



## RESEARCH ARTICLE

## Using Edublogs for Developing Secondary School Students' Islamic Concepts and Self-Motivation

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**ABSTRACT**

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This study aims to identify the effectiveness of using Educational blogs (Edublogs) in developing secondary school students' Islamic concepts and self-motivation. To achieve this objective, the study adopted a quasi-experimental research design (pre-post test design for the experimental and the control group). The research sample was (114) students: the experimental group was (64) students from the twentieth secondary school in Dammam, and the control group was (50) students from the twenty-third secondary school in Dammam. The research tools consisted of Islamic concepts test and self-motivation scale. The results showed the effectiveness of using Edublogs in developing first-grade secondary school students' Islamic concepts and self-motivation and there is a significant positive correlation at ( $\alpha \leq 0.05$ ) between developing Islamic concepts and self-motivation among the students who were studied using the Edublogs. The study concluded the effectiveness of Edublogs in developing Islamic concepts and self-motivation among students. The study recommended the necessity of using Edublogs as a tool to learn the cognitive aspects and enhance the Affective aspects of students.

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**INTRODUCTION**

The Kingdom of Saudi Arabia has shown great interest in serving the Holy Quran, by printing and publishing it, as well as organizing local and international conferences and competitions, for example, the King Abdulaziz International Competition for memorizing, reciting, and interpreting the Holy Quran. The Kingdom has also focused on learning and teaching the Holy Quran, as stated in the Saudi education policy (1995). Tolba (2023) points out the importance of learning concepts because they are mental tools that help us face the world, provide the learner with meanings and give him a meaningful understanding, enhance his ability to process ideas and practice thinking strategies, and stimulate his motivation towards achieving Understanding and building a strong knowledge base.

Consequently, developing Islamic concepts related to the Holy Quran and deepening their understanding is of great importance because these concepts constitute the cognitive structure of science and form mental images in the brain (Novak, 1996). It stores and organizes information

within the learner's cognitive structure in the form of strong associations (Cakir, 2008), reduces the amount of information that must be understood and learned, and generates different meanings (Tolba, 2023).

Self-motivation is one of the factors that influence the learning and development of concepts, and it represents the emotional aspect of the learner. It also reflects the learner's constant desire to pursue learning activities and enjoy learning, and to achieve positive self-regulation in learning situations. Thus, it has an impact on self-regulated learning (Wiyono & Wu, 2022; Pravsti et al., 2020; McCombs, 2009; Deci et al., 2001; 1991).

Moreover, self-motivation is a crucial factor in the learning process, directing the learner towards the learning goal in general and enhancing positive attitudes towards learning. It is also essential for effective education as one of the internal factors that have an impact on the learning outcomes (Rani and Reddy, 2019; Mamin et al., 2020; Ushida, 2005). It is a conscious effort stem from the individuals, enabling them to learn, perform tasks, and solve problems. It is also associated with effort, challenge, curiosity, and risks (Ajiwibawani et al., 2017; Lepper et al., 2005; Xuan et al., 2014).

The importance of intrinsic motivation for learners was recommended in several studies, which stressed the need to develop it using various strategies and models throughout the learning stages (Jaradat & Ababneh, 2021; Zambuk, 2021; Khoshnam et al., 2013). Factors that affect conceptual learning and motivate learners include the learning environment that is based on technology and integrates it into learning, as well as using Web 2.0 applications in education (Kong, 2014; Malhiwsky, 2010). These applications are based on the philosophy of communication and easily exchanging and disseminating information.

Edublogs are considered one of the most prominent tools of the second generation of e-learning (E-learning web 2.0) that allow subscribers to express their opinions in various ways, such as voice and image, and reach all internet users worldwide (AKbulut & Kiyici, 2007). It is a distinctive method of integrating technology into the curriculum in the classroom, giving learners enough space for creativity and continuing learning outside the classroom.

Education through Edublogs is compatible with the Saudi Vision 2030 in providing students with the knowledge and skills necessary for future jobs, obtaining good educational opportunities, and obtaining an advanced ranking in global educational achievement indicators (the Saudi Arabia Vision 2030, 2016). It is also consistent with The Second International Conference "The Future of E-Learning in the Kingdom of Saudi Arabia According to the Saudi Vision 2030", (2021), which stressed the importance of replacing the traditional teaching methods and making full use of modern technological implementations that ensure direct interaction between the learner and the teacher, facilitating the educational process.

Despite the educational importance of Islamic concepts, previous studies indicate a low level of students' performance in acquiring concepts in general. This was due to many reasons; the teacher and the learner, the environment surrounding the learner, the teachers' teaching style, and the students' feelings and attitudes towards the learning subject (Çimer, 2012), the nature of concepts (Fauzi and Mitalistiani 2018), or the result of using the usual method of teaching that is far from true understanding (Fareo, 2019)

Although self-motivation has the ability to predict academic achievement (Khoshnam et al., 2013), and is responsible for the desire to master and enjoy work, it has a strong positive impact on students' learning behavior and the practice of self-regulated learning (Hindradjat et al., 2022; Zothanzami, 2019; Steinmayr et al., 2019 ),studies have indicated that there is a weakness in students' motivation

towards learning as a result of using teaching methods that do not give the learner enough space to express himself (Davidovitch & Dorot, 2023, Edgar et al., 2019; Nurwendah & Suyanto, 2019)).

According to Gareyev et al., (2015), one of the tools that has already proven effective in solving this type of problem is information and communication technology (ICT) and distance learning technologies. Al- Hsu et al., (2014) emphasized the importance of using modern technologies and (web 2.0) applications such as blogs in teaching, enhancing the learning process, and participating, communicating, and cooperating with others. Edublogs enhance the learning experience, emphasize human interaction and social learning, and lead to student motivation and interaction between the learner and the content (Thi & Minh, 2021; Heirdsfield, et al., 2011), Edublogs provide rich sources of information and support self-learning skills in acquiring knowledge and experience (Alyateem and Alsayadi, 2015), They also enhance motivation towards continuous research to gain knowledge and concepts (Dwijuliani et al., 2021; Goh et al., 2010). Furthermore, Edublogs facilitate the process of teaching and learning (Manfra & Lee, 2012), providing a safe educational environment (Madzlan et al., 2020) and support thinking and communication among students (Sidek & Yunus, 2012). Additionally, Edublogs improve shorthand writing abilities and develop positive attitudes towards using them in learning (Kitchakarn, 2012).

This research is a response to modern educational trends that assert the need to provide learners with knowledge (Islamic concepts) using technology and e-programs (Edublogs), strengthening the emotional side in Islamic education (self-motivation), directing the attention of the Holy Qur'an curriculum planners and developers to the need to benefit from modern technologies in designing the curricula, and encouraging Islamic education teachers and supervisors to use Edublogs in teaching Islamic education branches to develop Islamic concepts and self-motivation towards them.

Thus, this research paper investigated the low level of secondary school students in Islamic concepts, and the importance of increasing self-motivation towards learning these concepts. The problem of this research is determined in the following questions:

- 1- What is the effectiveness of using Edublogs in developing students' Islamic concepts in the Holy Qur'an curriculum and its interpretation?
- 2- What is the effectiveness of using Edublogs in developing students' self-motivation?
- 3- What is the correlation between developing students' Islamic concepts and self-motivation?

### **Research Hypotheses**

The current study sought to verify the validity of the following hypotheses:

- 1- There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between mean scores of the students in the two groups: experimental and control in the Islamic concepts test.
- 2- There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between mean scores of the students in the two groups: experimental and control in the self-motivation scale.
- 3- There is no statistically significant correlation at the level ( $\alpha \leq 0.05$ ) between developing Islamic concepts and self-motivation among the students of the experimental and the control groups.

### **Objectives of the Research**

The current research aimed to identify the effectiveness of using Edublogs in developing first-grade secondary school students' Islamic concepts and self-motivation in the Holy Qur'an curriculum and its interpretation, and to reveal the nature of the correlation between developing their Islamic concepts and self-motivation.

## Research Limits

1. Objective limits: Islamic concepts in the Holy Qur'an curriculum and its interpretation in the first-grade secondary school, and the dimensions of self-motivation (self-satisfaction, pleasure and happiness, and the desire for excellence and achievement).
2. Temporal limits: The research was conducted in the first semester of the academic year 2022.
3. Spatial limits: The research was applied in public secondary schools in Dammam in the Eastern Province of the Kingdom of Saudi Arabia.
4. Human Limits: The research was applied to a random sample of first-grade secondary school students.

## THEORETICAL BACKGROUND

### The Importance of Learning Islamic Concepts

Fair (2014) defined a concept as “an abstract idea that has been simplified based on specific evidence, or it is an idea that contains specific information about a particular topic that can be transferred or generalized in different contexts”. The importance of concepts learning includes the formation of ideas and mental images that express knowledge in the brain, memorizing and organizing information within the learner's cognitive structure, transferring knowledge and skills, processing them deeply, and increasing motivation to learn (Giddens et al., 2019; Erickson & Lanning, 2013).

Many studies have recommended the importance of developing concepts (Fauzi & Mitalistiani, 2018; Fareo, 2019; Thi & Minh, 2021). Therefore, it is important to develop Islamic concepts because they facilitate the learning process and contribute to preparing the learner religiously, build personality properly, enhance communication and understanding with others, and develop various thinking skills.

### Self-Motivation as a Behavioral Stimulant

Self-motivation is an important part of the educational process; it improves the learner's ability to recall and process knowledge at a deep level, and makes the knowledge more stable in memory. It is defined as a spontaneous activity that stems from the individual; it is maintained and sustained, and does not arise from external reinforces (Ryan & Deci, 2017; Oudeyer et al., 2016). Bilbrey, (2017) defined it as the will or motivation that motivates a person to do something, achieving a kind of happiness and pleasure.

The importance of self-motivation is that it activates and maintains behavior and predicts academic achievement. According to Khoshnam et al. (2013); and Ghamari (2011), there is a positive relationship between self-motivation and performance. It is associated with the desire for self-satisfaction, pleasure in learning, achieving a certain goal, or doing a particular task; thus, it is necessary for self-learning, autonomy, lifelong learning, and competence (Bilbrey, 2017; Carbonneau et al., 2012). It also expresses autonomy and goal-directed behavior and the free will to do the learning tasks (Ryan & Deci, 2017).

Howard et al. (2020) highlighted three types of self-motivation that promote behavioral activation; Intrinsic Motivation to Know; It is associated with discovery, curiosity, learning goals, the need to know and understand, and searching for meaning, Intrinsic Motivation toward Accomplishments; It is related to mastery motivation; a sense of competence and self-motivation to participate in exciting events; and Intrinsic Motivation to Experience Stimulation; it appears when participating in an activity because of the sensory stimulation associated with this activity. Bloom & Colbert (2011) also

identified the dimensions of self-motivation responsible for activating behavior in autonomy, a sense of free will, competence, a sense of mastery, and relatedness to positive relationships with others.

Many studies focused on the importance of developing self-motivation, including Yang & Chang (2012), which indicated the effectiveness of using Edublogs in developing learner's motivation and helping learners engage in effective discussions, and Li & Hin (2012) which emphasized that there are three basic motives affect the learner's blogging and behavior in the blog, they are; practicing a new type of diary, curiosity, and ideas about audience follow-up. Gehr (2019); and Rinkevich (2014) highlighted the importance of Autonomy based educational environment in enhancing students' self-motivation. According to Gareyev et al. (2016), Edublogs are a universal tool that enhances motivation, professional language proficiency, and independent learning skills. Moreover, Gulzar et al. (2021) indicated that the use of social media is positively related to students' creativity and developing self-motivation, and Campillo-Ferrer et al. (2021) reached the effectiveness of using Edublogs in improving self—motivation, digital literacy, and enhancing students' social skills, as well, Pestana et al. (2022) indicated the effectiveness of using concept maps in developing students' academic achievement and intrinsic motivation.

### **Edublogs as a Technological Tools for Learning**

Edublogs emerged in the late 1990s as a new source for publishing on the web, they were diaries or notebooks, and relied on links and tools (Campillo-Ferrer et al., 2021). Hyperlinking has become more prevalent than storytelling and personal thoughts, Edublogs are now a mixture of narratives, reflections, and selective links (Rybakova, 2015). The use of Edublogs began to grow rapidly in 2010 with the emergence of Twitter and other micro-blogging platforms (McPherson, 2020).

Currently, electronic educational Edublogs have become one of the e-learning tools that serve the educational process, they receive a great attention and are widely spread in the educational environment, and they receive more support and reinforcement as collaborative tools to support students' active learning (Jimoyiannis & Angelaina, 2012).

### **Edublogs Blog Concept**

A blog is defined as a simplified site where individuals or groups can publish various information, others can comment on this information and chat, and it contains hyperlinks that help in accessing more information on the topic of the blog itself (Nicolet, 2008). Oxford, (2009) defined it as an e-diary, journal, or website that is constantly renewed and added by the blog owner. E-Learning Blogs are defined as a space on the Internet that presents educational courses, activities, and exercises. The teacher and the learner can discuss with each other at the same efficiency as what happens inside the classroom (Sim & Hew, 2010), and it is a web-based technology that allows people to quickly share their ideas, and they can publish and write articles with multimedia materials Successfully (Huang, 2011). It is also a new form of journaling in which privacy is less concerned, the ability to interact with others is valued and individuals can express themselves freely (King, 2011). According to Jones (2016) it is websites that are used to record content in chronological order that is updated periodically and provide the owner to express his opinions freely and without restrictions. It is also known as an effective educational tool that can provide direct support and partnership based educational approach, it allows authors to publish content and ideas immediately on the Internet" (Nepomuceno, 2011).

Edublogs are characterized by digital flexibility, ease, participatory and interactive where there are templates for Edublogs with easy graphic interfaces, which are used by bloggers. It allows sharing experiences, and provides the teacher with constant direct contact with students; they can work

collaboratively and learn new and useful ways to share, organize, store, and retrieve information (Campillo-Ferrer et al. 2021; Moore –Russo et al., 2015; DeWitt et al., 2013).

Paquet (2003) identifies five main features of Edublogs: personal editorship; a hyperlinked post structure; frequent updates, displayed in reverse chronological order; Free, public access to the content; and archived postings.

### **Theoretical Foundations of Edublogs**

According to Noel (2015), Social media are effective tools for building constructive learning environments, as well, Edublogs are important platforms for constructive learning that are characterized by a variety of concepts, educational activities, and educational environments, which increase learner's motivation and retention of information through their active participation. Chang et al. (2009) highlighted that developing an environment for an electronic blogging system allows the learner to create his Edublogs, exchange his ideas, and share knowledge with others. It also allows him receive reflective feedback; therefore, Edublogs become a space for group discussion, meaning construction, and knowledge accumulation, this is consistent with the principles of the constructivist theory (Hung, 2014). In light of the Connectivism Theory, Edublogs are a means of communication, as they are web interaction tools that allow the learner to introduce himself to others, express his opinions and ideas to others, promote social learning, engage in a group learning process, and form a community of learners (Titton, 2015; and Garcia et al. al., 2015). According to the communities of practice theory, Edublogs allow bloggers to engage mutually, learn from each other in their common interests, and learn better by interacting with each other, this means that every blogosphere can be called a "community of practice" (Finney, 2013; and Deng &Yuen, 2010). Educational Edublogs also foster an investigative community; it supports the social presence of the learner by expressing himself socially and emotionally, and the cognitive presence by enhancing the learner's ability to construct meaning and confirm it through discourse, dialogue, cognitive reflection, and content sharing, and the teaching presence, as it allows the teacher to design education, and facilitates dialogue among students (Jimoyiannis & Angelaina, 2012; Garrison et al., 2001).

### **Types of Edublogs**

Edublogs in the educational process are classified into Tutor blogs, which are managed by the teacher; they include content explanations, hyperlinks, audio clips, and video clips related to the topic taught, it also contains a set of questions, activities, assignments, and tasks that promote discussion and dialogue. The learner blogs, which are managed by the learner, in which he can express and publish his ideas, search for knowledge, and gain experience, they develop his autonomy, his ability to write clearly, and his sense of ownership. The class blogs, which illustrate the collaborative effort of teacher and students, it can be used as a bulletin board for students, post messages, images, and links relevant to the topic, facilitate project-based learning, and serve as a virtual space for international classroom language exchange (Kitchakarn, 2012). McPherson (2020) suggested another classification of blogs; word-based blogs, artwork-based blogs, microblogging, which focuses on short posts, and Edublogs, which focus on education.

### **Edublogs as an Educational Tool**

Edublogs can be used as an educational tool and a means of communication between the teacher and the student in different areas, including Classroom management; as it contributes to construct a learning community for students. Explaining educational lessons; providing the blog with the content, through posts made by the teacher that contain a detailed explanation of the lessons supported by multimedia (pictures and video clips) that contribute in clarifying the lesson, arousing

the student's attention, increasing his motivation towards learning, and allowing him to enter the blog to read the content, share interactive activities, write comments, complete assignments and do tasks. Train students and the teacher in specific skills; by providing them with the necessary training to develop their writing skills, and providing the opportunity for the audience to listen and provide constructive criticism, in addition to train students on dialogue skills, expressing opinions by raising a topic, discussing the comments of the students as a way for problem-solving skills, taking responsibility and self-confidence, participating in setting educational goals, and identifying topics to be studied. They can be a way to solve activities and exercises; as it becomes a comprehensive reference for the course, a discussion page, and a dialogue; as it opens the way for discussing the subject matter, which saves time, and contributes to enrich the discussion with sharing ideas and experiences. Supporting reflective learning is one of the most important skills for lifelong learning, as blogging is used as a platform for students through which they can reflect on the study material, share knowledge, and promote collaborative writing and participatory reflection among students (Ahmad et al., 2018; Lim & Dennen, 2022; Ifinedo, 2017; Rybakova, 2015; Jimoyiannis & Angelaina, 2012).

### **Edublogs as an Educational Value**

Edublogs are a powerful tool for encouraging students to express and reflect on their ideas based on their learning experience, add comments to their friends' Edublogs to encourage further thinking, engage students in the world of interconnected media, and develop critical thinking skills, writing skills, and information literacy (Kitchakarn, 2012). According to Jones (2016), the benefits of Edublogs in the educational process are as the following: they are a good source of learning climate focused on the learner and the environment, constructing a learning community rather than the traditional classroom, developing thinking skills, practicing different thinking processes, increasing motivation towards learning, enhancing self-confidence and self-esteem, facilitating active learning, supporting cooperative learning, developing learning communities, and interaction; which enhances discussion and expansion of ideas, providing feedback; where educational support is provided to the learner to pursue knowledge, and are a continuous learning assessment tool as it evaluates the blog from the beginning of teaching the course to its end, strengthening the links between the teacher and the students by developing communication and research skills, and developing the student's sense of creativity; where he becomes able to process texts using different fonts and colors, and add images, links, and video materials to enhance and improve his experiences in blogging.

Noel (2015) showed that Edublogs support educational activities related to cognitive sharing, social interaction, increased motivation, and the construction of learner-centered environments that Contextualize learning, Bakan (2017) added that the use of Edublogs increases learner's motivation towards writing when he knows that his classmates are reading and commenting on their posts.

Many studies have investigated the effectiveness of educational Edublogs in the learning process, including Manfra & Lee (2012), which indicated the effectiveness of educational Edublogs in facilitating education. Angeles et al. (2015) which emphasized the effectiveness of blogging as an effective method for writing activity, and Alyateem & Alsayadi (2015), which indicated the effectiveness of learning through educational Edublogs in students' acquisition of knowledge, while Huang et al. (2016) demonstrated the importance of applying problem-based learning approaches and educational Edublogs with students of different achievement levels.

Alsamadani (2018) highlighted the effectiveness of online blogging for developing students' individual and group writing skills, according to Garcia et al. (2019), the benefits of using educational Edublogs are influenced by students' attitudes towards using technology in teaching and learning,

and the successful use of educational Edublogs leads to higher levels of learning. Conde-Caballero et al., (2019) showed the effectiveness of using Edublogs in constructing knowledge collaboratively and increasing the level of student participation and interest in learning.

Garcia et al. (2019) indicated that there are positive perceptions among students about learning using educational Edublogs, Marnita & Faradika (2019) investigated the effectiveness of using Edublogs in enhancing student motivation, academic engagement, and active participation in the learning process, Moreover, Akdağ et al., (2021) indicated that teaching based on using Edublogs enhances the teacher's performance in facilitating lesson planning, sharing information, active participation, and increasing achievement, and Prahl (2021) indicated the effectiveness of using Edublogs in increasing self-motivation and academic success. Mas'ula et al., (2021) emphasized the effectiveness of applying blog-based learning media in enhancing students' intelligence. These studies recommended the necessity to use Educational Edublogs as tools for learning and teaching, integrating them into school curricula, using them in communication, and making activities and content available to learners.

## METHODOLOGY

### Research Method

To achieve the research objectives, the quasi-experimental research design was used (pre- post test design) for two unequal groups; the experimental which was studied using the Edublogs, and the other control which was studied conventionally.

### The Research Sample

Fraenkel et al. (2012) defined the research sample as "a subset of the vocabulary of the population of the study in question, to be selected properly to represent the study population". The sample consisted of (114) students enrolled in the first-grade secondary stage in one public school in Dammam district. The experimental group consisted of (64) students in the twentieth secondary school, and the control group consisted of (50) students in the twenty-third secondary school. The sample was purposeful because this school was equipped with the necessary equipment and tools to conduct this research.

### Research Variables:

**Independent Variable:** It is represented in the teaching of Islamic concepts using Edublogs.

**Dependent Variables:** The dependent variables in this research are as follows: first; Islamic concepts; second, Self-Motivation which are use meaningful questions, data collection and analysis, interpret results using evidence, presentation and evaluation of results.

### Preparation of Experimental processing Treatment and Research Tools

#### Experimental Treatment

**The experimental treatment was determined in the following steps:**

**1- Choosing the educational content:** The Islamic Concepts unit was chosen according to the Holy Qur'an curriculum and its interpretation for first-grade secondary school students.

**2- Content Analysis of the selected unit:** To determine the list of Islamic concepts included in the unit, after conducting the analysis process, the validity and reliability of this analysis were calculated as follows:

- **Analysis Validity:** The list of Islamic concepts was presented to a panel of curricula and methods of teaching Islamic education staff members to ensure the comprehensiveness of the analysis. They indicated the validity of the analysis in light of the analysis unit (concepts), and they also indicated the comprehensiveness of the analysis of the concepts included in the unit.
- **Analysis Reliability:** the analysis reliability was calculated using the consistency of the individuals and agreement between the analysis results reached by the researchers and two colleagues as well, the Holsti equation (1968) was calculated (0.98), which is a high value indicating the reliability of the analysis.

**3- Preparing the teacher's guide:** a teacher's guide for the "Islamic Concepts" unit in the Holy Qur'an curriculum and its interpretation using Edublogs was prepared to develop Islamic concepts and self-motivation among secondary school students. This guide includes the objectives, the importance, the concept of Edublogs, and their types, the scientific basis for Edublogs, the stages of designing Edublogs, the general procedures for Edublogs, the role of the teacher and the student in Edublogs, the organization of the classroom environment, and the procedural aspect of implementing Islamic concepts lessons using the blog.

**4- Sending to the arbitrators:** the teacher's guide was presented to a panel of curricula and methods of teaching Islamic education staff members to ensure the face validity of it. Some modifications were made according to their opinions, and the guide is ready in its final form for application.

## RESEARCH TOOL

### The Search Used the Following Tools

#### Islamic Concepts Test

The test consisted of (36) multiple-choice questions, (7) questions at the recall level, (4) questions at the comprehension level, (9) questions at the application level, (11) questions at the analysis level, (2) questions at the synthesis level, and (3) questions at the evaluation level. To ensure the validity, the test was presented to a panel of curricula and methods of teaching Islamic education staff members to evaluate the relation between the items and the cognitive levels, the appropriateness of the alternatives for each question, the scientific validity and linguistic integrity, and the comprehensiveness of the questions for the educational content. Some modifications were made in the light of their opinions. The total score of the test was (36). The test was applied to a pilot sample consisting of (64) students outside the research sample to calculate the test reliability using the Test-Retest method, and it was (0.525), (0.640), (0.373), (0.997), (0.379), (0.528), and (0.826) for the cognitive levels of recall, comprehension, application, analysis, synthesis, evaluating, and the whole test respectively. The internal consistency validity of the test was also calculated to determine the correlation between the scores of each item with the cognitive level, which ranged between (0.256-0.709), and between each cognitive level of the test with the total score of the test which ranged between (0.266-0.846) using the Pearson correlation coefficient, which is statistically significant correlation coefficients at the significance level (0.05, 0.01), and this indicates that the test is internally consistent. Difficulty and ease coefficients for each item of the test ranged between (0.30-0.70), and the questions that students answer correctly ranged from 20% to 80% that are considered acceptable for the ease and difficulty coefficients. Discrimination coefficients for each test item also ranged between (29%-76%), which are acceptable discrimination coefficients (Wendler & Walker,

2006). The appropriate time for administering the test was determined by calculating the average time taken by the first and the last student to complete the answer, which was 45 minutes.

### The Self-Motivation Scale

To develop the self-motivation scale, the researcher reviewed the related literature to determine the items and dimensions of the scale. Benefiting from studies including Pestana et al. (2022), Gulzar et al., (2021), Khoshnam et al. (2013), Yang & Chang, (2012), and Ghamari (2011), the researchers created scale items (36 items). Based on the reviewers' feedback, the scale has three dimensions, including Self-satisfaction (12 items), pleasure and happiness (12 items), and desire for excellence and achievement (12 items). The student's self-motivation was measured using a three-point Likert scale (Often, Sometimes, Seldom). To ensure the content and face validity, the scale was reviewed by more than ten experts in the field of education. Furthermore, a pilot study was conducted for the scale on 64 first-grade students in a Saudi school to ensure the clarity of the scale items and determine the sufficient time to complete the scale (20 minutes). Cronbach's Alpha was calculated for scale reliability, Self-satisfaction (0.82), pleasure and happiness (0.882), desire for excellence and achievement (0.851), and the scale as a whole (0.937). The internal consistency validity of the self-motivation scale was calculated to determine the correlation between each dimension of the scale with the other dimensions and the total score of the scale, which ranged between (0.662-0.930) using the Pearson correlation coefficient.

### The Equivalence of the Two Groups (Pre-Application of the Study Tools)

The Islamic concepts test and the self-motivation scale were pre-applied to the two groups to recognize the extent of equivalence between them, and the t-test was used for independent samples to identify the differences between the two groups in the Islamic concepts test as a whole and its dimensions (recall, Comprehension, application, analysis, synthesis, and evaluation) as shown in Table 1, and in the self-motivation scale and its dimensions (Self-satisfaction, pleasure and happiness, and desire for excellence and achievement) as shown in Table 2.

**Table 1: Equivalence of experimental & control groups in Islamic concepts and its dimensions (recall, Comprehension, application, analysis, synthesis, and evaluation)**

Cognitive level	Group	N	Means	Standard deviation	t-Value	Value of sig.	Significance
Recall	Experimental	64	2.247	1.25	0.116	0.030	Not significant
	Control	50	2.540	1.29			
Comprehension	Experimental	64	1.516	0.78	0.075	0.285	Not significant
	Control	50	1.560	0.88			
Application	Experimental	64	3.189	1.38	0.226	0.411	Not significant
	Control	50	3.080	1.40			
Analysis	Experimental	64	3.359	1.80	0.740	0.444	Not significant
	Control	50	3.200	2.02			
Synthesis	Experimental	64	0.609	0.63	1.686	0.073	Not significant
	Control	50	0.600	0.73			

Evaluation	Experimental	64	0.797	0.74	1.117	1.563	Not significant
	Control	50	0.580	0.73			
Islamic Concepts test as a whole	Experimental	64	12.016	3.53	0.331	0.682	Not significant
	Control	50	11.560	3.55			

**Table 2: Equivalence of experimental and control groups in self-motivation and its dimensions (self-satisfaction, pleasure & happiness, and desire for excellence & achievement)**

Variable	Group	N	Means	Standard deviation	t-Value	Significance Value	Significance
Self-satisfaction	Experimental	64	27.203	4.387	1.01	0.465	Not significant
	Control	50	27.580	4.165			
pleasure and happiness	Experimental	64	27.922	5.573	0.92	0.285	Not significant
	Control	50	27.660	3.783			
desire for excellence and achievement	Experimental	64	27.516	5.595	0.34	0.874	Not significant
	Control	50	26.700	3.955			
Self-Motivation scale as a whole	Experimental	64	82.797	13.494	0.27	0.292	Not significant
	Control	50	82.140	9.526			

Tables 1 and Table 2 showed that there are no statistically significant differences between the mean scores obtained by the experimental and the control groups on the pre-performance of the two research tools (the Islamic concepts test and the self-motivation scale), which confirms the equivalence of the two research groups.

### The Treatment

After ensuring the equivalence of the two groups, the experimental group was taught using Edublogs, while the control group was taught conventionally. The research experiment lasted three weeks (9 sessions), three sessions per week for each group. After completing the teaching in both groups, the researchers re-applied the Islamic concepts test and the self-motivation scale in both groups .

## RESULTS AND DISCUSSION

### First: The Effectiveness of Edublogs in Developing Islamic Concepts

To test the validity of the first hypothesis of the research, which states: "There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between mean scores obtained by the students of the experimental and the control groups in the Islamic concepts test". The "t" value was calculated to compare the mean scores of the experimental and control groups in the post-application to the

Islamic concepts test as a whole and its dimensions, and the effect size was also calculated as shown in Table 3.

**Table 3: Results of the post-testing of the Islamic Concepts and its sub- Dimensions**

Cognitive Level	Group	N	Means	Standard deviation	t-Value	Eta Squared $\eta^2$	d-value	Effect size
Recall	Experimental	64	6.188	1.02	15.87	0.690	0.98	High
	Control	50	2.720	1.33				
Comprehension	Experimental	64	3.203	0.97	9.31	0.436	1.758	High
	Control	50	1.520	0.93				
Application	Experimental	64	7.828	1.39	18.31	0.750	3.464	High
	Control	50	2.800	1.54				
Analysis	Experimental	64	9.250	2.08	15.24	0.675	2.880	High
	Control	50	3.720	1.70				
Synthesis	Experimental	64	1.781	0.45	10.36	0.489	1.965	High
	Control	50	0.720	0.64				
Evaluation	Experimental	64	2.406	0.95	9.81	0.462	1.854	High
	Control	50	0.840	0.68				
Islamic Concepts test as a whole	Experimental	64	30.63	5.326	21.20	0.801	4.013	High
	Control	50	12.32	3.371				

**Note. SD: Standard deviation;  $\eta^2$ : Squared eta; & ES: Effect size**

Table 3 shows that there are statistically significant differences at the significant level ( $0.05 \geq \alpha$ ) between the mean scores obtained by the experimental and control groups in the post-performance of the Islamic concepts test as a whole and its different cognitive levels favoring the experimental group (this indicates that the first null hypothesis cannot be accepted). The effect size of using Edublogs on developing Islamic concepts as a whole is high as it reaching "4.013"; while the effect of each dimension was as follows: recall (2.98), comprehension (1,758), Application (3.464), Analysis (2.88), Synthesis (1,956), and Evaluation (1,854). These results indicate the effectiveness of using Edublogs in developing first-grade secondary school students' Islamic concepts. This can be due to the fact that educational Edublogs stimulate students' thinking and encourage them to practice many mental processes through the various educational activities presented within the blog, and organize the scientific content by dividing it into simple, sequential, and interrelated tasks, which made it

easier for students to learn Islamic concepts and keep them in memory. In addition, some educational activities related to Edublogs containing many elements that address most of the students' senses, such as written texts, images, and video clips that enhance their understanding. They also provide opportunities for dialog and discussion, and exchange of opinions between students, and between students and the teacher in the blog, and the variety of evaluation methods used in the blog, such as formative evaluation, which helped students give immediate feedback after each task, and the summative evaluation, which gives immediate feedback at the end of each of the lessons included in the blog.

This result agreed with many studies that indicated the effectiveness of using Edublogs in developing concepts as it is an effective tool for meaningful learning, they lead to understand, think and reflect on concepts, learn through dialogue, discussion, and thinking, link previous information to new information, access information at any time via the Internet, and provide the opportunity for the learner to inquire about concepts through various communication tools; which leads to its consolidation, strengthening, and integration (Akdağ et al., 2021; Huang et al., 2016; Alyateem & Alsayadi, 2015; Manfra & Lee, 2012). This result supports the findings of previous studies on the effectiveness of educational Edublogs in the learning process (Manfra & Lee, 2012), and as an effective method for writing activity (Angeles et al., 2015), and knowledge acquisition (Huang et al., 2016; Alyateem & Alsayadi, 2015), and developing writing skills (Alsamadani, 2018).

This result can be due to the fact that Edublogs enhance the construction of conceptual knowledge, increase the active participation of the learner in the learning process and share knowledge with others (Conde-Caballero et al., 2019), and they are also a powerful tool that encourages students to express or reflect on their ideas about the learned concepts and allows them to add their comments to their friends' Edublogs to encourage further thinking about these concepts (Kitchakarn, 2012). This result can be explained in light of the fact that Edublogs provide a positive environment for learning Islamic concepts, promote active learning and learning communities, promote discussion and expansion of ideas, and provide feedback to students about learning Islamic concepts, as well as the use of different fonts and colors, images, links, and videos that enhance the acquisition of these concepts (Jones, 2016).

## Second: The Effectiveness of Edublogs in Developing Self-Motivation

To test the validity of the second hypothesis of the research, which states: "There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between the mean scores obtained by the experimental and the control groups in the self-motivation scale". The "T" value was calculated to compare the mean scores of the experimental and control groups in the post-performance of the Self-Motivation scale as a whole and its sub-dimensions, and the effect size was also calculated as shown in Table 4.

**Table 4: Results of the Post-Performance of the Self- Motivation Scale and its sub-Dimensions**

Variable	Group	N	Means	Standard Deviation	t- Value	Squared Eta $\eta^2$	d- value	Effect size
Self-satisfaction	Experimental	64	30.06	5.99	4.11	0.131	0.80	High
	Control	50	26.32	2.66				
	Experimental	64	29.94	6.18	4.49	0.152	0.85	

pleasure and happiness	Control	50	25.84	2.10				High
desire for excellence and achievement	Experimental	64	28.48	6.55	4.26	0.139	0.81	High
	Control	50	24.44	1.63				
Self- Motivation scale as a whole	Experimental	64	88.48	17.37	4.72	0.166	0.90	High
	Control	50	76.60	4.34				

**Note. SD: Standard deviation;  $\eta^2$ : Squared eta; & ES: Effect size**

Table 4 shows that there is a statistically significant difference at the significant level ( $0.05 \geq \alpha$ ) between the mean scores obtained by the experimental and control groups in the self-motivation scale as a whole and its dimensions favoring the experimental group (this indicates that the null hypothesis cannot be accepted), The effect size of using Edublogs on developing self-motivation as a whole was "0.90", which is high effect size, as the effect of each dimension was as follows: self-satisfaction "0.80", pleasure and happiness "0.85", and desire for excellence and achievement "0.81". These results indicate the effectiveness of using blogs in developing first-grade secondary school students' self-motivation. This can be attributed to the fact that the educational blogs emphasize the active role of the learner making him the center of the educational process, and enhance his self-learning through his positive interaction with individual and collaborative activities, assignments and homework, and interaction with other sources of information. They also present knowledge in an interesting and attractive way, supported by pictures and video clips, and provide interactive activities that enhance self-motivation and enjoy learning, in addition to giving the learner the freedom to comment and participate within the blog, which makes him, feel confident in his ability to learn Islamic concepts.

This result is consistent with Kong (2014) and Malhiwsky (2010), which indicated that a learning environment that is based on technology or integrates technology in learning is one of the factors that motivate the learner. According to Yang & Chang (2012), using blogs had a positive impact on developing students' self-motivation and active engagement, Li & Hin (2012) showed that the learner's blogging enhances learner's curiosity and motivation, Gareyev et al., (2016) and Marnita & Faradika (2019) highlighted that electronic blogs enhance learner motivation, academic engagement, and active participation in the curriculum, Gulzar et al. (2021) indicated that using social media enhances self-motivation, and Campillo-Ferrer et al., (2021) indicated the effectiveness of blogging in improving students' self-motivation.

This result is supported by many studies that highlighted the importance of developing self-motivation by using different teaching strategies and models such as (Pestana et al., 2022; Zambuk, 2021; Khoshnam et al., 2013), and the use of student-centered learning environments and his independence (Gehr, 2019; Rinkevich, 2014).

This result also supports the findings of previous studies investigated the effectiveness of using educational blogs in enhancing the learner's emotional side (Garcia et al., 2019), increasing the level of student participation and interest in learning (Conde-Caballero et al., 2019), and enhancing student motivation and academic engagement and active participation in the learning process (Prah, 2021; Akdağ et al., 2021).

### **Third: The Correlation between Developing Islamic Concepts and Self-Motivation**

To test the validity of the third hypothesis of the research, which states, “There is no statistically significant correlation at the level ( $\alpha \leq 0.05$ ) between developing Islamic concepts and self-motivation among the students of the experimental and the control groups”. The researcher used the Pearson correlation coefficient as shown in Table 5.

**Table 5: Pearson Correlation Coefficient between the Results of the Islamic Concepts Test and the Self-Motivation Scale for the Experimental & Control Group**

Variable	Group	Number	Correlation coefficient	Significance level
The Islamic concepts test & the Self-Motivation scale	Experimental	64	0.413	Sig. (0.05)
	Control	50	0.084	Not. Sig.

Table 5 shows that the correlation coefficient in the experimental group reached 0.413, which was significant at the significance level of (0.05), therefore, there is a positive correlation between developing Islamic concepts and Self-Motivation among first-grade secondary school students who were taught using Edublogs, and There is a positive, non-statistically significant relationship ( $r = 0.084$ ) between these two variables for the control group students who were studied conventionally.

This result is consistent with other studies that supported a positive relationship between self-motivation and academic achievement such as (Khoshnam et al., 2013; Ghamari, 2011). Self-Motivation is one of the factors influencing the learning and the development of concepts because it constitutes the learner’s affective aspect responsible for enjoying learning, taking responsibility for it, and influencing learning self-regulation (Wiyono & Wu, 2022; Pravsti et al., 2020; McCombs, 2009; Deci et al., 2001; 1991).

The correlation between self-motivation and developing Islamic concepts can be explained as self-motivation directs the behavior of the learner towards learning these concepts meaningfully, and makes him more willing to participate in educational activities, more responsible for learning, and more able to face difficulties that hinder understanding.

The statistically significant correlation between self-motivation and Islamic concepts of the experimental group can be explained as using Edublogs is a good source of learning and they provide a climate focused on the learner and the environment and work to build a learning community rather than the traditional classroom, increase motivation towards learning, enhance confidence and Self-esteem, facilitate active learning, support cooperative learning, and develop learning communities and interaction, which in turn affects the learning of Islamic concepts (Jones, 2016). Edublogs also increase student motivation and enhance knowledge sharing, social interaction, and knowledge exchange, which lead to develop Islamic concepts (Bakan, 2017; Noel, 2015).

On the other hand, Table 5 shows that there is a positive relationship between self-motivation and Islamic concepts among students of the control group that studied conventionally, but it is not statistically significant, which does not allow students to actively participate in the learning process, and does not provide them with opportunities to exchange scientific dialogues, and this negatively affects self-motivation and developing their Islamic concepts. This result supports using educational blogs in developing self-motivation towards learning and thus learning Islamic concepts, as it motivates students towards learning and enhances knowledge sharing between them, which in turn is reflected in developing concepts.

## CONCLUSIONS

The results showed that there is a statistically significant difference at the significance level 0.05 between the mean scores obtained by the experimental and control groups in the Islamic concepts test favoring the experimental group, there is a statistically significant difference at the significance level of 0.05 between the mean scores obtained by the experimental and control groups in the Self-Motivation Scale favoring the experimental group, and there is a positive correlation between developing students' Islamic concepts and Self-Motivation among the experimental group students who were studied using the Edublogs. Accordingly, using Edublogs was effective in developing students' Islamic concepts and Self-Motivation.

## SUGGESTIONS AND IMPLICATIONS

Based on the results obtained, the research presents the following recommendations: Providing a learning environment based on technological tools and means such as Edublogs to enhance students' self-learning and knowledge acquisition, holding training courses and workshops to familiarize students with the effectiveness of using Edublogs in developing Islamic concepts and self-motivation and to train Islamic education teachers on using Edublogs in teaching. Moreover, it is necessary to develop teacher's guidance notes explaining how to use Edublogs in teaching Islamic concepts and enhancing the emotional side of the students. Finally, developing students' awareness of the effectiveness of Edublogs in developing Islamic concepts and self-motivation, through conducting educational courses.

The current research suggested conducting the following research: investigating the effectiveness of Edublogs in developing students' reflective thinking skills, investigating the effectiveness of educational Edublogs in developing Islamic education teachers' performance skills, and investigating the difficulties facing Islamic education teachers when using the educational blogs. In addition, suggesting programs to train teachers on how to use the educational blogs for developing Islamic concepts and self-motivation dimensions.

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