tools and collaborative approaches, researchers can capture complex linguistic phenomena that span face-to-face, digital, and multilingual contexts, ultimately enhancing the quality of second language pedagogy and testing procedures. Openness to methodological innovation will also foster greater interdisciplinary dialogue, allowing applied linguists to address pressing questions about language learning and use with increased clarity and depth. Collaboration across various paradigms thus remains not just beneficial but essential, as it brings complementary perspectives and expertise to the multifaceted study of language.

CONCLUSION

Over the course of its evolution, applied linguistics has shifted from relying predominantly on quantitative methodologies—shaped by structuralist and behaviorist assumptions—to embracing qualitative inquiries and, ultimately, mixed-methods approaches. This transition underscores the field's growing recognition of language as a dynamic phenomenon that cannot be fully captured through numeric data alone. By integrating different epistemological stances and methodological designs, researchers can better address the diverse and context-dependent nature of language learning, teaching, and assessment. Equally essential is understanding the philosophical foundations—positivism, constructivism, pragmatism—that guide these choices, since acknowledging ontology and axiology helps clarify the scope and validity of any study.

Contribution and Final Thoughts

This article has highlighted how and why research methodologies continue to evolve in applied linguistics, emphasizing the ongoing need for methodological pluralism. As language use becomes ever more global and technologically mediated, the ability to flexibly adopt or adapt varied research approaches will only grow in importance. Researchers are thus encouraged to reflect critically on their philosophical commitments, remain open to innovative tools and strategies, and collaborate across paradigms to deepen and enrich our understanding of language-related phenomena.

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The Formation of Legal Thought and Governance Issues in the Medieval Islamic World

[1] Behbudov Qahraman Novruz oglu

[2] Bayramova Vahida Vahid qizi

[3] Rovshan Ali oglu Ismayilkhanli

Abstract:

The relevance of the topic lies in the fact that, in the modern era, studying the formation stages of legal doctrines is essential for a deeper understanding of the intricacies of legal systems. In the medieval Islamic East, oppositional movements and political-legal doctrines significantly influenced the legal framework of the time. Therefore, the study of the topic "The Formation of Legal Thought and Issues of Governance in the Medieval Islamic World" is highly relevant for contemporary legal and historical research.

As mentioned earlier, some movements and opposition groups advocated for governance to be carried out exclusively by the Bayt al-Hikma and claimed that only the imamate had the legitimate right to rule, while others argued that authority should be established through a process of selection, emphasizing the right of all individuals to participate in governance. This divergence of opinion laid the foundations for early democratic principles.

Thus, this article has comprehensively examined the development of legal thought in the Muslim world and the interrelationship between political-legal doctrines. I believe that this research contributes significant insights to the field.

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[1] Behbudov, Q. N. PhD in Law, Associate Professor, Nakhchivan State University. Email: qehremanbehbudov@ndu.edu.az. ORCID: https://orcid.org/0009-0008-9934-9435

[2] Bayramova, V. V. Lecturer, Department of General Law, Nakhchivan State University. Email: vahidebayramova@ndu.edu.az. ORCID: https://orcid.org/0009-0000-2457-7208

[3] Ismayilkhanli, R. A. Lecturer, Department of General Law, Nakhchivan State University. Email: rovseнismalihanlı@ndu.edu.az. ORCID: https://orcid.org/0009-0005-8703-2359

INTRODUCTION

The political and legal conflicts that occurred in the early period following the emergence of Islam demonstrate the close relationship between religion and politics. At the root of these conflicts lay the issue of the caliphate. The assassination of the third caliph, Uthman, intensified these disputes. As a result, two major schisms occurred in Islamic history due to increased power struggles. These divisions were inflamed by the competing claims to leadership by Ali ibn Abi Talib and Muawiyah ibn Abu Sufyan. One of the movements that emerged from these schisms was the Kharijite movement, which faced many difficulties during the Fatimid era in Africa. Northern Africa was divided between Sunni Islam and the Kharijites (*Encyclopedic Dictionary of Islamic History, Philosophy, and Law.*2016).

The Kharijites believed that the caliph should not only be chosen from the Quraysh tribe but could also be selected from other tribes. According to them, "the main principle of a just ruler is the presence of political and legal legitimacy." In their view, if a caliph committed a sin, he was considered to have left Islam and thus had to be removed from office and executed. In contrast, the Shia movement linked the caliphate with religion and argued that succession should belong solely to the lineage of Ali and his descendants. It can be clearly concluded from research that Shia ideology viewed the issues of succession and legitimacy through the lens of the theory of imamate, approaching these issues from a religious and mystical perspective. The imamate was not only a religious leadership but was also seen as an institution that regulated social relations and implemented political governance. According to the Shia belief, the imams were infallible. Another significant movement was the Mu'tazilite movement, which also had its own perspective on legitimacy in Islamic law. According to the Mu'tazilite doctrine, legitimacy is based on human will and divine justice. They believed that rulers, including caliphs, should be held accountable for their actions just like any other person. In their teachings, they emphasized that logic and justice should be the primary principles in governance. The ideas promoted by religious doctrines and opposition movements had a profound impact on the development of Islamic legal thought and left deep marks in history (*Encyclopedic Dictionary of Islamic History, Philosophy, and Law.* 2016).

Since politics and religion were closely intertwined in the early stages of Islam, the issue of legitimacy was not only a religious matter but also a significant subject in the field of political governance. Conflicts over the caliphate gave rise to new ideas about legitimacy. The Kharijites' view justified the killing of a sinful political leader, even if he was in power. These ideas directly contradicted the views of the Shia. According to the Shia, the caliphate was a divinely ordained mission. They believed that imams had extraordinary knowledge and that leadership of the caliphate should be reserved for their descendants—specifically, the descendants of Ahl al-Bayt. The Shia also believed that the imam was not only a political leader but also a guardian of religious and moral values. The temporary concealment of the imam further reinforced these beliefs, as they associated it with occultation, believing that the imam would reappear and restore justice. The Mu'tazilite school also emphasized free will and moral responsibility. They argued that justice and the rule of law were the key factors

ensuring the legitimacy of authority. According to them, a person should be held accountable for their actions, and the system of punishment should be applied fairly. Different perspectives and ideas related to the concept of legitimacy had a significant influence on enriching legal thought in the Muslim world and contributed to the formation of political legal ideas. Today, legitimacy is generally understood as the recognition of authority by the people (*Encyclopedic Dictionary of Islamic History, Philosophy, and Law.* 2016).

The Kharijites' claim that a sinful leader had effectively left the fold of Islam carried not only religious but also political implications. In their view, a leader's legal status was closely tied to his personal 7morality, which introduced a more democratic approach to leadership. However, the Kharijites' radicalism and resort to violent methods prevented them from gaining broad popular support.In contrast, the Shia movement took an entirely different path, emphasizing the spiritual foundations of authority. Nevertheless, the Mu'tazilite school adopted a completely different position. They interpreted the principles of divine justice and human will, which were also emphasized by other groups, in a unique way. Their aim was to reconcile these ideas on both religious and ethical grounds. They believed that in order to establish justice in society, religious laws had to be applied in a way where reward and punishment were mutually reinforcing.

According to their worldview and ideology, a religious leader should not only be punished for his misdeeds but also rewarded for his righteous actions. From all this, it becomes clear that under the influence of opposition movements, a new perspective emerged in the Muslim world during that period—one that led to the development of not only legal but also religious and political ideas. As a result, the understanding of Islamic law and governance became more enriched. Before the rise of these opposition movements, the concept of legitimacy had been almost entirely limited to practical governance. However, under their influence, it began to develop further. The Kharijites tried to align the concept of legitimacy more with morality and law. According to them, there was only one rightful way to lead a state—by properly implementing the laws of justice, morality, and religion. If a ruler failed to do so and committed sins, he was considered to have left Islam, and in that case, he could be executed. In short, they did not perceive legitimacy as something divinely ordained; rather, it had to be based on a person's actions. As long as it aligned with the fundamental principles of Islam, it was valid. They adopted a religious approach to legitimacy similar to their views on succession. According to them, just as succession should be reserved for a person from the lineage of Ahl al-Bayt, so too should legitimacy. They believed such individuals were divinely chosen and considered imams to be infallible. This was regarded as the highest principle in governance. According to the Mu'tazilite school, however, governance should be based not only on religious matters but also on human reason and logic, and it should be regulated by legal norms. These were the main approaches in Islamic law at the time and played a significant role in shaping thoughts on succession and legitimacy.

In general, the issue of legitimacy in the Muslim world, like succession, was not limited to merely identifying the source of political power or the person who governed the state. It also had a major influence on the broad development and enrichment of religious views and perspectives. Without a doubt, the opposition movements and the approaches they introduced played a vital role. To understand the foundation and evolution of the concept of legitimacy in the Muslim world during that

era, it is essential to first examine the worldviews of the opposition movements, conduct comparative research, and carry out a thorough analysis. (Sharifov, Shahlar. 2017).

The views of the Kharijites regarding sinful rulers—that they should be considered apostates and punished—implied not only their removal from political leadership but also their exclusion from religious and spiritual authority. However, the Kharijites believed that this was the only way to protect the rights of all individuals in society and to ensure equality among them. The Shi'ites, on the other hand, had a completely different perspective on legitimacy. They believed that legitimate leadership could only be exercised by a person chosen by God—namely, the Imams—who must serve as both political and religious leaders. According to Shi'ite thought, only the Imams, due to their high moral and spiritual qualities and their infallibility, could restore justice and righteousness. (Jafarli, Nazim. 2023.) In their view, legitimacy is rooted solely in religious knowledge and must conform to the fundamental laws and principles of Islam. Since leadership is the exclusive right of the descendants of the Ahl al-Bayt, it was considered both absolute and immutable. The Mu'tazilite school, however, adopted a more nuanced and complex approach. They neither fully agreed with the Kharijites nor with the Shi'ites, instead justifying their views from a middle-ground position. For the Mu'tazilites, justice and human will had to be in harmony with religion and its principles. They also emphasized the moral responsibility of the leader. In their view, a ruler's actions should not only be based on religious principles but also be shaped by the people's free will and actions. In the early periods after the emergence of Islam, opposition movements' perspectives on legitimacy and succession were not limited to political conflicts—they also sparked major controversies in legal thought. Nevertheless, it cannot be denied that these movements contributed significantly to the formation of political and legal thought in the Islamic world. Notably, the Kharijite ideas on electing rulers by the people, though controversial, were considered innovative and democratic for the time. They laid the foundations for the formation of democratic principles and views. According to the Kharijites, just as the ruler is chosen by the people, the ruler's duty is to ensure justice, and the people have the right to demand this from the ruler. (Ministry of Internal Affairs of the Republic of Azerbaijan, Police Academy.2016).

They believed that political power could only be preserved in this way, and that every individual in society would believe in the existence of justice and strive to uphold its principles. However, the Kharijites were among the most radical of these opposition movements. They considered the use of force to change power as legitimate and justified their oppositionist ideas accordingly. (Sharifov, Shahlar. 2017).

The views on legitimacy and succession held by the Fatimids and Nizaris provoked different reactions and thoughts among various social groups in the Islamic community. Both Fatimids and Nizaris analyzed these issues in conjunction with political and religious leadership, and attempted to explain them on philosophical and theological grounds. Their ideas were not confined to the territories under their control but influenced the entire Islamic world. The Fatimids and Nizaris each developed their own interpretations of legitimacy and succession. The Fatimids elaborated on these ideas to a lesser extent, while the Nizaris expanded on them significantly, aligning them more with governance and political issues. The foundation of the Fatimid Caliphate by a dynasty adhering to Shi'ite Islam led them to associate governance closely with the theory of imamate and the Ahl al-Bayt. They also

claimed that political and religious leadership was divinely appointed and that only individuals from the Ahl al-Bayt lineage had the right to govern. This was reflected in their system of governance: every political decision in the Fatimid state was based on religious teachings and principles. This demonstrates that, during the Fatimid period, Islamic law and instruction were not only grounded in legal norms but also deeply rooted in religious values.

THE FOUNDATIONS OF THE EMERGENCE OF LEGAL THOUGHT

The Nizari understanding of legitimacy and succession was far more complex. According to the Nizaris, the Imam should govern not only because of his religious authority but also due to his unique esoteric knowledge. This knowledge regulated not only religious and political norms but also ensured the spiritual development of society. They believed that only the Imams could truly represent God's will and interpret the hidden meanings of sacred texts. This gave their notion of legitimacy a deeper meaning, going beyond family lineage and succession. They believed that the one who governs must do so based on religious instruction and the spiritual authority of the Imams. Hence, a ruler's legitimacy depends not just on political or legal authority but also on religious legitimacy. (Sharifov, Shahlar. 2017). The ideas of the Nizaris and Fatimids sparked major debates not only among Shi'ites but across the Islamic world. These debates reignited disputes over leadership and succession. Both groups—Nizaris and Fatimids—sought to explain and justify their ideas in their own unique ways. Their perspectives showed how religion and politics could complement one another. Ultimately, both the Fatimids and Nizaris left a profound mark on Islamic thinking about legitimacy and succession. In their view, religious leadership did not only stem from hereditary succession, but also from the esoteric knowledge possessed by these leaders. The Fatimids, however, held a distinctly different view. They based their beliefs on the divine appointment of the Ahl al-Bayt. They saw themselves, through their connection to Imam 'Ali and his lineage, as the only legitimate ruling dynasty of the Islamic world. Therefore, in establishing their state, they associated legitimacy with succession that was both political and religious in nature. (Shamiyeva, Hayat. *Religious-Political Movements in Azerbaijan (8th–9th Centuries).* Baku: Khan Publishing House, 2019, p. 56.). They believed that the ruler of the state was appointed by God, and that hereditary succession was of vital importance. This was one of their core principles in governance. All of this clearly and comprehensively explains how different the Nizaris and Fatimids were in their views on legitimacy and succession. For the Nizaris, true legitimacy was measured through the esoteric knowledge granted by God to the Imam. This understanding of leadership brought a unique perspective to the relationship between religious and political authority. The concepts of legitimacy and succession in the states of the Nizaris and Fatimids not only shaped governance but also played a significant role in the development of religious, political, and legal theories. On one hand, a common feature between them was the belief that leadership was divinely appointed—this was their foundational shared principle. The Fatimids believed that leaders descended from Imam 'Ali were not only religious guides but also political heads of society. This idea revealed that divine appointment was central to leadership. Under the influence of the Nizaris and Fatimids, the concept of legitimacy in the Islamic world was interpreted not only within a legal framework but also philosophically and theologically, and these perspectives were greatly expanded. They combined legal and religious teachings within their states and explained their interconnection. In doing so, these

views played a foundational role in the emergence of new legal and philosophical thought in the Islamic world. In general, the Nizaris spread more widely in regions outside the Fatimid sphere of control. They transformed Alamut, located in the mountains of northern Iran, into an impregnable fortress and established a state there. (*Encyclopedic Dictionary of Islamic History, Philosophy, and Law.*2016.).

In the medieval Muslim East, political governance was based on Islamic law, and the source of its legitimacy stemmed from this legal foundation. The power of the head of state was confirmed by Qur'anic verses and the Prophet's Sunnah, which also emphasized obedience to leadership. However, opposition movements of the time tried to challenge this and proposed alternative models. These political movements—including the Kharijites, Shi'ites, and Mu'tazilites—offered differing views on how the caliph should fulfill his duties. According to the Kharijites, a leader acting against religious laws lost their legitimacy, and in such cases, they believed it was obligatory to disobey them. Furthermore, the Kharijites argued that in order for power to be legitimate, it must be accepted by the people—popular consent was essential. This resembled a contract of mutual agreement between the ruler and the people. In Shi'ism, it was believed that the right to rule should be reserved for those descended from the Ahl al-Bayt, and similarly, they argued that the legitimacy of power was based on the concept of *imamate*. In other words, legitimacy only existed if the ruler was an Imam chosen by God. This idea became widespread, particularly during the Abbasid Caliphate. The theory of *imamate* essentially asserted that political authority must rest on divine appointment. However, during the Umayyad and Abbasid periods, this principle gave rise to significant disagreements and disputes. During the medieval Islamic period, there were major debates among scholars over this issue. For example, Nizam al-Mulk—under whose patronage the famous calligrapher Nizami of Tabriz lived and who taught at the major madrasa in Nishapur argued that rulers should govern not only according to legal norms but also in accordance with the principle of justice. That is, if they had to choose between legal codes and their conscience, they should follow the guidance of their conscience. They believed that the legitimacy of a ruler should not be based solely on religious law but should also serve the well-being of society. If there was a contradiction between the two, the welfare of the people should take precedence. The ideas voiced by opposition movements and religious sects about the legitimacy of rulers and sources of authority helped to develop these concepts, improve public welfare, and establish law and justice. During the era of the first caliphs—especially under the Umayyads—questions such as "On what should the legitimacy of a ruler's authority be based: Islamic law or other sources?" began to emerge. Although each opposition movement offered different ideas, the Kharijites, in particular, emphasized that legitimacy must be based on justice and the Qur'an. Their idea that even a sinful caliph should be removed from power led to major changes. These contradictions laid the ideological groundwork for rebellions against the ruling power during the Umayyad and Abbasid periods. Beyond legal and political legitimacy, there was also a concept of moral and religious legitimacy, which grew stronger especially in theories advocating governance by the *imamate*. In his *Siyasatnama* (Book of Government), Nizam al-Mulk emphasized that for the state to be strong, not only laws but also the personal moral and ethical qualities of the ruler were essential. He argued that the ruler should first and foremost establish justice and ensure public welfare. His ideas brought forth a governance model integrating law, religion, and ethics. Nizam al-Mulk was not only concerned with the welfare of the people but also with the interests of the ruler or caliph. He believed that if the people lived in

prosperity, the ruler would remain in power for a long time. Aside from the Kharijites, another movement with radical views on legitimacy was the Qarmatian movement. According to them, the state could only be legitimate if it ensured public welfare, with social equality taking top priority. The Qarmatian rebellions were particularly directed against social injustice, and they—alongside the Kharijites, Isma'ilis, and other opposition movements—had a profound impact. It was after their ideas spread that a degree of political stability began to emerge. (Sharifov, Shahlar, 2017). The Fatimids played a significant role in shaping ideas about the legitimacy of the ruler in the Muslim East during the medieval period and made invaluable contributions to the development of political and legal thought and new doctrines. In order to study the sources of legitimacy and authority of rulers in the medieval Islamic East, it is essential to comparatively analyze the opposition movements and religious doctrines—particularly the legal-political views and administrative approaches of the Mu'tazilites, Kharijites, Fatimids, and Nizaris. (Gasimov, Kheyribey.2008.). While their ideas often sparked wide debates, their irreplaceable role in the formation of new schools of thought during that period cannot be denied.

THE SOURCE AND LEGITIMACY OF AUTHORITY

The Shi'a believed that the state should only be governed by Imams, who are the rightful successors of the Prophet, appointed by divine authority, and that no form of coercion should be exerted against them, as leadership was their inherent right. These doctrines, particularly during the Abbasid era, played a major role in inspiring resistance movements against the ruling powers. During the Abbasid caliphate, the conflicts between Sunnis and Shi'as intensified, and the issue of who held the authority to appoint the ruler became increasingly complex.While Sunnis supported the selection of the caliph based on public consensus and consultation (shura), the Shi'a held that only a divinely appointed Imam was legitimate. In the Islamic world, the source of legitimacy for rulers and power was not determined solely by religious criteria, but also by political, social, and philosophical worldviews. These conflicts provided fertile ground for the emergence of opposition ideologies. The newly emerging opposition movements and sects introduced not only religious-legal doctrines but also emphasized social and moral principles, public welfare, and economic justice, thereby shaping new political outlooks and administrative models. As a result, theories of governance became increasingly complex. Each of these movements, with their distinct ideologies and perspectives, contributed to the development of a range of political theories. Through these movements, both active struggles against centralized authority and the formulation of alternative concepts of legitimacy emerged. Consequently, the concept of the "source of authority" came to reflect broader ideological and sociopolitical dimensions. These movements argued that those in power must never act unjustly and should always uphold moral and ethical standards. According to them, the ruler's legitimacy did not stem solely from law but also from his moral and social qualities, which, in turn, ensured social stability and justice. A central goal was to maintain peace and unity among different social groups and strata. As a result of these movements, new theories of political legitimacy emerged in the Islamic world, further complicating the discourse around power and authority. Overall, in the medieval Islamic East, the issue of legitimacy was shaped by a wide range of political, religious, and philosophical currents. The concept of the "Caliphate" was seen as a source of both political and religious authority. However, each sect and movement

interpreted this concept in different ways. For example, the Shi'a belief that only the descendants of the Prophet's household (Ahl al-Bayt) should rule led to the perception that the existing caliphs were illegitimate, reinforcing the idea of their unlawful authority. This view was shared in part by both the Kharijites and Shi'a, who rejected the legitimacy of the caliphate—but for different reasons. The Kharijites believed the ruler became illegitimate when he acted unjustly toward the people. Despite their differences, all these movements shared a common goal of ensuring political stability. Unlike others, the Ismailis emphasized not only political stability but also the necessity of aligning state governance entirely with religious principles. (UZAR10, O., & BEHBUDOV, 2021).

Apart from opposition groups and sects, various legal schools also offered different interpretations of the legitimacy of the ruler's power. Among these were the Hanafi, Hanbali, Maliki, and other schools. Notably, the Hanafi and Hanbali positions were fundamentally opposed. The Hanafis argued that governance could align with political realities, whereas the Hanbalis maintained that the ruler must govern solely based on religious principles.Some scholars and Islamic jurists of the time emphasized that the ideal ruler should be a morally perfect individual, highlighting the importance of ethical leadership. Sufi thinkers, in turn, argued that spiritual leadership was superior to worldly authority and supported the people's search for justice. Thus, within the various opposition movements, a recurring question emerged: "How should religious values and political governance be reconciled, and which should be prioritized?" Nonetheless, one constant remained: in the medieval Islamic world, **Shari'a** was considered the fundamental source of legitimate rule and power. It is also noteworthy that different regions of the Islamic world supported different ideologies and approaches, reflecting the diversity and fragmentation of thought during that time. (Uzar, O., & Behbudov, K. 2021)

That said, the theory of the Caliphate was unique in that it fused religious and worldly authority. Among the legal schools, the Hanafi school stood out for its innovative approaches, whereas the Maliki, Shafi'i, and other schools maintained more conservative positions. As mentioned earlier, many philosophers emphasized that the legitimacy and authority of a ruler must rest on moral and rational principles. Personally, I believe the primary duty of a ruler is to ensure political stability, promote public welfare, and uphold justice to the greatest extent possible. Ideally, a ruler should come to power through democratic means, such as elections. These debates were not confined to theoretical discussions alone. The differing views and ideological disputes often resulted in uprisings throughout the Muslim East, many of which were aimed at overthrowing the ruling authorities. During such uprisings, the demands put forward were primarily of a social nature. The people voiced the injustices they had suffered and demanded their rights. In my opinion, the number of injustices at the time must have been so great that the population, overwhelmed with despair, resorted to rebellion. Particularly, the Zaydis, who aimed to establish a form of religious governance based solely on divine rules, went to extreme lengths to achieve this (Öztürk, A., & Garibli, I. 2025).

Some of these sects and opposition movements openly declared their intentions, while others— though very few—such as the Ismailis, propagated their ideas covertly. They gradually strengthened their position and strove to change the existing political order. Each legal school and religious sect put forward differing perspectives on the legitimacy of power and attempted to implement their views in different ways, each seeking to increase their number of supporters through various means. In my

view, had the Kharijites not taken such a radical stance, they might have achieved their goals. However, I would also like to point out that one of the reasons why philosophers like Ibn Rushd argued for the governance of the state based both on religion and reason was the influence of Greek philosophy—especially works related to Aristotelianism—that had been translated into Arabic and significantly shaped their thinking. I believe that the source of the legitimacy of power should be based not only on strength, but also on moral and just principles. Although the institution of the Caliphate was initially perceived as the continuation of the Prophetic legacy and served as a source of legitimacy, it was later weakened considerably due to the rise of opposition movements, which in turn raised numerous questions and challenged its authority

This brings us to a critical question: What kind of governance model should have existed at the time? What powers, responsibilities, and rights should a ruler have had in order to resolve such ideological conflicts? These movements did not merely believe that only an Imam should govern the state; they also believed that the imamate was a divinely appointed and therefore sacred form of governance. Before beginning this comparative analysis, I would like to first note that the issue of the source of political legitimacy in that period was not shaped in a single direction. Rather, it was enriched and developed through the mutual interaction of all these movements, evolving on multiple levels.

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Uzar, O., & Behbudov, K. Hüseyin Cavid'in sanatı, siyasi ve hukuki düşüncesi üzerine bazı gözlemler: Some observations on Huseyin Cavid's art, political and legal thought.

The Role of Artificial Intelligence in Modern Computer Architecture: From Algorithms to Hardware Optimization

[1] Elshen Mammadov

[2] Annagi Asgarov

[3] Aysen Mammadova

Abstract:

The rapid advancement of artificial intelligence (AI) has significantly influenced the design and evolution of modern computer architectures. This article explores the dynamic relationship between AI algorithms and hardware, focusing on how neural networks have driven the development of specialized processors such as GPUs, TPUs, and neuromorphic chips. Through comparative analysis, performance benchmarking, and model-hardware interaction, the study highlights the transition from general-purpose computing systems to AI-optimized platforms. It also addresses emerging challenges related to scalability, energy efficiency, and security. The findings call for deeper interdisciplinary collaboration between AI researchers and hardware engineers to build systems that are both high-performing and sustainable in the age of intelligent computing.

Keywords: *Artificial Intelligence, Computer Architecture, GPU, TPU, Edge AI, Neuromorphic Computing*

1. INTRODUCTION

The rapid ascent of artificial intelligence (AI) has ushered in a transformative era across all domains of computer science, with its impact extending deep into the foundational layers of computer architecture. Traditional architectures, originally designed for general-purpose computing tasks, are now increasingly being repurposed or entirely redesigned to meet the specific demands of modern AI

[1] Mammadov, E. Associate Professor, PhD in Pedagogy, Vice-Rector for Academic Affairs, Nakhchivan Teachers Institute. Email: ElshanMammadov@nmi.edu.az. ORCID: https://orcid.org/0009-0004-5265-8266

[2] Asgarov, A. Senior Lecturer, Nakhchivan Teachers Institute. Email: ennagiesgerov@nmi.edu.az. ORCID: https://orcid.org/0009-0003-0629-1240

[3] Mammadova, A. Senior Lecturer, Nakhchivan State University. Email: mammadova_ayshen@gmail.com. ORCID: https://orcid.org/0009-0003-1928-0743

workloads such as deep learning, neural network training, and real-time inference. This shift marks a critical evolution in the symbiosis between software intelligence and hardware performance.

The architectural demands of AI algorithms, particularly those driven by massive parallelism, high-throughput data access, and low-latency execution, have catalyzed the development of specialized processing units. Graphics Processing Units (GPUs), Tensor Processing Units (TPUs), Field-Programmable Gate Arrays (FPGAs), and neuromorphic chips now stand at the forefront of this revolution. These innovations are not merely enhancements but represent a paradigm shift in how computing systems are conceived and optimized (Zhang et al., 2024; Malviya et al., 2024).

Recent research underscores the growing interplay between machine learning algorithms and hardware advancements. For instance, studies reveal how neural network architectures influence chip-level design choices and vice versa (Yadav, 2024; Patil et al., 2024). Furthermore, as edge computing and energy-efficient AI solutions gain momentum, new directions such as brain-inspired architectures and low-power nanoscale processors are becoming increasingly relevant (Zhang et al., 2024; Garikapati & Shetiya, 2024).

This article seeks to explore the dynamic interaction between AI algorithms and modern computer hardware. It aims to analyze how AI influences architectural design principles, and how hardware innovations, in turn, accelerate the performance, scalability, and deployment of AI applications. In doing so, it highlights both the technological opportunities and the emerging challenges that shape the future of computing in the age of intelligent machines.

2. LITERATURE REVIEW

The evolution of computer architecture has historically been shaped by the pursuit of efficiency, speed, and scalability. The earliest designs, such as the Von Neumann architecture, laid the foundation for sequential computing, wherein a single control unit governed the execution of instructions stored in memory. While revolutionary at the time, this architecture is increasingly limited in its capacity to meet the needs of AI systems, particularly in tasks that demand concurrent processing of vast datasets and matrix-based computations (Khaleel, Jebrel, & Shwehdy, 2024).

The emergence of artificial intelligence, especially deep learning, has spurred a paradigm shift in hardware development. Traditional Central Processing Units (CPUs) were not inherently optimized for the high-dimensional matrix operations characteristic of AI algorithms. This limitation led to the widespread adoption of Graphics Processing Units (GPUs), which excel at parallel computations and have since become integral to machine learning frameworks such as TensorFlow and PyTorch. As noted by Patil et al. (2024), GPUs significantly reduced training times for complex models, enabling breakthroughs in image recognition, natural language processing, and autonomous systems.

In parallel, Google's introduction of Tensor Processing Units (TPUs) marked a significant milestone in AI-specific hardware development. Designed from the ground up for tensor-based operations, TPUs provide optimized performance per watt and high throughput, catering specifically to neural network inference and training. These application-specific integrated circuits (ASICs) represent a

departure from general-purpose designs, prioritizing task-specific acceleration over broad utility (Zhang et al., 2024; Malviya et al., 2024).

Recent literature emphasizes the growing role of hardware-aware AI model optimization. Techniques such as quantization, pruning, and knowledge distillation have been developed to align the computational demands of models with the constraints of available hardware. For example, edge AI applications often require models to operate within strict energy and memory budgets, pushing researchers to design more compact and efficient neural architectures (Hong et al., 2024; Yadav, 2024). These methods not only reduce resource usage but also enable real-time inference on embedded systems and mobile devices.

A fundamental distinction has emerged between general-purpose and AI-specific computing systems. General-purpose processors prioritize flexibility and support for a wide range of software, whereas AI-specific hardware emphasizes performance, speed, and efficiency for a narrower set of tasks. This dichotomy underscores the growing specialization within computing infrastructure, where hybrid systems leverage CPUs for orchestration, GPUs/TPUs for intensive computation, and FPGAs or neuromorphic chips for edge deployment and ultra-low-power scenarios (Garikapati & Shetiya, 2024; Adnan et al., 2024).

In summary, the literature reveals a continuous interplay between the demands of AI and the architectural innovations in computing hardware. As AI models evolve in complexity, so too must the hardware that supports them—signaling a future in which architectural adaptability and intelligence-aware design are not optional, but essential.

3. METHODOLOGY

This study adopts a **conceptual and analytical approach** to investigate the mutual influence between artificial intelligence (AI) algorithms and modern computer hardware architectures. Rather than employing empirical experimentation, this research synthesizes insights from recent literature, technical documentation, and benchmark comparisons to construct a comparative analysis of processing architectures and their suitability for AI workloads.

3.1. Comparative Framework of Architectures

The study begins by delineating the fundamental characteristics of four key types of processing units used in AI computation:

- **Central Processing Units (CPUs)** – General-purpose processors known for task versatility and control logic operations.

- **Graphics Processing Units (GPUs)** – Optimized for parallel processing and widely used in training deep learning models.

- **Tensor Processing Units (TPUs)** – ASICs specifically designed for high-efficiency execution of tensor operations in neural networks.

- **Field-Programmable Gate Arrays (FPGAs)** – Reconfigurable logic devices enabling custom pipelines for AI inference with low latency and energy usage.

These architectures are evaluated based on structural features (e.g., core count, memory bandwidth, instruction set), and application compatibility with AI models.

3.2. Performance Benchmark Analysis

To assess the operational efficiency of each architecture, the study draws on established benchmark metrics from peer-reviewed sources and manufacturer documentation. Key metrics considered include:

- **FLOPS (Floating Point Operations Per Second)** – Indicative of raw computational power.

- **Latency and Throughput** – Especially in the context of real-time inference.

- **Power Consumption** – Crucial for evaluating performance per watt in mobile or embedded AI scenarios.

Comparative charts are used to visualize how each architecture performs under common AI workloads such as matrix multiplications, convolution operations, and attention mechanisms.

3.3. Model-Hardware Interaction Analysis

The methodology also involves a focused review of how specific AI model types interact with hardware constraints. This includes:

- **Convolutional Neural Networks (CNNs)** – Widely used in image recognition, requiring high parallelism and memory access speed.

- **Transformer-based Architectures** – Powering state-of-the-art language models, requiring significant memory and bandwidth for self-attention operations.

- **Compressed and Quantized Models** – Tailored for edge deployment on low-power processors (e.g., MobileNet, TinyBERT).

Through this tri-layered approach—architectural comparison, benchmark evaluation, and model-level analysis—the study aims to reveal the co-dependent evolution of AI software and computing hardware.

4. Results and Discussion

4.1. Algorithm-to-Hardware Symbiosis

The co-evolution of AI algorithms and hardware architectures underscores a critical symbiosis. Neural networks, particularly Convolutional Neural Networks (CNNs), are inherently parallel in their structure—applying the same filters across large datasets. This characteristic has significantly influenced hardware designs, especially the development of massively parallel cores in GPUs and TPUs, which optimize throughput during training and inference tasks.

Furthermore, the constraints of edge and mobile devices have prompted algorithmic innovations such as **pruning** (removal of redundant weights), **quantization** (reducing precision of weights), and **model compression** (shrinking model size without significantly sacrificing accuracy). These techniques are now standard in deploying AI models on hardware with limited memory and power, such as microcontrollers and smartphones (Hong et al., 2024; Yadav, 2024).

4.2. Hardware Innovations for AI

The specialization of hardware for AI tasks has led to divergent design philosophies, particularly between **GPUs** and **TPUs**. While GPUs were originally developed for graphics rendering, their thousands of cores and support for floating-point operations made them well-suited for deep learning. TPUs, however, were designed exclusively for tensor operations, offering greater efficiency for specific workloads such as matrix multiplications in neural networks.

Emerging needs in **Edge AI** have also fostered innovations in low-power hardware platforms, especially using ARM architectures and RISC-V open-source instruction sets. These platforms allow for AI inference to occur locally, reducing latency and dependence on cloud infrastructure.

Additionally, **neuromorphic computing**—inspired by the structure of the human brain—represents a departure from traditional Von Neumann architectures. Neuromorphic chips (e.g., Intel's Loihi) use spiking neural networks to process data in a highly energy-efficient manner, showing promise for real-time, adaptive learning with minimal power consumption (Malviya et al., 2024).

Table 1: Comparative Overview of AI-Specific Hardware Architectures

Architecture	Designed For	Key Strengths	Limitations	Typical Use Cases
CPU	General-purpose	Flexibility, complex logic processing	Low parallelism, slower for AI	Control logic, orchestration
GPU	Parallel processing	High throughput, versatile frameworks	High power consumption	Deep learning training
TPU	AI-specific workloads	Tensor optimization, efficiency	Less flexible, Google ecosystem only	Neural network inference/training
FPGA	Custom logic	Reconfigurable, low latency	Complex programming	Edge inference, embedded systems
Neuromorphic	Brain-inspired computing	Ultra-low power, real-time adaptation	Experimental, limited model support	Robotics, real-time decision-making

4.3. Future Trends and Limitations

Looking ahead, one of the central challenges lies in the **scalability** of current architectures to support Artificial General Intelligence (AGI). As model sizes increase exponentially—reaching hundreds of billions of parameters—the demand for memory, speed, and energy becomes unsustainable on conventional platforms.

Another critical issue is **energy efficiency**. Training large models like GPT-4 requires significant electrical power, prompting growing concerns about the environmental impact of AI. Sustainable AI will require innovations in both hardware (e.g., low-power chipsets) and software (e.g., energy-aware training protocols) (Adnan et al., 2024).

Lastly, **security concerns** arise from the close integration of AI models and hardware. Hardware-level vulnerabilities—such as side-channel attacks or hardware trojans—pose risks when models are deployed on shared or untrusted infrastructure. Ensuring hardware-level trust will become essential as AI systems are embedded in critical applications like healthcare, defense, and autonomous vehicles.

5. CONCLUSION

The progression of artificial intelligence and computer architecture has unfolded as a mutually reinforcing evolution. As AI algorithms—especially deep learning models—grew in complexity and computational demand, they catalyzed a shift in the design philosophy of computing hardware. In turn, advancements in specialized architectures such as GPUs, TPUs, and neuromorphic processors have enabled unprecedented growth in AI capabilities, making real-time inference, large-scale training, and edge deployment feasible and efficient.

This transition marks a clear departure from traditional general-purpose computing toward highly specialized, task-oriented architectures. While CPUs maintain relevance for control logic and coordination, the acceleration of AI workloads now relies on hardware optimized for tensor operations, parallelism, and energy efficiency. Such specialization is not merely a technical upgrade—it is a structural transformation in how computation is conceptualized and implemented.

As AI continues to permeate critical sectors—healthcare, transportation, education, and defense—the need for **interdisciplinary collaboration** becomes increasingly urgent. Engineers, computer scientists, AI researchers, and hardware designers must work in tandem to develop systems that are not only powerful but also sustainable, secure, and adaptable. The future of intelligent computing will depend not only on algorithmic brilliance but also on the thoughtful integration of software and hardware at every level of design.

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Literacy Practices, Academic Strategies, and Learner Involvement: Investigating Language Learning Motivation (LLM) through SEM

[1] Nadia Safeer

Abstract:

The purpose of this research was to find out which model suits best for 'Language Learning 'Motivation' (LLM)' of students by applying Structural Equation Modeling (SEM) in order to examine the relationship between reading habits, student engagement, study skills and learning 'Motivation'. The descriptive causal research design was adopted, and the study was carried out in the English Language Departments in those universities that are located in Islamabad and Rawalpindi. For the academic year 2023–2024, a stratified random sampling was used to choose a total of 500 students. Electronic surveys of four separate questionnaires were used to gather data from these students. Analysis involves mean, standard deviation, Pearson product-moment correlation, multiple regression analysis. A series of relationships were found between how people read, how became students, how they engaged with their learning, and 'Language Learning 'Motivation' (LLM)'. The ball is found that all three factors, 'Reading Habits, Study Skills, and Student Engagement' are rated consistently highly by the respondents. It was found that there were several elements that had a high degree of influence on students' 'Motivation' to learn a language. The most fitting model for understanding of the 'Language Learning 'Motivation' (LLM)' was model 5 which related to the attitudes towards studying English, the intensity of the 'Motivation' and 'Motivation' for studying the language. It also identified particular sensations regarding reading behaviors and strategies, for example, key cardinal concepts, processing, 'study aids', and time and focus administration. Moreover, also an important aspect for the 'Motivation' is the student engagement, considered through behavioral, cognitive and emotional indicators. It is then found that reading habits, study skills and the engagement of students have important roles in the development of 'Language Learning 'Motivation' (LLM)'. Therefore, these factors are important to encourage university students' 'Motivation'. However, these findings need to be confirmed through further research and reliability across other educational settings needs to be assessed.

Keywords: *education, study skills, reading habits, student participation, SEM, 'Motivation' for learning language*

[1] Safeer, N. Lecturer in English, Department of English, National University of Modern Languages (NUML), Pakistan. Email: nadia.safeer@numl.edu.pk. ORCID: https://orcid.org/0000-0002-0696-7752

1. INTRODUCTION

1.1 Background

Recently the 'Motivation' to learn a language has been a key area of research in education, particularly in terms of understanding how the factors drive students' success in learning a new language. Both internal and external elements act as 'Motivation' to students to read habit, study skills, and student engagement; they influence how students respond to language learning and whether they perform well academically.

In present days, the problem of the willingness of the students to learn English is very common since it seems the students are facing difficulties in grammar pronunciation and comprehension (Napil & Jose, 2020). Thus, this lack of 'Motivation' negatively impacts their learning process: and makes challenges for educators (Haerazi et al., 2019). One of the underlying cause of this problem is the recognition of English as a key to acquiring higher socio-economic status as well as a means to get better career opportunities. Therefore, English is more highly valued by students and many of their families than other subjects. Nevertheless, students' lack of interest leaves them to think studying English is pointless (Ushioda, 2019).

The aim of this study is to examine the correlation between these factors and understand the most suitable model in predicting 'Language Learning 'Motivation' (LLM)'. More precisely, it examines how reading habit, study ability, and student involvement influence the results. The study attempts to examine how these elements interact and propose ways how to promote the 'Motivation' in language learners.

1.2 Research Objectives

The primary objectives of this are as follows:

- To examine the relationship between reading habits, study skills, student engagement, and 'Language Learning 'Motivation' (LLM)' among students.

- To explore the impact of student engagement on 'Language Learning 'Motivation' (LLM)' and academic success in acquiring the English language.

- To evaluate the role of reading habits and study skills in enhancing vocabulary learning and overall 'Motivation' to learn English.

1.3 Aim of a Study

This research aims to determine the most effective model for understanding students' 'Motivation' to learn a language. The study specifically focuses on evaluating students' reading habits through various indicators, including their attitude toward reading, frequency of reading, types of 'Materials Read', reading goals, and the amount of time dedicated to reading. It will also examine the students' study

skills, considering factors such as 'Time Management', 'Concentration', utilization of 'study aids', test-taking strategies, 'Information Processing', and their abilities in reading and writing. In addition, the study will assess student engagement, looking at emotional, cognitive, and behavioral aspects of engagement. Furthermore, the research seeks to explore 'Language Learning 'Motivation' (LLM)' through key dimensions, including students' attitudes toward studying English, the intensity of their 'Motivation', their desire to learn the language, and their orientations towards language learning such as integrative, instrumental, and 'requirement orientation's. The study will analyze the significant relationships between reading habits, study skills, student engagement, and 'Language Learning 'Motivation' (LLM)'. Ultimately, it will investigate both the collective and individual impacts of 'Reading Habits, Study Skills, and Student Engagement' on 'Motivation', aiming to identify the most suitable model for understanding 'Language Learning 'Motivation' (LLM)'.

2. RELATED LITERATURE

2.1 Literature Review

'Motivation' plays a vital role in language learning, particularly for students, as it guides their learning process and helps shape their approach to acquiring a new language (Ancheta et al., 2017). Research indicates that such intrinsic 'Motivation' helps student learning in language do better in terms of achievement (Yangiboyeva, 2021). Interesting enough, 'Language Learning 'Motivation' (LLM)' is not a simple majority in several ways. It is an ever-expanding web of factors, which include an individual's personality, culture background, social environment, personal experiences. It is aware of the significance of 'Motivation' for language instructors; therefore its teaching methods must include 'Motivation'al strategies. As far as language learning is concerned this approach is not only more effective, but also more engaging and more about allowing students to feel that they have a stake in and a sense of ownership of the teaching process.

Moreover, the studies have addressed relationship between reading habit and 'Motivation' in language learning. Therefore, students use the audio-visual tools and reading materials to facilitate the process of vocabulary acquisition (Alan, 2021). Through its research, this research shows how good reading practices enhanced the ESL (English as a Second Language) student's vocabulary learning, as well as how important reading 'Motivation' is to be integrated in the curriculum. It also highlights the importance of 'Motivation'al disposition in pragmatic language production of students in a second language, accounting for second language acquisition and learning of pragmatics (Yangiboyeva, 2021). There has been a great deal of research on 'Motivation' in language learning among older students, but there is scope for further investigation of younger learners' reasons for 'Motivation' (Zhang et al., 2022)

Moreover, education (Ministry of Education & Research) should not happen without reading materials directed towards the youth. It implies that there is a strong relationship between reading and learning of language but that reading is a part of curriculum itself. The ability to express oneself clearly, use varied language, language that is coherent and appropriate to use in different situations, for different purposes and for different audiences both in written and spoken forms is a language learning level

(Ministry of Education & Research). Luo et al. (2020) study supports the notion that anxiety can be used as a means to increase 'Motivation' in language learning environment. Moreover, the level of strategy use, strategy frequency and English proficiency was correlated with possible 'Motivation'al profiles.

As seen by Ghelichli et al. (2020) some sort of correlation between the level of 'Language Learning 'Motivation' (LLM)' and student engagement was discovered, with cognitive were the strongest correlated. It was also suggested in the study that 'Cognitive Engagement' is the only motivator in regards to language learning. This fuels the argument that there is a strong and positive relation between the language learning and student engagement. Challenges in language learning and student participation have also been associated with the 'Motivation' in learning (Arcipe & Balones, 2023). Another study looked at factors concerning 'Motivation' and found that Contextual Teaching and Learning approach enhanced both students' reading comprehension as well as their 'Motivation' to learn (Haerazi & Irawan, 2020). Similarly, Kayumov (2024) found that Extending Concept through Language Activities (ECOLA) used by the students enhanced their reading comprehension and increased students' interest for learning.

2.2 Theoretical Framework

This study is grounded in Vygotsky's Social Development Theory (as cited in Saul, 2024), which suggests that social interactions play a crucial role in enhancing a child's cognitive development and learning capabilities. Language, as a primary tool for communication, culture, and behavior, significantly influences cognitive growth. The language, which is one of the important tool for communicating, culture, and behavior, has a great effect on cognitive growth. Moreover, according to Garner's Theory of 'Motivation', three key 'Motivation'al elements are: effort (the desire to learn a language), desire (the will to accomplish a goal) and outcome (the pleasure of practising language learning activities). Additionally, Schema Theory proposed by Bernales is included in the study to include the fact that prior knowledge plays an integral role in reading (Wagoner, 2013). This theory is based on the idea that new information is included into old mental frameworks, so that prior knowledge has a major role in learning. Additionally, the work investigates how digital tools and resources can be used to draw students' attention, as well as assist in the alignment of learning with the interests and needs of students. Furthermore, the paper discusses the drawbacks of making use of such resources while at the same time, specifying their advantages in enhancing language learning. On the whole, such integration of digital means makes for an effective and well developed language learning experience (Kayumov, 2024). Additionally, studying has been shown to foster a close relationship to 'Motivation' for learning. Franca and Napil's (2022) research revealed that the participants possessed good levels of study skills, writing strategies, reading habits and 'Motivation' to learn. Although, it was remarked that such attributes were present, but not on its own they were not totally sufficient for the students to advance academic.

2.3 Conceptual Framework

The relationship between reading behavior, study skills, student participation, and 'Motivation' in language learning is presented in the conceptual framework.
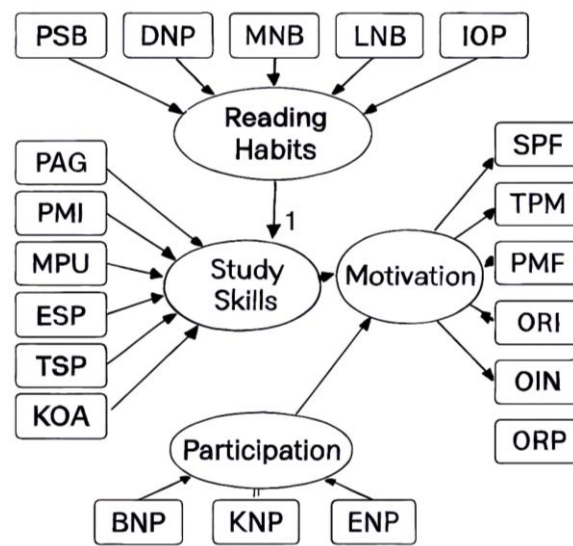

Figure 1. Conceptual Framework Illustrating the Direct Relationship of Latent Exogenous Variables.

This study explored the relationship between three key factors 'Reading Habits, Study Skills, and Student Engagement' and their influence on the 'Motivation' for language learning. Reading habits were assessed through indicators such as 'Reading Frequency', types of 'Materials Read', purpose for reading, and the amount of time spent reading. Study skills were examined using factors like 'Time Management', 'Concentration', use of 'study aids', test-taking strategies, 'Information Processing', and 'Motivation' related to reading and writing. Student engagement was measured through emotional, cognitive, and behavioral dimensions. Finally, 'Language Learning 'Motivation' (LLM)' was analyzed using indicators such as attitudes toward learning English, 'Motivation'al intensity, 'Desire to Learn English', and various orientations, including integrative, instrumental, and 'requirement orientation's.

2.4 Research Gap

Despite the existence of previous studies, there remains a significant gap in local research exploring how 'Reading Habits, Study Skills, and Student Engagement' collectively impact 'Language Learning 'Motivation' (LLM)'. The purpose of this study lies in filling this gap. For all of the learners, 'Motivation' to learn a language is an essential which helps to set the learner towards language acquisition. The results of this research can be used as the starting point of further research on 'Motivation' in the process of learning English or any other foreign language in general. Designing of programs by teachers to enhance teaching strategies as well as students' interest in learning English is a role played by teachers. Creating dynamic and tangled learning environment depends on 'Motivation'al factors. This was undertaken by the researcher because a 'Motivation' was made to

delve into various factors which influence 'Language Learning 'Motivation' (LLM)' and generally beyond it to aim at increasing the educational outcomes. Knowing all these learning 'Motivation's helps to increase students' awareness of their own 'Motivation'al element for language studying. Also, the leadership of the Commission on Higher Education in Islamabad and Rawalpindi should consider planning training programs which may help English teachers in their students effectively motivating for the process of their language learning. Such initiatives will attract the pupils to being more interested in studying English. Furthermore, the findings of this study can also provide the foundation of future research and development on the same topic for other researchers of similar topics.

3. RESEACTH METHODS

3.1. Research Design

A quantitative, causal, quantitative research method consisting of Structural Equation Modeling (SEM) was used for data gathering and analysis in various types of quantitative data on reading behavior, study skills, student engagement and 'Motivation' in a language learning. The causal approach of this study is to identify the relationships between variables, thus how variable changes affect other variables. The study measures and describes statistics about these changes in accordance with Ullman and Bentler (661), who describe which scale level variables are used to observe changes. In particular, SEM is an advanced method of data analysis for examining complex, multivariate relationships by carrying out the structure for covariance between the observed variables. In this case, an approach is often spoken of as covariance structure modeling and is a suitable tool for this study. It was a process which went through several steps of research. The result consisted of review and identification of existing survey questionnaires that pertains to the study. Once the questionnaire was translated it was sent to the advisor for review and correction.

The translation was validated by six experts following the feedback of the advisor. Formal request letter from the Vice President for Academic Affairs regarding permission to do the research at the universities was also given to it. Once approved, the questionnaires were then managed and collected by the study so that validation results and thus overall findings would include. For the sake of reliability, researches would need their instruments to be validated by experts. The study uses the mean to describe reading habit, study skill, student engagement, and 'Motivation' in language learning to analyze the data. The dispersion of frequency distribution was measured via the use of the Standard Deviation. In order to test the significance of these relationships, the Pearson Product-Moment Correlation was used to measure relationships among the significant key variables reading habits, study skills, student engagement and 'Motivation'. Secondly, multiple regression analysis was conducted to determine which predictors were significant in the practice of 'Motivation' in language learning. To understand the relationships between the variable an SEM was done to find out what was the best fitting model. The elements within the latent variables were assessed to evaluate the model, and to include the element in a latent variable, a cut off value of 0.50 was suggested. In Ullman and Bentler (2012) work on construction safety modeling, a lower cut off of 0.45 is made. It is necessary to remove characteristics with low correlations with the other latent factors in the final SEM model. A cut-off

value can be influenced by sample size but a range of 0.45 to 0.50 is usually considered acceptable. This tool has been instrumental in the identification of the model that better reflects the study referring to organizational capabilities. 'Goodness of Best Fit Statistics for the Alternative Model' through 'Analysis of Moment Structure' (AMOS). All the presented key indicators must be in accordance with the following principles to determine the fit model.

Table 1: 'Goodness of Fit Measures of the Five Generated Models'

Model	P-value (>0.05)	CMIN / DF (0<value<2)	GFI (>0.95)	CFI (>0.95)	NFI (>0.95)	TLI (>0.95)	RMSEA (<0.05)	P-close (>0.05)
1	.000	7.449	.750	.814	.792	.792	.124	.000
2	.000	5.107	.810	.883	.859	.867	.099	.000
3	.000	4.381	.809	.904	.880	.891	.090	.000
4	.000	4.360	.810	.904	.880	.891	.090	.000
5	.107	1.242	.978	.997	.985	.995	.024	.997

Legend: CMIN/DF=*Chi Square/Degrees of Freedom*, NFI=*Normed Fit Index*, GFI=Goodness *of Fit Index, TLI=Tucker-Lewis Index*, RMSEA=*Root Mean Square of Error Approximation*, CFI=Comparative *Fit Index*

3.2. Research Respondents

A total of 656 students who are enrolled officially in the English subject for First Year in English Departments of various universities of Islamabad and Rawalpindi were selected as the respondents for this study out of which there was 500 respondents. Spotted they were, from National University of Modern Languages (NUML)'s two campuses, International Islamic University, (IIUI), Air University and Foundation University. The number of participants was determined by the RAOSOFT Sample Size Calculator through which the researcher used the number of 243, however, 500 participants were recorded. So out of 500 of Participants 200 are from NUML (Rawalpindi & Islamabad), 100 from IIUI, 100 from Air & 100 Foundation. This is the sort of number that is appropriately used in structural equation modeling, particularly since the data is ordinal. (Yuan et. al., 2011). It was stratified random sampling of the respondents, because the population is heterogenous (Parsons, 2014). So here, this is a proportional percentage and the number of respondents from universities which had data source for this are hundred from various sections. The interviews between the interviewer and the participant during the conducted study is on a voluntary basis. A consent form signed by their parents has to be authorized before their participation. The participants were subjected to an orientation so they could learn about the information to be acquired from them regarding the conducted study. The study did not involve first year university students overseas. According to the conducted study, students who were not taking the English subject and never felt the 'Motivation' to learn the language did not participate in it. Participation in the conducted Study is prohibited to volunteers, who have not received the parents' consent to participate (even if specimen collection is

on same day as consent form submission), have not submitted a consent form, or are students, who did not come to the orientation. Second, students were given the freedom to participate. Not refusing to go was not from a lack of benefits and penalties. Permission was given to them to leave their participation at any time and the result, if no one else in the race finishes first shall not be considered.

3.3. Research Instrument

The many parts of this study were carefully measured using the type of instruments that was carefully selected and modified from previously known sources. The reading habits questionnaire was developed based on 'Reading Habits of and Their Effect on Academic Specifically, the study skills questionnaire was adapted from the Study Skill Checklist of the Cook Counseling Center at Virginia Tech, and consists of indicators such as 'Time Management', 'Concentration', 'study aids', test strategies, 'Information Processing', 'Motivation', selecting main ideas, and writing, a total of sixty-four items. The instrument used for student engagement was based on what was provided by UHCL Counseling Services SSCB Suite 3103 from emotional, cognitive, and 'Behavioral Engagement' consisting of nine items. The 'Motivation' for language learning questionnaire was finally adapted from Yangiboyeva's (2021) study "A Survey of the Foreign 'Language Learning 'Motivation' (LLM)' among Polytechnic Students in China," which included indicators in terms of attitudes towards learning English, 'Motivation'al intensity, 'Desire to Learn English', 'Integrative Orientation', 'Instrumental Orientation', and 'requirement orientation', with twenty-nine items.

Responses were measured using a 5 Point Likert Scale in each use of the four questionnaires. The scale is interpreted as that a score of 4.20 to 5.00 indicates that the reading habits, study skills, student engagement, and 'Motivation' in language learning were shown consistently; scores from 3.40 to 4.19 indicate that reading habits, study skills, student engagement, and 'Motivation' in language learning were done frequently. The behaviors were occasionally demonstrated with a score of 2.60–3.39, that the behaviors were rare with a score of 1.80–2.59, or the behaviors were never displayed with a score of 1.00–1.79. With these measurements, each variable's frequency was categorized in the participants. Also, the questions were revised to include only topics relevant to the study, and further, to ensure reliability and validity of the instruments. The research advisor read the first draft and made feedbacks on it and after the amendments it was validated by six expert validators. A statistician reviewed the Cronbach'salpua to confirm internal consistency in a pilot test. The values of Cronbach's alpha coefficient of the scales were reading habits (.933), study skills (.950), student engagement (.788) and 'Motivation' for language learning (.938), all of which is excellent reliability. Also, the mean score obtained by the six expert validators was 4.41 which indicates that the questions were very valid and suitable for the study.

3.4 Ethical Guidelines

During this study, research followed appropriate guide for going on with the ongoing research. In particular, the researcher followed and adhere to all standards in the conduct of the study in accordance with the protocol and standard criteria in the management of population and data but not limited to that. For the completion of the study, all needed attachments, i.e. the questionnaire and

some forms that are related to it, were well organized and it was ready for submission. We designed the questionnaire such, that the information will be collected with enough clarity as well as comprehensiveness to meet the objectives of the study. The research process was thoroughly concerned with the ethical considerations. Data of participants remained confidential at all levels of the study. We took measures to anonymize all the personal information being stored and also put them in secure storage to avoid any kind of access by unauthorized parties. The involvement of all participants in the study was with consent obtained. Participants were discussed the clear information about the reason of the research, if the participation at the user research is voluntary, and their right to withdraw from the research process at any time without consequences. In addition, the participants were made sure that they can utilize their responses only for the study and were not being shared with third parties. The rights and wellbeing of participants was always prioritized throughout the study. The research was carried out with respect for ethical guidelines that involved treating participants with respect and involving the participants in the study in a safe and voluntary manner. All the ethical considerations were met consistently, leading to the research being conducted in a responsible and respectful manner. When the researcher was given a Certificate of Approval for the submitted papers for approval and had them returned.

4. RESULTS AND DISCUSSION

4.1. Reading Habits of Students

Table 2 shows the reading habits levels of first-year students in universities in Islamabad & Rawalpindi, measured according to 'Reading Attitude', 'Reading Frequency', 'Materials Read', purposes of reading, and 'Time Spend on Reading', with an overall mean score of 3.68 and a standard deviation of 0.53, indicating a high descriptive level, which means that 'Reading Attitude' is often observed among students.

Table 2: Levels of Reading Habits

Indicators	SD	Mean	Descriptive Label
'Reading Attitude'	0.65	4.06	High
'Reading Frequency'	0.73	3.47	High
'Materials Read'	0.68	3.38	Moderate
'Purpose of Reading'	0.61	4.33	Very High
'Time Spend on Reading'	0.88	3.19	Moderate
Total	0.53	3.68	High

The mean score and standard deviation of the response to the highest indication reading practice (4.33 and 0.61 respectively) is the indicator of the 'Purpose of Reading'. This implies that this reading activity will always be seen in students. It also helps to collect new knowledge and the imagination of each student. Meanwhile the mean scores of the 'Materials Read' and the time spent on reading indicated and standard deviations of 0.68 and 0.88, respectively and scores of 3.38 and 3.19 in the descriptive level. This implies that sometimes students' activity of reading is seen. According to Franca and Napil (2022), knowing the purpose of the reading is very beneficial for students; some of them making new ideas, finding different ideas, shaping their identity, improving their studying, and using their

imagination better. In regards to this study, it was discovered in Gunobgunob-Mirasol's (2019) study that students' reading behavior and comprehension are interrelated. An important fact is that maintaining these forms of reading habits will help the reading comprehension to be successful in reading.

Reading also provides the highest level of description needed with the aim of acquiring new knowledge and expressing feelings in all the students. The study of Theriault (15-22) also supports the view that students' learning is influenced by their reading goals. In this vein, Tegmark found (100-118) that there was great potential for this reading to happen as an activity of regular reading through careful and critical comprehension. To improve this indicator in this study, the time spent on reading is at moderate level of description, in accordance with the research of Locher, Franziska and Maximilian which argues that the more people age the more spent on reading and comprehension. It is also extremely important because their ability to understand what they read in the post-test after doing or not doing the homework increased from the pretest. However, the results indicate that the reading skills of the students have been enhanced due to adequate time allocation.

4.2. Study Skills of the Students

With an overall mean score of 3.93 and a standard deviation of 0.54, Table 3 displays the degree of study skills of students in the universities of Region XII as assessed by 'Time Management', 'Concentration', 'study aids', test strategies, 'Information Processing', 'Motivation', main idea selection, and writing. This indicates that students' ability to study is frequently noticed.

Table 3: Levels of Study Skills

Indicators	SD	Mean	Descriptive Label
'Time Management'	0.68	3.89	High
'Concentration'	0.61	3.93	High
'Study Aids'	0.64	3.92	High
'Testing Strategies'	0.60	3.97	High
'Information Processing'	0.62	3.96	High
'Motivation'	0.67	3.83	High
Selection of Main Ideas	0.62	4.01	High
Writing	0.62	3.89	High
Total	0.54	3.93	High

With similar mean and standard deviation scores of 3.89, 3.93, 3.92, 3.97, 3.96, 3.83, 4.01, and 3.89, respectively, this table generally has a high descriptive level, suggesting that students agree on the items referring to their own study skills across all indicators: 'Time Management', 'Concentration', 'study aids', test strategies, 'Information Processing', 'Motivation', selection of main ideas, and writing. This merely indicates that students typically demonstrate their ability to study. In terms of skill development, Stevens (365–379) concurs that the study is founded on a high degree of practice; however, the right teaching strategies should be employed to motivate students to think critically about the key concepts found in the material and the untaught structures.

According to the results of Allred and Cena's study (27–35), students would rather be allowed to select the texts they want to read, which boosts their self-esteem and makes them value reading. Additionally, kids who participate in literature circles and spend time reading in class are more inclined to read and have more positive opinions about it than those who do not. The mean 'Motivation' score employed in this study is low (3.88), with a good descriptive level. This person's GPA may increase as their enthusiasm and study skills increase (Dayupay et al.). The study of Ritonga and Ramadhani talked about how to improve 'Motivation' quality in respondent learnings: (1) the same learning materials are still given before assignment wakefulness; (2) learn using face-to-face look like; (3) providing homework assignment method work; (4) using materials that are easy to be understood.

4.3. Student Engagement

The level of participation of first year students in the Universities of Islamabad and Rawalpindi is presented in Table 4 according to 'Emotional Engagement', 'Cognitive Engagement', 'Behavioral Engagement' with overall mean score of 4.11 and standard deviation of 0.60. Therefore, students participate a lot.

Table 4: Levels of Student Engagement

Indicators	SD	Mean	Descriptive Label
'Emotional Engagement'	0.86	3.89	High
'Cognitive Engagement'	0.67	4.27	Very High
'Behavioral Engagement'	0.67	4.31	Very High
Total	0.60	4.11	High

With 4.27 and 4.31 variances of 0.67 for both cognitive and 'Behavioral Engagement', student participation was found to have the highest means. As a result, student participation is constantly evident. On the other hand, its mean of 3.75 and standard deviation of 0.86 indicate that it is just emotionally engaged. Students usually do that; they take part. An integrated paradigm for online learning and emotional involvement is offered in this study. In order to emphasize the importance of students' emotional involvement in higher education, this conceptual study aims to evaluate the responsibilities that teachers play in this process (Prayogo et al., 2023). Such integration of emotional, cognitive, and behavioral strategies in online teaching can make the online teaching a more engaging and rich learning experience for students in the virtual classroom (Pentaraki and Burkholder, 1-21).

4.4. 'Motivation' in Language Learning of Students

Based on attitudes toward learning English, 'Motivation' intensity, desire to acquire English, 'Integrative Orientation's, instrumental positions, and 'requirement orientation's, this study provides an overview of the level of inspiration in language learning that first-year English students at the universities in Islamabad and Rawalpindi have in CERES. The average overall mean is 4.13 and the standard deviation is 0.64. Students are therefore regularly motivated to master the English language.

Table 5: Levels of 'Motivation' in Language Learning

Indicators	SD	Mean	Descriptive Label
'Attitudes towards Learning English'	0.76	4.12	High
'Motivation' intensity	0.70	3.95	High
'Desire to Learn English'	0.74	4.12	High
'Integrative Orientation'	0.76	4.23	Very High
'Instrumental Orientation'	0.79	4.05	High
'Requirement Orientation'	0.79	4.34	Very High
Total	0.64	4.13	High

This also meant that the total mean score of highest 'Integrative Orientation' and highest 'requirement orientation' of the students was 4.23 and 4.34 with standard deviation for 76 and 0.79 respectively. That means that each time students come up with some 'Motivation' to study the English language, you will have to create an incentive. Their mean scores on entering English attitudes, intensity of 'Motivation' to learn English, 'Desire to Learn English', and 'Instrumental Orientation' on items 1 to 7 are 4.12, 3.95, 4.12, and 4.05, 0.76, 0.70, 0.74, and 0.79, respectively. Many students are motivated to learn the English language widely. The indicators of the highest means needed orientation and integration orientation. The basis of the relationship of the results of this study to the work of Vakilifard et al, (417-43) is that our participants stated that in the order of their 'Motivation', integrative and extrinsic 'Motivation' were most important. According to Franca and Napil (40-59), in their study they also prove that senior high school students have very high 'Motivation' in English learning language, but it is necessary for the students to use English in their daily processes in a way that it will be more easy to communicate.

According to the results of the study, student engagement intensity was related to all components of the psychosocial learning environment. Therefore, all other three aspects such as work orientation, student participation and teacher support had significant impact on the intensity of student 'Motivation' (Dhaba, 433-437). For the relationship of learning situation attitudes to success in the Chinese language with respect to integrative and 'Instrumental Orientation's of the learner, mediation by the intensity of the 'Motivation' was somewhat positive (Hutagalung et al. 937-956).

4.5. Relationship Between Reading Habits and 'Motivation' in Language Learning

The r value obtained in table 6 is of p>.05 significance level and of much lower in value (.559) and probability (.000) and therefore shows a great relationship of these first year university students between their reading habits and their 'Language Learning 'Motivation' (LLM)'. It means that here hypothesis has been rejected and is matching with the alternative hypothesis that reading behavior relates with the 'Language Learning 'Motivation' (LLM)' of students. Reading behavior and 'Motivation' for language learning in the universities have a strong correlation with r .559. The results indicate that all reading behavior indices are significant in the relation to 'Language Learning 'Motivation' (LLM)', based on a principle that p value is < 0.05 and r value is all together is 0.606 for reading purpose, 0.500 for reading behavior, 0.440 for 'Reading Frequency', 0.341 for reading material and 0.282 for allocated reading time.

As can be seen from Table 6 all the indicators of each variable are linked. The two variables are correlated and as such there is a significant relationship between the two. According to the study by Chaudhary (79-88), teachers should be focused on teaching reading skills to the students in such a way that they realize the significance of the second language reading practice. This will end the negative perception of the training of secondary languages and would indicate its importance in reaching their dreams, being better readers, exceeding high percentages and achieving various needs in terms of education and professional life.

Table 6: Relationship Between Reading Behavior and 'Motivation' in Language Learning

Reading Habits	'Motivation' in Language Learning						
	MPF	TPM	PMF	ORI	OYI	ORP	Overall
'Reading Attitude'	.545**	.462**	.494**	.370**	.319**	.346**	.500**
	.000	.000	.000	.000	.000	.000	.000
'Reading Frequency'	.406**	.437**	.482**	.361**	.263**	.290**	.440**
	.000	.000	.000	.000	.000	.000	.000
'Materials Read'	.294**	.339**	.331**	.293**	.251**	.222**	.341**
	.000	.000	.000	.000	.000	.000	.000
'Purpose of Reading'	.454**	.474**	.538**	.556**	.481**	.557**	.606**
	.000	.000	.000	.000	.000	.000	.000
'Time Spend on Reading'	.228**	.310**	.280**	.215**	.210**	.187**	.282**
	.000	.000	.000	.000	.000	.000	.000
Total	.496**	.528**	.550**	.460**	.392**	.408**	.559**
	.000	.000	.000	.000	.000	.000	.000

Legend:

RA-'Reading Attitude'	*SMI-selecting main ideas*
RF-'Reading Frequency'	*WRI-writing*
MR-'Materials Read'	*EE-'Emotional Engagement'*
POR-'Purpose of Reading'	*CE-'Cognitive Engagement'*
TSOR-'Time Spend on Reading'	*BE-'Behavioral Engagement'*
TM-'Time Management'	*ATLE-attitude towards learning English*
CON-'Concentration'	*MI-'Motivation'al intensity*
SA-study aid	*DLE-'Desire to Learn English'*
TS-test strategy	*INTO-'Integrative Orientation'*
INFP-'Information Processing'	*INSO-'Instrumental Orientation'*
MOT-'Motivation'	*RO-'requirement orientation'*

4.6. Relationship Between Study Skills Habits and 'Motivation' in Language Learning

The students in the universities as shown in Table 7 had a total r value of .675 and p value of .000 (significant), significantly less than the .05 significance set up in this study. If that is the case, they reject the hypothesis which agrees with the hypothesis of alternative, namely there is a connection between study skills and 'Motivation' in language learning. The correlation between the language learning of the students in the universities and the data details of study skills is given with a p-value less than 0.5 and r-value is .489 in 'Time Management', .538 in 'Concentration', .580 in study assistance, .616 in test strategies, .644 in 'Information Processing', .490 in 'Motivation', .656 in selecting main idea, .606 in writing respectively. Hence there exists a great mutual relationship between the study skills and learning 'Motivation' among university students.

Table 7: Relationship Between Study Skills Habits and 'Motivation' in Language Learning

Study Skills Habits	'Motivation' in Language Learning						
	MPF	TPM	PMF	ORI	OYI	ORP	Overall
'Time Management'	.353**	.469**	.446**	.434**	.377**	.394**	.489**
	.000	.000	.000	.000	.000	.000	.000
'Concentration'	.431**	.481**	.487**	.467**	.435**	.419**	.538**
	.000	.000	.000	.000	.000	.000	.000
'Study aids'	.446**	.534**	.553**	.515**	.426**	.465**	.580**
	.000	.000	.000	.000	.000	.000	.000
Testing Strategies	.503**	.539**	.579**	.524**	.478**	.491**	.616**
	.000	.000	.000	.000	.000	.000	.000
'Information Processing'	.465**	.569**	.608**	.579**	.497**	.538**	.644**
	.000	.000	.000	.000	.000	.000	.000
'Motivation'	.344**	.443**	.422**	.424**	.434**	.408**	.490**
	.000	.000	.000	.000	.000	.000	.000
Selection of Main Ideas	.468**	.562**	.590**	.638**	.514**	.544**	.656**
	.000	.000	.000	.000	.000	.000	.000
Writing	.401**	.551**	.533**	.546**	.530**	.502**	.606**
	.000	.000	.000	.000	.000	.000	.000
Total	.498**	.608**	.617**	.603**	.541**	.550**	.675**
	.000	.000	.000	.000	.000	.000	.000

Legend:

RA-'Reading Attitude'	*SMI-selecting main ideas*	*RA-'Reading Attitude'*	*SMI-selecting main ideas*
RF-'Reading Frequency'	*WRI-writing*	*RF-'Reading Frequency'*	*WRI-writing*
MR-'Materials Read'	*EE-'Emotional Engagement'*	*MR-'Materials Read'*	*EE-'Emotional Engagement'*
POR-'Purpose of Reading'	*CE-'Cognitive Engagement'*	*POR-'Purpose of Reading'*	*CE-'Cognitive Engagement'*
TSOR-'Time Spend on Reading'	*BE-'Behavioral Engagement'*	*TSOR-'Time Spend on Reading'*	*BE-'Behavioral Engagement'*
TM-'Time Management'	*ATLE-attitude towards learning English*	*TM-'Time Management'*	*ATLE-attitude towards learning English*

The results of a study by Napil et al. (40), which demonstrated a high degree of efficiency in learning, writing techniques, reading habits, and 'Motivation' to study the English language, confirm this conclusion. Learning styles, language learning strategies, and students' 'Motivation' to learn English are all significantly correlated. The technique of learning a language has a higher influence than learning styles (Barruansyah, 49-62)

4.7. Relationship Between Student Participation and 'Motivation' in Language Learning

According to Table 8, there is high relationship between student's participation and 'Language Learning 'Motivation' (LLM)' of student in universities, hence the total r value is .677 and p value is .000(somewhat significant), but lesser than .05 significant level used in this study. The correlation coefficients between parents and children were .728 at significance level .05. That can be only true if there is a sound relationship between student participation and 'Motivation' in language learning between the students.

Finally, in addition, when the indicators of student participation relate to the 'Motivation' for language learning, all the indicators are correlated: cognitive participation r = .719, behavioral participation r =

.622, emotional participation r = .489, p less than .05 level of significance set. Furthermore, it argues that student 'Motivation' in learning language is associated with considerable extent to the participation of the students.

Table 8: Relationship Between Student Participation and 'Motivation' in Language Learning

Student Participation	'Motivation' in Language Learning						
	MPF	TPM	PMF	ORI	OYI	ORP	Overall
Emotional Participation	.466**	.496**	.475**	.370**	.349**	.327**	.489**
	.000	.000	.000	.000	.000	.000	.000
Cognitive Participation	.538**	.615**	.634**	.659**	.566**	.626**	.719**
	.000	.000	.000	.000	.000	.000	.000
Behavioral Participation	.531**	.537**	.555**	.530**	.441**	.549**	.622**
	.000	.000	.000	.000	.000	.000	.000
Total	.617**	.662**	.665**	.615**	.539**	.590**	.728**
	.000	.000	.000	.000	.000	.000	.000

Legend:
RA-'Reading Attitude'   *SMI-selecting main ideas*   *RA-'Reading Attitude'*
RF-'Reading Frequency'   *WRI-writing*   *RF-'Reading Frequency'*
MR-'Materials Read'   *EE-'Emotional Engagement'*   *MR-'Materials Read'*
POR-'Purpose of Reading'   *CE-'Cognitive Engagement'*   *POR-'Purpose of Reading'*
TSOR-'Time Spend on Reading'   *BE-'Behavioral Engagement'*   *TSOR-'Time Spend on Reading'*
TM-'Time Management'   *ATLE-attitude towards learning English* *TM-'Time Management'*
CON-'Concentration'   *MI-'Motivation'al intensity*   *CON-'Concentration'*
SA-study aid   *DLE-'Desire to Learn English'*   *SA-study aid*

A positive and significant correlation between the self-regulated language learning and three dimensions of student engagement (Behavioral, Cognitive and Agentic) has been demonstrated (Zhang et al., 2022). Through the study of Ghelichli et al. (2020) on the main reasons for the participation of students and 'Motivation' in language learning, the reasons are the student's behavior, the teachers' behavior, and a teacher's personality for participation in language learning, as well as the reason of the teacher, the self, and the parental reasons for the 'Motivation' of language learning. The results herein summarized might be useful to language teachers, language learners, and material developers.

4.8. Influence of 'Reading Habits, Study Skills, and Student Engagement' on 'Language Learning 'Motivation' (LLM)'

With a F value of 189.228 and a p value of 0.000—much lower than the research's.05 significance level Table 9 makes it evident how important 'Reading Habits, Study Skills, and Student Engagement' are to first-year students' 'Motivation' to learn a language. According to the data, the regression accounts for 57.7% of the variation in students' 'Motivation' to study a language, with an adjusted R^2 of.577. Nevertheless, this 42.3% discrepancy might result from additional research factors not covered in this study.

Table 9: Motivation' in Language Learning

Exogenous Variables		B	B	T	Sig.
Constant		.423		2.603	.010
Reading Habit		.163	.137	3.108	.002
Skills in Learning		.247	.209	3.753	.000
Participation of Students		.521	.494	10.128	.000
R	.760				
R²	.577				
ΔR	.574				
F	189.228				
P	.000				

Legend:

RH- Reading Habits
SK- Study Skills
SE- Student Engagement

It is shown that the standard coefficient of student engagement has a beta of 0.494. By .209, it indicates that the reading skills obtained by the students are of great influence on the 'Language Learning 'Motivation' (LLM)' of the students compared to reading habits at .137. The results proved that the students have reading and learning skills. The results, though, are useful, as reading and study skills do not have much impact on academic success. It corroborates with the results of the study by Lasisi and Abdulmajeed (5) which indicates a high degree of effect of training on learning skills and interventions in the reading skills of different persons. It shows that the appropriate educational strategies can improve students' participation as well as students' reading activities and that the interventions effect positively on students' participation and reading activities.

4.9 'Structural Modell's

A presentation of the relationship of the variables in the study is presented in this section. Five generated models were tested for modeling a most suitable first year students' language learning model. The models were accepted or rejected as they were stated through the fit indices provided.

Since path apples under **'Structural Model' 1** are directly linked to endogenous and exogenous variables then the linear relationship is appropriate. Further results showed that the factors of student participation represented well in those factors and their beta values were the highest ones with (.685) reading behavior, (beta = .274) and study skills (beta = .188). This result is very unexpected, it is due to the fact that P value > 0.05 is not a 'Motivation' for the students to language learning. Additionally, all the fit values were out of the standards for CMIN/DF < 2, GFI, CFI, NFI, TLI < 0.95 and RMSEA > 0.05, P Close < 0.05. In more general terms, the data is not appropriate for the model.

The **'Structural Model' 2** describes the causal relations between exogenous and endogenous variables and the difference with the exogenous variable of study skills and the combination of participation.

Results of the high correlation to student participation in their most important factors of student reading habits (beta = .516), student study skills (beta = -.290 NS) but the best (highest beta) value of .004 is for the total factor they participated in the most. In addition, it shows that the exogenous variable does not statistically impact students' ($P > 0.05$) 'Language Learning 'Motivation' (LLM)'. GFI, CFI, NFI, TLI >0.95 with RMSEA <0.05 and P-Close >0.05. The model is very difficult.

On this **'Structural Model' 3**, the study students' skills are related with students' reading behaviors and the students who participates to students' 'Language Learning 'Motivation' (LLM)'. This, thus, proves that these factors, and particularly reading behavior (beta = .342), matter a lot for the student participation, as the beta of reading behavior is 1.042. Furthermore, the data showed that the exogenous variable has no significant effect on the learning 'Motivation' of the students for the language who P value is equal or greater than or equal to 0.05. In addition as shown by the goodness of fit results, the value of indices was less than indices criteria of the indices CI.MIN/DF < 2, CFI, GFI, NFI, TL1 < 0.95, RMSEA < 0.05 and Pclose > 0.05.

Another change in model is that the **'Structural Model' 4** has no among the three independent variables. The endogenous variable, 'Motivation' for language learning is correlated strongly with the correlation to the exogenous variables, reading habits, study skills and student participation. This means that student factors are highly dependent on the student since the highest beta value is 1.048, studying habits (beta = .622) and reading habit (beta = .362). In addition, it is found out that exogenous variables are not valid to explain the 'Motivation' students have for participation. P-Value > 0.05. In the results of the goodness of fit, these values were not within the criteria of indices range, namely CMIN/DF<2, GFI, CFI, NFI, TLI<0.95, and RMSEA<0.05 with P-Close >0.05. The model did not fit the required standards, so it did not live up to the proud standards of the evidence level of science.

4.10. Suitable Model for 'Language Learning 'Motivation' (LLM)'

The figure 2 explain the standard estimates of the five Developed Models. Then, Model 5 presents the latent exogenous variables, reading behaviors, study skills and student participation as well as its direct causal connection with the latent endogenous variable of students' 'Language Learning 'Motivation' (LLM)'s of the students. model 5 has the best way to solve reading behavior, study skills and student participation problems. The model also expressed the relation of these three exogenous variables. The study of the students directly depends on their reading habits and participation in the students reading habit. Another is that student participation is directly related to reading behavior also.
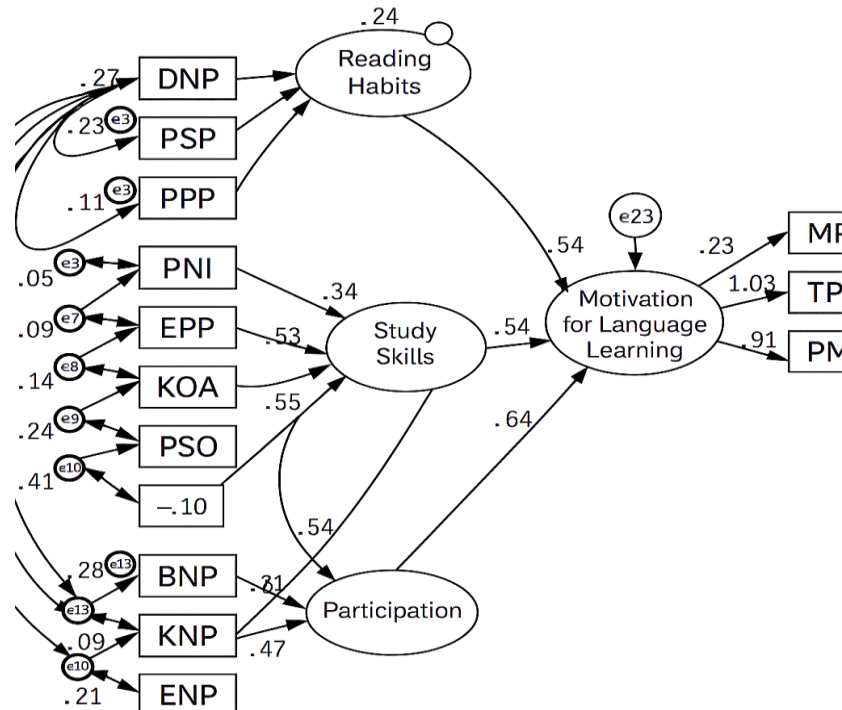
Figure 2. Best Fit Model on 'Language Learning 'Motivation' (LLM)' of Students

Similarly, we found that two out of five reading indicators are still significant indicators of 'Motivation' of students in first year college to learn a language (see Figure 2). Indicators of achievement are the study skills and they are five out of eight indicators, but we found that 'Information Processing', test strategies, student contact, study aids', 'Concentration'/s and 'Time Management' indicators do affect the students' 'Motivation' in language learning. All three of its indicators (Behavioral Engagement', 'Cognitive Engagement', 'Emotional Engagement') related to promoting the 'Motivation' of students to learn in a foreign language have been kept through the participative action of students. From these results, it can be supposed that the strongest foster for learning language among the first year is reading habits, which are measured by its behaviour and frequency, study skills as a process of 'Information Processing', test strategies, the use of 'study aids', 'Concentration' and 'Time Management', as well as the student's engagement, if it is about behavioural engagement, the 'Cognitive Engagement', and the 'Emotional Engagement'.

In addition, the 'Structural Model'l 5 shows the direct causal relationship of the exogenous variable to the endogenous variable. As the endogenous variable of study, attitudes to study English, intensity of 'Motivation', 'Desire to Learn English', 'Integrative Orientation' and need orientation, among the students were measured. Moreover, most notably, the model was unable to see all of its six indicators of students' 'Motivation' learning that are in stable state, namely attitudes toward learning English, the level of 'Motivation' and the wish to learn English. The inability of using the betas and P values to achieve the intended results in the material indicator being read, the using of reading, and the time to

do the readings has been recorded alongside the 'Motivation', main idea of idea selection and the writing skills in 'Integrative Orientation', 'Instrumental Orientation' and needs orientation of the 'Motivation' for learning language of students.

In this section, the topic is the relationships between the reading behavior, the study skill, and the student participation in the 'Motivation' of learning English language for the students. Five alternatives models were tested by the best fitting model for organizational communication satisfaction.

Table 10: Goodness of Fit Measures of Structural Best Fit Model

INDEX	CRITERION	MODEL FIT VALUE
P-value	> 0.05	.107
CMIN/DF	0 < value < 2	1.242
GFI	> 0.95	.978
CFI	> 0.95	.997
NFI	> 0.95	.985
TLI	> 0.95	.995
RMSEA	< 0.05	.024
P-Close	> 0.05	.997

Legend:

CMIN/DF	-	Chi-Square/Degrees of Freedom
GFI	-	Goodness of Fit Index
CFI	-	Comparative Fit Index
NFI	-	Norm Fit Index
TLI	-	Tucker-Lewis Index
RMSEA	-	Root Means Square of Error Approximation
P-close	-	P of Close Fit

Goodness of fit indices for the analysis of Model 5 as shown by MIN/DF = 1.242; NFI = .985; TLI = .995; CFI = .997; GFI = .978; RMSEA = .024; Pclose = .997. The goodness of fit results of model 5 are very acceptable since all the indices fitted the standards established and the model fit values obtained. All of these indices satisfies the requirements of goodness of fit measures. This is also an indication that model 5 is a good fit model and that the development of that model is really a good fit model.

All the included indices must fall within the acceptable limits while identifying the most suitable model. If the value of chi square w degrees of freedom is less than 5 in the chi-square table (and the corresponding p value is greater than 0.05), then the value stands for the significance. We should have an approximation value of 0.05 or less for the root mean square error, and a P close value of greater than 0.05. The normed fit index, Tucker-Lewis's index, comparative fit index, and goodness of fit index should be greater than 0.95 for other indices such as.

5. CONCLUSION AND RECOMMENDATIONS

This study was strengthened by means of the 'Structural Model'l approach, because the analysis was in line with the sequential process of being a specific model. The result indicated that the respondents agreed with and do practice the specified items in this variable: reading habits, study skills, student participation and 'Motivation' for learning language because these items indicated the result into high level, an example that someone did agree with and do demonstrate the items in high rate. Student participation is linked to 'Motivation' of learning language depending on reading behavior variable and reading habits. So, the null hypothesis was not accepted. Out of the five examined models, the data is the most suitable, and the most consistent index belongs to model 5 which indicates that model 5 is the most suitable for the data examined. Indeed, this was found to be the best model. Model 5 goodness of fit result indicates that all the indices used do well and are acceptable over the values of the most suitable model which accords with the standards.

This study falls in line with Vygotsky's Social Development Theory, as quoted in Saul's article (2024), that the learning and the development of cognitive shall be inspired and adduced through social interaction. Furthermore, language is seen as an important tool of communication, culture, and behavior. There was also an emphasis on the essential role played by language in the development of mentals. The results of the study proved the fact that a high degree of reading behavior, study skills, and student participation has a great deal in influencing the 'Motivation' to learn English language in 1st year students, according to results of the study, the researcher presents the following recommendations. To accomplish the highest level of 'Motivation' for reading practices, it is necessary to establish an environment where reading is interesting and fun. Using real age appropriate books that give relevance to their interest helps them tend to read a lot more often. Further, educational programs and interventions like "Every Child Reads" can help establish the proper support and training essential for the kids to learn the art of reading and understanding the meaning of what they read.

It is important to use collaborative learning strategies that require active participation and working together. It helps to form groups based on the skill level and accelerates learning without knowledge gaps. You should also include modern technologies and materials that are in line with their interests, for the reason that it will enhance their interest to be part of every learning process. Teachers and parents help them through the continuous support to learn and have 'Motivation'. A conducive classroom environment that provokes active engagement by the student is necessary in the engagement of the student. Interactive activities, such as discussions, games and projects, can be used to maintain the interest and attention of even the most inattentive student. Additionally, it is valuable to be able to value opinions and ideas so that people feel their contributions are important to the group. Constant feeding back will motivate the students to invest and do their best selves.

Finally, students will reach the highest stage of students' ability to learn a language through 'Motivation' by offering some meaningful activities related to the interests as well as the experiences of each student. Teachers and parent support and guide the kid motivating and inspiring him to put

more efforts and work. The learning process will be more active and effective if the learner is actively involved with other through collaborative learning. Secondly, the study is related to the 'Motivation' of the students in learning the English language to find out about the most significant predictor with this case and being a reference for further study.

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Rules And Procedures for Classroom Management

[1] Sakina İbrahimova

Abstract:

The article gives information about the ways and strategies of proper organization of classroom management. It analyzes the lesson planning process, determining learning outcomes, preventing negative behaviors, etc. The plan of the lesson is a document in which the teacher notes what he will do in the lesson and in what order he will do it. In this respect, we can say that the plan of the lesson is like the script of a movie or a play, and a well-prepared plan is a guarantee that things will go well in the classroom. The problem of discipline and behavior in the classroom is one of the most common problems in schools that directly affects the learning results of students. It is impossible to talk about high learning results in a classroom without discipline and rules of conduct. The article clarifies such problems.

Keywords: *classroom management, student engagement, lesson planning, Learning activities, Passive behavior*

INTRODUCTION

The classroom is a shared living space where teaching and learning activities take place, and it plays a vital role in ensuring the quality of educational services. In this context, effective classroom management becomes essential for maintaining a productive and efficient learning environment. Classroom management refers to the set of behaviors and strategies that teachers employ to organize classroom life, regulate student behavior, and create an atmosphere conducive to learning. It is closely linked to both educational psychology and school management principles applied within the classroom setting.

Effective classroom management involves planning, establishing clear expectations, managing student behavior, and fostering a safe and engaging learning environment. However, it is influenced by various factors, including the physical and emotional classroom environment, the psychological characteristics of individual students, and external elements beyond the classroom walls. These complexities demonstrate that classroom management is not a simple task and can present significant challenges for teachers. Without well-structured management, achieving high learning outcomes becomes difficult, as discipline and clear rules of conduct are directly tied to students' academic success.

2. RESEARCH BACKGROUND

A well-functioning classroom is fundamental to fostering a high-quality learning environment and sustaining student engagement. When classroom management is effectively organized, student

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[1] Ibrahimova, S. A. Master's Student, Nakhchivan State University. Email: sekne.ibrahimova@icloud.com. ORCID: https://orcid.org/0009-0005-0915-5898

participation increases, group and project work are carried out successfully, educational resources are utilized efficiently, and instructional time is maximized. Proper classroom organization minimizes time lost on administrative tasks, allowing more time to be devoted to active learning.

Clear expectations, well-defined rules, and established procedures are crucial components for maintaining a productive classroom atmosphere. Expectations provide students with a framework for acceptable behavior and academic effort. Rules typically focus on regulating student conduct, often by discouraging negative behaviors and promoting responsibility. Procedures, on the other hand, outline the specific steps students should follow to complete tasks and handle various classroom situations.

Although general pedagogical approaches offer standardized procedures, it is important for teachers to adapt these guidelines to their own teaching styles and the specific needs of their classes. Each classroom has its own unique dynamics, and teachers must personalize management strategies accordingly. By doing so, they can ensure that their classroom remains a supportive, organized, and effective environment for all learners.

3. LESSON PLANNING FOR EFFECTIVE CLASSROOM MANAGEMENT

Lesson planning plays a crucial role in ensuring effective classroom management. A well-prepared lesson plan serves as a roadmap for organizing classroom activities, managing time, and fostering a structured yet flexible learning environment. Although teachers are not obligated to strictly follow the written plan, having a clear structure minimizes uncertainty, provides direction, and ensures that students and teachers work collaboratively toward educational goals (Ismayilli, 2023).

3.1. Components of Lesson Planning

An effective lesson plan typically consists of three interconnected components:

- **Learning Outcomes:** These define what knowledge, skills, and competencies students are expected to acquire by the end of the lesson. Outcomes focus on the final achievement rather than the individual tasks performed during the lesson.

- **Learning Activities:** These include the tasks, exercises, discussions, and projects that guide students toward the learning outcomes. Activities should be varied and engaging to maintain student interest and maximize participation.

- **Assessment of Students:** This element involves evaluating students' performance based on the defined learning outcomes. Assessment can take many forms, such as quizzes, projects, presentations, or informal observations, and helps inform future instruction.

Through careful alignment of these components, teachers can create a cohesive and goal-oriented classroom experience, using time and resources efficiently (British Council, 2013).

3.2. Determination of Learning Outcomes

The first and most important step in planning a lesson is setting clear and achievable learning outcomes. Outcomes should be specific, measurable, and directly related to the content of the lesson.

Rather than merely describing what students will do during the class, outcomes should express what students will learn and be able to apply afterward (Ismayilli, 2023).

It is essential that learning outcomes are written in simple, accessible language so that students can easily understand them. Clear and visible outcomes create transparency in the learning process, helping students stay focused and motivated. Furthermore, effective outcome setting supports better time management within the lesson by allowing teachers to plan activities and allocate time realistically, saving the last few minutes of class for closing and reflection (Ismayilli, 2023).

4. MANAGING STUDENT BEHAVIOR

Classroom discipline is a fundamental pillar of effective classroom management. Contrary to the traditional view, discipline does not imply absolute silence; rather, it signifies maintaining students' focus and engagement on learning activities (Harmer, 2001). A disciplined classroom is a space where learning can flourish without constant interruptions, confusion, or disengagement.

Failure to maintain discipline has a cumulative impact on instructional time. Research shows that if approximately five to six minutes are lost in every lesson due to behavioral issues, it can result in the loss of nearly 130–140 hours of instruction over an academic year (Ismayilli, 2023). Therefore, the ability to prevent negative behavior and promptly address disruptions is crucial for maximizing students' learning opportunities.

A central role of the teacher is to identify the underlying causes of student misbehavior, rather than merely responding to surface-level symptoms. Understanding students' motives enables teachers to choose more effective, compassionate strategies that support long-term positive behavior (Yildirim & Sezginsoy, 2004).

4.1. Preventing Negative Behavior

Preventing negative behavior begins with creating a learning environment where students clearly understand expectations, feel respected, and are meaningfully engaged. Clear rules and consistent procedures, taught from the beginning of the year, reduce confusion and lower the likelihood of disruptions. Teachers should communicate behavior expectations proactively and design lessons that actively involve students to minimize boredom and frustration, which often lead to misbehavior (British Council, 2013).

Moreover, preventive strategies involve establishing routines, fostering student responsibility, and maintaining positive teacher-student relationships. When students feel valued and know what is expected, they are more likely to behave appropriately without constant supervision.

4.2. Types of Negative Student Behavior

Understanding the motivations behind students' negative behavior is essential for addressing it effectively. Misbehavior generally stems from four main categories:

- **Attention-Seeking Behavior:**

Some students desire to be at the center of attention, much like actors on a stage. They may use various strategies such as tapping pencils, making jokes, asking unrelated questions, or even using mobile phones during lessons to attract their peers' attention (Harmer, 2001).

- **Leadership/Assertive Behavior:**

  Certain students seek dominance, refusing to follow rules or authority. They aim to assert themselves as leaders, even in inappropriate ways, by challenging the teacher's instructions or resisting group norms.

- **Revenge-Motivated Behavior:**

  Occasionally, students who feel wronged or unfairly treated may act out as a form of revenge. These students may disrupt lessons or display hostile behaviors as a means of regaining perceived lost respect or fairness (Yildirim & Sezginsoy, 2004).

- **Avoidance/Passivity Behavior:**

  Other students prefer to withdraw, quietly disengaging from learning activities. They may appear compliant but intentionally work at a slow pace or delay tasks to avoid full participation. Unlike active disruptors, passive students can be harder to detect but have a significant long-term impact on class dynamics (Ismayilli, 2023).

4.3. Dealing with Active Disruption

Managing active disruptors requires swift, firm, but fair intervention. Teachers should avoid escalating the situation publicly and instead use strategies such as:

- **Proximity Control:** Moving closer to the disruptive student without interrupting the lesson to subtly redirect behavior.

- **Non-Verbal Cues:** Using eye contact or hand signals to remind students of expectations.

- **Gentle Redirection:** Privately asking the student to refocus without embarrassing them in front of peers.

- **Positive Reinforcement:** Acknowledging good behavior to shift attention away from negative actions and reinforce class norms.

For example, a student repeatedly tapping a pencil might be silently approached by the teacher, who gently places a hand on the student's desk to signal disapproval without drawing attention. In more persistent cases, the teacher might speak privately with the student after class to discuss behavior and set clear expectations for improvement (Harmer, 2001).

When disruptive behavior becomes contagious and threatens the whole learning environment, it may be necessary to apply more structured disciplinary measures, but always after attempts to de-escalate the situation respectfully.

4.4. Addressing Passive Resistance

Passive resistance often manifests subtly, making it challenging to detect and address. These students comply superficially but slow the pace of learning through disengagement. Examples include:

- Taking excessive time to find materials.

- Completing tasks much more slowly than peers.

- Remaining silent during discussions without genuine participation.

To address passive resistance, teachers should:

- **Set Clear Time Expectations:** Assign time limits for tasks and hold students accountable.

- **Engage Students Individually:** Check in with passive students more frequently to offer support and maintain their focus.

- **Create Opportunities for Success:** Design differentiated tasks that allow passive students to experience small achievements, building their confidence and willingness to participate.

- **Encourage Peer Collaboration:** Pair passive students with motivated peers in structured group activities to model active learning behaviors.

Unlike active disruptors, passive students may not overtly challenge authority, making it difficult for teachers to apply standard disciplinary strategies. Instead, building a trusting relationship and gradually raising participation expectations often yields better results (Ismayilli, 2023).

5. STRATEGIES FOR SUCCESSFUL CLASSROOM MANAGEMENT

Establishing a well-managed classroom requires a combination of proactive strategies, ongoing observation, and the ability to respond flexibly to the evolving needs of students. Successful classroom management is not based on rigid control but rather on setting clear expectations, maintaining fairness, balancing authority with kindness, and continually adapting methods to sustain a positive learning environment.

Techniques for Setting Expectations

At the core of classroom management lies the clear communication of expectations. From the first day, teachers should explicitly state what behaviors are encouraged and which ones are unacceptable. Expectations should be realistic, positively framed, and consistently reinforced throughout the school year (British Council, 2013).

For example, instead of simply saying, "Do not talk during lessons," teachers can frame the expectation positively: "Listen carefully while others are speaking." Posting these expectations visibly in the classroom and discussing them regularly helps internalize them among students.

Moreover, modeling expected behaviors — such as active listening, respectful language, and punctuality — is one of the most powerful methods for setting standards that students will naturally follow (Harmer, 2001).

Establishing Clear and Fair Rules and Procedures

Rules and procedures create the operational framework of the classroom. While **rules** often regulate behavior by defining limits (e.g., no use of mobile phones during lessons), **procedures** explain how students should carry out tasks (e.g., how to submit homework or request permission to leave the classroom).

Effective rules are:

- Few in number.

- Clearly worded and understandable.

- Focused more on encouraging positive behavior than listing prohibitions.

- Consistently and fairly applied to all students (Ismayilli, 2023).

It is also beneficial to involve students in developing certain classroom procedures. When students have a voice in setting classroom norms, they feel a greater sense of ownership and are more motivated to comply.

Balancing Authority with Kindness

A successful teacher balances authority and kindness, maintaining respect without becoming authoritarian. Teachers must establish themselves as the clear leaders in the classroom, but also show empathy, understanding, and warmth.

Students are more likely to respond positively to teachers who enforce rules with consistency but also recognize individual needs and circumstances (Harmer, 2001). For example, a student arriving late consistently may not require immediate punishment but rather a private conversation to understand and address underlying causes.

By combining firmness with genuine care, teachers foster a classroom culture where students feel safe, valued, and motivated to behave appropriately.

Continuous Monitoring and Adjusting Based on Class Dynamics

Effective classroom management is not static; it requires continuous observation and adjustment. Every group of students is different, and even within the same group, dynamics can shift throughout the year.

Teachers should regularly assess:

- Which strategies are effective and which need refinement.

- Which students require additional support or encouragement.

- How classroom seating arrangements, lesson pacing, and grouping strategies impact behavior and engagement.

For instance, if a group project leads to frequent conflicts among students, it may be necessary to adjust group compositions or redefine collaboration procedures. Flexibility and a willingness to make minor changes prevent small issues from growing into larger management problems (Ismayilli, 2023).

By staying attentive to the emotional and behavioral climate of the classroom, teachers can preempt problems and create an adaptive, responsive environment that supports all learners.

CONCLUSION

Effective classroom management is a fundamental element of educational success. A well-organized classroom environment, built upon clear expectations, consistent rules, and structured procedures, directly influences student engagement, academic achievement, and the overall quality of the learning experience.

This article emphasized that lesson planning is not simply a procedural task but a strategic tool for creating a purposeful and efficient classroom atmosphere. Setting clear learning outcomes, designing meaningful activities, and properly managing time are essential steps in ensuring that both teachers and students stay focused and motivated throughout the learning process (Ismayilli, 2023).

Maintaining discipline in the classroom is not about enforcing silence, but about guiding students' attention toward learning. Teachers must recognize that misbehavior often stems from deeper psychological motives, such as the desire for attention, leadership, revenge, or withdrawal (Harmer, 2001; Yildirim & Sezginsoy, 2004). By understanding these motives, teachers can develop empathetic strategies to prevent disruptions and support students' positive growth.

There is no single, universally effective method for managing behavior; successful classroom management requires adaptability. Teachers must continuously observe class dynamics, apply various management models, and adjust strategies based on the specific needs of their students and the learning context. Balancing authority with kindness, ensuring fairness, and creating an environment of mutual respect are key principles that help teachers build classrooms where every student can succeed.

Ultimately, the thoughtful planning of lessons, the consistent application of management strategies, and the professional judgment of the teacher are the most effective ways to foster a classroom climate that promotes both academic success and personal development.

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A World in Words: The Impact of Borrowings and Loanwords on the English Lexicon

[1] Fakhriyya Aliyeva

Abstract:

This article examines the profound influence of borrowings and loanwords on the development of the English language. Drawing upon lexicographical data and historical linguistic research, the study demonstrates that over 70% of English vocabulary originates from foreign sources, with significant contributions from French, Latin, Greek, and Old Norse. Using a mixed-methods approach that combines quantitative surveys with qualitative historical interpretation, the article explores the range of donor languages and the sociocultural contexts in which lexical borrowing occurred. It further analyzes how borrowings have shaped English morphology, register variation, and stylistic richness. The findings confirm that loanwords have not diluted the English language but have expanded its expressive range and global adaptability. Ultimately, the study argues that loanwords function as linguistic artifacts, preserving the history of cultural contact and exchange that has shaped English across centuries.

Keywords: *loanwords, lexical borrowing, English vocabulary, language contact*

INTRODUCTION

English is well known for its cosmopolitan vocabulary, which is the product of centuries of contact with other languages. As early as the 1920s, linguist Edward Sapir observed that *"the simplest effect of one language on another is the borrowing of words"*. Loanwords (borrowed foreign words) have become "common lexical components in all languages", and English in particular has an extensive history of lexical borrowing. From its Germanic origins, English evolved by absorbing thousands of words from French, Latin, Greek, and many other languages. Today, an estimated 70–80% of English vocabulary (by number of distinct words) is of foreign origin. This has led English to be described as a *"language on loan from other languages"*, with a richly mixed lexicon. Yet despite this heavy influx of loanwords, English has retained its Germanic grammatical structure and core basic vocabulary, which is why it is still classified as a Germanic language. Understanding the scope and sources of English borrowings is important for linguists and learners alike, as it illuminates the cultural history of English and the development of its lexicon (Algeo, 2010; Durkin, 2014). This article presents a comprehensive analysis of borrowings and loanwords in English. We first outline our methods for quantifying and

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[1] Aliyeva, F. F. Master's Student in English Linguistics, Nakhchivan State University. Email: fexriyealiyeva@icloud.com. ORCID: https://orcid.org/0009-0002-0458-8924

categorizing English loanwords, then report results on the extent of borrowing and major donor languages, and finally discuss the historical and linguistic implications of these loanwords.

METHODS

This study adopted a mixed-methods approach combining quantitative lexical analysis with qualitative historical linguistics. First, we drew on published quantitative data to estimate the proportion of English vocabulary derived from various source languages. In particular, we utilized the computerized analysis by Finkenstaedt and Wolff (1973), who surveyed the origins of ~80,000 English words in the *Shorter Oxford Dictionary*, and the study by Williams (1975), who examined the vocabulary in a corpus of contemporary English usage. These sources provide statistical estimates of English word origins (e.g., the percentage of words of French, Latin, or Old English origin). We also consulted lexicographical research by historical linguists. For example, we reviewed Durkin's (2014) comprehensive history of English loanwords and Miller's (2012) account of external influences on English, to contextualize borrowing events in different periods. Additionally, a literature review was conducted using scholarly sources (e.g., Algeo, 2010; Barber, 1993; Thomason, 2001) to gather qualitative information on how and why foreign words entered English.

For illustrative purposes, we compiled examples of English loanwords from diverse language families. These examples (with their origins) were obtained from etymological references and prior studies (Xiao, 2020; Serjeantson, 1935) to demonstrate borrowing from Romance, Germanic, Celtic, and non-Indo-European languages. We ensured that examples were representative of major historical phases and domains (everyday vocabulary, technical terms, etc.). No new experimental data were collected; instead, the analysis synthesizes existing research findings. By combining quantitative data on vocabulary origins with historical analysis of specific loanwords, the study's methodology provides a robust overview suitable for an academic discussion of English borrowings.

RESULTS

Proportion of Loanwords in English Vocabulary: Quantitative analysis confirms that the majority of English words are borrowings. A classic survey of dictionary entries found that only about one-quarter of English words are of native (Old English/Germanic) origin, with the rest coming from foreign sources. Specifically, Finkenstaedt and Wolff (1973) estimated the origins of English vocabulary as approximately 28.3% French, 28.24% Latin (these two Romance sources together constituting about 56%), 25% Germanic (from Old English or other Germanic languages like Old Norse), about 5% Greek, and the remaining small percentages from other languages or unknown origins. In other words, over 70% of the lexicon in a comprehensive English dictionary can be traced to loanwords, especially from Latin and French. These figures align with Xiao's (2020) observation that *loanwords account for roughly four-fifths of the total English vocabulary*.

It is important to note, however, that loanwords are not evenly distributed by usage frequency. While English has hundreds of thousands of borrowed terms (particularly technical and learned words), its core vocabulary remains largely Germanic. Williams (1975) found that in a sample of 10,000 common words (drawn from business letters), around 33% were of Old English origin and 41% were French.

Moreover, among the 1000 most frequent words in English, a full 83% were of native (Old English) origin. These high-frequency words include basic function words (grammar words like *the, is, of*) and everyday nouns and verbs (e.g., *water, heart, come*), which tend to be inherited from Old English. In contrast, less common and specialized vocabulary shows a much higher proportion of loanwords. This disparity means that English speakers use mainly Germanic words in day-to-day conversation, even though the language at large has a vast reservoir of foreign-derived words for specific or technical meanings (Crystal, 2003; Miller, 2012). Overall, the results highlight that English's lexicon is extensive and hybrid, with a small native core and a broad periphery of borrowed terms.

Major Donor Languages and Historical Periods: The influx of loanwords in English can be linked to distinct historical periods of intense language contact. The Medieval period was especially transformative. After the Norman Conquest of 1066, Middle English absorbed an enormous number of French (Norman French) loanwords. It is estimated that *approximately 10,000 French words* entered English during the Middle English era, of which about 7,500 remain in use today. These French borrowings spanned virtually all domains of life. For example, English adopted French terms for government and law (*crown, court, parliament, justice*), warfare (*army, soldier, battle*), religion (*prayer, miracle, saint*), art and literature (*poetry, romance, paper*), fashion (*coat, dress, jewel, perfume*), and food (*beef, pork, dinner, appetite*). Many Old English words were displaced or supplemented by French equivalents. In some cases, a native term was outright replaced (e.g., Old English *here* "army" gave way to French *army*). In other cases, English retained both the Old English word and the French loanword, but assigned them different shades of meaning or usage level. A famous example is the contrast between animals and their meats: English kept the native words for living farm animals (*ox, cow, calf, sheep, pig*), but adopted French words for the meats prepared from them (*beef, veal, mutton, pork*), reflecting the social division—Anglo-Saxon peasants raised the animals, while Norman French nobles ate the meat. Similarly, English now has dual or triple sets of synonyms at different registers, a direct result of layered borrowings. For instance, the concept "rise" can be expressed with a native Germanic word (*rise*), a French-derived word (*mount*), or a Latin-derived word (*ascend*), each with a slightly different tone or context. Such synonym layers (e.g., *ask–question–interrogate*, *holy–sacred–consecrated*) illustrate how French and Latin loans enriched English vocabulary with more nuanced or formal alternatives to common Germanic words. By the end of the medieval period, English had become a heavily mixed language, often described by contemporaries as *"full of Latyn terminations"* or Gallicisms (Barber, 1993; Jespersen, 1922). Notably, English quickly assimilated these loanwords: even in Middle English, many French borrowings were given English morphological endings or used in English compound formation, indicating they had fully entered usage. For example, the French adjective *gentle* (from Old French *gentil*) was borrowed by 1225, and by 1230 English speakers were already forming compounds like *gentlewoman* using that French root.

While French was the single largest source of new words, Latin also contributed heavily, especially in scholarly and technical contexts. Latin influence on English can be seen in multiple waves: some Latin words entered Old English before the Norman Conquest (often related to the Church or early trade, e.g., *angel, priest, wine*), but a much larger influx came during the Renaissance. In the 15th–17th centuries, as classical learning revived, English scholars and scientists imported thousands of Latin

(and some Ancient Greek) words into the language (Algeo, 2010). These were often known as "inkhorn terms" – deliberately learned coinages – such as *education, equation, hypothesis, membrane, extravagant*. Many were direct loans from classical Latin or Greek, or new words coined from Latin/Greek roots for scientific nomenclature. For instance, English acquired technical terms like *geometry, squalor, agile* from Latin, and *catastrophe, chronology, physics* from Greek. Some of these initially exotic words never caught on or later fell out of use, but many others became permanent fixtures of the lexicon (e.g., *orbit, explanation, enthusiasm*). Modern English, Latin, and Greek together form the backbone of scientific and intellectual vocabulary in English. It is telling that *over half of English vocabulary* has Greco-Latin roots when one includes words borrowed via French or newly formed from Latin/Greek elements (Xiao, 2020). Indeed, French, Latin, and Greek are considered the "most profound" influences on English lexicon by volume. As a result, even though English is Germanic in structure, its academic and professional registers often heavily utilize Romance and classical vocabulary (Crystal, 2003).

Other Germanic languages have also contributed to English, particularly Old Norse. During the Viking Age (9th–11th centuries), Norse-speaking settlers in northern England interacted closely with Old English speakers. This led to the adoption of many Old Norse words into English, especially in everyday vocabulary. Notably, English borrowed some very basic terms from Norse, indicating an unusual level of intimate contact. For example, common words like *sky* (Norse *skȳ*), *egg* (*egg*), *leg* (*leggr*), *take* (*taka*), *window* (*vindauga*), and *knife* (*knífr*) are all Norse borrowings. In some cases Norse loans even replaced the original Old English words – for instance, the Old English word *sīþian* was supplanted by Norse *skȳthan*, which became *sky* (meaning shifted to the heavens). Strikingly, English even adopted the pronouns *they, them, their* from Old Norse (replacing Old English *hīe, him, hira*), a very rare case of core grammatical function words being borrowed. This suggests that in Danelaw areas, bilingual speakers freely mixed languages, and the simpler Norse forms gained ground. Overall, several hundred Norse-derived words entered English; while this is fewer than the French contributions, the Norse loans are disproportionately frequent in modern usage. They provide many everyday terms and enrich English with short, concrete vocabulary alongside its Latinate terms (Baugh & Cable, 2002; Barber, 1993). By contrast, the Celtic languages spoken in Britain (e.g., Old Welsh, Cornish) had a surprisingly modest lexical impact on English. Apart from some place names (*London, Avon*) and a handful of common words (such as Irish *whiskey* or *galore*, from Gaelic *go leor* "enough"), very few Celtic words were adopted into Old English. Scholars have noted that Celtic influence may be more evident in subtle grammatical calques or phonological features, but Celtic loanwords in English are relatively scarce (Barber, 1993). This is likely because the Anglo-Saxons largely displaced or absorbed the Celtic populations, leaving little sustained bilingualism (and thus little borrowing of Celtic vocabulary).

Global Sources of Loanwords: In the Modern English period (16th century onward), England's maritime exploration, colonial expansion, and global trade brought English into contact with hundreds of languages worldwide. As a result, English acquired an enormous number of loanwords from non-European languages to describe new places, products, and cultural concepts. For example, during the colonial era English speakers in the Americas, Africa, and Asia borrowed indigenous terms for unfamiliar flora, fauna, and foods. From the Americas, English gained words like *tobacco* and *hurricane*

(via Spanish from Taíno), *chocolate* and *tomato* (from Nahuatl, an Aztec language), and *kangaroo* (from an Aboriginal Australian language). From the Indian subcontinent (South Asia), many words entered English during British colonial rule: e.g., *shampoo* (from Hindi *chāmpo*), *bungalow* (from Hindi *banglā*), *jungle* (from Hindi), *pundit* (Sanskrit *paṇḍita*), and *curry* (Tamil *kari*). African languages contributed terms often via exploration or trade: *zebra* (likely from an African language via Portuguese), *banjo* (Bantu *mbanza*), *safari* (Swahili, via Arabic), etc. East Asian languages also supplied loanwords as cultural exchange grew: for instance, *tea* (from Chinese *tê*), *typhoon* (Cantonese *tai fung*, via Portuguese), *ginseng* (Chinese), *karaoke*, *tsunami*, and *sushi* (from Japanese), and *kimchi* or *taekwondo* (from Korean). From the Middle East, Arabic has been a significant donor, often through mediation by Latin or Spanish. Medieval Arabic scholarship introduced words like *algebra* (*al-jabr*), *alchemy*, *azimuth*, and names for stars, while trade brought in *coffee* (*qahwah*), *cotton*, *sugar*, and many other items (Cannon, 1994). It is common for Arabic loans to retain the Arabic definite article *al-* (e.g., *alchemy, almanac, alfalfa*). Italian contributed many music and art terms (*opera, violin, piano, gallery*), Spanish gave words relating to the New World and chivalry (*armada, canyon, mosquito, plaza*), Dutch nautical dominance yielded maritime terms (*yacht, skipper, cruise, buoy*), and so on. Linguists have noted that English has borrowed from over 300 languages in total (Serjeantson, 1935), reflecting its role as a global lingua franca that readily adopts useful foreign terms. By the 20th century, English continued to assimilate foreign words for technological and cultural imports (e.g., *robot* from Czech, *bungalow* from Hindi, *kung fu* from Chinese, *emoji* from Japanese).

In summary, the results show that English vocabulary is a mosaic of numerous languages. Major contributions come from Romance languages (French and Latin especially), which together constitute well over half of English word types. Germanic sources (Old English itself and Old Norse) account for most basic words and roughly one-quarter of the lexicon. The remainder is filled out by Greek and an array of other languages from around the world, each often linked to specific historical or cultural contexts of borrowing. English stands out among European languages for the breadth of its borrowing: it has freely absorbed terminology from virtually every language family, including Indo-European (Romance, Germanic, Celtic, Slavic, Indo-Iranian), Semitic (Arabic, Hebrew), Turkic (e.g., *yogurt* from Turkish), Sino-Tibetan (Chinese), Austronesian (e.g., *amok* from Malay), and others. This extensive borrowing has made English's lexicon one of the largest and most diverse of any language (Crystal, 2003). In the next section, we discuss the linguistic consequences of this borrowing and the factors that drove these lexical exchanges.

DISCUSSION

The findings underscore that language contact has been the primary engine of vocabulary growth in English. Each wave of conquerors, traders, or scholars that the English encountered left an imprint on its lexicon. The motivations for borrowing varied in different periods. Often, necessity drove borrowing: speakers took on foreign words to name new objects, animals, or ideas for which no English word existed (Thomason, 2001). For example, when English speakers encountered new foods or inventions abroad, they frequently adopted the local names (such as *potato*, *riksha* from *rickshaw*). In other cases, prestige and fashion played a key role. After 1066, French was the prestigious language of the ruling class in England, so English borrowed French vocabulary to access the domains of power,

law, literature, and refinement. Similarly, during the Renaissance, Latin (and Greek) were the languages of learned discourse; educated writers liberally sprinkled their English with classical terms to elevate style (Algeo, 2010). Linguist Sarah Thomason distinguishes between "cultural borrowings" (for new concepts) and "core borrowings" (replacing existing words for social prestige) – English has experienced both types. For instance, words like *coffee* or *cargo* filled lexical gaps (new imports), whereas words like *commence* (replacing *begin*) were adopted despite native equivalents, due to the prestige of French. Importantly, English's sociohistorical context—being frequently in contact with diverse cultures—meant there was a continuous influx of both necessary and luxury loanwords.

A key linguistic consequence of extensive borrowing is the enrichment of the English lexicon in terms of synonyms and shades of meaning. As shown in the results, English often possesses multiple words for the same or similar concept, inherited from different sources (native, French, Latin). This allows for fine distinctions in tone or register: compare the plainness of *ask* (Germanic) with the formality of *inquire* (French) or the technicality of *interrogate* (Latin). Writers of English have long exploited this wealth of vocabulary for stylistic nuance. Otto Jespersen (1922) noted that the composite nature of English vocabulary grants it great expressive richness, enabling subtle differences (e.g., *freedom* vs *liberty*, *handbook* vs *manual*) that would be unavailable in a more homogenously sourced lexicon. The borrowing of French and Latin adjectives, for example, gave English the ability to differentiate *pig* flesh (*pork*) from the animal itself, or a *kingly* act (native word) from a *royal* one (French loan), each word carrying different connotations. Such layers of vocabulary are a direct legacy of English's contact history (Algeo, 2010).

Another consequence is the streamlining of English morphology. When thousands of foreign words entered English, they often did not take on the old complex system of inflections that Old English had. Scholars have observed that heavy borrowing coincided with (and perhaps contributed to) English becoming a more analytic language, with less reliance on inflectional endings (Baugh & Cable, 2002). Middle English borrowing from French and Latin is thought to have reduced the use of native derivational affixes and compounding. For example, rather than creating new words from Anglo-Saxon roots with prefixes/suffixes, English speakers increasingly adopted ready-made French or Latin words. Old English word-forming processes (like prefixing *ge-* or making compound nouns) became less central as Romance derivations like *-tion, -ment, pre-*, etc. entered the language (Barber, 1993). Over time, English developed a hybrid system where Germanic and Latinate elements combine (e.g., *un-* + *certain* = *uncertain*, mixing an English prefix with a French root). In phonology and spelling, borrowings also had effects: the introduction of French words helped establish the /v/ and /z/ sounds as distinct phonemes (since Old English *f, s* were mostly unvoiced except between vowels), and led to many unique spellings (like *que* in *question* from French). The diverse origins of words contribute to the notorious inconsistencies of English spelling and pronunciation – e.g., *chef* (French /ʃɛf/) versus *chief* (French *chef* but earlier borrowing, now /tʃiːf/) show different adaptation times. Despite these complexities, English generally nativized its loanwords: foreign words, once borrowed, were pronounced with English sound values and took English plural forms (for instance, *one formula, two formulas* is now as acceptable as Latin *formulae*). Over centuries, many loanwords became so thoroughly integrated that speakers do not perceive them as foreign. For example, *wine* and *street* were Latin

loanwords into Old English, and *church* came from Greek (*kyrikon*) – yet these feel as native as any Anglo-Saxon word.

An interesting sociolinguistic aspect is that English has had little institutional resistance to borrowing. Unlike languages such as French or German, which at times have had strong purist movements or official language academies discouraging foreign words, English-speaking societies tended to accept and absorb loanwords with relatively open attitudes (Geers, 2011). There have been moments of pushback – e.g., the Inkhorn Controversy in the 16th century, when some writers derided the overuse of pretentious Latinisms, or the 19th-century attempts by language purists like William Barnes to replace Latin/French words with "native" coinages (suggesting *folkword* for *vocabulary*, etc.). However, these efforts had minimal long-term impact. The general trend in English has been pragmatic borrowing: if a word is useful or prestigious, it enters the language. This openness is one reason English evolved such a vast lexicon. By freely borrowing, English often avoided the need to coin cumbersome new terms; it could simply adopt the word that other languages were using (e.g., *bungalow* rather than inventing an English description for that type of house). The lack of an official regulatory body for English meant there was no authority to gatekeep vocabulary. This receptivity (Hoffer, 2005) contributed to English becoming a flexible medium capable of assimilating concepts from many cultures. In recent times, the situation has in some ways reversed: English as a global language is now a major *donor* of loanwords to other languages (for technology, pop culture, etc.). Yet English itself continues to borrow on a smaller scale, often to capture culturally specific ideas (such as Japanese *anime* terms or cuisines like *pizza, sushi, taco*). The dynamic give-and-take of loanwords is ongoing, illustrating that living languages are never closed systems (Sapir, 1921).

CONCLUSION

The history of the English lexicon is fundamentally a history of contact, adaptation, and expansion. As this study has demonstrated, borrowings and loanwords have played a central role in shaping the vocabulary of English, accounting for more than 70% of its word stock. From early Germanic borrowings and Old Norse contributions to the massive influx of French and Latin terms and the later adoption of words from around the globe, English has consistently absorbed linguistic elements from diverse sources.

Far from diluting the language, these borrowings have greatly enriched English's expressive potential. They have endowed it with a wide range of synonyms, stylistic nuances, and specialized terminologies, making English one of the most lexically diverse languages in the world. The continuous layering of foreign words has also contributed to important structural developments, including the simplification of English morphology and the expansion of its stylistic registers.

Importantly, the English language's openness to borrowing reflects broader sociocultural processes: trade, conquest, scholarship, colonization, and globalization. Loanwords act as linguistic artifacts, preserving traces of historical interactions and cultural exchanges. They illustrate how languages evolve not in isolation but through continuous dialogue with other linguistic communities.

Ultimately, the borrowing process has made English a uniquely adaptable and dynamic language. It is not the purity of origin, but the flexibility and inclusiveness of English that have fueled its growth into a global medium of communication. Studying the impact of loanwords thus offers valuable insights not only into the history of English but also into the universal dynamics of language change and cultural exchange.

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Age Characteristics of Students and the Formation of Abilities

[1] Senem Pashayeva

Abstract:

The formation of abilities represents a crucial aspect of the mental and personal development of children and adolescents. This study explores the role of individual-psychological characteristics in shaping successful activities and how abilities evolve across different age periods. It examines the division of abilities into general and specific types and analyzes their growth during early childhood, middle childhood, and adolescence. The paper emphasizes the importance of sensitive periods, the influence of environmental and pedagogical factors, and the critical role of creative and critical thinking in the development of intellectual abilities. Drawing on key psychological theories and modern educational research, the article also discusses the uneven nature of mental development and the necessity of personalized approaches to fostering abilities in educational practice.

Keywords: *Ability development, age characteristics, critical thinking, sensitive periods, student psychology*

1. INTRODUCTION

Understanding the age characteristics of students is fundamental to effective education and upbringing. At every stage of development, children's psychological, emotional, and intellectual capacities undergo significant transformations, directly influencing how they acquire knowledge, develop skills, and form personal abilities. Recognizing these developmental features allows educators to adopt more appropriate methods and create supportive environments that nurture the full potential of each student.

The study of the formation of abilities holds particular significance because abilities represent the essential conditions for successful activity in various fields of life. They do not arise spontaneously; rather, they develop progressively alongside the acquisition of knowledge, skills, and habits. Investigating the mechanisms behind the growth of abilities provides insights into fostering creativity, critical thinking, and independence from an early age. Such knowledge is indispensable for constructing educational programs that respond sensitively to the needs of different age groups.

This article builds upon the theoretical foundations established by prominent scholars such as L. S. Vygotsky, A. N. Leontiev, and A. S. Bayramov. Vygotsky's theories on the social origins of higher mental functions, Leontiev's investigations into the development of the mind through activity, and Bayramov's studies on the upbringing of moral and mental qualities in children serve as guiding frameworks. Their research highlights the interconnectedness between psychological development

[1] Pashayeva, S. Lecturer, Nakhchivan State University. Email: senempasha2@gmail.com. ORCID: https://orcid.org/0009-0008-7442-4881

and the formation of abilities across childhood and adolescence, forming the basis for the discussions and analyses presented in this study.

2. THEORETICAL BACKGROUND

Abilities occupy a central place within the structure of a student's mental and personal development. As noted by Bayramov (1967), abilities are the individual-psychological characteristics that condition the successful performance of specific activities. They do not exist in isolation but are intricately connected to the dynamics of acquiring knowledge, skills, and habits. Leontiev (1959) emphasized that abilities develop through purposeful activity, highlighting the necessity of an active engagement with the environment for their formation. Similarly, Vygotsky (1982) viewed abilities as emerging through social interaction and internalization processes, reflecting a combination of biological potential and environmental influence.

Abilities are typically categorized into two types: general and specific. **General abilities** are those that contribute to successful performance across a wide range of activities. They include fundamental cognitive processes such as perception, memory, thinking, and imagination, which, when developed through engagement in diverse activities, evolve into stable abilities. **Specific abilities**, on the other hand, are tied to success within a particular domain, such as mathematical reasoning, musical performance, literary creativity, or technical innovation. Specific abilities often build upon the foundation laid by general abilities, demonstrating a hierarchical and interconnected developmental structure (Bayramov, 1963).

Several critical psychological theories offer deeper insights into the development of abilities. Vygotsky's concept of **learning and speech** suggests that higher mental functions originate in social interaction before being internalized by the individual. According to Vygotsky (1982), language plays a crucial role in organizing thought processes, thus directly influencing the development of complex abilities such as critical thinking and abstract reasoning.

Leontiev's work in **developmental psychology** reinforces the activity-based nature of ability formation. He argued that cognitive and personal development is a product of participation in socially meaningful activities. Through these activities, students not only acquire knowledge but also transform their psychological structures, thereby developing new abilities aligned with their experiences and societal demands (Leontiev, 1959).

In a complementary perspective, Krutetskii (1966) examined the **age peculiarities in the development of mathematical abilities**. His research highlighted that mathematical talents do not emerge fully formed but undergo a staged development influenced by age, teaching methods, and the learner's internal cognitive organization. Krutetskii's findings support the broader notion that abilities are dynamic formations, deeply affected by both internal maturation and external educational interventions.

Together, these theoretical foundations provide a comprehensive framework for understanding how abilities are shaped across different stages of childhood and adolescence. They underscore the necessity of considering both the internal psychological structure and the external educational environment in fostering ability development.

3. FORMATION OF ABILITIES ACROSS AGE PERIODS

The development of abilities is a dynamic process that unfolds progressively across various age periods. Each stage of childhood and adolescence is characterized by the formation and transformation of specific cognitive, emotional, and social capacities, all of which contribute to the emergence of abilities suited to that period's developmental demands.

3.1 Early Childhood (Preschool and Early School Years)

During early childhood, foundational mental processes such as **attention**, **memory**, and **imagination** begin to develop intensively. According to Alizadeh (1962), the upbringing of attention in children is crucial for their ability to engage purposefully with the world around them. Sustained attention becomes the basis for acquiring new knowledge and for beginning formal education.

Vygotsky (1982) emphasized the importance of **imaginative play** in preschool years, highlighting that imagination is not merely a reflection of reality but a crucial means for cognitive development. Through imaginative activity, children learn to manipulate symbols, internalize social roles, and lay the groundwork for abstract thought. At this stage, mental abilities are closely linked to sensory experiences, and development largely depends on the richness of the child's environment and interactions.

3.2 Middle Childhood (Primary School Students)

In the middle childhood years, as children enter primary school, there is a marked shift toward **knowledge acquisition** and the beginning stages of **critical thinking**. Bayramov (1963) noted that the systematic education provided at this stage enables students to build a structured body of knowledge and develop more voluntary forms of attention and memory.

Additionally, the integration of language learning plays a significant role in cognitive development. Ashrafova (2025) illustrated that exposure to new linguistic forms, such as English loanwords in French media, not only expands vocabulary but also enhances cognitive flexibility and metalinguistic awareness. Language learning thus contributes directly to critical thinking, helping students recognize and analyze relationships between concepts.

Primary school students increasingly demonstrate the ability to question, compare, and classify information. Their imaginative activities also become more realistic and organized, reflecting an evolving ability to relate new information to previously learned material.

3.3 Adolescence

Adolescence marks a period of rapid and profound cognitive growth, particularly in the development of **abstract thinking** and **self-assessment abilities**. According to Iver (1987), students at this stage begin to use achievement standards when assessing their own abilities, indicating a growing capacity for self-regulation and metacognition.

Krutetskii (1966) emphasized that the adolescent years are critical for the refinement of domain-specific abilities, such as mathematical reasoning. The development of formal operational thinking, as identified by Vygotsky and supported by Krutetskii's research, enables adolescents to deal with abstract concepts, hypothesize, and engage in complex problem-solving tasks.

Furthermore, adolescents' ability to critically evaluate their performance, set personal academic goals, and reflect on their learning processes becomes a central feature of their cognitive and emotional development. The emergence of independent thinking and self-directed learning characterizes the intellectual maturation of this stage.

4. FACTORS INFLUENCING ABILITY DEVELOPMENT

The formation and growth of abilities in students are influenced by a combination of environmental conditions, individual psychological characteristics, and innovative educational approaches. Understanding the interaction of these factors is essential for creating learning environments that effectively nurture students' intellectual, emotional, and creative potentials.

4.1 Environmental Factors: The Role of Teaching Methods

The methods and materials used in education significantly affect students' ability development. Pashayeva (2025) highlighted the importance of integrating **cultural elements**, such as proverbs, into language instruction. Teaching with culturally rich lexical material not only deepens students' linguistic knowledge but also enhances their critical thinking and interpretative abilities, allowing them to connect abstract concepts with lived experiences.

Similarly, Salmanova (2025) emphasized the growing impact of **gamification** and **artificial intelligence (AI)** in language learning. By incorporating game-based strategies and AI-driven platforms, educators create dynamic, motivating environments that foster sustained engagement and higher-order thinking. These interactive methods enable students to develop problem-solving skills and flexible cognitive strategies, crucial for adapting to complex tasks.

4.2 Individual Factors: Personality Traits and Self-Assessment

While environmental factors provide the framework, individual personality traits also play a critical role in ability development. Iver (1987) found that students' use of **achievement standards** during self-assessment reflects their level of self-regulation and intrinsic motivation, which are vital for intellectual growth. Students who actively engage in self-monitoring and critical reflection demonstrate stronger development of abilities compared to those who rely solely on external evaluation.

Moreover, Veshnevai and Melnikovii (2012) stressed the importance of assessing students' competencies across knowledge, abilities, skills, and personal characteristics. Their work suggests that traits such as perseverance, critical-mindedness, and openness to new experiences are essential factors that differentiate students' ability development trajectories.

4.3 Innovative Methods: Technology and Modern Educational Approaches

In contemporary education, **technological innovation** has become a powerful driver of ability development. Majitovna (2022) discussed the **psychological and pedagogical features** of integrating innovative technologies into education, emphasizing how digital tools can support intellectual development by promoting personalized learning experiences and interactive engagement.

Furthermore, Olusola Olufunmilayo and colleagues (2025) demonstrated that the **integration of rhyming poetry** into vocabulary instruction significantly enhances language acquisition and cognitive flexibility among primary school students. Their findings underscore that creative, multimodal

teaching methods can stimulate deeper cognitive processing and foster a richer development of abilities.

Salmanova's (2025) work on the convergence of **gamification** and **AI** further illustrates how the modern classroom can evolve into a highly adaptive and individualized space, enabling students to engage with learning material in ways that align with their cognitive strengths and developmental needs.

5. SENSITIVE PERIODS AND PEDAGOGICAL STRATEGIES

The concept of **sensitive periods** in cognitive and emotional development emphasizes that there are specific stages in a child's growth when they are especially receptive to certain types of learning and environmental influences. Vygotsky (1982) pointed out that during these periods, children's cognitive structures undergo rapid and profound changes, allowing for more efficient internalization of knowledge and skills. Similarly, Leontiev (1959) argued that mental development cannot be separated from the richness of a child's interests and experiences during these sensitive phases.

Sensitive periods offer unique opportunities for fostering intellectual abilities, emotional maturity, and creativity. However, optimal development during these phases requires the presence of supportive pedagogical strategies. Teachers must create stimulating environments, present challenges appropriate to students' developmental levels, and encourage exploration and independent thinking. A timely intervention during a sensitive period can significantly enhance a child's cognitive and emotional capacities, while missed opportunities may result in developmental delays that are difficult to fully compensate later.

Strategies such as differentiated instruction, scaffolding, active engagement in creative tasks, and providing diverse and meaningful experiences are essential to nurturing abilities during these sensitive periods. Recognizing individual differences and being attentive to students' emotional and cognitive readiness are critical aspects of effective pedagogy during these phases.

6. DEVELOPMENT OF CRITICAL THINKING AND CREATIVITY

Critical thinking and **creativity** are foundational for the development of higher-order abilities. Vygotsky (1982) stressed that critical reflection and imaginative activity are not merely by-products of intellectual growth but active components of cognitive development itself. Rubinstein also emphasized that the unity of sensory-visual imagery and abstract concepts lies at the heart of productive thought processes.

Belinsky (1948) offered a particularly artistic view, asserting that poetry—and by extension, all creativity—engages judgment and thought through imagery and emotional resonance rather than formal logic. In this sense, the development of creativity and critical thinking represents an intertwined evolution of intellectual and emotional capacities.

Teachers can support the growth of critical thinking and creativity by encouraging open-ended questioning, promoting debates and discussions, integrating artistic activities into the curriculum, and fostering an environment where mistakes are seen as opportunities for learning. Providing students with complex, real-world problems that require analysis, evaluation, and innovation helps them move beyond rote memorization and fosters deeper cognitive engagement.

Furthermore, creating a classroom culture that values originality, independent thought, and respectful disagreement cultivates students' confidence in their critical and creative capacities, laying the groundwork for lifelong learning and innovation.

7. CHALLENGES IN IDENTIFYING AND DEVELOPING ABILITIES

Identifying and developing abilities is often fraught with challenges, particularly when judgments are based solely on academic success. Many historical examples reveal that individuals who later became outstanding thinkers, artists, or scientists were once considered average or even underperforming students. This misjudgment stems from a narrow view of intelligence that equates academic performance with ability, ignoring the diversity of cognitive profiles and developmental paths.

Psychological research highlights that **mental development is not linear**. Uneven development—where students excel in one domain while lagging in others—is common, especially during adolescence. Such diversity in mental growth demands a flexible and individualized approach to assessment and teaching. It is crucial for educators to look beyond grades and standardized measures, considering a broader range of indicators such as creativity, problem-solving skills, emotional intelligence, perseverance, and self-directed learning tendencies.

Recognizing the **complex and uneven nature of mental development** allows teachers to support each student's unique potential, ensuring that talents are not overlooked simply because they do not conform to traditional academic expectations.

CONCLUSION

The development of students' abilities is a complex, dynamic process shaped by a multitude of factors, including age characteristics, environmental influences, individual psychological traits, and pedagogical strategies. From early childhood through adolescence, students undergo significant transformations in attention, memory, imagination, critical thinking, and self-assessment capacities. Understanding these age-related features is crucial for educators seeking to create environments that foster intellectual and creative growth.

Drawing upon the theoretical foundations laid by Vygotsky, Leontiev, Bayramov, and other scholars, this study highlights the significance of sensitive periods in development and emphasizes the need for timely and appropriate pedagogical interventions. The nurturing of critical thinking and creativity emerges as a key component in forming robust intellectual abilities, while the uneven and diverse nature of mental development reminds us of the importance of personalized approaches to education.

Recognizing that academic success alone does not fully capture a student's potential, educators must adopt broader, more flexible criteria for identifying and fostering abilities. By creating supportive, stimulating, and individualized learning environments, it becomes possible to guide each student toward realizing their unique capabilities, thus preparing them not only for academic achievement but also for meaningful participation in society.

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