INTEGRATING ARCS MOTIVATIONAL MODEL WITH COMPUTER-BASED SYNTAX LEARNING

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ABSTRACT

Motivation is still one of the factors that affected the teaching and learning of the English language. This study would like to investigate the students' confidence level in syntax learning via media-based elements and to identify the factors that contribute to the level of students' satisfaction in syntax learning via media-based elements. This study employed a quantitative approach and the instrument used was questionnaire. There were 75 participants who volunteered to participate. The results showed that the students' level of confidence and satisfaction had increased after learning the syntax subject with the use of media-based elements in the lessons. The implication from the results obtained is for the stakeholders to help educators to be more creative and critical in planning their lessons. At the same time, the students would also be exposed to different types of lessons, and it would help them to be more interested in learning the subject.

Contribution/ Originality: This study helps the educators to understand and assist learners in managing their feeling and attitude towards their learning. At the same time, the learners themselves will be more engaged in the classroom as they feel motivated, satisfied, and confident to learn more.

1. INTRODUCTION

1.1. Background of Study

For decades, teaching and learning has been conducted in exceptionally varied ways and has been improved, modified, and revised accordingly. All implementations and modifications made are to put high considerations over the learners' abilities, needs and preferences. Faruk, Aliyu, and Hassan (2022) in their research also emphasize on "varied forms of teaching method with innovations in teaching and learning" to improve learners' learning performance. These elements are important to consider even at the initial stage of the teaching and learning preparation in order to ensure successful learning.

With varied constructive measures that have been taken to improve any forms of teaching and learning, other important factors to be explored for effective learning are learners' learning motive and learning desire. Learners need some backups and supports to assist them throughout the learning process; and, this is when what can

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motivate them to handle their own learning becomes important. Not only young learners need such motivation, adults who are in the process of acquiring language too need to be supported with any forms of motivational impact. Muzafarova, Rasskazova, Daminova, and Okhotnikova (2019) have reported that intrinsic motivation with the support of external drives have proven to help their teachers in Russia to improve their English language proficiency. With the existence of motivation, either from the internal or external drives, learners are observed to manage their learning in every possible circumstance. Knowing that every learner is born in unique and special ways, how they accept and manage the learning process too may vary. Therefore, the learning content and the materials to be used have to be creatively constructed that are able to accommodate these learners' preferences (Bajraktarevic, Hall, & Fullick, 2003). The integration of some motivational features would promote the learning and would help elevate learners' learning passion.

1.1.1. ARCS Model

ARCS is a short form of motivational model with the four acronyms used; that are A for Attention, R for Relevance, C for Confidence and the S for Satisfaction. ARCS motivational model by Keller is a great guide for content and learning material development (Chang, Chang, & Shih, 2016). Content developers, especially those preparing for multimedia instruments, recommend Keller's motivational model as it serves the purpose to integrate motivational elements in the learning tools (Ahmad, 2019; Annamalai, 2016; Huang & Hew, 2016). It serves the needs to ensure every learner would experience well-structured and satisfying learning. The four considerations under Keller's model are Attention, Relevance, Confidence and Satisfaction (Huang & Hew, 2016). These four considerations provide some awareness to associate motivating factors with the whole learning process in order to nurture active and meaningful learning. The learning tools are moulded in a way that can capture learners' attention and focus towards the content. Learners too are exposed with the learning benefits and are brought to relate to some past lessons during the learning. In addition, every aspect that is put forth for delivering the content, learners are equipped with features that can strengthen their confidence level. This helps learners to have courage over learning a new or difficult subject. Chang et al. (2016) in their research also have adapted and integrated ARCS features in the learning material, and they have found that their respondents' motivation level when learning foreign language via mobile learning approach shows an increase especially in terms of Relevance, Confidence, and Satisfaction dimensions compared to students who are not exposed to the ARCS characteristics. Therefore, if motivation considerations such as attention, relevance and confidence become the priority and are incorporated in the learning activities, learners are expected to enjoy the learning and satisfy over all their learning experiences (Giasiranis & Sofos, 2020).

In this current research, the researchers have chosen only two considerations from Keller's ARCS model that are 'Confidence' and 'Satisfaction'. The two considerations are selected to facilitate the research questions which the study is to seek perceptions if learners can gain confidence when learning syntax via computer technology components and if satisfaction can be achieved when they gain confidence in learning.

1.1.2. Motivation for Learning Difficult Subject

When a motivational factor is one of the essentials and recommended for the development of learning content and its materials, it can be a constructive effort to enrich learners' learning excitement and to cultivate their interest especially for the second or foreign language acquisition or even learning any difficult subjects. For instance, in Indonesia, reinforcing foreign language learning; that is the English language, is deemed a complicated process. In the research, Yulia (2013) highlights the value of motivation impact, either intrinsically or extrinsically instilled to learners, and also Yulia proves how the values successfully enable Indonesian students to have the interest to learn. This remark gives the inspiration to many of us about how weak or reluctant learners can be shaped and influenced to achieve the learning goals when they are given opportunity and space to be motivated. The inspiration not only

can impart language learners with strong determination towards becoming successful language users, but many language practitioners too can be inspired to improve their teaching approach.

For example, knowing that acquiring skills for language learning include all the four language skills and that grammar and critical syntax rules become the fundamentals when these two language components help in learners' speaking and writing, syntax skills significantly facilitate language users with compact knowledge to appropriately place words in sentences. However, syntax skills are claimed to be difficult and the lessons that mostly have been presented and delivered are claimed not motivating. Here, obviously, motivational attributes are encouraged to be instilled in the teaching and learning in order to ease learning (Fachraini, 2017) especially when the course subject is deemed complicated or not inspiring. To inspire learners at the beginning of the learning is a great effort when it provides learners with some readiness that builds their confidence. Difficult subjects normally could ruin learners' learning excitement, concentration and learning momentum due to frustration. It could possibly happen when they are not able to cope with the learning at the very early stage. Therefore, it is best when learners are able to gain confidence as early as exposing them to the learning objectives; then continue until the end of the learning. To be confident helps learners to face challenges in learning and gives them courage. It keeps them stay long and stay focused throughout the learning activity. Though initially the content is considered tough, boring and not encouraging, if it is delivered systematically with a step-by-step manner and presented effectively by providing ample examples, associating to previous learnt lessons or providing immediate feedback, learners will appreciate the whole process that they will get attached very closely with the learning. Hence, learners will slowly develop their learning ownership and build their confidence too. Here, the learning materials and the approaches have to be authentically and acceptably prepared with the integration of necessary motivational components; such as photo-info graphic features, gamification learning, interactive learning and so forth, to ensure attention and confidence level amongst the learners be heightened. The integration of gamification features in learning has resulted in improving learners' performance as well as their learning motivation (Liu & Chu, 2010; Su & Cheng, 2014).

1.1.3. English Syntax Learning

When one's high confidence level is needed and seems relevant to language learning in most cases, it does support the learning of English syntactic rules and its analysis too. Knowing syntax skills as a difficult and very challenging lesson, learners should be equipped with proper training which is grounded on motivational learning approaches and strategies. This is to ensure that their learning attention and confidence can be fostered and the confidence that they have gained remains. The knowledge of syntax and its rules are the key to show correct direction to one's speaking and writing; or, it helps language users to "compose complex messages" (Miller, 2008). However, the skills to be learnt requires learners' patience and passion because being attentive is needed in order to see how complex and sophisticated syntax rules work. The rules of syntax are to show "how words are put together to build phrases" (Miller, 2008) or in other words, the rules deal with word formation in sentences, as well as positioning phrases and clauses and demonstrating the use of all parts of speech. Based on a book by Aarts (2018) "the order of the units that make up sentences" is one of the syntax big concerns. Therefore, exposing learners to the form and function of each part of speech enables them to form a deep understanding why the parts of speech are positioned in such a way in sentences. For instance, the idea to have the subject and object of the sentence before and after the verb phrase comes into the picture. Learners are able to rationalize the reason behind such rules and can become an analyser to syntactic rules (Tortora, 2018). Learners also are brought to acknowledge the idea of modifiers; the restrictive and the non-restrictive modifiers. With such guides, proper and correct sentences can be formed faster without uncertainty. Learners too are benefitted to find their own style of writing when they can achieve mastery from syntax learning.

1.1.4. Computer Technology in Learning

To provide the possibility of ensuring the L2 learners are able to apply correct use of English language, the knowledge of English syntax certainly has to be imparted, and it has to be presented and delivered using some promising learning equipment. Computer technology and its media material are observed to help facilitate these learning needs. It is important to cater learners with their needs and preferences as it can elevate their learning motivation (Diep et al., 2019). Computer technology has long been used, examined and modified over time. In more recent years, computer systems and its other media appliances have achieved a better improved version of technology. Though many will agree that computer technology cannot take the natural ability of classroom instructors, the media element and its other hi-tech and digital tools could possibly be the assistance to enrich, if not to completely overcome, learners' ability to understand and to increase learners' learning desire. With such innovative and modern devices that computer technology can offer, motivational factors; which have been observed to facilitate learners' learning, can be brought into the content development via its teaching and learning materials. The integration of motivational elements with computer-based learning materials is hoped to give learners some directions to perceive learning syntax as manageable and enjoyable. Learners will develop their learning motives and be motivated when the learning activities capture their interest (Wong, 2013). When the learning is within their reach, learners will naturally be driven to see their learning motives; hence, they are able to grasp the content in any possible ways.

1.1.5. Traditional vs Computer-Media Elements in Teaching and Learning Syntax

Nowadays, there are so many methods and approaches that can be used in teaching and learning processes. This situation can also be applied in the teaching and learning of syntax. Previously, there were a few methods used in teaching and learning of syntax and the most popular would be the Grammar Translation Method (GTM) (Gamage & Lanka, 2020; Xia, 2014). The style of this method is where the educator is the sole input provider, and the students are supposed to listen and understand. There is no practice and interaction happen in the classroom. Gamage and Lanka (2020) discovered that the use of GTM was still relevant, however, he suggested that to incorporate other methods or techniques to support GTM and make the teaching and learning processes more comprehensive. This is maybe because there is no practice when using GTM while the rule of learning a language is the students have to apply and practise the language (Asratie, Aylet, & Alebachew, 2022). This is where the use of technology in the process of teaching and learning of syntax comes in. Al-Madani (2021) found out that when the educators incorporated Communicative Language Teaching (CLT) with technology, the students' vocabulary, pronunciation and engagement had improved. This is maybe due to the interaction that happened during the lessons and the use of technology in the lessons made the students become more active and participative. For example, the use of Edmodo application (Edmodo App) in learning syntax, one of the findings Sugito, Susilowati, Hartono, and Supartono (2017) discovered was students' motivation and courage to explore Edmodo App influenced them to be confident when they learnt syntax. From the above explanation, it can be said that traditional methods are still relevant. Nonetheless, in order to cater students' needs nowadays, the integration of technology seems necessary as it will help students to be motivated to learn and will help educators to guide their students.

1.2. Statement of Problem

Learning and practising second language skills, by norm, are conducted in a classroom setting. In most situations, this is the usual practice that has led to some positive results. The L2 learners have been exposed to instructor-students approach and also to printed learning materials to learn language skills.

The learning of the four language skills that also includes the grammar and syntax skills have long been conducted where the instructors are usually the manager of the teaching and learning. For syntax learning, learners learnt and acquired the skills by paying attention to their instructors as well by referring to books as guides. This

way, the learning takes place, constantly, until they achieve mastery. The practices and tests become the normal classroom routine in order to check for their understanding.

However, how far the conventional teaching and learning approaches help learners to grab understanding and to retain the learning input are questionable. These L2 learners are reported to hardly score good grades for their tests. Learners, especially the L2 learners, have difficulty catching up on the lessons and have claimed that not only do they hardly apply the skills learnt, they also have a hard time to follow the lessons and to understand the whole content. The sentence analysis via tree-diagram approach, the skill that determines learners' understanding, becomes one of the challenges. Learners have claimed that the syntactic analysis is difficult and they hardly make connections within the skills learnt. They have no confidence to ensure that the phrases and clauses are correctly placed and positioned in the sentences. The learning routines that have been practised are not motivating that can support syntax learning. The teaching and learning practices also are claimed to be very monotonous and the time to practise is limited which is not very much helping the learning of difficult courses like syntax. All the negative comments due to syntax learning and its acquisition can potentially be based on how learners are exposed to the course. The confusion of skills learnt and the lacking of confidence are amongst the result of learning failure; in which the learning supposedly has to be effective and encouraging. When learning is pictured as ambiguous and not motivating, learners' learning desire seems weakening and declining. The issue has to seriously be overcome in order to determine L2 English language learners are getting justice over their learning. Perhaps, by checking on how syntax course is delivered, how the learning materials are presented and if any motivational factors are integrated in the learning could help improve the learning. Thus, it is wise to keep track of the learning process; to monitor if the content is well presented and if the materials used meet the learners' expectations. Perhaps, lacking in motivational factors can be one of the reasons for the negative remarks about syntax learning.

Hence, this study is done to investigate if the existence of motivational factors in the teaching and learning approach and materials used can help improve the learning of difficult subjects, for instance, English syntax. More thorough investigations can be done to facilitate these motivational effects so that the learning and the understanding of syntax skills will run smooth and easy, and that learners can perform better thus, the learning stress can be reduced.

1.3. Research Questions

Specifically, this study is done to answer the following questions:

- Does Confidence help in improving syntax learning via media-based elements?
- What are the factors contributing to syntax learning Satisfaction when media material is used?

2. LITERATURE REVIEW

2.1. Learning Motivation

2.1.1. Motivation

Motivation is a factor that could contribute to learning desire, learning enjoyment and learners' self-learning. Without it, the learning can possibly be very dull, monotonous, and troublesome. No inner or outer drives that can inspire the learners and can foster active and effective learning.

Hence, educators or language instructors need to consider the reason the learners acquire certain lessons or to observe if the learners are directed correctly towards their learning. Learners have to have a focused learning motive and have to realize to find their goals. This sort of justification from both educators and learners determines the success of learning English language amongst the L2 learners as instilling motivation in any language acquisition is one of the qualities that cultivate learning (Becker, Hartmann, & Miller, 2014; Erdil-Moody, 2016; Vuksanovic, 2017). Therefore, motivational elements are crucial to be integrated in the learning of a second

language (Fachraini, 2017). It promotes better learning desire and supports learners' self-learning endurance that they are willing to explore more about the language.
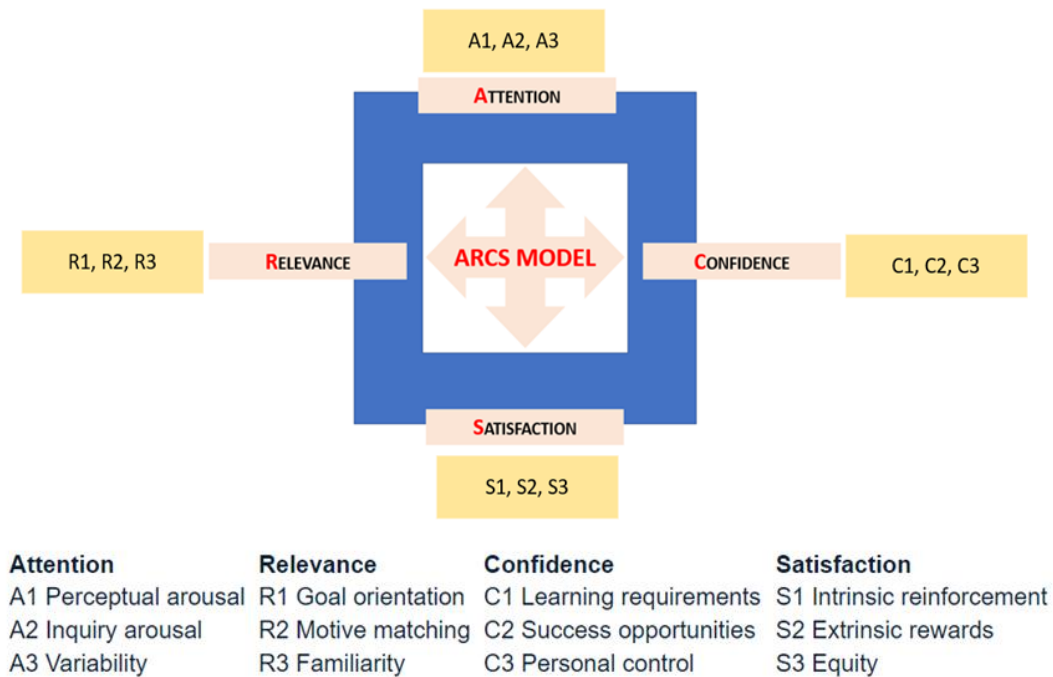

Figure 1. ARCS Keller (1987).

2.1.2. Keller's ARCS Motivation Model

Figure 1 exhibits ARCS Keller (1987). Most teaching and learning materials are prepared and constructed based on certain models which help to incorporate motivational value in the materials. Keller's model developed by John Keller in the 80's is the most popular amongst the content developers. There are four important considerations in Keller's ARCS model that are Attention, Relevance, Confidence and Satisfaction (Rouyer, 2018). When motivational values become the highlight in the development of content and the materials, learners' needs are to be highly considered. Masoumi and Ahour (2020) mentioned in their study that content developers have to consider learners' needs – by conducting needs analysis - before proceeding with the material development as this is to ensure the content and the learning tools suit learners' preferences. Hence, with the ARCS model, content developers or any language practitioners would have some systematic guidelines in the construction of learning materials. This can ensure the arrangement and the organization of content and how it is supposed to be delivered are done right.

The first consideration in Keller's model is Attention. Researchers and language practitioners especially, regard the 'Attention' element in language learning material as the most significant motivational factor when the attention consideration can help learners to stay focused while learning (Lumbantobing & Haryanto, 2019). Learners also are able to understand the content even faster when they can pay attention. With the Information Communication Technology (ICT) implementation, many have seen the technology media effectiveness and how accessible it is for learning. Based on Wu (2018) study, with technology intervention, mobile-based learning has been found able to capture learners' attention as the material attracts their attention. Learning materials, if well-planned and constructed, can be interesting and captivating that suit learners' preferences. Unlike the learning via the conventional printed material, this attention element with computer technology can be unlimited. Content developers are given huge opportunities and great ideas to develop content and the material which are consistent with the learners' "features, knowledge, and cultural background" (Wu, 2018). For example, elements of "Attention" such as visuals, graphic elements, pictures, colours, sounds and so forth can be integrated to make learners become

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attentive. Hao and Lee (2019) in their research, found out that the experimental group outperformed the control group for attention dimension when the experimental group respondents were exposed to media elements via mobile learning. The respondents were found to improve their learning focus during the learning activity. Learners are found interested to uncover more about the content when they get engrossed in something fun and exciting which is very much different than the printed version materials.

Next consideration is Relevance. The relevancy to what each learner is learning is important to be revealed; for example – their learning goals, needs and expectations (Giasiranis & Sofos, 2020). Learners are able to foresee their learning target clearly which helps them continue learning. This can happen when the learning objectives are mentioned in a straightforward manner. Moreover, learners should be exposed to their existing schemata in the new learning. This effort too can help in showing how relevant the learning is to them. When they can connect old and new learning, learners will have the courage to move on with the new lessons and new challenges as they are aware that the new learning is just the addition to what they have known. This learning stage could open up learners' minds to see the relevancy of their learning which at the same time motivates them. This kind of motivating element is encouraged to be incorporated in the preparation of content because learners will appreciate their learning effort and will be satisfied to see what they have learnt before is worth learning when they can apply it to grab new skills.

The third Keller's consideration is Confidence. This is one essential factor in education, but the value and the process can barely be taught. It is about how learners accept the learning environment and how they connect to the learning. Moreover, learners also have to learn to trust their own ability and potential. This way can help learners find their own learning path and believe in themselves that they manage. The hurdles or the negative belief about their learning weakness can be overcome positively. Hence, learners' own belief to make themselves be confident is kind of one constructive learning support system that they are able to enhance their knowledge (Dullien, 2016). Thus, the learning then can be adapted easily with less stress.

Therefore, with the advancement of computer technology, language instructors or content developers have to make use of all possible tools and equipment to incorporate motivating learning elements in order to boost learners' confidence. This has to be done at the learners' first stage of learning, for instance, at the introductory stage; and the confidence elements have to be incorporated until the end of the learning process. To monitor learners' confidence, it is important too to observe how learners are progressing during their learning activity. Learners, at any time, can give up with their learning and their effort if the learning input and the materials do not attract them, do not portray the benefits of learning and do not enrich their existing knowledge.

Hence, it is very significant to have well-planned teaching and learning materials as suitable preparation can be done and appropriate elements can be included. It is also worth planning to cater for learners' new learning excitement that helps build up the confidence. Keller's ARCS model also highlights that learners' confidence should be placed at the upper stage to ensure learning concentration. Giving feedback and reinforcement during the learning, providing various examples, providing simple but concise learning notes and so forth are amongst the factors that can boost confidence.

The final consideration in Keller's model is Satisfaction. Satisfaction during and after the learning should occur in every learner's learning experience (Hao & Lee, 2019). Satisfaction can possibly be obtained when the time and energy spent for learning is not wasted, when the content is worth being explored as it is easy and useful (Hao & Lee, 2019) when learners manage to improve their knowledge or when the learning itself is enjoyable. With these experiences, learners' attentiveness and retention can be longer, and the content learnt is hoped to be stored in the learning memory longer too.

Hence, attributes impacting learners' satisfaction have to be taken into account during the construction of learning materials. Factors such as receiving reward, getting benefit, gaining support and encouragement, and feeling honoured could be instilled in every learning. Learners will feel rewarded when they manage to accomplish

better understanding from the lesson after being trained with ample practices. Learners too will appreciate the learning when they can foresee the constructive effect awaits them from their learning effort. It can be from the clear learning outcomes presented. Instead of that, learners will value the learning as they receive feedback during the learning. This is an important support when learners are able to correct the wrong interpretation and are able to improve their understanding. Finally, learners will definitely feel honoured and satisfied over their learning when the learning provides characteristics that help them cultivate interest and even refer to the lessons repetitively such as interactive and info-graphic features. Hao and Lee (2019) in their research with digital game-based learning have found out that the existence of graphics in the learning material motivates the learners as they feel satisfied with the learning. Satisfaction can be achieved then when all the hard work put forth grants them with ample of new skills, and that they realize with the new knowledge obtained makes them becoming more competent and knowledgeable.

2.2. Syntax Understanding and its Use

English Syntax or known as the analysis of syntactic structure is one of the significant courses for every English language learner; either to the L1 or the L2, as it is the fundamental for many language skills. All English users have to be familiar with syntax skills to enable them to see the language rules especially during speaking and writing. Learners or English users have to be very certain how and where to place words, phrases and clauses in sentences (Aarts, 2018). All the syntactic rules are required to master to fulfil the nature of varied English sentence patterns. This useful and meaningful effort by learning and understanding syntax rules is made to help English users to confidently speak and write.

To acquire syntax knowledge and skills, in terms of recognizing the relationship between forms and functions of all word classes and to differentiate the use of each sentence pattern, is deemed a great accomplishment. It aids English language users in their reading, speaking and writing competency. The understanding of how words, phrases and clauses are arranged and formatted is needed in order to ensure every learner has the confidence to effectively communicate using the correct rules and structure. English users are required to have a clear understanding of the characteristics of the Noun phrases, Verb phrases, Adjectival and Adverbial phrases, as well as Prepositional phrases. The form and function of each main phrase has to be clearly explained to learners in order to avoid confusion. Here, the systematic and 'step-by -step' explanation is encouraged when learners are to get the initial concept of the syntax rules until they achieve mastery. Lan (2018) in the book review for 'An Introduction to Functional Grammar', mentioned how sophisticated and meaningful explanation can be appreciated when the grammatical function is emphasized systematically. In addition, as syntax deals with structure analysis, it is important too to explore more about verbs as it is one of the important word classes in each sentence pattern. The knowledge of verb phrases that are dealing with tenses as well as active and passive form; and the verb types, namely transitive, intransitive, intensive or Linking Verb (LV), dual transitive (Verb Give - VG and Verb Complement - VC) and the BE verb (BE verb can be used for Auxiliary or as Linking verb), are all very crucial to correctly form sentences either in ones' speaking or writing. Therefore, to initiate the teaching and learning, learners are normally exposed to the analysis through the diagramming of the syntactic structure that is known as 'tree-diagram'. The 'tree-diagram' approach guides learners to see very closely the appropriate formation of parts of speech in sentences that helps to match different sentence patterns. The arrangement of major and minor phrases, indicating the importance of each phrase, is shown very systematically. This enables learners to monitor every phrase's form and function and to examine the changes in rules in more detail. This tree-diagram approach, demonstrating the whole concept of word formation, does help them to remember the rules in order to apply them in their formal and social interaction.

In addition, to better understand syntax, each clause used carries similar importance in both speaking and writing, just as the phrases. The understanding of clause features assists language users to expand their sentences effectively and help them in finding their writing styles. The decision to arrange clause positions; either in front, in

the middle or at the end of sentence, determines meaningful interpretation of different ideas. Not only the arrangement made it possible to differentiate meaning, the punctuation used in between sentences or clauses too helps demonstrate varied meaning. Readers or writers not only rely on meaningful syntactic word ordering in sentences to understand the intended meaning but punctuation too plays an important role to form meaning (Ahmed, Wagner, & Lopez, 2014). When such skills become familiar to the learners, their writing style can naturally be incomparable and more mature.

2.3. Past Studies

To date, there are many differences in the use of computers and media in the teaching and learning processes before and after COVID-19 pandemic. Previously, educators did use media-based materials in the classroom, and they did integrate technology in their lessons in Macedonia, but they lacked the suitable and appropriate facilities to be used in the classroom as Macedonia is one of the developing countries (Skenderi & Skenderi, 2017). After COVID-19 pandemic hit the world, the educators were required to use technology in their lessons as everyone had to stay at home. Due to this situation, the stakeholders (policymakers, schools, faculties) need to equip and train both educators and students to be more familiar with the use of technology in class (Amedu & Hollebrands, 2022).

There are many types of technology that can be used in the process of teaching and learning. Sarosa, Kusumawardani, Suyono, and Wijaya (2020) tried to develop a chatbot application in order to help the Indonesian students to learn independently when the educators were not around. The result showed that with the help of chatbot, it did help the students' learning and at the same time this application helped the students to have motivation to learn the language and not feeling bored. This may happen because the students had familiarised themselves with this feature when they used other applications. Other than that, Youtube is another medium or tool that is used in the classroom. The feedback and responses provided by both educators and students in Indonesia were both positive and negative where the students mentioned that they could search interesting and entertaining information while the educators could see that the students were more creative, but the students-teachers interaction was quite limited when using technology (Sirait, Harahap, & Handayani, 2021). Based on these past studies, it could be inferred that the integration of media-based elements in the teaching and learning processes could elevate educators' confidence and especially students' motivation.

2.3.1. Syntax and Computer Technology

Syntax as a subject can also be taught and learnt using technology or compute and media-based. A research done by Daud and Ajm (2021) would like to investigate the enhancement of students' comprehension in learning syntax. This study employed experimental quantitative method where there were pre-test and post-test. There were 35 students who participated in this study, and they were from different provinces in Indonesia and their educational backgrounds were different too. The intervention happened by using Computer Assisted Instructions (CAI). The result indicated that students' performance in syntax comprehensions had improved. This is maybe due to the influence of students' motivation when they learnt syntax with the help of CAI.

Another research using technology in the teaching and learning of syntax was done by Darmawansah and Indartono (2019). The researchers would like to examine the influence of instructional syntax towards students' engagement. This study analysed 282 lesson plans and were coded into descriptive statistics. There were 46 instructions used in the lesson plans and the most frequent instruction used in the lesson plans was 'Ask'. This means that educators welcomed students' questions and inquiries for more engagement in the classroom. After the coding process completed, there were five teachers who participated in Focus Group Discussion and the researchers observed the students' behaviour in an online learning environment. It was discovered that students were engaged in the lesson during the online classroom as the students felt that the environment was more authentic. In other words, the educators' need to understand the students' need in the classroom when developing their lesson plans

and at the same time they need to ensure that the instructions given were clear and straight-forward. Thus, it can be said that the integration of computer-mediated applications could help students to engage more in the teaching and learning processes.

2.3.2. Positive and Negative Effects of Computer Technology in Syntax

There are positive and negative effects when using computer-based technology in the teaching and learning process of syntax. A research done by Tavakoli (2021) investigated the effectiveness of using Google Search towards Iranian learners' grammar learning. This researcher employed a quantitative method and there were pre-test and post-test conducted. There were 60 students who participated in the research and they were separated into two groups which were control group (CG) and experimental group (EG). The results indicated that the EG had performed better after the intervention using Google Search. This means that the use of Google Search had helped the EG to learn grammar better. Other than that, based on the observation, the students in the EG group were enthusiastic to learn grammar via the web which indicated that their level of motivation had increased. Nonetheless, using technology might not always be successful in teaching grammar (syntax) to students.

A research was conducted to determine the challenges faced by both students and educators during online grammar classes (Halim, Wahid, & Halim, 2021). There were 20 educators and 80 university students who participated in this quantitative research. The respondents were given questionnaires and the results showed that both university students and teachers in Saudi Arabia perceived that they faced more challenges during online classes compared to traditional classes. This was because the students felt the responses given by educators in traditional classrooms were more authentic and immediate and indirectly, they preferred the traditional method. Other than that, the students were also concerned that their focus and concentration level were not as good as when they were in traditional classrooms. These results inferred that both students and teachers still preferred to conduct grammar classes via traditional approach.

Lin, Hwang, Fu, and Cao (2020) conducted research to develop a contextual computer game to engage students in the learning of grammar (syntax). There were 55 Taiwanese students who participated in this research. The students were divided into two groups which were control group (CG) and experimental group (EG). The intervention was carried out for the EG and the findings suggested that students from the EG understood the grammar lesson better due to the context provided in the game-based learning. This is because students with different levels of proficiency responded differently to the proposed game-based learning. The game itself was not significantly improving the students' performance, but that the students' comprehension in learning grammar lessons might improve by integrating the online game-based learning in the grammar lessons. It can be said that the game-based lesson was a medium used in helping the students to have better comprehension in understanding the grammar lessons. This can be inferred that using a traditional approach in learning grammar is still relevant, however, by incorporating computer-based technology could help the students and educators to experience a better grammar lesson that could increase students' motivation level.

2.4. Conceptual Framework

This study is essentially based on the ARCS motivational considerations by Keller (2010). Figure 2 portrays the syntax learning via computer and media elements based on ARCS model. The four motivational considerations are used as guides to monitor how L2 learners perceive learning syntax via computer technology attributes. Attention (A) element looks into learners' concentration and how they are able to stay long studying. Varied creative attributes from the learning materials and teaching approaches, if applied, are useful to develop learners' learning attention. The Relevance (R) element then can be connected to gain learners' attention when learners are introduced to the learning objectives. This step allows learners to foresee what is expected of them and helps them to see that the new skills to be learnt are relevant to their needs. It is also encouraged to show any past skills (the

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schemata) which learners can make association to the new skills. This consideration makes them to value the learning potential that awaits them too. When learners are comfortable with the learning, element Confident (C) will be observed if it could assist learners to further explore the content and new skills until they can reach better understanding. Confidence level is very significant amongst learners when learning is concerned as it gives them strength to move on learning; it determines how a learner manages their learning activity and how he or she manoeuvres their learning to gain understanding. When learners are confident, the learning retention too can be longer, and they have no issues storing the learning input in their working memory. Learners even manage to complete their practices, and with the new skills learnt, they have confidence to apply them. The final consideration, that is Satisfaction (S), can be observed during and after the learning takes place. In every learning, learners are expected to see the learning as beneficial. During the learning, satisfaction can be seen when the learning is approachable. Simple and step-by-step content presentations are encouraged to ease learning. When learners are able to focus, to see their learning benefits, and to feel confident during the learning, they will be satisfied over their whole learning process; which the learning is believed to be worth exploring
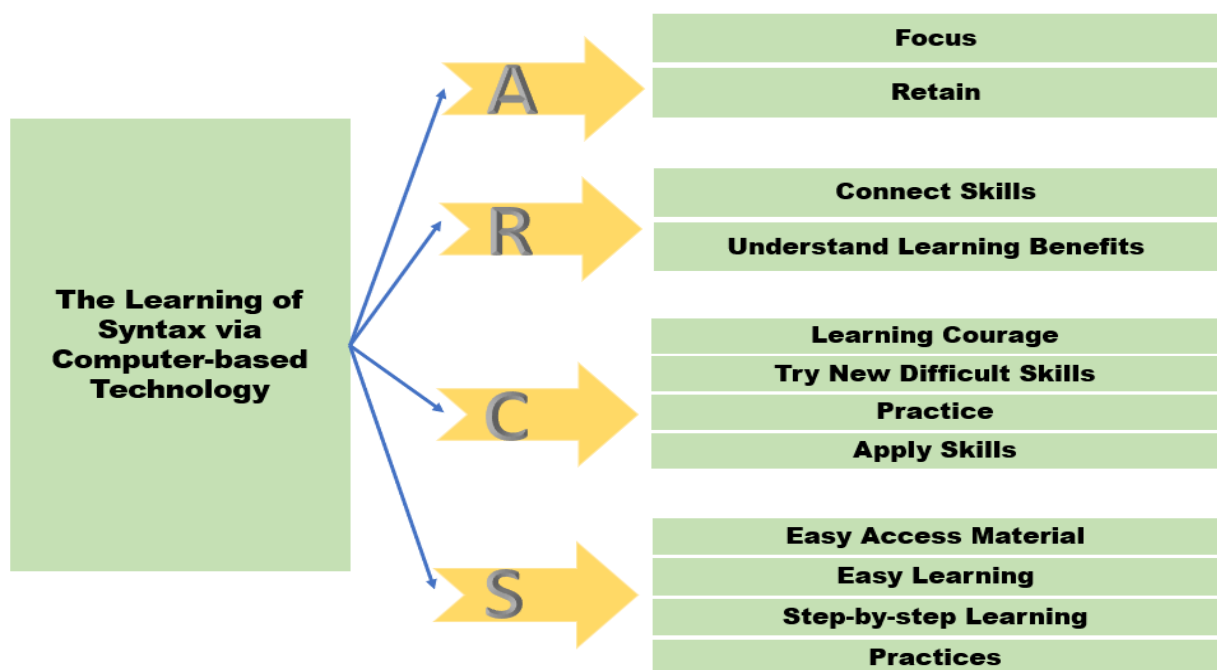

Figure 2. Syntax learning via computer and media elements based on ARCS model.

3. METHODOLOGY

This study in a form of survey was administered to 75 students from one public university in Malaysia. The quantitative data have been collected using a Likert-type survey; Not True, Slightly True, Not Sure, Mostly True, and Very True. The survey adapting Keller's Instructional Motivation Materials Scale (IMMS) motivational model (Keller, 1987) consists of 3 sections that are (1) participants' demographic profile; (2) survey on research question 1 for learners' Confidence responses; and (3) survey on research question 2 for learners' Satisfaction responses on syntax learning motivation via computer and its media elements. Data is analysed using Statistical Package for the Social Sciences (SPSS) version 26. Cronbach analysis shows a= .782 thus showing high internal reliability refer to Table 1.

Table 1. Reliability statistics.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.782	19

4. FINDINGS

This section presents the demographic data and data analysis of the findings. The findings are gathered from the results using the Likert-type survey that are based on research questions one and two. Below are the results.

4.1. Findings for Demographic Profile

Based on Table 2, there were 75 respondents who involved in this study voluntarily. There are 10 males and 65 females. The respondents are the Semester 1 students from the Bachelor of Applied Language Studies (LG240) program in UiTM (Universiti Teknologi Mara, Malaysia). The respondents are taking the English for Professional Communication program which is also having one course unit that is the Description of English Syntax - to cater for their standard of English language competency and to enhance their English syntactic structure skills.

Table 2. Findings for gender.

Gender	Frequency
Male	10
Female	65
Total	75

4.2. Findings RQ1

Research question 1 is 'Does Confidence help in improving syntax learning via media-based elements?'. This research question would like to look into the students' level of confidence in learning Syntax with the use of computer media materials. There were seven (7) items for this element (Confidence).

Table 3. Items for confidence element.

Item	Confidence Survey
3	It boosts my confidence when syntax analysis is easier to understand with computer media elements and tools
4	With media elements, the introductory information is easier to read and retrieve and I felt confident that I knew what I was supposed to learn from this syntax lesson
13	As I worked on syntax lesson using computer media material, I was confident that I could learn the content
19	I am confident with syntax learning as the notes are manageable and the exercises are fun to do as they are organized systematically
20	Syntax lesson via computer media has things that stimulated my interest and build my confidence
25	After working on syntax lesson for a while, I was confident that I would be able to pass a test on it
35	The good organization of the content helped me be confident that I would learn this course without fear

Table 3 illustrates the descriptions of items for Confidence elements that were used in the questionnaire.

Table 4. Mean score of confidence to learning syntax via computer technology.

Items (Confident)	Mean	Standard Deviation
EConfident3	3.49	1.107
EConfident4	3.51	1.369
EConfident13	3.45	1.255
EConfident19	3.23	1.214
EConfident20	3.64	1.181
EConfident25	2.96	1.278
EConfident35	3.43	1.243

Table 4 demonstrates the mean score of confidence to learning syntax via computer technology. The highest mean score for the Confidence element is item 'EConfident20' which is '*Syntax lesson via computer media has things that stimulated my interest and build my confidence*' and the mean score is 3.64 (SD=1.181). This means that the

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majority of respondents were more interested to learn Syntax with the integration of computer media. The second highest mean score is 3.51 (SD=1.369) which is scored by item 'EConfident4' (*With media elements, the introductory information is easier to read and retrieve and I felt confident that I knew what I was supposed to learn from this syntax lesson*). This means, with the help of media elements in sharing information, it would help the students to understand information clearer. The least mean score is obtained by item 'EConfident25' which is '*After working on syntax lesson for a while, I was confident that I would be able to pass a test on it*' with the mean score (M=2.96, SD=1.278). This means the respondents were still unsure whether they could score the test that assessed them on Syntax subject.

As for Item 'EConfident3' (*It boosts my confidence when syntax analysis is easier to understand with computer media elements and tools*), 'EConfident13' (*As I worked on syntax lesson using computer media material, I was confident that I could learn the content*), and 'EConfident35' (*The good organization of the content helped me be confident that I would learn this course without fear*), each item obtained the mean score of (M=3.49, SD=1.107), (M=3.45, SD=1.255), and (M=3.43, SD=1.243) respectively. This indicates that the students' confidence level in learning Syntax subject had slightly increased when computer media materials were used in the lessons. The last item is 'EConfident19' (*I am confident with syntax learning as the notes are manageable and the exercises are fun to do as they are organized systematically*) and the mean score is 3.23 (SD=1.214). This shows that with the integration of media materials, the students were slightly confident to learn Syntax when the notes were manageable and systematic. All in all, it can be inferred that, with the use of computer media materials, they boost the students' level of confidence to learn Syntax and it may affect their understanding and comprehension of the subject.

4.3. Findings for RQ2

Research question 2 that asked, "What are the factors contributing to syntax learning Satisfaction when media material is used?" is to look into factors and ways that help learners to gain satisfaction when learning a difficult course that is English Syntax; with computer and media elements becoming the teaching and learning supports. There are twelve (12) items sought for the responses (refer Table 5).

Table 5. Satisfaction survey.

Item	Satisfaction Survey
5	With media elements, completing the syntax exercises gave me a satisfying feeling of accomplishment.
8	The Tree diagram content via computer tools makes me more aware of English rules and skills.
9	There were diagrams, pictures, and many examples that showed me how media elements play important role for learning satisfaction.
10	Completing syntax lesson with media tools successfully was important to me.
14	With computer and media tools, I enjoyed syntax lesson so much that I would like to know more about the topic.
15	The pages of syntax lesson via computer technology look inspiring and appealing.
21	I really enjoyed studying syntax with media elements via computer.
23	The content and style of writing in syntax lesson (with computer tools) convey the impression that its content is worth knowing.
27	With computer tools, I can get immediate feedback and comment after completing the exercises which helped me feel rewarded for my effort.
32	With computer tools, it felt good to successfully complete syntax lesson.
34	With computer tools, I could clearly understand the content in syntax lesson.
36	It was a pleasure to work on such a well-organized lesson via computer and its media elements.

Table 6 illustrates the mean score of satisfaction to learning syntax via computer technology. Results from the survey reveal that the highest mean score amongst all items asked under Satisfaction consideration are from item ESatisfaction8 "The Tree diagram content via computer tools makes me more aware of English rules and skills", and item ESatisfaction10 "Completing syntax lesson with media tools successfully was important to me" with mean score M=4.20 (SD=.697 for item 8 and SD=.870 for item 10). It shows that learners put high expectations on

understanding syntax rules and the sentence analysis. They appreciate the learning and are satisfied with their achievement when the learning material used can support their learning. The integration of media elements in the analysis of the tree-diagram seems helpful to ease the learning. Learners also are observed to be satisfied with their learning when they are able to understand the learning content; hence, are able to complete the task or the exercises given. It is consistent with Huang and Hew (2016) study when their respondents are satisfied over the online-based learning when they manage to complete the task given. The true learning satisfaction can be seen here when the learning material used shows some potential to enable learners to easily adapt with the learning and finally understand what they learn. When the understanding can be obtained, learners have no doubt to do the exercises and later have no issue to complete the tasks.

Table 6. Mean score of satisfaction to learning syntax via computer technology.

Items (Satisfaction)	Mean	Standard deviation
ESatisfaction5	3.93	0.890
ESatisfaction8	4.20	0.697
ESatisfaction9	4.03	1.000
ESatisfaction10	4.20	0.870
ESatisfaction14	3.87	1.201
ESatisfaction15	3.03	1.542
ESatisfaction21	4.03	1.026
ESatisfaction23	3.91	1.176
ESatisfaction27	3.96	0.965
ESatisfaction32	4.07	0.844
ESatisfaction34	3.89	1.073
ESatisfaction36	4.13	0.859

Item ESatisfaction36 (It was a pleasure to work on such a well-organized lesson via computer and its media elements) with M=4.13, SD=.859 is the third highest mean score. Learners are observed to be satisfied with their learning when the content prepared can be organized accordingly. The well-organized content presentation can be easily planned and arranged when media tools are applied. For example, the pull-down menu tool or interactive buttons can be used to organize the content based on difficulty level, topics or skills.

The fourth highest mean score is item ESatisfaction32 (With computer tools, it felt good to successfully complete syntax lesson) with M=4.07, SD=.844. Learners revealed how the learning can be satisfying when they are able to complete the learning. To complete the lesson can be signified as to understand what has been learnt. Learners will not be able to complete the learning if they are caught with confusion or if they do not pick up what they read. Here, the learners' satisfaction is proven to be built with the integration of media elements.

Next is the fifth highest mean score. Item ESatisfaction9 (There were diagrams, pictures, and many examples that showed me how media elements play important role for learning satisfaction) with mean M=4.03, SD=1.0 reveals that the respondents prefer having media elements in the learning of syntax when diagrams, pictures, and examples can be included. It is to show how the computer media elements help to improve learners' motivation when learning syntax because the learning without graphic components, as in the printed version, can be dull and monotonous.

The sixth highest mean score is item ESatisfaction21(I really enjoyed studying syntax with media elements via computer) with M=4.03, SD=1.026. Enjoying the learning is one factor that enables a learner to focus and continue studying. It is needed in the learning process to enhance their learning motives so that the enjoyment helps learners to find ways to understand what they learn.

Item ESatisfaction27 (With computer tools, I can get immediate feedback and comment after completing the exercises which helped me feel rewarded for my effort) with mean score M=3.96, SD=.965 is the seventh highest mean score. It shows that learners reach their learning satisfaction when they receive feedback and comments after

the learning. They can see that their effort is paid off when they are able to check their understanding. Immediate feedback elements are made available when computer technology is utilised.

The eighth highest mean score is item ESatisfaction5 (With media elements, completing the syntax exercises gave me a satisfying feeling of accomplishment). Item ESatisfaction5 shows a positive response on learners' learning satisfaction that completing the syntax exercises with media elements gave them a satisfying feeling of accomplishment. Learners are observed to reach their satisfaction when they manage to complete the tasks, which at the same time shows that all the effort in the completion of the tasks become possible with the integration of computer technology.

The ninth, tenth and eleventh place of the mean score are items ESatisfaction23 (M=3.91, SD=1.176), ESatisfaction34 (M=3.89, SD=1.073), and ESatisfaction14 (M=3.87, SD=1.201) - *(item 23: The content and style of writing in syntax lesson (with computer tools) convey the impression that its content is worth knowing, item 34: With computer tools, I could clearly understand the content in syntax lesson, and item 14: With computer and media tools, I enjoyed syntax lesson so much that I would like to know more about the topic).*

However, item ESatisfaction15 "The pages of syntax lessons via computer technology look inspiring and appealing" with the mean score M=3.03 (SD=1.542) is the lowest mean amongst all items. The result demonstrates that this item is not a favourite to learners. The respondents, perhaps, may not place the interface or the design of the content presentation as their learning priority. What matters to these learners probably could be the ways how simple explanations or the systematic content are delivered which can be clearly read and understood.

5. CONCLUSION

5.1. Summary of Findings

The learning of English syntax amongst the L2 learners is almost always considered as complicated and sometimes the lesson is claimed as dull and can lead to boredom. Therefore, this study has managed to find some feedback regarding the learning of syntax and perhaps it could help eliminate those negative remarks. Learners are found to be grateful when they are given learning alternatives; and, this learning opportunity is observed provides them with confidence and satisfaction over learning a difficult subject that is syntax.

The findings obtained from the current study show that the students were more interested to learn Syntax when the researcher utilised the computer media materials in the lessons. Usually, Syntax lessons are taught using traditional methods and the content itself is quite dry for students to learn. However, having computer media materials, the lesson may become more interesting and fun. This finding is in line with a research done by Fu (2021) where the researcher discovered that the students portrayed positive opinions towards the use of multimedia in learning phrasal-verb. This indicates that the media materials may influence the students' interest to learn Syntax, grammar or any related lessons. The finding of the current study also demonstrates that the students felt more confident to retrieve the information that related to Syntax subject when they used media materials. This is maybe due to the arrangement of the information in computer media materials that were systematic and manageable. Bimo, Murni, and Dartani (2021) supported the current research's findings where they found out that both students and educators felt more motivated when utilising audio and visual materials in the grammar (simple present tense) lessons.

In addition, learners are found to have high expectations to comprehend syntax lessons as they are aware of the importance of syntax skills. Learners realize that the skills enable them to enhance their speaking and writing. Hence, since learners have high hopes over getting such valuable knowledge, it is a great effort to improve syntax learning approaches and the materials used. In this study, it is found that learners achieve satisfaction when they successfully manage to analyse the sentence structures via the tree-diagram approach; and, when they manage to complete the exercises given. This signifies that the learning is effectively carried out and no confusion over the whole learning activity. This is made possible when computer-media elements are involved. Lumbantobing and

Haryanto (2019) in their research also mentioned that satisfaction of the students can be seen when they are able to connect their achievement to their learning goals.

It is also found that learning satisfaction can be achieved when learners are exposed to a well-organized learning content. The 'step-by-step' input organization helps to explain every skill clearly. This, again, can avoid confusion during the learning and learners too are able to gain what is supposed to be conveyed. Nurlela, Sofyan, and Ganie (2021) in their study supported this learning feature to be incorporated when they found out that a well-organized text helps to gain readers or learners' attention. It is part of motivational factors that can enhance learning and understanding.

The next characteristic that has been found in order to achieve learning satisfaction is when learners are given an opportunity to receive feedback while learning and after the learning. It does assist them to check on their understanding; it is an opportunity that the misinterpretation to the learning content can be amended. This finding is consistent with a study by Taskiran and Yazici (2021) when receiving feedback is proven to satisfy learners, hence, increase their motivation. Learners also are found satisfied over the learning when graphics are used in the learning materials. Infographics and other elements such as pictures and diagrams help to improve learners' attention to the learning (Refat, Kassim, Rahman, & Razali, 2020) hence, elevate their motivation to move on learning.

5.2. Pedagogical Implications and Suggestion for Future Research

Based on the research findings, it can be said that the stakeholders (policy makers, schools, faculties) need to prepare and equip both educators and students with a conducive teaching and learning environment. This is because it would help both educators and students to have a positive attitude towards the teaching and learning processes. At the same time, the stakeholders should also equip the schools or faculties with suitable facilities that could help to enhance the teaching and learning process such as by providing the technology facilities. To date, the education sector has changed, and the use of technology cannot be denied by the stakeholders. As for future research, it could be suggested that future researchers look into other elements or methods that could help students to be more interested in learning the English language in general and specifically, Syntax (grammar). Finally, future research could use qualitative methods by interviewing and observing the students to get more in-depth data.

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