



Ca' Foscari  
University  
of Venice

**Corso di Laurea in  
Scienze del Linguaggio**

Tesi di Laurea Magistrale  
Academic Year 2019-2020

MOTIVATION IN LANGUAGE LEARNING: TRADITIONAL AND  
DISTANCE LEARNING

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## **List of Abbreviation**

**ALMS: Advanced Learning Management System (Advanced Learning Management System)**

**ARCS-V: Attention-Relationship-Confidence-Satisfaction-Action (Attention-Relevance-Confidence-Satisfaction-Volition)**

**AECT: Association for Educational Communications and Technology of America**

**ICT: Information and Communication Technologies**

**CIS: Course Interest Survey**

**IMMS: Instructional Materials Motivation Survey**

**MOOC: Massive Open Online Courses**

**VPT: Volitional Persona Test**

**CHE: Council of Higher Education**

**AOJDE: The Azerbaijan Online Journal of Distance Education**

**AECT: Association for Educational Communications and Technology**

**CEIT: Computer and Instructional Technologies Education**

**IMS-LD: Instructional Management Systems-Learning Design**

## INTRODUCTION

In recent years, the priorities of education have changed a lot. First of all, modern education highlights the goal of developing a comprehensively developed and competent personality. In higher education, both traditional and innovative teaching methods are used. The current pandemic spread worldwide in 2019-2022 and has affected all spheres of life. In particular, from the beginning of spring 2020, schools, secondary and higher educational institutions, and institutions of additional education, were forced to switch to remote teaching and learn to prevent the spread of new coronavirus infection. From the very beginning, Internet resources have become a massive need to maintain the constant interest of their students in learning. However, as many teachers were not used to using digital tools, the methodological change they had to face was particularly tough (Deci& Ryan, 2020).

Although online learning has been discussed in research since the end of the 20th century, the pandemic has undoubtedly contributed to putting the lens on this theme now more than ever. The difficulties with using technology and information tools in the learning process have given rise to specific problems in the forced transition from traditional education to distance education. Young adults face the pain of losing interest in learning a foreign language, with decreased motivation for the learning process (Raofi et al., 2012). To ensure a good level of learning, it is essential to reflect on how the digital resources at teachers' disposal should be used. What factors should be combined for teaching to be more effective? The first step is to measure the effectiveness of training. It is clear that the higher the learning after exercise, and the less time and other resources are spent on it, the higher the quality.

Teaching can be considered adequate if it allows young adults to develop the most applicable and valuable practical skills in life and work. One factor that significantly influences the result is motivation (Raofi et al., 2012). The performance of a motivated and unmotivated person differs many times over. The same can be said about training aimed at developing professional skills then. Motivation is one of the key factors affecting efficiency (Raofi et al., 2012). At the same time, not all adults who independently came to study and paid for it themselves will be motivated and get the most out of the curriculum for learning the language (Raofi et Al., 2012). If it is difficult, uninteresting, training is carried out at an inconvenient time, then both young adults' motivation and interest will inevitably decrease.

## 1.2 Research Background

The methodological framework of the research aimed at forming and developing the communicative competence of the youth of non-linguistic universities in the context of technological breakthroughs is based on the complex use of basic teaching methods in the context of competency-based, comparative education. The thesis is based on descriptive, close, and analytical approaches, taking into account the achievements of convergent technologies. (Deci& Ryan,2020). A breakthrough in information, communication, and cognitive technologies are apparent. Achievements in these areas dictate a unique rhythm in all activities of modern society, including education. The high-speed exchange of information among professionals and researchers from different countries determines the need to possess language competence and knowledge, communication, and cognitive skills. This causes a change in the paradigm of modern foreign language teaching in preparatory institutions - a combination of traditional methods and current remote achievements in convergent technologies. For optimal results, it is necessary to analyze the essence of the ways of modern realities of effective foreign language, combining the principles of traditional methods and technologies and the existing convergent technological achievements for young people. Modern techniques and technologies for teaching foreign languages are based in numerous ways and are carried out within carefully developed approaches that have proven their effectiveness. The essence of the theoretical foundations and practical learning algorithms are formulated and presented both in the works of the world and foreign authors. It should be noted that in modern methodology, the term (Deci & Ryan 2020) "teaching technology" becomes more frequent compared to the word "learning methodology." This is due, first of all, to the fact that in the modern world of high-speed information exchange, successful intercommunication becomes more important than the form of expression.

Hence the dominant role of technology, which, unlike methodology, is focused on achieving a specific result within each study period. Teaching technology involves diagnosing skills and a particular set of methods and techniques to achieve the stated goal at each learning stage. Unlike technology, the teaching methodology aims to form language competence in general, which allows the teacher to combine the approaches, techniques, and methods of a particular training course. However, the teaching methodology does not involve dividing the process of teaching a foreign language into stages depending on the specific goal. This causes a more global nature of the teaching methodology than the applied orientation of teaching technology. In other words, learning technology is a part of the methodology aimed at forming and developing a specific skill within the framework of the task. The complex components of the technology of teaching a foreign language, techniques, and methods for diagnosing, presenting,

and working out the material are implemented within modern approaches. The contemporary educational paradigm's most effective point of view is competence-based, personality-oriented, and cultural approaches. The competency-based approach generalizes current educational trends and forms the basic principles of other systems and the necessary competencies for successful interpersonal and intercultural interaction. The competency-based approach makes it possible to implement the postulates of the personality-oriented and cultural practices in the context of modern educational realities. The student-centred approach uses the individual characteristics of the young adult's perception and processing of information and specific personal motivations and intellectual potential as the basis for forming a particular algorithm for teaching a foreign language Raoofi et al. (2012). The focus of modern education on effective interpersonal communication and information exchange determines the direction of this approach. This is not the achievement of the most accurate results in listening, speaking, and writing in a foreign language, but the implementation of successful communication through these types of speech activities.

Thus, the basic principles of this approach are the maximum independence of adults in the learning process, focusing on their cultural values, intellectual potential, and intrinsic motivation. The effectiveness of the educational process largely depends on the teaching methodology and the degree of implementation of the creative potential of teachers. They are constantly searching for new effective forms and education methods for young adults aged 18-25, engaged in training, and often, the question arises of the most efficient use of resources. Currently, our country is undergoing significant changes in its national education policy (Deci & Ryan. R.M, 2020).

This is because of the progress to the place of character arranged instructional method. One of the undertakings of advanced technology is to open them with excellent chances to show their imaginative capacities. The arrangement of these issues is unimaginable without executing the changeability of instructive cycles. Different inventive, endlessly kinds of instructive establishments require profound logical and down-to-earth understanding.

Present-day Azerbaijan arranging is the consequence of tremendous changes in the arrangement of hypothetical training as of late. In this sense, schooling isn't simply a piece of the public activity of society. However, it's cutting edge: barely any other subsystem of it can affirm the reality of its dynamic improvement with such a wealth of developments and trials in a similar way. With regards to intelligent learning, information takes on different structures. From one perspective, they address specific data about the encompassing scene. A component of this data is that the youthful grown-up gets it not in that frame of mind of an instant framework from the

educator, yet during the time spent his movement. As indicated by O. Bassis, the educator should cause circumstances in which the student is dynamic, in which he asks and acts. In such cases, "he, along with others, obtains the capacity to change into information that which at first comprised an issue or hindrance."

On the other hand, the youthful grown-up, during the time spent communicating in the class with other young adults, the educator assesses the arrangement of tried (tried) strategies for action corresponding to himself, society, and the world, as a rule, acclimatizes different information search components. Like this, the information procured by the youthful grown-up is simultaneously an instrument for their free securing. Consequently, the objective of dynamic learning is the creation by the educator of conditions wherein the adult himself will find, gain, and develop information. This is an essential contrast between the objectives of dynamic learning and the purposes of the conventional schooling system.

To concretize the discussion about the objectives accomplished in dynamic learning, we will utilize B. Sprout's scientific classification of mental (mental) goals, which is presently being effectively discussed in the local academic area. If we follow the scientific type created by B. Blossom (1956), then information is handed down the first, least difficult level of this progressive system. Then, at that point, there are five additional degrees of objectives, with the initial three (information, grasping, application) being the objectives of the lower request and the following three (investigation, union, correlation) being the most elevated order. The systematizer of mental perspectives, as indicated by B. Blossom, can be addressed as follows:

1. Information: the capacity to perceive, and recreate unique data, including realities, acknowledged phrasing, measures, strategic standards, and hypotheses.
2. Understanding: the capacity to comprehend the importance of any message in an absolute sense.
3. Application: the capacity to take and apply recently scholarly standards or cycles to another circumstance without being informed. For instance, the use of social-logical speculations for specific social issues or the utilization of natural science or numerical standards for pragmatic cases.
4. Investigation: partitioning the material into independent parts, laying out their connections, and figuring out the model of their association and, for instance, perceiving implicit presumptions, distinguishing circumstances and logical results connections, and perceiving structures and methods in craftsmanship.

5. Union: The creative flow of joining parts or components into another entirety. It is proficient in paper composing, proposing ways of testing speculations, and forming hypotheses relevant to social circumstances.

6. Assessment: the most common way of making esteem decisions about thoughts, arrangements, techniques, etc. These assessments can be quantitative or subjective. However, they should be founded on using measures or principles, for instance, incorporating a review of a suitable treatment or execution assessment based on norms in this discipline).

The strategies and procedures utilized in conventional learning permit accomplishing the instructive cycle. Intelligent learning strategies also guarantee the accomplishment of the objectives of the initial three levels more productively than the techniques for the customary learning framework. Subsequently, teachers working in the traditional worldview frequently utilize intuitive training strategies to absorb data for youthful grown-ups more readily. For this situation, we will discuss improving the day-to-day instructive interaction (Deci and Ryan 2020).

This obsession is fundamental since an element permits the instructor to settle a fair and square methodology since present-day culture is progressively inclined to the most extreme opportunities and results; distance training covers comparable sorts of learning since it doesn't influence the individual for a brief time genuinely. Because of its tremendousness, it isn't exorbitant and is of top calibre. The data and instructive climate of distance learning is a deliberately coordinated set of information transmission devices, data assets, connection conventions, equipment, programming, and hierarchical and systemic help, zeroed in on gathering the instructive necessities of clients. Simultaneously, the trademark elements of distance learning are

- adaptability.
- particularity.
- financial productivity
- another job of the instructor.
- specific quality control of schooling.

Distance learning is a kind of schooling given the instructive collaboration of educators and understudies remote from one another, executed utilizing telecom advances and Internet assets. Distance learning is portrayed by every one of the parts of the learning framework inborn in the instructive cycle: objectives, content, hierarchical structures, showing help, and a framework for checking and assessing results.

As in the regular instructive cycle, the educator is the primary connection in guaranteeing the high proficiency of the informational interaction. The huge particularity of the pedantic course of



distance learning made the need to present the expression "mentor" in Azerbaijani practice to allude to the youthful grown-up. With regards to removing instruction, the primary errand of guides is to deal with the autonomous work of young adults, which includes the execution of the accompanying capacities:

- the arrangement of motivations
- the meaning of objectives and goals
- information and experience move
- hierarchical exercises
- association of connection between audience members
- screen the growing experience.

Strategies for distance learning can be suggested: show, delineation, clarification, story, discussion, practice, critical thinking, memorization of showing material, composed work, and redundancy. The accompanying apparatuses are utilized in the showing system of distance schooling: books (paper and electronic structure), network showing materials, PC preparing frameworks in conventional and mixed media adaptations, sound education and data materials, video instructing and data materials, far off lab studios, test systems, remote access data sets and information bases, electronic libraries with remote access, pedantic materials in light of master preparing frameworks, educational materials have given geographic data frameworks. The instructive and material subsystem is a significant part of the distance learning framework, inseparably connected with the substance and strategy of the informational cycle. It is in a subordinate situation corresponding to the objectives of training. Based on this objective, the accompanying exploration targets were advanced:

- right off the bat, because of the examination of hypothetical sources, to portray distance advancing as a fundamental piece of the cutting-edge school system;
- besides, to feature the optimistic and pessimistic parts of distance training, and the issues that youthful grown-ups face while learning an unknown dialect without individual contact with young adults.
- thirdly, (and this is the down to earth meaning of the review) to make a rundown of different Internet assets that help keep up with and increment the degree of inspiration of youthful grown-ups to learn English, with practical guidelines on the suitability of utilizing a specific purchase, as per the need to tackle explicit learning issues (Raoofti et al., 2012).

A large portion of them has been utilized in the study hall previously. One of its principal methods is the impersonation of circumstances from reality, intended to animate understudies to dynamic "talking." Simultaneously, it is vital that the subjects are compelling and connected with

the day-to-day routine of youthful grown-ups and the issues that involve them. In classes directed by traditional or distance techniques, the course of learning the arrangement relies upon the actual students - their responses, responses, etc. Correspondence happens definitively on fitting points. Most of the classes are spoken, although perusing and composing are also examined. Educators, by and large, don't talk yet tune in and direct the course of the example. Consequently, it ought to be noticed that the historical backdrop of unknown dialect showing techniques shows that at each authentic stage, researchers and educators attempted to track down the best-instructing strategy. Every approach included securing specific abilities and the digestion of detailed information.

### **1.3 Research Problem**

The global problem of the education system worldwide is that the creation and implementation of a new method always lag in time due to long rechecks of methods. Nevertheless, the process is given an outlet that is already outdated. For this reason, active education methods are universal, as they develop the adult not according to one chosen system but from a combination of all methods still available. Active teaching methods primarily develop the skills that adults need to learn a foreign language. The development of speech aspects allows young adults to master a foreign language more effectively. The challenges of growth are related to evaluating the available outcomes of the investigation of the essence, design, characterization, and highlights of the evolution of creative cycles in education. At the hypothetical and systemic level, the development issue is most prominently reflected in the work of Deci E.L., Ryan. From being socially detachable, rote, and conventionally social, training becomes dynamic. The instructional capacity of both social and private institutions is being renewed. Already, the unconstrained guidelines for education were the development of information, capacities, enlightening and interactive abilities (characteristics) that ensure "preparation forever," understood as the capacity to adapt to social circumstances. Presently, education is increasingly centered on the development of innovations and methods for influencing the individual, which provides a balance between social and individual needs, and (Ntoumanis, N., Williams, G.C., 2020) by removing the element of self-improvement (personal development, self-training), guarantee the status of the individual to comprehend their uniqueness and transform society. Numerous instructional organizations began incorporating new elements into their exercises. Still, the change act was hindered by the gap between the current need for rapid change and the instructors' inability to implement it. To learn how to facilitate the initial engagement, regardless

of the system, by implementing developments that are not as unambiguous as they may initially look.

Today, innovative search has entered the “calm channel.” It has become part of the image of any preparatory institution, an element of the “regular situation” in the system of life of many educational institutions in Azerbaijan. But there is a wide variety of innovations applicable to education. (Ntoumanis, N., Williams, G. C., 2020) They play a massive role in the existence and further development of preparations. Traditionally, the following types of psychological adaptation to the learning process are distinguished:

- organizational transformation - the study of accepted norms and requirements in an educational organization, internal acceptance and construction of one's behavior by the situation;
- activity adaptation - determination of one's rights and obligations as an adult (regardless of age from 18-25 years old), as well as the requirements of activity in the learning process;
- professional adaptation - readiness and desire to master the profession, understanding its essence Leeming (2017).;
- socio-psychological adaptation-self-affirmation in the group, the establishment of working and personal, friendly relations with teachers. In the general process of young adults' adaptation, separate "critical points" are also distinguished, corresponding to various stages of learning, which require maximum attention to the young adult's personality since the load on a person's adaptive resources during these periods is the highest.

One such critical point is the start of learning. Recently, in connection with the massive transition in 2021 of educational organizations in Azerbaijan to online learning, many studies have appeared to study the difficulties that young adults aged 18-25 years have during distance learning. The results indicate that young adults prefer the full-time format of education, live direct communication with teachers, are afraid of not passing the session, and are worried about failure to complete tasks on time (Ntoumanis, N., Williams, G. C., 2020). Young adults from 18-25 years old are more satisfied with themselves and their self-realization as a young adult in full-time education; in addition, personal qualities that complicate online learning are being actively explored.

Young adults from 18-25 years old, returning to the study of a foreign language and activities after a long break, encounter multiple difficulties associated with both fear and self-

doubt (possibly due to previous negative experience, fear of looking incompetent), awareness of learning motives, orientation to specific goals and objectives relevant to professional activity, as well as with an objective decrease in the functioning of cognitive processes. In addition, the previously gained experience of learning within the framework of the old pedagogical paradigm does not allow the young adult to switch to learning using modern information and communication technologies immediately. When working with young adults, a teacher needs to take into account the features of distance learning for adults to create a so-called adaptive learning system, namely: accessibility to provide the opportunity to study educational materials at a convenient time; modular construction of the educational process is aimed at obtaining the necessary knowledge, the material is structured into modules, achievable goals and objectives of each module are formulated; the flexibility of studying methodological or educational literature, listening to podcasts, watching video materials. The adult needs the comments of the teacher and the timely assessment of their work.

#### **1.4 Research Significance**

In the course of the analysis of the peculiarities of the motivation of educational activity significant differences were revealed between the group "in traditional education" and the group "distance education" in terms of indicators of achievement motivation Raofi et al., (2012). Thus, young adults with traditional education are more focused on achieving success in educational activities and consider the successful continuation of education as one of the essential components of positive self-esteem. In addition, motivation is positively correlated with the length of the education gap, indicating that for young adults who have distance learning, the priority in learning is to avoid social exclusion, and their actions are aimed at meeting the expectations of others as fully as possible. When analyzing the characteristics of the state of young adults, significant differences were revealed between traditional and distance education, stress, and comfort in the learning process.

The results of the thesis showed that young adults have an interest in learning languages through distance education, which can manifest itself in the ambiguity of consciousness, some slowness of actions, movements, and reactions, and an unwillingness to change the situation, in comparison with traditional education and without a break in education. Difficulties in learning information, rapid (superficial) memorization, and rapid loss of acquired knowledge are practical learning (2017).

#### **1.5 Research Questions**

Will the following research questions be applied to the motivation of young learners to learn a foreign language to maximize their language skills in Azerbaijan, regardless of their level of education and teaching methods? Special attention is paid to the following research questions:

**How did foreign language distance education for young adults transition during the pandemic in the winter of 2021?**

**What is the role of lessons in motivating young adults to learn a language?**

**How does online learning affect the retention or loss of this motivation in young adults?**

### **1.6 Research Scope**

The goal is to study the readiness of young adults to develop digital competencies using traditional and distance learning in a situation of increased implementation in various spheres of life Raoofi et al. (2012). For its performance, it seemed essential to study the specifics of young adults' readiness to use traditional and distance forms of education and analyze the factors that contribute to and hinder the formation of this readiness. The study's hypothesis was the assumption that the willingness to develop the motivation of distance and traditional methods of language learning in Azerbaijan competencies depends on the awareness of the importance of individual personality traits that determine the ability to learn. Factor and correlation analysis was used to study the influence of the peculiarities of understanding of the importance of competencies in life on the readiness for further development of competencies through traditional and distance learning. Variables related to respondents' self-assessments of the degree of competence formation, assessments of the role of digitalization in various areas of life and the impact of the pandemic on digitalization, as well as indicators reflecting the readiness for further self-development in the field of digital technologies, were subjected to factorization. The use of the Kaiser-Meyer-Olkin criterion showed the high adequacy of the applicability of the factorization method to the sample.

### **1.7 Thesis Structure**

The dissertation has 3 chapters. The first chapter is devoted to background information related to the study. The purpose of the study, the research problem, the scope of the study, the significance of the study, and the research questions are presented in the first chapter. The second chapter introduces the concept and understanding of learning. Understanding remote and traditional learning methods, the advantages and disadvantages are presented in the second chapter. The third chapter discusses the research methodology. The study design, study area,

study group, sample size, and sample design are described in the third chapter. Descriptive statistics, regression analysis and discussion of the results are illustrated in the third chapter.

## CHAPTER 1. THEORETICAL AND METHODOLOGICAL BASES OF DISTANCE EDUCATION

As society's expectations increase, so does the need for education among people. In other words, traditional teaching methods are being replaced by new ones. This situation leads to the development of new systems for delivering education and training.

Although distance education dates back to ancient times, it is an education system that is more computer-based and open to development. A distance education system that adopts the principle that learners are responsible for their learning, regardless of space or time, can access information anytime, anywhere. In addition, distance education can appeal to students of all ages. In other words, distance education allows individuals to learn for a lifetime.

Distance education was first used in 1892 in an article written by William Lighty, director of the University of Wisconsin (Adiyaman, 2002). The term distance education has been widely used since the 1960s. Distance education is a form in which the student and the teacher are physically separated from each other (Kaya, 2002).

Looking at the international literature, we can see many definitions of distance education. Based on the opinion of Desmond Keegan, by examining the purposes of distance education, the elements to be included in determining distance education were identified. Thus, a consensus was reached, and terminology for distance education began to be applied. According to Keegan, in defining distance education,

- the teacher and the student are physically active in different places, and
- there is a need to bring together students and teachers to use technical means, especially printed materials, to enhance education.
- there must be two-way communication between learner and teacher (Scholsser and Anderson, 1994: 2).

According to another definition, an essential part of learning is the learning process, which is carried out remotely by the student in terms of time and space (Commonwealth Education Handbooks, 1982: 7).

Based on the opinion of Charles Wedemeyere (1981), we conclude that distance education is a non-traditional form of education.

Otto Peters (2001) emphasizes the role of technology in describing distance education. According to Peters, distance education is a method that uses intensive technical means, from application to a student organization. It allows technology to teach a large number of students

living everywhere simultaneously. In other words, it is rationalized to transfer information, skills, and behavior with high-quality teaching materials.

For countries to reach the level of modern civilization, first of all, it is necessary to educate society. If socio-economic structure, and cultural and technological development are to be achieved, education in those countries should be given priority. Accordingly, a large number of people must be trained. Today, the rapid change in scientific, social, and individual events increases the demand for education. There is a lot of criticism that existing education systems are traditional because they cannot adapt to evolving technology and meet the growing needs of education (Huseynov, 1998). Agile and independent learning is widespread in democratic learning processes and for all, especially in educational circles (Gasanova, 2002). To accelerate change, we need to make it easier to access information and offer higher education opportunities to anyone who wants to study in their area of interest. If the goal is to ensure that every individual has access to higher education, it is necessary to provide this service, both at home and at school. This is where the need and importance of distance education emerges. Distance education is of great importance for the development of both individuals and countries, as it provides many benefits for individuals who, for various reasons, do not have the opportunity to continue their formal education but want to improve themselves. In addition, given the social and economic structure of Azerbaijan, It is essential in terms of providing educational opportunities for those studying in rural areas (Aliyev, 1998: 6). Another dimension that makes distance education important for Azerbaijan is the spread of distance education throughout the world. It is increasingly coming to the fore in the concept of lifelong learning. Increasing the number of individuals learning and developing through lifelong learning based on distance education will be an essential step in achieving the level of modern civilization that is the goal of Azerbaijan's vision for 2023, as well as contributing to the country's economy because the cost of such an education system will be less than the traditional one.

Distance education is a modern approach aimed at providing educational services to the masses using the opportunities of communication technologies and educational technologies. With this approach, rigidity in the structure of traditional education has been largely eliminated, and education has been made more flexible. Distance education as a system with its characteristics has a design that ensures the implementation of education by the environment and individual learning competencies. The main features that make up the quality of distance education can be listed as follows (Unesco, 1987: 5-6):



□ The student and the teacher are different aspects: In distance education, learners and teachers do not have to be together in a particular place and time. The student has the freedom to learn the lessons offered by the teacher when he determines according to his conditions.

□ Distance education is a purposeful concept in providing alternative educational opportunities: Distance education, which is part of educational services, is expected to be for national educational purposes and meet common standards. Therefore, programs are developed for distance learning in line with this expectation. These programs can be designed to meet specific learning needs.

□ Different learning environments are used in distance education: Printed materials are the most common learning environment. Audio and video tapes, especially radio and television programs, are virtual environments in distance education. In distance education, several of these tools are often used together, complementing each other.

## **1.2. What are the advantages and disadvantages of distance education?**

As with all education systems, distance education has advantages and disadvantages compared to other systems. The advantages and disadvantages of distance education, when examined in the relevant literature, can be summarized as follows.

Advantages of distance education:

- The advantages of distance education have been explained by many authors. Accordingly, we can list these advantages as follows.
- With distance education, new learning opportunities can be created in addition to non-formal and formal education opportunities. Larger and more effective education opportunities can be created to overcome the inadequacy of traditional education practices. From the selective-eliminating system to the descriptive-breeder structure; It facilitates the transformation from non-option and stereotyped processes to flexible and optional processes.
- Distance education can provide flexibility or freedom to learners in terms of time and place. Learners: they can learn at any time of the day, even on the weekends, in any year they want; They don't have to learn in the time required.
- For some individuals, it can remove the barrier of isolation within the school and among friend groups, in other words, the obstacle of exclusion from social interaction environments.

- Based on integrating the three-dimensional environment in education, they can develop their independence and critical judgment skills. Using multiple media can be more effective than traditional programs using a single medium.
- It can be an effective tool in democratizing education, delivering education to large masses, providing equal opportunities in education, and providing widespread and efficient service. Educational services can be delivered to large masses that are difficult to reach through traditional means.
- It can solve the problems of mass education and individual learning, and the educational opportunities that are delivered to large masses can also be adapted to individual needs. In distance education, where it is aimed to spread education among all age groups and individuals in different conditions, it is possible for them to learn on their own with a flexible structure and activities that can be adapted to the conditions of individuals.
- It is possible to switch from teaching based only on community needs to teaching based on community-individual needs.

#### Weaknesses of distance education:

In addition to the advantages of distance education, there are also some weaknesses. Many authors have explained the weaknesses of distance education. We can summarize the shortcomings of distance education as follows.

- It has limitations in terms of face-to-face communication and interaction. Most of the time, learner-learner, learner-teacher communication, and interaction cannot be realized. For this reason, the peer interactions that occur in the social context of the teaching process or the desired gains that can arise from the interaction of the individual with others do not occur.
- Failure to solve the learning difficulties encountered in the learning process immediately may cause problems in guidance or feedback.
- It is not beneficial for individuals who are externally supervised, who cannot form a learning motivation, who have not developed the habit of working independently and basic skills such as listening or reading sufficiently; In addition, the system does not provide adequate assistance to individuals with these characteristics.
- Leisure and leisure activities can be limited when working learners allocate their time outside of work life to distance education. This situation can negatively

affect the individual's self-development process and prevent the individual from integrating into society in a harmonious manner.

### **1.3. The Importance of Autonomous Learning in Foreign Language Learning**

Being an autonomous learner by gaining autonomous learning skills should be the goal of every learner and teacher (Finch, 2001: 7).

Crabbe (1993) emphasizes that autonomous learning is important not only from an educational point of view, but also from a political, psychological, and economic point of view. Politically, the individual who has the ability to learn autonomously knows that he has the right to be free to make his choices and can apply this knowledge in other areas of life. Psychologically, when the individual takes control of his own learning, more meaningful and permanent learning takes place. Having more control in the learning process, on the other hand, increases motivation and thus the learner can be more successful. Finally, the ability to learn autonomously is also important economically. Individuals in all areas of society cannot be provided with adequate education and material opportunities. When individuals undertake their own learning, they can also meet their own learning needs. Crabbe (2002) emphasizes that the most important of these three elements is the psychological one. According to him, the psychological element includes pedagogy rather than politics.

When we look at the studies in the literature, it is seen that motivation, success and learning efficiency increase when learning responsibility increases.

When learners take on their own learning responsibilities, learning becomes more meaningful, effective, and permanent. Therefore, autonomous learning is important in the educational process (Adam 2016).

A learner who does not have the habit of working independently and does not know his own learning strategy may have difficulties at every stage of life. On the contrary, autonomous learners can determine their own learning strategy, observe, and evaluate themselves. Since they have all these gains, their motivation, self-confidence, decision-making mechanisms, and success are also high.

Two reasons constitute the concept of individual access. The first reason is individualization. Because every individual has their own needs. In addition, each individual has weaknesses that, unlike others, they would like to work on alone. Individuals' learning styles and preferences are also different. For this reason, learners may need to apply to individual access centers and work. The second reason is the provision of independent learning, which can be

evaluated under an ideological reason. Individual access allows learners to learn how to learn (Sheerin, 1997).

Technology-based approaches emphasize independent interaction with educational technology. Technology-supported education offers individuals the opportunity to research and learn on their own. In simultaneous communication, individuals also participate in conversations or discussions. In asynchronous communication, individuals communicate with each other via e-mail. Thanks to the contact established over the Internet, learners who are quiet or shy in the classroom can express themselves more easily. In addition, education through the Internet motivates the learner to increase learning and computer skills. Access to up-to-date texts, quickly publishing and sharing their creations reinforce the learner's motivation and success. (Warschauer, 2001). In addition, since applications made over the Internet are interactive, they require decision-making and choice, and they reinforce autonomy.

Learner-based approaches emphasize creating immediate behavioral and psychological changes in the learner. Learner-based approaches are different from other approaches that only make opportunities for the learner, as they directly lead to behavioral and psychological changes in the learner so that they can have control over their learning. When learner-based approaches are mentioned, concepts such as learner education and strategy teaching come to mind. However, Sheerin says that these concepts involve someone teaching someone else how to do something.

Classroom-based approaches emphasize learner control in planning and evaluating classroom learning. Considering that education and training are mainly carried out in schools, practices in the classroom are essential in terms of gaining autonomy for learners. The learner-centered classroom and the learner's ability to have a say in their learning are concepts educators have been focusing on for a while. To realize these, some applications are made, and these applications are frequently the subject of research. Learners can take part in the decision-making mechanism in the planning, learning process, and evaluation dimensions in the classroom.

Program-based approaches extend the notion that the learner controls the program as a whole. When the program-based process of autonomy is called, it comes to mind that the learner has control over the operation of the learning program. In other words, it is at the core of these approaches that the learner plays an active role in all aspects of the program's objectives, content, learning processes, and evaluation. According to Bloor there are three main reasons learners are involved in curriculum development. First, this is the only way to identify students' needs and desires. Students' motivation to learn increases by taking their ideas. Moreover, this motivation

is not a decreasing one but an increasing one since participation in program development includes continuity and will bring attendance and participation in the course. Finally, the learner's having a say in the learning program encourages him to take responsibility for his learning and enables him to take steps towards becoming an autonomous learner.

Teacher-based approaches emphasize the role of teacher and learner education in the practice of developing learner autonomy. The role and influence of the teacher in increasing independence are significant. The teacher's most important role in the learner's freedom is to be the resource person. However, the source person here does not mean someone who knows and explains everything. The task of the teacher here is to be the source person, or in other words, a guide for the answers to the questions of how to access information and how to learn information (Aoki, 1999). Considering the inadequacy of resources that facilitate learning, such as individual development centers, libraries, and computers, especially in Azerbaijani conditions, the role of the teacher as a resource person and guide seems to be more prominent.

## CHAPTER 2. EFFECTS OF DISTANCE EDUCATION ON MOTIVATION STRATEGIES

Inspiration focuses in open and distance learning settings are limited in scope and number, but research demonstrates that inspiration plans in distance training settings influence students' inspiration and provide students with benefits in several areas. Several findings and conclusions about these examinations are provided below. In a trial study conducted with 137 students in which ARCS inspiration techniques and strategies were implemented in PC-assisted education, Balaban-Sali (2002) investigated the inspiration source and skill level of students' success, inspirations, mentalities, and confidence in success and instruction time. The investigation findings revealed that the influence of inspiration sources on students' performance was not crucial; nonetheless, the concept of talent accelerated the development of students. Furthermore, it was revealed that naturally stimulated pupils were significantly more motivated in consideration, relationship, trust, and fulfilment than those who were artificially stimulated. In addition, it was said that all pupils who participated in the review had a positive attitude toward the example. In a five-month study conducted with college students under technology-supported distance education conditionso, Gabrielle (2003) investigated the effects of ARCS inspiration systems on students' achievement, motivation, and autonomous learning in trial and control groups. There was no significant difference between the two groups in terms of achievement ( $p=0.30$ ). In addition, the evaluation revealed a significant difference between the experimental group and the control group for the variables of contemplation, interest, trust, and satisfaction on the displaying materials inspiration scale. On the other hand, it was found that while there was a significant difference between the experimental and control groups in terms of relationship, trust, and fulfilment, there was no significant difference between the experimental and control groups in terms of interest in the example.

In his pilot study, Huett (2006), who examined the practicality of just trust procedures in the ARCS model, considered Keller's advantage on the example and instructional materials inspiration scale. In the review, only confidence-building techniques were employed in the exploratory meeting. While there was a significant difference in the certainty factor of the interest in the example scale ( $p=0.004$ ), there was no significant difference in the showing materials inspiration scale ( $p=0.08$ ). Similarly, even though conscious strategies were employed for various factors, there was no discernible difference in the component of consideration. In contrast, there were significant differences between relationship size and satisfaction.

According to Huett et al. (2008), one of the connection components included in the ARCS inspiration configuration, solitary messages, increased pupils' inspiration. Choi and

Johnson (2005) stated in a different study studying the effects of new technologies that video-based examples inspired pupils more than text-based depictions.

The primary techniques applied in motivational design are texts, messages, banners, etc., directed toward pupils. There exist interactional strategies (Visser & Keller, 1990). In a review directed by Kim and Keller (2008) on increasing students' motivation and acquiring activity skills through the use of customized persuasive messages, it is stated that the student's motivation and confidence are more significant than the student group that does not utilize such statements.

In the long-term trial study directed by Acar (2009) on the utilization of ARCS persuasive methodologies with a web-assisted learning approach, it was discovered that the interest and motivation of the students in the experimental group towards the illustration were significantly higher than those in the conventional teaching group. In terms of educational material inspiration, there were significant differences between the students' degrees of consideration, interest, and satisfaction in the experimental group and the students in the control group.

However, there was no discernible difference between the learning groups regarding trustworthiness. While the inspiration scores of considerations and trust sub-factors were viewed as measurably significant compared to the group that learned with the conventional strategy in terms of interest in the example, it was stated that there was no significant difference in the inspiration scores of interests and fulfilment between the two groups. In addition, the review revealed that the use of ARCS persuasive systems had a significant impact on achievement, and there was a significant difference between the exploratory meetings. Akdemir (2010) conducted a month-and-a-half-long experiment with fifty college students. ARCS inspiration model approaches were applied in a web-based setting for the experimental group, while traditional displaying strategies were utilized for the benchmark group. The exploration findings determined that there were genuinely significant differences for the experimental group in all aspects of the ARCS model. Jekolova (2012) conducted an exploratory study on the effects of the ARCS inspiration model relationship and entrust factors strategies on students' success and course satisfaction in web-based learning environments. The examination results revealed no significant difference between the experimental and control groups in terms of development and satisfaction with the framework's relationship and trust components.

Yuncu Kurt (2014) supervised a ten-week exploratory study to examine the impact of the ARCS model on students' motivation, persuasive activities, and educator behaviour in English

education. The review reveals that the students in the exploratory gathering were substantially assisted in all ARCS model components. In addition, the study validates the applicability and viability of ARCS model methodologies in English language education. In four-week trial research supervised by Erdodu (2015) with college undergrads, the effects of using persuasive strategies adapted to the context of the ARCS inspiration model on undergrads' motivation and achievement were studied. In the review's two groups, persuasive techniques were employed.

## **2.1. Basic concepts of Distance Education**

Distance instruction has been utilized to remove the constraints between getting the hang of, educating, and learning assets since the 1820s. It originally arose and entered the standard in schooling with open colleges during the 1970s (Moore & Kearsley, 2012). To limit the restrictions referenced above, distance training has frequently utilized innovation. With the presentation of online innovations into our lives, it has started to be proposed to students as an essential type of instruction.

The distance training process has been impacted by the changes in perspective experienced until now and has also added to the changes in outlook. One of these progressions is the accentuation of transparency, student-focused schooling and learning in the training system. Because of these changes, even though there are ideas that characterize a similar field, "open and distance learning", notwithstanding the maxim "distance training", shows up as an idea regularly utilized today and characterizes the field. Inlined up with these progressions experienced in this review, open and distance learning is frequently utilized rather than the idea of distance training.

The open and distance learning model enjoys many benefits with the adaptable learning choices it offers to students. Notwithstanding, issues are habitually experienced regarding quitter or maintenance from the framework since this learning model is obligated to figure out how to the students. Toward the start of the examinations, to lessen these arising issues, there were studies to build the inspiration of the students (Anderson, 2013).

Motivation is an expansive point with different ramifications. The European Language Association (2016) indicated that motivation might be differentiated into motivation. Simultaneously, motivation is likewise communicated as an internal power that propels activity or activity. Likewise, it is an assortment of makes or motivators that lead people to take part in cognizant and deliberate activities. It is likewise characterized as the inward mental power that decides a singular's way of behaving locally, his work, and his degree of constancy despite snags (link, 2010). Keller (1979:27) characterized motivation as "stimulating, putting together, and keeping up with conduct." Simply made sense of motivation is the power that impels a person



toward a specific objective. This examination zeroed in on the degree and impacts of motivation in learning conditions. Motivation plays a significant part in learning and showing (Keller, 1979; Keller, 2010a). Also, the uniqueness of motivation figures out the achievement or disappointment of understudies in learning conditions (Fryer & Bovee, 2016; Gabrielle, 2003; Giesbers, Rienties, Tempelaar, and Gijsselaers, 2014). It figures out what understudies will comprehend, how they will learn, and when (Barak, Watted, and Haick, 2016; Deimann & Bastiaens, 2010; Hartnett et al., 2011; Kumarawadu, 2001). Centres around exhibiting that understudies' areas of strength for in testing learning circumstances gain ground, partake in the enlightening experience, and participate in critical discovering that isn't completely settled and creative (Knowles & Kerkman, 2007; Semmar, 2006; West et al., 2013). Motivation has been one of the essential areas of study for educational scholastics for a long while. With the different speculations they have created, enlightening scientists often analyze the limit and impact of reason in extending experience. As to mental, constructivist, and sociocultural learning speculations, the uniqueness of motivation is tended to in an assortment of ways. Behaviourists accept that learning happens in light of support and that information is built up by exterior improvements or powerful components. In this accomplishing, the end is fundamental, and the compensated or upheld methods of conduct will be rehashed from here on out (Ertmer and Newby, 1993: 48). This ongoing circumstance is similar to the motivation arrangement model's satisfaction rules. From to conduct point of view, the human way of behaving is either kept up with or killed. Furthermore, the teacher is the focal point of the learning climate and the provider of remuneration and discipline. No matter the ongoing circumstance, kids are separated or data gathering understudies. In this situation, external variables impact the understudy's inspiration (Snowman, McCown, and Biehler, 2012: 369). In open traditional and distance learning conditions, teachers' exhorting, bearing, backing, and endorsement are considered to remotely affect students (Jokelova, 2012).

Regardless, in huge learning conditions where tremendously open electronic courses are controlled, the presentation of newly set up happy by the course educator to the understudies and an evaluation is given may be displayed to illustrate a direct technique (Bonk & Khoo, 2014). Researchers have laid out elective viewpoints outside the behaviourist worldview in breaking down instructive encounters and associations. Towards the finish of the 1950s, a change in context arose regarding the learning speculation. Instructors started to appreciate creating encounters by accentuating more complicated mental plans, like reasoning, decisive reasoning, executives' information, and language, rather than detectable and clear ways of behaving (Ertmer & Newby, 1993). With the utilization of PCs and hardware in tutoring and mental arrangement, more mind-boggling structures related to learning have come to the front. In this methodology,

learning is considered a course of securing information. The teacher, then again, is considered a specialist who sends data, gives significant learning, motivates understudies, and thus works with learning. Hence, metacognitive gifts, like movement abilities, self-administration, and self-association, also represented in the motivation model, fostered through time. Mental cerebrum science in open and distance learning conditions; works with the change of showing data, motivation, and learning methodologies as per the learning styles of the understudies (Bonk & Khoo, 2014). In the constructivist approach, understudies' partner, find, learn, and build importance considering earlier information and encounters. In this methodology, the understudy, as opposed to the teacher, is in the middle, and the educator's job is that of facilitator and guide (Kawachi, 2003; Ertmer & Newby, 1993; Jokelova, 2012). The instructor should utilize effective systems to help the understudy in this situation. In this situation, the constructivist exhibiting strategy for open and remote learning conditions emphasizes a social presence.

The nearness and immediacy of the teacher increment understudy responsibility, fulfilment, and generally learning. Taking everything into account, online advancements, sincerely strong organizations, and analysis giving are fundamental (Bonk & Khoo, 2014; Jokelova, 2012). Motivation possesses a significant spot in the sociocultural hypothesis. Regardless of the significance of the social climate, the focal point of this approach is on something different. Individuals start to profit from others around them and their informal organizations (Vygotsky, 1978).

Moreover, mental advancement is tended to by the organization among people and societies. Right now, the sociocultural methodology and the motivation design model show huge similitudes as far as elements, for example, the worth of understudy educator cooperation, thought of the opportunity for growth, and the foundation of an association with learning targets. For a convincing and compelling opportunity for growth in the ongoing open and distance learning climate, a coordinated effort between the educator, understudy, and it is looked to learn assets. As cooperation builds, the jobs of the understudy and the educator are combined, and the teacher regularly expects the job of a specialist or a facilitator.

As per Litt and Moorei (2013), the elements that forestall or decrease students' inspiration in open and distance learning conditions and subsequently postpone their learning are recorded.

- Innovation,
- Content,
- Absence of correspondence and connection,
- Issues in day-to-day existence,
- The inflexibility of the educator,

Litt and Moorei (2013) express that assuming these elements are organized by students and educators, inspiration can increment, and learning can happen all the more rapidly. What's more, similar analysts expressed that when fitting procedures and strategies are applied in the four regions given underneath, inspiration will increment.

□ Intelligence [Two-way correspondence with regards to technology] (Yüzer, 2013) deciding the sort and level of communication, course satisfied, ordinary declaration, ideal and customized email, cooperation in conversations, social presence),

- Input (Personalized and helpful criticism),
- Variety (Innovative, interesting course materials),
- Mechanical Tools (Ease of purpose, filling a need).

Techniques and strategies that can be applied in these four regions are shrouded in numerous inspiration models or approaches. Data on these models is given underneath.

## 2.2. Meaning of Motivation in Distance Education

As expressed before, raising self-propelled students, and advancing self-guideline abilities is the leading training role. In this unique circumstance, the impact of inspiration on learning and execution is of focal significance. Inspiration is the power that empowers an individual to do and proceed with his exercises by his objectives. A variable assist with coordinating the activity, invigorating, and keeping up with the progression. An inside power controls the singular's way of behaving. Persuasive methodologies, then again, express the singular's view of the devices utilized by learning objectives and their presentation and comprise two essential aspects: self-guideline systems and inspirational convictions. Self-guideline methodologies allude to the cycles understudies think will help them while learning and use to arrive at data by their objectives. They incorporate mental technique use and self-guideline sub-aspects.

In this situation, the mental system alludes to redundancy, association and understanding used to recollect and learn data while performing scholarly errands in the study hall. The self-guideline sub-aspect is a functioning and valuable cycle where understudies put forth objectives for their advancement and afterwards screen, direct and control these objectives, inspirations, comprehensions, and ways of behaving. The climate guides and restricts the cycle.

Persuasive convictions, then again, offer the student's viewpoint and impression of their scholastic assignments and mental exercises in the homeroom and incorporate the sub-aspects of self-adequacy, natural worth, and test nervousness.

In this unique circumstance, self-viability is the singular's conviction and discernment about the errand as far as making progress, really trying, and keeping up with it. Natural worth is the understudy's impression of the capacities in the study hall (e.g., drawing in, accommodating, and fundamental). Test uneasiness, then again, incorporates understudies' impression of tests and considerations that may adversely influence scholarly execution. Many examinations uncover the positive connection between self-guideline abilities and inspiration in the homeroom climate with scholastic achievement.

For instance, in this unique situation, for instance, Tanrıseven and Dilmaç, secondary school 9-12. They analyzed the connection between elementary school understudies' persuasive convictions (saw feeling of viability regarding course execution, and so forth), self-guideline procedures (arranging, checking, and so on), and human qualities (obligation, kinship, regard, resistance, and so on.). Research discoveries in light of Pintrich's self-guideline model, which consolidates self-guideline procedures and persuasive components in the training system, showed that human qualities are a huge indicator of passionate convictions and are significant

indicators of self-guideline techniques in secondary school understudies. Notwithstanding these discoveries, specialists uncovered those human qualities play an interceding job in self-guideline through persuasive convictions. Obligation, viewed as human worth, is one of the fundamental characteristics of obtaining academic self-guideline abilities. By their discoveries, analysts show that self-guideline abilities are the reason for excellent scholarly execution and accentuation that self-guideline, persuasive convictions, and values that make them significant should be given significance in the schooling system.

One more review led by 7th-grade understudies analyzed the job of inspiration and self-guideline on scholastic accomplishment. The discoveries demonstrated that self-guideline abilities and inspiration were emphatically connected with the scholarly accomplishment and mental commitment of understudies. Analysts have stressed that persuasive convictions alone won't be adequate for fruitful scholastic execution and the need for self-guideline in learning.

In this unique circumstance, inspiration plays an essential part for students in distance schooling conditions to adapt to different challenges and arrive at their objectives. Self-guideline strongly impacts the framework's advantage from schooling in web-based learning conditions. Because of the absence of inspiration and self-guideline abilities of students in distance schooling conditions, they cannot arrive at their scholastic objectives and show achievement. Additionally, the absence of these abilities can make understudies surrender rapidly despite disappointment and experience issues managing issues. It is expressed that raising these abilities will likewise add to battling with difficulties in distance schooling conditions and can be an answer for specific issues, for example, exiting.

The student's inspiration and self-guideline abilities should be high to guarantee scholastic progress in distance schooling and homeroom conditions. Hodges states that inspiration is one of the fundamental components in distance schooling conditions and utilizing persuasive systems is essential for the understudy to find true success. It is demonstrated that people with high self-guideline abilities, inspiration, and solid identity viability are bound to succeed in distance training conditions). Then again, it is stressed that understudies with an absence of self-guideline abilities and inspiration in the web-distance schooling model are substantially more prone to encounter hardships.

Electronic preparation requires a high degree of independence. Therefore, it is expressed that in electronic distance schooling systems, understudies ought to be effectively engaged with educational experiences, and their inspiration ought to be enacted to guarantee scholarly achievement. Teachers ought to guide understudies to utilize inspirational procedures. Many examinations show that self-guideline abilities and inspiration increment educational progress in frameworks that embrace the electronic distance schooling model.

Notwithstanding the examinations showing the job that self-guideline and persuasive methodologies play together on scholarly accomplishment and that these two abilities feed one another, there are likewise concentrates on which these designs are taken care of independently. For instance, Greene and Acevedo inspected the effect of self-managed learning in grasping a mind-boggling science subject in hypermedia (distance discovering that gives understudy's admittance to a broad scope of data such as text, sound, designs, liveliness, and video) with secondary school and centre school understudies. In the exploration, it has been shown that self-controlled learning, like self-checking towards objectives, schooling, and methodology used, is fundamental in understanding and grasping complex issues. Another review examined the impact of self-guideline methodologies on execution in PC-based guidance with 7th-grade understudies.

In the paper, self-guideline expertise was dealt with in two different gatherings where the students have discretion in their schooling, and there is program control. The exploration results showed that the understudies who were in charge performed lower than the gathering that was in charge of the program. The understudies with low execution were the understudies who utilized standard self-guideline methodologies. The discoveries of Artino's exploration likewise called attention to the fact that self-managed learning in web-based learning conditions is fundamental in giving adequate growth opportunities (positive scholastic outcomes, fulfilment). These and comparative outcomes uncovered that to make scholastic progress in PC based training models under understudy control, severe strength areas for having guideline skills are fundamental.

In one more review directed with a college test, the impacts of persuasive techniques on the scholarly accomplishment, mentalities, activities, and inspirations of understudies who take courses online with distance schooling were analyzed. In the review, which was completed with a semi trial research model, the strategies and intelligent inspiration methodologies (guidance on-course achievement, providing data about the motivation, design, and significance of the course, and so forth) that they can use in distance training were passed on to the test bunch utilizing messages and messages. Then again, in the benchmark group, a customary educational plan (e.g., moving the subject with a live example) was utilized at a more shallow level than a clear plan (e.g., conveying the subject utilizing a hitting plan with a live class). The discoveries showed that the connection between inspirational systems and scholarly accomplishment varied altogether between the exploratory and control gatherings. It was seen that the understudies who involved the persuasive framework in the exploratory gathering had higher inspiration, disposition towards the illustration and scholastic accomplishment scores than the benchmark group.

As indicated by the overall assessment, when instructors get ready for secondary school learning conditions by considering the singular distinctions of understudies and deciding on self-guideline techniques, understudies will want to figure out how to arrange themselves, and this will add to their scholarly achievement. Deciding the inspirations and self-guideline methodologies of students and surveying the instructive conditions by this information will give other positive outcomes from education. Simultaneously, somewhere far off the school system, a table, chart, text, and so on, where the understudy can make their assessments about the course, is given. Permitting understudies to utilize self-guideline techniques, like giving criticism, has a fundamental spot in guaranteeing scholarly achievement.

In one more review directed with first-year college understudies concentrating on distance training, female understudies had higher normal self-guideline abilities than male understudies. The view of self-viability, which persuades understudies in distance schooling and is a fundamental component of self-guideline, is related to scholastic achievement.

### **2.3. Motivational Design Models**

Before, there was a comprehension that the instructor's occupation was to show the substance, and the students were liable for their learning and inspiration. Considering new learning conditions and correspondence innovations, we can say that this point of view is a relic of days gone by. New advancements are reshaping the present learning conditions and assisting with integrating persuasive development and student support techniques into educational plans. While expanding and keeping up with students' inspiration is a complex undertaking even in up close and personal conditions, this present circumstance is considerably more troublesome and complex in distance learning conditions. The absence of inspiration in distance training conditions makes students fruitless, disappointed, and exit school/course. In this setting, it has been expressed that the main component of effective education is an inspiration. Surprisingly, the best educational plans will fall flat on the off chance that suitable persuasive methodologies are not utilized in the growth opportunity.

Then again, it has been accounted that those clear, informative plans and methodologies in distance training will build students' achievement and fulfilment levels and abatement the pace of dropout from school/course.

Keller's ARCS-V (Attention, Relevance, Confidence, Satisfaction and Volition) educational plan model (1983, 1987, 2008, 2010), rather than conventional informative plan models, offers an innovative context-oriented system for student inspiration. Circular segments V inspirational informative plan model, as other educational plan models, is a directing

methodology. This model is to give direction on the utilization of inspirational methodologies and strategies. Furthermore, its pervasiveness as a showing model is slowly expanding. In 2005, the Chinese government began to utilize the ARCS persuasive educational plan model in learning conditions and educational plan fully intent on making student-focused approach and intelligent learning systems inside the extent of the eleventh five-year advancement plan China Project.

Innovation in advanced education builds the kinds of training that will make an option in contrast to conventional schooling. Albeit the new age in advanced education appears to be mechanically prepared, they have trouble becoming accustomed to these new distance learning conditions and track down these conditions as perplexing and unique. The inspiration factor, which generally affects students' commitment to the change to new learning conditions and their scholastic achievement, is as yet a circumstance that informative creators, instructors and instructive organizations cannot survive.

The field of the educational plan is one of the continually changing and creating fields. In any case, the meaning of the field likewise shifts in line up with this change. In its most broad portrayal, an informative plan is characterized as "distinguishing the instructive necessities of a particular objective gathering and creating powerful, productive and appealing learning frameworks to address these issues". The central role of an educational plan is to establish practical, informative conditions by following orderly cycles. AECT (Association for Educational Communications and Technology) continually rethinks this field contingent upon creating advancements and learning conditions. In the radiance of these definitions, Robert Reiser characterizes an educational plan as "the utilization and the executives of innovation for educational purposes and the advancement of learning conditions with deliberate educational plan strategies to work with learning and work on the exhibition of students". In the illumination of this definition, the ARCS-V persuasive educational plan model is one of the informative plan models used to foster an innovation-based learning climate with methodical educational plan strategies to work on students' exhibitions and increment their inspiration.

Inspirational plan models were characterized by four gatherings by Keller (2006a; 2010a). These models are the initial three models depend on mental speculations. Then again, the exhaustive model depends on commonsense and academic establishments and incorporates both educational plan and inspirational plan methodologies. Furthermore, complete models depend on extraordinary strategies or subjects, as opposed to in light of a particular hypothesis, and perform more effective applications (Carpenter, 2011: 68; Keller, 2006a, 2010a).

### **Individual focused models**



Albeit these models are founded on mental designs or hypotheses, they address more than one inspiration aspect. The reason for these models is to make learning more potent by achieving positive changes in individuals' inspiration. An illustration of this model is the theme assimilation process acquainted by McClelland in 1965 with increment the accomplishment inspiration of grown-ups (Carpenter, 2011; Keller, 2010a: 27). One more model is the activity control systems set forward by Kuhl (1987), which comprises six procedures. These methodologies are separate; It incorporates specific consideration, coding control, feeling control, inspiration control, natural control, and cautious data handling. These methodologies support individuals' endeavours, transform them right into them, and empower them to accomplish their objectives. At long last, the planning model set forward by Corno and Randi (1999) for self-managed learning in homeroom settings can be given, for instance. In this model, five methodologies like Kuhl's activity control systems for self-guideline ways of behaving are recorded: metacognitive control, inspiration control, feeling control, control of errand circumstance and control of others in the working environment (Carpenter, 2011; Keller, 2010a: 29).

#### **Climate focused models**

These models depend on the standards of social brain research. Likewise, ways of behaving are cleared up by individuals' responses to natural elements. In this model, in which the inward conditions of individuals are not considered, transformations in that frame of mind of hardship and satiety are utilized as the principal strategy to influence inspiration. Based on this, it is shown that individuals are bound to rehash ways of behaving that they are happy with and come by the expected outcomes. There are numerous changes in behaviour patterns models about ecocentric models. The majority of them cover the possibility of the executives and are carried out in five stages (Keller, 2010a: 31). Deciding the conduct, you need to change in the initial step, deciding the recurrence of the activity prior to mediating in the subsequent advance, laying out the fundamental level, and arranging the support conditions as per the event or non-event of the exemplary conduct in the third step, applying for the program in the fourth step. It is recorded as assessing the outcomes to comprehend whether there is an issue (Carpenter, 2011; Keller, 2010a: 31).

#### **Connection focused models**

Connection fixated models depend on the reasoning that individual and climate-focused models can't give a good premise for making sense of and figuring out human inspiration (Keller, 2010a). In this model, as per the social learning hypothesis or hope esteem hypothesis, human qualities and natural capacities are viewed as peculiarities that affect and are impacted by ecological circumstances (Keller, 1983). Likewise, this model is the most involved model in

learning, and inspiration concentrates on instructive conditions (Carpenter, 2011; Keller, 2010a: 33).

The ARCS-V inspiration model, which is the principal subject of this review and depends on the assumption esteem hypothesis, support hypothesis and mental assessment hypothesis, depends on the focused communication model. This model comprises five classes covering the inspiration variable. These; are a consideration, relationship, trust, fulfilment, and activity. These classes are gotten from many explorations, reviews, and inspirational builds. The most specific component of the ARCS-V model is a deliberate plan process in light of the inspiration examination of the students for the systems and strategies to be utilized. What's more, the ARCS-V model is a model that recommends the utilization of specific methodologies at explicit places in the showing system, in contrast to numerous strategies.

### **Wide scope of models**

Models in this setting are not precisely persuasive plan models; however, they give instances of the best inspirational procedures in specific circumstances. Albeit these extensive (blended) models have a few theoretical foundations, their primary establishments depend on the standard of utilitarianism. They are intended to accomplish a specific showing reason inside the structure of a comprehensive framework approach. Persuasive methodologies are implanted in such models. In the execution cycle, steps, for example, drawing into consideration the student, deciding their qualities, observing their advancement, are generally followed to remunerate their prosperity. Moreover, these models incorporate constructivist approaches for significant and setting based learning of students in the plan of the learning climate (Keller, 2010a: 34).

Sleuth VARIETY (Tone, Encouragement, Curiosity, Variety, Autonomy, Relevance, Interactivity, Engagement, Tension, Yielding Products) suggested by Bonk and Khoo (2014) can be referred to act as an illustration of exhaustive models for distance training conditions. As indicated by this rule, it is expressed that inspiration will increment when a few standards are joined with proper plan models. The TEC-VARIETY guide, which will build the inspiration of educators in open and distance learning conditions and guide them by Bonk and Khoo (2014), comprises ten things. The aide, which is shaped from the abbreviate:

Psychological approaches on which the attention factor is based:

- Item Representation Theory,
- Teaching Situations Model,
- Thrill Search,
- Arousal Theory,
- Boredom,
- Curiosity.

Psychological approaches on which the relationship factor is based:

- Achievement, Intimacy and Power,
- Purposeful Behavior,
- Goal Orientation,
- Field Theory,
- Goals and Values,
- Competence,
- Interest,
- Flow.

The two factors shown in this column represent expectation-value theory in the context of motivation. While the trust factor expresses the expectation in the theory, attention, and relationship (interest) factors represent value (Keller, 2008b: 83; Keller, 2010a: 6). The satisfaction dimension in the upper right corner expresses the cognitive evaluations that are formed as a result of the learners' performances based on internal and external outputs. ARCS-V added the "volition" dimension to the motivation design model in the context of Kuhl's (1987) action control theory (Keller, 2008a, 2008b).

Thus, the ARCS model has turned into the ARCS-V structure. The ARCS-V motivation design model has been expanded to five motivational dimensions that increase learners' motivation.

These dimensions are attracting the attention of the learners, establishing a relationship between the content and the learning goal orientations and styles of the learners, establishing confidence in success, structuring the instruction for learners to achieve internal and external satisfaction, and finally, acquiring action competence, that is, self-regulation skills.

In the framework of expectation-value theory, motivation generally expresses the wishes and desires of learners.

The stronger the aspirations and desires, the higher the learner's motivation and, therefore, the higher their ability to accomplish a task. However, since the motivation of learners with weak wishes and desires will be low, their ability to act, in other words, their self-regulation skills, will also be low (Keller, 2010a: 7).

At this point, Keller states that learners must have action competence in order to realize motivational goals and wishes. Otherwise, success cannot be achieved (J. M. Keller, face-to-face interview, 13 November 2015). The action factor added to the ARCS-V model is named "Motivation, Action and Performance Macro Model". The action element is based on Kuhl's action efficacy theory, Gollwitzer's theory of intention to practice, and Zimmerman's self-

regulation theory (Huang, Hood, & Yoo, 2014; Keller, 2008b: 86; Keller, 2010a: 10; Keller & Deimann, 2012).

Two outputs have been added to this extended model. In addition, the concept of effort in the first model appears in three different forms.

First, the choice of the goal expresses the management of the effort. In contrast, the second behaviour is the intention to participate in the action, the intention and desire that occurs before the action. Finally, action continuity is ensured due to active participation intention and control.

During the learning activity, it is essential to attract the learners' attention with various animations, graphic elements, or questions. Among the more effective attention-grabbing or intriguing strategies, learners' challenging, and unresolved questions can be cited as an example. These questions can stimulate learners to investigate.

In addition, concrete examples, diversity in lesson tools and in presentation, and elements such as humour are some strategies that will attract learners' attention (Acar, 2009; Jokelova, 2013, Keller & Suzuki, 2004). Keller (2010a) recommends using attentional strategies that increase motivation, such as perceptual arousal, exploratory arousal, and providing diversity.

Within the scope of this research, the following process questions about the communication tools used in the online learning environment are included to attract and maintain the learners' attention.

□ Perceptual Arousal: What types of motivational messages, e-mails, video types and content might be of interest to learners? How can such communication tools increase learners' perception that this course is important for their success?

□ Research Stimulus: How can motivational messages, emails, and videos increase learners' curiosity? How can such communication tools encourage learners to ask questions and engage in research?

□ Diversity: How do motivational messages, emails and videos grab learners' attention? How often should these communication tools be used? Also, what changes should be made to maintain learners' attention?

The second component of the ARCS-V model is the relationship. According to Keller (2010a, 2010b), relationship building is the most important part of the ARCS-V model. In the relationship step, the teacher asked, "Why should learners learn this lesson/subject?" or the learner's questions "Why should I learn this lesson/subject?" using various motivational tactics. Learners learn subjects/information that are compatible with their goals more easily (Keller, 2010a; Keller & Deimann, 2012). Therefore, the goals of the learners are to pass the course, feel

good, make their family happy, have a job, work in a company, etc. There may be reasons. If learners do not see a connection between their own goals and their learning, they become less motivated and disengaged.

For this, relationship strategies such as goal orientation, motivation matching and intimacy should be used in motivation design (Chang & Lehman, 2002; Keller, 2010a). Within the scope of this research, the following process questions about the communication tools used by the learners to relate to their goals were included.

- Goal Orientation: How can motivational messages, emails, and videos meet learners' motivational needs? How can messages, emails, and videos help the teacher with learner needs and goals? Or how should messages, emails and videos be created to engage learners' learning goals?

- Motivational Matching: What types of messages, emails and videos posted online encourage learners, create a sense of belonging and increase accountability?

- Intimacy: How are the communication tools used to make learners feel that they are personal communication tools and that they are related to them? How to establish communications that support the link between learners' learning and personal experiences?

The third component of the ARCS-V motivation model is trust. Confidence refers to learners' expectations of being successful. When learners believe that they will be successful as a result of their efforts and they know that their success comes from their own abilities, their motivation increases (Jokelova, 2013; Keller, 2010a). At this point, the instructional objectives in the course are very important because the learner knows what to do in order to be successful in line with the stated objectives. In addition, measurement-evaluation tools and evaluation criteria should be known by the learner, feedback should be given to the learners, and they should be compatible with the teaching objectives and subject content. The teacher can increase the motivation of learners about confidence with success conditions, opportunities for success and personal control strategies. Within the scope of this research, the following process questions about the communication tools used to ensure learners' confidence are included.

- Opportunities for Success: How do motivational messages, emails and videos increase and encourage learners' belief in their efficacy? What kinds of messages encourage learners to be successful?

- Conditions for Success: What types of messages help learners take a positive approach to success? What kinds of motivational messages help learners understand what is expected of them? What general motivational messages help learners feel confident?

- Personal Control: What types of motivational messages help learners understand that their success will be driven by their own efforts? What kinds of messages encourage learners to have control over their own learning experiences?

The initial three stages of the ARCS-V model cover the important stages for figuring out how to happen with regards to inspiration, and the fourth step, fulfillment, empowers students to have good sentiments about their growth opportunity and cycle (Keller, 2010a; Keller and Suzuki, 2004; Stewart and Crone, 2016: 39). For this, students can be fulfilled inside the system of inward award, outer prize, and equivalent treatment. For instance, giving criticism to students that will build up their good feelings, endeavors, and accomplishments, and utilizing verbal commendation or substantial prizes will make the inclination that their prosperity is significant.

In addition, it is extremely important to act in harmony with the expectations stated at the beginning and to use consistent measurement and evaluation tools in order to feel that learners are treated equally. Motivation of learners is tried to be increased with internal reinforcement, reward and equality sub-factors and strategies for satisfaction. Within the scope of this research, the following process questions are included regarding the communication tools used to ensure that the learners achieve satisfaction.

- Intrinsic Reinforcement: How can motivational messages, emails, and videos provide learners with an opportunity to reveal their new knowledge? What kinds of messages can make learners feel successful?
- Extrinsic Reward: What kinds of messages support learners' achievement and attitudes towards learning? How to convey in messages that learners' efforts are noticed, praised, and congratulated?
- Equality (Consistency): What types of messages inform learners that they have equal rights and can learn at their own pace? How can it be conveyed to the learners in the messages that the measurement and evaluation criteria are compatible with the expectations and are standard?

### **CHAPTER 3. ANALYSIS OF THE RESEARCH METHOD AND FINDINGS**

In this section, the examination model, study area, target group, factors, application, data collection devices, and empirical techniques and methodologies applied in data analysis are explained. The Distance Education Evaluation Questionnaire in the COVID-19 Procedure, which was developed for the purpose of the examination, was utilized to evaluate college understudies' perceptions of the distance education process, which was altered because of the COVID-19 global pandemic. In the 34-item survey, there are 16 questions regarding the qualities of distant

education, 6 questions about the school staff, 6 questions about the instruction of the courses, and 6 questions about the problems encountered in distance education. The responses are collected using a 5-point Likert-type scale (1 = I definitely disagree, 5 = I strongly agree). Each of the 34 sub-aspects of the survey, as well as the entire survey, were subjected to a rigorous quality check. The Cronbach Alpha values obtained for the attributes of distant education subtest (0.935), for the educator's subtest (0.934), for the teaching of the course's subtest (0.829), for the difficulties encountered in distance education subtest (0.795), and for the overall survey are not fixed. As expected, the constructed poll has an exceptionally high reliability coefficient (George and Mallary, 2003). With the Academic Motivation Questionnaire in the COVID-19 Process designed for the purpose of this study, the factors that influence the scholastic motivation of college students enrolled in distant education programs completed during COVID-19 are still unknown. In the 19-item survey, 7 items related to internal variables are deemed influential on student motivation, along with 7 items related to growth opportunities, 2 items related to daily living, and 3 items related to external components. The replies are collected using a 5-point Likert-type scale (1 = least impacted, 5 = broadly impacted). The Cronbach alpha coefficient was calculated to measure the dependability of the poll's questions. Cronbach's alpha remains uncertain at (0.901) for the internal factor's subtest, (0.840) for the prospects for growth subtest, as (0.999) for the day-to-day life subtest, (0.734) for the external aspect's subtest, and (0.860) for the overall survey.

With the Academic Motivation Questionnaire in the COV-19 Process, high-reliability estimation findings can be obtained for determining the viewpoints of college students on remote education in the COVID-19 global pandemic (George and Mallary, 2003). Prior to administering the examination, approval was obtained from the Azerbaijan University Social Sciences Sub-Ethics Committee (Decision Date: 17.08.2020 and Decision No. 2020/126). With the poll structures converted to Google Forms, a web-based research platform, the data was collected using a web-based overview technique (Arkan, 2018). At the beginning of the structures, an educated assent structure explaining the purpose of the examination was added to the students, and a checkbox was added so that the students could not proceed to the summary structures without giving their assent that they voluntarily participated in the examination. The link to the summary was provided to the student groups along with information regarding the scientists' investigation. The quantitative information gathered from the Distance Education Evaluation Survey in the COVID-19 Process and the Academic Motivation Survey in the COVID-19 Process cannot be used to draw absolute conclusions. For each piece of information gleaned through polls, separate observations are made.

The responses reveal the students' thoughts on their own experiences with the web-based distance education procedure. Thus, the data were analyzed using the SPSS 21 package program, and the frequency (f) and percentage (percent) of the students' positive responses to each survey item were calculated. Excluded from the analysis were the data obtained from the pilot application developed during the development of the surveys (n=20) and the data of members who participated in the survey but did not respond to every question (n=1). Even if the change that accompanies the break in education on a global scale as a result of the COVID-19 global pandemic is vast and rapid, the cycle has been managed exceptionally well by every nation, organization, and client. Education and preparation have undergone a field test of how they should be shaped to meet the demands of the new world order, and unique situations have been created to enable teachers to implement rapid adjustments in their teaching.

Despite the fact that e-learning apps are not new, the dramatic transformation that preceded the epidemic has removed the learning and assisting processes from the actual world and given them a new appearance. During the COVID-19 worldwide pandemic, several educational institutions made virtual courses, seminars, and studios accessible to enable students to interact with multiple instructors in conventional education. The findings of the examination revealed that 48.6% of the members utilized instructional materials other than the online education provided by their universities. However, students reported that web-based distant education allows them to control their learning strategies. This current condition can be interpreted as the students participating in the research also benefiting from this opportunity created to nurture 21st-century skills (Pellegrino and Hilton, 2012), which are frequently highlighted, and for shifting the responsibility for learning to the student. Due to the difficulty in quantifying academic credibility online, clarity and decency of evaluation methods are more important than ever before for students. Effective knowledge of the courses and practices established by the educational program's course content is the consequence of the employees' short-term adaptation to the changing biological system and the readiness of the direction contents in accordance with formal training. It tends to be conclusive with regard to the implementation of the instructive encounter. Focuses on demonstrating that innovation or framework-related difficulties can affect all participants in the web-based distance education process (Ik and Bayrak, 2015).

However, when the web-based direction of education is bound to be disrupted by technical issues and the potential outcomes of individuals compared to formal training, the fact that the length of the course is not completely predetermined in accordance with these factors may also be a determinant of the quality and productivity of training. The findings of this study indicated that the students believed the assessments administered during remote education were



conducted impartially. They felt that the courses/applications were acceptable for the course content and that the course length was adequate. However, students believe that the internet-based distant education they received did not improve their academic performance. This conclusion suggests that if an application where innovation is the foundation of education is implemented in the future, it should be improved in terms of quality. It is likely that there will be a need to enhance educational programs in order to increase student engagement and meet student needs. In this case, the findings of the study indicate that the students believe that building a homeroom environment with discussions/live examples is insufficient for socializing.

Exams have revealed the significance of the social factor in terms of student success in distance education (Wegerif, 1998; Arasaratnam-Smith and Northcote, 2017). Within the scope of this study, it is believed that virtual learning environments have not adequately met the socializing requirements of training. This study's findings indicate that students believe their instructors effectively manage the cycle and provide them with feedback on the issues that are important to them. Schools play a crucial role in mitigating the impact of individual and familial characteristics that students bring to the learning environment. Nonetheless, as a result of the physical removal of schools, these individual and family aspects have become more visible. Despite the fact that, when used appropriately, e-learning can be an exceptional source of assistance in this situation, it has the potential to exacerbate existing inequities in education. This is demonstrated by the findings of this review. Members believe that online education accentuates financial disparities between students. According to Anderson (2020), the transition of school systems to online environments has revealed discrepancies in tutoring due to inadequate access to innovation and methods and human resource shortages. As students' scholastic motivation will vary based on where they are, their daily circumstances, and what they deem significant, the purpose of education will also vary.

### **3.1. Research Model**

The effects of macro-adaptive, micro-adaptive and non-adaptive learning environments on students' academic success, satisfaction and motivation were investigated in the experimental process of this research. For this, the study was planned and carried out in accordance with the 3x2 factorial design, taking into account the study groups and the number of repeated measurements.

Factorial designs allow to see the individual and joint effects of two or more independent variables on the dependent variable (Balci, 1997). In two-factor designs, there are at least two factors whose effects on the dependent variable are examined. One of these two factors shows

the different experimental processing conditions created by the neutral groups, and the other shows the repeated measurements of the subjects at different times (Büyüköztürk, 2001).

The first of the factors of this factorial pattern, which includes repeated measurements; Adaptability level is its independent variable with 3 groups including non-adaptive, macro-adaptive and micro-adaptive environments. The second factor is the two-level measurement variable consisting of the pre-test and post-test, which is used to measure the change of success according to the tests. The dependent variables of the research are achievement, satisfaction, and motivation.

The variable that includes repeated measurements in this design is a preliminary measurement made before the experimental procedures of the research carried out on three different groups and the final measurement after the experimental procedures are completed.

### 3.2. Participants

The groups consisting of macro-adaptive, micro-adaptive and non-adaptive LMS environments were pre-measured for the motivation dependent variable, and the final measurement was made for the satisfaction and motivation dependent variables.

**Table 1. Symbolic View of the Research Pattern**

Study Groups	Pre-Test	Independent variable	Final Test
Group 1	X <sub>1</sub>	Macro Adaptive LMS	X <sub>2</sub>
Group 2	X <sub>1</sub>	Micro Adaptive LMS	X <sub>2</sub>
Group 3	X <sub>1</sub>	Non-Adaptive LMS	X <sub>2</sub>

*X1: Pre-test applied to the groups (achievement, motivation)*

*X2: Post-test applied to the groups (achievement, satisfaction, motivation)*

The achievement variable includes two related measures, and the adaptive approach dimension includes three unrelated groups. Among the tests developed to enable comparison of more than two groups at once, the most well-known and most widely used is the analysis of variance. Therefore, the achievements of the groups were evaluated with a two-factor ANOVA test for repeated measurements on a single factor.

In the second semester of the 2019-2020 academic year, a total of 65 students studying at the 4<sup>th</sup> year of Azerbaijan University Education Faculty, Computer, and Instructional Technologies Education (CEIT) Department participated in the research within the scope of the "Project Development and Management II" course. The students participating in the research

were randomly divided into three peer groups: students learning in macro-adaptive, micro-adaptive and non-adaptive environments. With the pre-test applied to the students, their knowledge levels were measured, and their pre-knowledge levels were defined as “low”, “medium” and “high” on the pre-education system.

Thanks to the implementation of the application with CEIT Department students, there was no need for a detailed adaptation training on internet and computer use, online learning environments and LMS software, and brief information was provided about the system used before the application.

The application was carried out independently of the courses taken by the students, and the learning material was not associated with any compulsory or elective courses. Since there may be differences between the achievements of the students in different groups due to the application, a different content from the course content in the CEIT section was chosen so that the students would not be victimized. Considering that the graduates of the department can take on software development tasks in their professional business life, it was preferred to give Java programming language training after the basic information of object-oriented programming was given.

A pre-test was applied to 65 students before starting the research and their preliminary knowledge levels in the user model were determined according to the results of this test. The assignment of students who were in environments with 3 levels of adaptability, macro-adaptive, micro-adaptive, and non-adaptive features, to the groups was carried out randomly. 61 students who continued throughout the experimental process participated in the research. 21 of these students completed the learning process in a macro-adaptive, 20 micro-adaptive, and 20 non-adaptive environments.

In order to see whether there is a statistically significant difference between the groups in the pre-test results of the students who were divided into three groups according to the level of adaptability, analysis of variance (ANOVA) for unrelated samples was applied on the pre-test total scores.

As seen in Table 2, it was determined that there was no significant difference between the groups [ $F(2, 58) = .28; p > .05$ ]. In this case, since there is no difference between the groups, it can be said that the study groups were equivalent to each other in terms of success variable before the experimental procedures.

**Table 2. Variance Analysis Results of Pre-Test Success Scores of Study Groups**

Team	N	X	S	Variance	Sum of
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				<b>Source</b>	<b>Squares</b>
Macro	<b>23</b>	<b>21.44</b>	<b>7.50</b>	<b>Between Groups</b>	<b>75.89</b>
Micro	<b>22</b>	<b>23.55</b>	<b>7.43</b>	<b>In groups</b>	<b>7647.00</b>
Normal	<b>21</b>	<b>21.00</b>	<b>15.63</b>		<b>7721.96</b>
Total	<b>66</b>	<b>65.99</b>	<b>35.56</b>	<b>Total</b>	

### 3.3. Data Collection Tools

During the study, two tests, pre-test and post-test were prepared for the success of the students of the Azerbaijan University of Languages. Two different tests were developed to measure students' motivation and satisfaction levels. Here are the processes that follow the development of students.

In the study, two separate Success Tests were used as initial and subsequent tests to determine the academic achievements of students at the Azerbaijan University of Languages. The success variable was evaluated on the basis of scores from two main dimensions.

Pretest: To determine the initial characteristics of the user model in the application by determining the previous level of knowledge of students on the subject "Object Oriented Programming and Java" before the measurements and operations applied before the experimental processing conditions.

Final Test: A measurement taken to see the impact of the application process immediately after students participate in the experimental processing environment.

It was decided to use multiple-choice questions in the achievement test to ask enough questions for each dimension and thus ensure the validity of the test content.

A specification table was created that reflects the types of elements used in the achievement test and their distribution by size, and test questions and distractions were developed for these questions based on this specification table. The specification table and test questions prepared by the researcher were submitted to 6 experts, including three programming teachers, one assessment and evaluation specialist, and two educational technologists, for expert opinion. According to the experts, appropriate adjustments were made and it was decided to include 40 items in each test.

The analysis of the answers to each question in the test separately is called the analysis of item scores. The analysis of the selected tasks emphasizes three aspects. One of them is the difficulty of the object, the second is its difference, and the third is the functionality of those who distract the object (Yilmaz, 2004). The difficulty of the item is the ratio of the number of correct answers to the total number of respondents; this is the percentage of correct answers.

Discrimination is the ability to distinguish respondents with controlled behavior from non-respondents. The functionality of attention-seekers is to prevent those who do not have question-tested behaviors from finding the correct answer by presenting themselves as the correct answer (Horzum, 2007).

A pre-application was carried out in order to develop the achievement tests. A pilot group similar to the main application group in terms of demographic characteristics participated in the pre-application. The preliminary application of the research was carried out with the participation of Azerbaijan University CEIT 2nd and 3rd year students and Azerbaijan University of Languages CEIT 3rd year students in the first semester of the 2011-2012 academic year, with the participation of a total of 87 students. During the pre-application, the deficiencies and improvements related to the material or LMS were made, and the final version of the material was created.

After the pre-application, item analysis was applied to the pre-test and post-test success scores. In order to examine the item difficulties and item discrimination of the tools, lower and upper 27% groups were formed. For this, the answer sheets of all students were scored and ordered from the highest score to the lowest score.

Likewise, answer sheets (27%) were taken as much as the number of answer sheets from the upper group, starting with the lowest score, and this group was also called the lower group. The remaining answer sheets were not taken into account in the item analysis. A separate table was prepared for each question of the draft test, and in these tables, the answer choices of the students in the upper and lower groups were indicated for each question. "Item difficulty index" and "item discrimination index" were calculated for all questions. The item difficulty index, which shows the correct answer rate for each item, ranged from "0" to "1". It can be said that items with an item difficulty index value approaching zero are difficult, and items approaching 1 are easy.

The item discrimination index is the degree to which an item distinguishes students with a high level of achievement from students with a low level of achievement. The discrimination index of the item takes values between -1 and +1. A negative discrimination index indicates that those with low scores answered that item correctly rather than those with high scores, and therefore that item is a bad item (Şen & Eryılmaz, 2011). If the item discrimination index approaches zero, the upper and lower group discrimination of the item is low, and if it approaches +1, the discrimination is high (Gönen, S. Kocakaya, & F. Kocakaya, 2011).

In the elimination phase of the items in the test, questions with item discrimination greater than 0.30 and difficulty index between 0.40-0.60 were considered good questions. Items with item discrimination between 0.20-0.29 and difficulty index between 0.15-0.39 and 0.61-0.85 were evaluated as usable questions in the test. Other questions were excluded from the test.

Pre-Test: As a result of the analysis, 9 items with inappropriate item difficulty levels and low discrimination were removed from the test, and necessary adjustments were made for distractors that did not work well. KR-20 analysis was performed for the remaining 31 questions, since only the items that were answered correctly were given 1 point, and the difficulty index of the questions was known. As a result of the analysis, 7 more questions were eliminated, and the KR-20 reliability coefficient was calculated as 0.73. The mean difficulty index of the items in the 24-question test was found to be 0.54, and the mean discrimination level was 0.45. When the item analysis chart is examined, 19 questions in the pre-test can be described as good. The high and low scores of these questions, which are considered good questions, indicate that the level of discrimination is quite high, and the difficulty level of the answers given to the test is neither too easy nor too difficult, that is, an average value. In addition, 5 questions are at the level of use in the test, and the discrimination levels of high and low scores are quite high.

Post-Test: As a result of the analysis, 9 items with inadequate item difficulty levels and low discrimination were removed from the test, and necessary adjustments were made for distractors that did not work well. KR-20 analysis was performed for the remaining 31 questions, since only the items that were answered correctly were given 1 point, and the difficulty index of the questions was known. As a result of the analysis, 4 more questions were eliminated, and the KR-20 reliability coefficient was calculated as 0.77. The average difficulty index of the items in the 27-question test was 0.48, and the average discrimination level was 0.50. When the item analysis chart is examined, 22 questions in the post-test can be qualified as good. The high and low scores of these questions, which are considered good questions, indicate that the level of discrimination is quite high, and the difficulty level of the answers given to the test is neither too easy nor too difficult, that is, an average value. In addition, 5 questions are at the level of use in the test, and the discrimination levels of high and low scores are quite high.

Many LMSs are used successfully in online learning environments, and they support teachers in delivering and administering online courses. The most basic point that such systems ignore is the individual differences among students (Graf, 2007). Many researchers who want to use the important advantages of LMS, when they need to conduct experimental studies on adaptive systems, generally integrate the systems they have developed with LMSs. Since many features that come with LMS were wanted to be used in this research, Moodle LMS, which is

very flexible in terms of plugin and integration, was preferred. The stable version 1.9, which was published during the research, was used. Some problems are encountered in different environments, such as using the content together with the Learning Management Systems developed by different institutions or transferring the user behavior information to different environments. The studies carried out to ensure that the contents can be reused and integrated with the systems are the concepts of Learning Objects, Meta-Data, User Profile, Content Packaging and Content Communication. and led to the emergence of notifications and standards related to these concepts (Aslantürk, 2002).

Within the scope of this study, it was necessary to select a standard supported by LMS, suitable for adaptability and reusability of presentation. IMS specification, which is one of the standard options; It includes MD (metadata), SS (simple sequencing), CP (content packaging), RDCEO (competencies, objectives, and prerequisites), QTI (questionnaires and tests) and LIP (learner profile).

IMS-LD (Instructional Management Systems-Learning Design) consists of 3 levels. Level A includes all essential elements, roles, activities, learning objects and services. Adds the features and requirements required for Level B user modelling, Level C adds inter-actor notifications. It is possible to add and present content in IMS standard to the LMS, but the Level B part of the IMS Learning Design specification, which allows user-specific flow, is not supported by the latest stable version 1.9 and beta version 2.0 of the LMS.

The material developed in the research is in SCORM (Shareable Content Object Reference Model) 2004 format in order to use adaptive features easily and to make them reusable. The latest version of SCORM which is SCORM 2004 4th version, has sorting and navigation features. It also includes IMS Metadata and Content Packaging definitions. LMS provides partial support to the SCORM 2004 standard used in the research. This version, which is known as the 4th Edition and includes features that provide a unique flow, is also not supported by the LMS 1.9 version. Therefore, some improvements were needed.

The sorting and navigation features of both IMS and SCORM are not supported by LMS. SCORM for the development that needs to be done to provide adaptive features, contains the information in the imsmanifest.xml file, which is the xml file containing the detailed information of the content.

SCORM was chosen as the content standard in this application because it is more convenient in terms of usability and authoring tools used to develop SCORM content are more common. In addition, Yaghmaie and Bahreininejad (2011) and Milošević and Brković (2007)

used the SCORM standard in adapting the content in their research, which inspired the suitability of the content development model of this research.

Before the study, different materials were prepared according to the level of prior knowledge. The content presentation was carried out by skipping the information that was determined to be known by the student and whose complexity level increased according to the high level of prior knowledge. In the adaptive applications where both the content and navigation are adapted in the literature, the level of knowledge of the student has been the most important and most frequently used characteristic of the user model. It is a feature whose level of knowledge can vary. While it increases over time after the learning process, it is also possible to decrease due to forgetting. Adaptive systems are expected to recognize this change and make necessary updates to the user model (Brusilovsky and Millán, 2007).

In the study, LMS with 3 different features, which are 3 levels of adaptive learning, macro-adaptive, micro-adaptive and non-adaptive (normal) was used. In these learning environments, suitable materials were presented to students with low, medium, and high levels of prior knowledge. With these materials, knowledge of Object-Oriented Programming and Java (NYPJ) is given. The content of the NYPJ course consists of a total of 4 main sections and 12 topics. In the first part, Java is introduced, in the second part basic java programming features, in the third part classes and objects, and in the last part advanced java features are explained. In the sections created while conveying this information, objectives, content, examples, and evaluation questions were presented respectively. The developed learning materials differ for each level of prior knowledge and are presented using the information recorded in the students' user model according to the pre-test results before the application. Hong, C.M. Chen, Chang, and S.C.Chen (2007) also determined that it would be appropriate to structure students' learning environments according to the results of the pre-test, according to the results of their study. In the micro-adaptive environment, although content presentation started according to pre-application measurements, continuous student interaction analysis was conducted to ensure that the content was dynamically presented in accordance with the student's current prior knowledge level.

### **3.4. Questionnaire**

Macro-adaptive environment: For the students learning in this environment, a prior knowledge level was determined once, and it was ensured that they received the same level of education until the end of the application. For the students whose prior knowledge level was determined as low, medium, or high according to the pre-test results, the previously defined



fields in the user model were filled. The adaptability level is “Macro”, the prior knowledge level is “Low/Medium/High”, and the success score obtained as a preliminary knowledge score as a result of the pre-test is recorded in the user model in the profile section of the student. In the macro adaptive environment, the user model information is saved once and remains static and unchanging throughout the application. None of the student's interactions changed the user model information at the start of the application; adaptability level, prior knowledge level and prior knowledge score remained the same until the end of the application.

For example, When analyzed at the macro adaptive environment, micro adaptive environment, non-adaptive environment level, 3 out of 65 students was asked a question. According to the questions:

1. What was your level of education during distance learning ?
2. How many subjects were taught?
3. Has there been a change in the student model during teaching?

Macro adaptive environment with a preliminary knowledge level of "Intermediate" and a preliminary knowledge score of 60. Although the knowledge level of the student was determined by the midterm exam administered at the end of each subject in the educational material consisting of 12 subjects, no update was made in the student model and the education environment of the student continued as it started.

Micro-adaptive environment: For students learning in this environment, the prior knowledge level was determined before the application and the application was started at this level. For the students whose prior knowledge level was determined as low, medium, or high according to the pre-test results, the previously defined fields in the user model were filled. The adaptability level is “Micro”, the prior knowledge level is “Low/Medium/High”, and the success score obtained as a preliminary knowledge score as a result of the pre-test is recorded in the user model in the profile section of the student. De Bra (1998) stated that in adaptive systems, tests and questionnaires may be needed to accurately understand what is in the mind of the user, while Brusilovsky (1994) said that when the student answers a question in the system, this answer is analyzed by the system and this process is called performance measurement. In the light of these comments, the student's knowledge level was re-evaluated at the end of each subject during the application and when any change was detected, the user model in the student profile section was updated accordingly, and the user model information was ensured to be dynamic and changeable throughout the application. At the beginning of each subject, the system automatically checked

the user model and ensured that the content suitable for the current user model was presented to the student.

For example, user number 2 started education in the micro-adaptive environment with a "Low" level of prior knowledge and a preliminary knowledge score of 30. In the educational material consisting of 12 subjects, the knowledge level of the student was re-evaluated with the midterm exam administered at the end of each subject, and the student model was constantly updated. During the education process, this student completed some sections in an environment suitable for the "Low" level of knowledge, and some of them in an environment suitable for the "Middle" level.

Non-adaptive environment: Even though the pre-test was applied to the students learning in this environment, only the adaptability level field was "Normal", and the prior knowledge level was "Medium", and it was recorded in the user model in the student's profile section. During the application, the learning process was completed in a way that no interaction of the student would change this information, and the resulting values remained the same throughout the process. Although the student's knowledge level was re-evaluated after each subject, no change was made in the user model.

For example, user 3 started education in a non-adaptive environment with a prior knowledge level of "Average" and a preliminary knowledge score of 50. In the educational material consisting of 12 subjects, the knowledge level of the student was re-evaluated with the midterm exam administered at the end of each subject, but no update was made in the student model. This student has completed all the subjects in the environment presented in accordance with the "Intermediate" knowledge level throughout the education process. At the end of the training, it was determined that the prior knowledge level was "Average", and the preliminary knowledge score was 50.

The following questions were used during the survey:

*Are students assigned a specific time for online lessons to learn a foreign language?*

*What is the role of lessons in motivating young adults to learn a language?*

*Is online education better or more traditional?*

*What is the initial knowledge score to have macro adaptive knowledge?*

*What is the role of lessons in motivating young adults to learn a language?*

*How did foreign language distance education for young adults transition during the pandemic in the winter of 2021?*

### **3.5. Discussion**

This study's findings reveal that local and actual adversity affect academic motivation. According to students, the inability to satisfy their sociability and actual work needs determines academic motivation. Due to constraints such as internet access, lack of innovative skills, limited parental support, and limited social capital, it would be unreasonable to expect that all clients would have the opportunity to manage their own learning. Due to the autonomy of the changing standards, maintaining a home environment conducive to advancing may once again be a source of stress for teachers, students, and families. Foundational deficiencies and the most prevalent method of adopting the new framework with its social and mechanical components can impact academic motivation. The examination findings also demonstrate this. It was determined that the nature of the workplace was the external variable that influenced the members' scholarly motivation, despite the fact that the members believed that the utilization of instructional advancements was the variable that influenced the hypothesis regarding growth opportunities. In another study conducted with college students, it was shown that students who lacked basic information and skills in instructional innovations were evaluated negatively (Antalyal, 2004; Demir and Yurdugül, 2015).

Apart from Azerbaijan University, which was the pioneer of open education in Azerbaijan in 1999, Azerbaijan Technical University is one of the first. In 2000, "The Azerbaijan Online Journal of Distance Education" (AOJDE), directly related to distance education, started its publication life. In 2001, Azerbaijan University initiated the first undergraduate-level English language teaching program. In 2005, the distance education commission was established. In 2006, Azerbaijan's first distance education doctorate program was opened under the distance education department at Azerbaijan University Social Sciences Institute. In 2011, the legal basis of distance education in higher education was established with the 44th and 46th articles of the

bag law dated 25.02.2011. In 2013, Azerbaijan University started mass open online courses (MOOC) using the names' Akadema'(Bozkurt, 2017).

By 2020, it is known that many state and foundation universities in our country will provide services to their students with associate degree, undergraduate and graduate education programs through distance education. On the other hand, some universities implemented a blended education program by remotely conducting theoretical courses and applying for formal education courses (Cabi & Ersoy, 2017; Gelen & Kaçan, 2020).

The first concept that comes to mind when talking about distance education is open education. However, the concepts of e-learning, e-teaching, synchronous (synchronous), and asynchronous (asynchronous) education are concepts used together with distance education (Aydemir, 2018). Distance education is an education in which one or more technologies can be used at the same time, where the instructor and students can be carried out without being in the same place, and the interaction between the teacher and the student is maintained regularly, synchronously, or asynchronously (İşman, 2011; Seaman J. E., Allen, & Seaman, J., 2018). Distance education consists of purposeful and planned practices within the system approach (Bozkurt, 2020). Thanks to distance education applications, instructors and students can interact in a planned way, regardless of time and place, thanks to unique instructional design and technologies (Aydemir, 2018; Moore & Kearsley, 2011). Although there are various definitions of distance education, the primary purpose of distance education is to bring together the learner and the teacher in different places and cause the disruption of education.

However, students do not believe that the manner tests/schoolwork are administered affects their academic motivation. Even if the courses are offered within the framework of a certain program, this rapid and stunning transition from formal to non-formal education has caused students to change their study habits. Teachers' utilization of online homeroom technological devices, giving quick feedback to students, students' access to instructional materials 24 hours a day, seven days a week, and their independence in their learning have eliminated the reasons for students not completing assigned tasks (test preparation, schoolwork/project writing, etc.). Since the transition to separate schools, the most notable changes in the members' study habits have been the decrease in their test anxiety and the increase in their planning/concentrate time for the artwork. This independence granted to the student by modifying ideal models may result in the acquisition of reading habits in young children and the development of self-management skills in adolescents. Utilizing time efficiently and planning self-improvement cycles may appear to be fundamental skills in this situation. Members indicated that listening to music, organizing/cleaning the home, and cooking are the most well-known activities outside of the classroom that they engage in during distant education.

During the COVID-19 international pandemic, courses, addresses, and studios made available by various instructional foundations in the virtual environment enable students to interact with unexpected teachers more than ever before in conventional education. The results of the study revealed that 48.6% of the participants utilized instructional materials other than the online education offered by their universities. However, students reported that web-based remote education allows them to control their own learning styles. This current circumstance can be comprehended as a result of the fact that the understudies who participated in the examination also benefited from this opportunity created for the development of 21st century abilities (Pellegrino and Hilton, 2012), which are frequently discussed, and for shifting the responsibility for learning to the student. Since scholarly credibility is difficult to assess on the Internet, clarity and fairness of evaluation systems are more important than ever for undergraduates. The successful outcome is the recognition of courses and practices in accordance with the course contents defined by the educational program, taking into account the employees' short-term adaptation to a changing environment and the formal preparation of the direction contents. Ik and Bayrak (2015) demonstrate that innovation or framework-related difficulties can affect all participants in the web-based distance education process. However, when the web-based lead of education is likely to be impeded by technical issues and the potential outcomes of individuals compared to formal training, the fact that the length of the course is not completely predetermined in accordance with these factors may also be a determinant of the quality and effectiveness of instruction.

The findings of this study revealed that students believed that distance education evaluations were conducted objectively, that the courses/applications were relevant to the course content, and that the course length was suitable. However, students report that the web-based distance education they received does not improve their academic performance. This conclusion suggests that if an application where innovation is the foundation of education is implemented in the future, it should be improved in terms of quality. It is obvious that educational programs will need to be updated so as to increase student interest and meet student requirements.

## Conclusion

According first research question (How did foreign language distance education for young adults transition during the pandemic in the winter of 2021?), the impact of distance foreign language education for young people during the pandemic in the winter of 2021. The distance training process has been impacted by the changes in perspective experienced until now and has also added to the changes in outlook. One of these progressions is the accentuation of transparency, student-focused schooling and learning in the training system. Because of these changes, even though there are ideas that characterize a similar field, "traditional and distance learning", notwithstanding the maxim "distance training", shows up as an idea regularly utilized today and characterizes the field. Inlined up with these progressions experienced in this review, traditional and distance learning is frequently utilized rather than the idea of distance training.

Based on the second research question, it is recommended that foreign language teachers be monitored for addressing issues that negatively affect students' motivation. In addition, it was clarified that the teacher gives feedback to the student, reduces the number of activities and homework given in exchange for the price, removes fear from the classroom. Although speaking English is a language skill that students find very difficult, it should be reported as a result that teachers guide students to express their ideas in the target language because students are highly motivated to express themselves in English. Because the classroom environment is the only environment in which language learners will use the target language.

According third research question (How does online learning affect the retention or loss of this motivation in young adults?), research results from two case studies investigating motivation to learn in the learner environment are shared. Motivation of learners in the context of online learning is examined firsthand. A total of 21 learners participated in two case studies, and social and contextual factors affecting learners' motivation to learn in online learning environments were investigated in detail. The evidence presented in this section shows that learner motivation in the online learning process is multifaceted and that learning motivation has a complex structure depending on the situation.

**Limitation of the study.** The low motivation of my students in distance education has a special effect on learning a foreign language. For future plans, it is necessary to think that the Traditional education system will be of better quality. I think that what is mentioned by students should be taken into account when researching this topic in the future.

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