



SIX MAIN PRINCIPLES FOR QUALITY LEARNING
BASED ON TA'LİM AL-MUTA'ALLİM ṬORİQ AL-TA'ALLUM

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Abstracts

This article examines the requirements for quality learning, that is based exclusively on the nadzom “alālā” that wrote by Burhān al-Dīn al-Nu'mān ibn Ibrōhīm al-Zarnūjī in his treatise entitled “Ta'līm al-Muta'allim Ṭorīq al-Ta'allum”. The quantitative research descriptive studies category used in this article and the results are described based on content analysis technique. It reveals that quality learning has six things dependency: ingenious acumen, fervent desire, resilience, sufficient sustenance, guidance of a teacher, and length of time. The best way to test of any educational factors, of course, is develop instruments to measure quantitatively. The development of instruments is yet to do.

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Introduction

وَلَمَّا وُجِّحُوا عَلَى التَّخَلُّفِ وَ أُرْسِلَ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَ سَلَّمَ سَرِيَّةً نَفَرُوا جَمِيعًا فَنَزَلَ { وَ مَا كَانَ الْمُؤْمِنُونَ لِيَنْفِرُوا } إِلَى الْعَزْوِ { كَافَّةً فَلَوْلَا } فَهَلَّا { نَفَرَ مِنْ كُلِّ فِرْقَةٍ } قَبِيلَةٌ { مِنْهُمْ طَائِفَةٌ } جَمَاعَةٌ وَ مَكَثَ الْبَاقُونَ { لِيَتَفَقَّهُوا } أَيُّ الْمَاكِثُونَ { فِي الدِّينِ وَ لِيُنذِرُوا قَوْمَهُمْ إِذَا رَجَعُوا إِلَيْهِمْ } مِنَ الْعَزْوِ بِتَعْلِيمِهِمْ مَا تَعَلَّمُوهُ مِنَ الْأَحْكَامِ { لَعَلَّهُمْ يَحْذَرُونَ } عَقَابَ اللَّهِ بِامْتِنَالِ أَمْرِهِ وَ نَهْيِهِ، قَالَ بِنِ عَبَّاسٍ فَهَذِهِ مَخْصُوصَةٌ بِالسَّرَايَا وَ الَّتِي قَبْلَهَا بِالنَّهْيِ عَنِ التَّخَلُّفِ وَاحِدٍ فِيمَا إِذَا خَرَجَ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَ سَلَّمَ.

“When the Prophet was about to dispatch a raiding party — after they [certain Muslims] had been reproached for staying behind — all of them went forth, and so the following was revealed: It is not for the believers to go forth, on a raid, altogether: why should not a party, a group, of every section, of every tribe, of them go forth, while the others remain behind, so that they, those who remain behind, may become learned in religion and that they may warn their folk when they return to them, from the raid, by teaching them some of the rulings which they have come to learn, so that they may beware? of God’s punishment, by adhering to His commands and prohibitions. Ibn ‘Abbās said that this

[verse] is specifically [intended] for raiding parties, while the previous one is [specifically] to prohibit any individual staying behind when the Prophet sets out [on a campaign].” (Al-Maḥallī & Al-Suyūṭī, 2010)

That al-Qur’ān’s verse mentioned above is one of main source about education, delivers using *fi’il mudbōri*’ (present and future tenses). Ning Syarofis Siayah told me that al-Qur’ān’s verse using *fi’il mudbōri*’ means dynamical activity. Thus, when education delivered using *fi’il mudbōri*, it means that education is dynamical activity in the present time to prepare ourselves in the future eras. Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits (Parhan & Sutedja, 2019). Education frequently takes place under the guidance of educators, but learners may also educate themselves. It can take place in formal or informal settings and any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational (Ummah, 2018c). Education has played a central role in Islam since early times, owing in part to the centrality of scripture and its study in the Islamic tradition. Before the modern era, education would begin at a young age with study al-Qur’ān and Arabic. Some students would then proceed to training in *Tafsīr* (Quranic exegesis) and *Fiqh* (Islamic jurisprudence), which was seen as particularly important.

The notion of quality education is fundamental to the classical perspective of learning in Islam. The past research on education based on the Islamic traditional heritage has predominantly dealt with various challenges in the education system. However, the present global educational situations occasionally give cause for concern. Scholars are reviewing the current educational conditions to influence alternative policy making in educational institutions. In the Islamic context, there are equally many interrelated issues that have been carefully reviewed (Al-Maḥallī & Al-Suyūṭī, 2010; Halstead, 2004; Setiawan, 2019). Consequently, Muslim scholars have advocated that an education system that is oriented toward the understanding of life both here and the hereafter should be prioritized in Muslim societies. By providing the guidelines that enhance the promotion of the individual’s physical and ethical character, Islamic education could be conceived as a process of learning that shapes and transforms the individual’s intellectual experiences and social behavior. Furthermore, contemporary societies reward individuals not for what they know, but for what they can do with what they know (OECD, 2019; Ummah, 2018b).

Quality education is determined by not only individual human factors, but also external conditions including the educational environment. For instance, the educational environment plays a significant role in shaping the individual’s character whether as a child or as an adult (Ummah, 2018a; Velasufah & Setiawan, 2019). The conditions of the educational environment had an impact on the attainment of the goals of education because they augment the effort of the teachers in imparting values to the students. It is an established fact that education is obligatory on all Muslims, male or female. Despite that, for al-Zarnūjī (2014), quality learning has certain requirements that must be considered before it can be achieved. Indeed, knowledge acquisition is a process that is made up of progressive steps each of which has its own requirements (i.e., what has to be fulfilled before the student can progress to that level). Therefore, while students are expected to fulfill certain requirements before progressing to every level, the institutions should themselves design the principles as well as the effective ways to apply them for better results at each of these levels.

al-Zarnūjī’s (2014) treatise entitled *Ta’līm al-Muta’allim Ṭoriq al-Ta’allum* provides valuable insights into the essential principles of teaching and learning, which could still be useful for both students and teachers and, for that matter, Islamic educational institutions. Thus, the main reasons for selecting *Ta’līm al-Muta’allim Ṭoriq al-Ta’allum*, are as follows. First, its principles have been applied in designing many policies in educational institutions in the Muslim world, particularly the *pondok pesantren* in Indonesia. Second, its model of

teaching and learning is suitable for achieving the aim of Islamic education. Finally, the content of the book forms the basic foundation of the current education system in Muslim countries.

I myself learning *Ta'lim al-Muta'allim Toriq al-Ta'allum* during my secondary education in MTs NU Miftahul Falah, taught by Ustadz Abdul Wahid and Ustadz Noor Sa'id, then in Pondok Pesantren MUS-YQ, taught by Ustadz Ahmad Muttaqin. During my tertiary education in UPI, Ning Syarofis Siayah became my advisor in learning *Ta'lim al-Muta'allim Toriq al-Ta'allum* more deeply, i.e. correlates that book with my study in *Physics Education* program. Then, I still learning *Ta'lim al-Muta'allim Toriq al-Ta'allum* during my daily in Pondok Pesantren Ath-Thullab under guidance of Ustadz Ahmad Muttaqin, that teaches me since my secondary education. Therefore, in the light of the contemporary educational circumstances, this article isolates and examines the requirements that, according to the book, students and, to a large extent, teachers must fulfill to be able to engage in and promote quality learning from the Islamic perspective.

Method

The goal of this work is isolates and examines the requirements that, according to the book, students and, to a large extent, teachers must fulfill to be able to engage in and promote quality learning from the Islamic perspective. The data needed is in the form of a literature study of al-Zarnūjī's (2014) treatise entitled *Ta'lim al-Muta'allim Toriq al-Ta'allum*. Based on the research objectives and data requirements, the quantitative research descriptive studies category can be used (Fraenkel et al., 2012). Statistical analysis is not appropriate for this study. As is usual in studies of this type, the results are described based on content analysis technique (Fraenkel et al., 2012).

Results and Discussion

A Brief Biography of Al-Zarnūjī

Al-Zarnūjī was born in Zarnūj, a small town in the present Eastern Turkistan, a state adjoining River Tigris. Burhān al-Dīn (proof of Dīn) or Burhān al-Islām (proof of Islām) al-Zarnūjī were his agnomen, or moniker. Collections of biographies believed that his given name was al-Nu'mān ibn Ibrōhīm (Della Vida, 1948). So, al-Zarnūjī is associated with two names: one is honorific (i.e., *Burhān al-Dīn*) while the other is his actual name (i.e., *al-Nu'mān ibn Ibrōhīm*).

Burhān al-Dīn al-Nu'mān ibn Ibrōhīm al-Zarnūjī was one of the pioneers in Islamic education nor author of pedagogical work who lived in the 13th century during the Abbasid regime. He belonged to the Ḥanāfī School of Islamic jurisprudence. He outlined his educational thought in the treatise entitled, *Ta'lim al-Muta'allim Toriq al-Ta'allum*, in which he explores the ethical guidelines both the teacher (the *mu'allim*) and the student (the *muta'allim*) could follow to achieve better results in the teaching and learning process. He is reported to have understudied and corresponded with several scholars during the period of his learning. However, the following appear to be the most popular (Al-Zarnūjī, 2014; Della Vida, 1948).

1. Fakhr al-Islām al-Ḥasan ibn Maṣṣūr al-Farghōnī Khadīkan (1196 ce);
2. Zahir al-Dīn al-Ḥasan ibn 'Alī al-Marghinanī, (1204 ce);
3. Fakhr al Dīn al Kaṣanī (1191 ce);
4. Burhān al-Dīn 'Alī ibn Abī Bakr al-Farghinanī al-Marghinanī (1195 ce); nor
5. Rukn al-Dīn Muḥammad b. Abī Bakr Khwarzade (491-576 AH).

It is reported that by 1203, al-Zarnūjī had compiled all the 13 chapters of this book, reveals that the book was written in the 13th century (Della Vida, 1948). However, it appears that much of the work was done earlier. In any case, it is a widely acclaimed piece and it is used as a source of reference for research in the field of education by Eastern and Western academics alike (Della Vida, 1948; Setiawan, 2018; von Grunebaum & Abel, 1947). In the

Islamic educational institutions, particularly, the *pondok pesantren*, the Islamic seminary in Indonesia, *Ta'lim al-Muta'allim Toriq al-Ta'allum* is often regarded as the book of basic learning guidelines for students. It is a unique piece of work because its principles explain the ethical foundation of teaching and learning.

The 13 chapters of this discussion include issues relating to the nature and merit of knowledge, the intention at the time of the study, the types of knowledge permissible to acquire, and respect for knowledge and those who possesses it. Others include hard work and perseverance in the learning process, when to start and organize the lesson, and *tawakkul* (trust in God). He also discusses the time for the acquisition of knowledge as well as time management in the teaching and learning process. Other topics include how to cooperate with and show compassion to others in the learning process, issues relating to self-discipline during the time of learning, how to improve one's retentive memory and overcome forgetfulness, and how to survive materially during the period of learning.

It could be argued that this treatise served a good purpose for students. This is because, it appears, many students at that time encountered certain difficulties in education and the acquisition of quality knowledge; hence, they failed to achieve their aims. According to al-Zarnūjī (2014), most of these students did not successfully meet their goals because they were not mindful of the correct methods of learning. von Grunebaum & Abel (1947) conclude that al-Zarnūjī's (2014) discourse facilitated the devising of a better study approach or method to guide these students about whom he had read and heard from his own teachers. In other words, he believed that the students had not been taught what was most beneficial for them and had, therefore, wasted the chunk of their time on unbeneficial knowledge.

The Purpose of Learning In Islam

In appreciating the purpose of learning in Islam, it is essential to first understand the concept of education and its roots in Islam. Three words denote education in Arabic. These are *ta'lim* (which means: schooling, teaching, or instruction), *tarbiyyah* (which means: breeding, upbringing, or nurturing), and *ma'rifah* (which basically means: knowledge or know-how about something, learning, or awareness about a piece of information.). Although the above words, apparently, refer to different aspects of human awareness, all of them revolve around the concept of education. Quality education facilitates the expansion of one's knowledge and the development of good manners (Halstead, 2004; Ummah, 2018b). Thus, there is a significant overlap between the three words.

At the core of the Islamic concept of education are the principles that demand the production of graduates with good morals, understanding of the Islamic codes of conduct, and commitment to the belief in God (*tawhīd*). In Islam, education is oriented to the tenets of the religion, which uphold the belief in God. The assumption is that, from the perspective of Islam, what is moral is religious; and so morality serves as the foundation of all processes including education, which is the process of creating and nurturing the human personality to absorb what is good (Ummah, 2019). However, secular ethicists argue that although it is impossible to be religious without morality, it is possible to promote morality without religion (Halstead, 2004; Pyysiäinen & Hauser, 2010). Their argument is that what is morally good does not necessarily imply or score a religious value and vice versa. By this understanding of morality or ethics, therefore, what is valuable in the sight of religious people does not necessarily appear as ethical or moral on its own. Here, morality and ethics are used interchangeably because what is morally right is considered as ethical. Nonetheless, in Islam, morality or ethics is always determined by religious values and what is religiously commanded invariably becomes a moral obligation. Therefore, the presence of morality is essential in Islamic education, which is to nurture morally inclined learned men and women to contribute to society's development.

Whatever form it takes, education is expected to prepare the students to work toward the achievement of certain goals in life (Ummah, 2018b). Based on this principle, therefore, every level of education should have a purpose for the student and this has to be oriented to the well-being of both the individual and the larger society. The specific purpose set for any particular aspect of education is crucial for assessing the benefit of that aspect for the society and measuring the quality of the teaching process.

Quality teaching prepares the students to face future challenges and serves as the basic requirement for achieving societal goals. Hence, the purpose set for any field of education determines how dynamic the graduates that would be produced would be. This implies that the teachers themselves have to be dynamic at any material moment to facilitate the setting up of a good standard for the transformation of human life in its entirety. In this regard, it is the methods that are capable of aiding the achievement of the educational purpose that will be used in the teaching and learning process at each level. In other words, the implementation of the entire principles of education and the formulation of teaching and learning methods are guided by the set purpose. This is because all efforts would be focused on the purpose. In setting the purpose for any field of study, three core issues must be borne in mind. These are the target population or the caliber of people it is designed for (i.e., its objective for the human society), the accessible or projected societal needs (i.e., present, growing, and future demands in the society). This is the consideration of the essential human needs and demands in the society. The other is the implication of this field for the Islamic way of life. The above are required in setting a quality purpose in education from the Islamic perspective.

Quality education has a clear purpose that applies to both the learner and the educator (the teacher), and each of these knows his own rights and responsibilities. It is important to emphasize that education is a cooperative process in which individuals study together to achieve a purpose and equip themselves with the methods for solving problems. Therefore, the best system of education is basically built on problem-based learning. The aim of education, and, indeed, the standard by which educational success is measured, is the transformation of the individual through the development of both the moral and the rational selves. In Islam, therefore, the ideal education does not only focus on good character-building (attitude) and spirituality but it is also expected to create a worthwhile purpose or vision for the student. Thus, the curriculum has to be practical. The assumption is that, in today's world, human perfection cannot be achieved with religious knowledge alone. Therefore, its integration with the practical sciences reflects the overall essence of knowledge in Islam, which accelerates transformation in terms of spirituality, character, and material well-being and survival (Al-Maḥallī & Al-Suyūṭī, 2010; Al-Zarnūjī, 2014; Della Vida, 1948; Halstead, 2004; OECD, 2019; Setiawan, 2018, 2019; Ummah, 2019; Velasufah & Setiawan, 2019; von Grunebaum & Abel, 1947).

The purpose of the Islamic educational curriculum is to design topics that will equip the students with a competent technical know-how while sustaining their spirituality and religious identity. However, the objective of the spiritual or religious aspects is to increase the student's awareness about his baser-self to transform him into the ideal person the Islamic society expects. This is the main priority of education from the Islamic point of view. In Islam, human welfare comprises spiritual and physical aspects. Thus, al-Zarnūjī (2014) argues that an individual who endeavors to learn must first set the following general purposes for himself to succeed. To:

1. acquire knowledge about God and issues about the creation of humankind;
2. make oneself pleasing to Allah;
3. facilitate one's happiness here and in the hereafter;
4. overcome one's own ignorance as well as that of others;
5. live a religious life and maintain the Islamic religious tenets in one's life; nor
6. improve one's cognition to better oneself in the society.

From the above, the student's purposes could be classified into three main categories. These are the purposes that relate to the issues of *'ibādāt*, the ultimate purpose of education in Islam. The rest are the purposes that relate to interpersonal or social (*mu'āmalāt*) matters and the purposes set for the individual's material development. However, from al-Zarnūjī's (2014) perspective, the combination of the above purposes (namely: the religious, the social, and the individual's development-motivated purposes), determine how successful the entire teaching and learning process would be. This implies that, in education, the setting of the right purpose is a basic necessity. It is undeniable that social and individual developments are major goals of education today. Therefore, the same variables are expected to influence the purpose set by both the teacher and the student in all the teaching and learning processes in order that the ethical aspects will remain intact.

Ethical Considerations in The Learning Process

The Islamic ethics on learning emphasize the responsibility of the students to their teacher in the course of the study. These ethics, therefore, emphasize that the students must accord the teacher, and generally, all those who possess knowledge, a maximum respect. Besides the above, what the students learn also has ethical implications. According to al-Zarnūjī (2014) in designing a curriculum, the purpose as well as the ethical aspects (i.e., its religious implications) should be carefully considered to ensure that they are in harmony with the principles of Islam. He argues that not all fields of knowledge are ethical for consideration in education from the Islamic perspective. Among the ethical fields are medical science and, of course, Islamic jurisprudence. These are the fields of knowledge that are useful for the society. However, in selecting the beneficial types of knowledge, the availability of experienced or qualified teachers for those fields is also an important prerequisite. In the third chapter of his treatise, he illustrates the key points that enable students to determine which fields are ethical and which are not. Students have to think carefully before they choose disciplines in the course of learning. Besides the general purposes enumerated earlier, he also suggests that students select fields of learning in accordance with the specific purpose or goals they have set for themselves in life. This implies that the parents' choices for their wards do not find favor here because the student's personal interest is very crucial in the choice of an educational career. Even so, he also argues that a field like astronomy is good for the Muslim students on condition that one learns only what is helpful for determining the times and direction (*qiblah*) of worship. Thus, here too, he opines that the most recommended fields are those that have a bearing on one's spiritual development.

In terms of the quality learning dynamics, however, the above features help to identify the fields that are relevant for achieving the student's purpose or goal while synchronizing that purpose with the Islamic values. For example, if a student purports to become a medician, ethically, one must find out whether medician is consistent with Islamic values. If they are found to be compatible, then, as natural sciences are basic to engineering, in addition to the Islamic values, the student must be encouraged to study natural sciences as requirements for achieving the purpose of becoming a medician. This helps to nurture potentials without hurting the Islamic values.

In connection with the ethical issues in teaching and learning, al-Zarnūjī (2014) identifies three types of human beings:

1. The first category covers the virtuous person who always not only expresses a good opinion, but also interacts with and consults virtuous and intelligent people. A person with good intellectual potentials offers good advice or counseling to his fellows and almost always transforms his followers into people of fine morals, wisdom, and tolerance. Therefore, if this person were to be a teacher, through his good supervision,

- guidance, and counseling, his students would interact better and engage with his instructions (Roorda, 2011).
2. The second category is lower than the first one. This person has no correct opinion about anything. Nonetheless, he makes effort to consult others who might know to update him. As it has been indicated, he has no proper opinion of his own. However, a student who always has his own opinion about issues is more inclined to learn to be analytic, looks at issues critically, and attempts to recognize and solve problems in a creative way. The one with a weak opinion about things is often close-minded because he learns only by listening to others. This type of person often turns out to be conservative and uncreative in the way he perceives things. He always emphasizes the necessity for precedence and opens up to ideas but only to the extent that others have affirmed or recognized them through their own reasoning.
 3. However, the third category is the one who neither possesses any correct opinion about anything nor consults or seeks information from others. This is a sign of conceited (*takabbur*) in the learning process. Such a person often boasts about any little knowledge he happens to possess. It is about this person that the Arabs have a proverb: *Man qāla lā adri wa huwa yata'allam afd. alu miman yadri wa huwa yata'azzam* (which means, "He who says 'I do not know' and learns is better than him who knows but puffs himself up"). The implication of the above is that there should be a conscious effort to always learn from others even if one is in the know. Furthermore, it is better to search for knowledge and information from those with experience in a given subject and location. This gives us a lead into the view that much of what one acquires is through listening; and this could be from within or outside the formal instructional environment. Thus, he who does not know is to update himself from his own colleagues or precursors who have the expertise and experience. In addition, one is to remain open-minded and be willing to share with others. This implies that an educational environment populated by virtuous and intelligent students or scholars is likely to produce virtuous and open-minded scholars and vice versa.

People who are inclined to share and receive from others increase their knowledge more than those who stay on the islands of their own wisdom. This is because teaching not only imparts knowledge, but it also improves a person's wisdom and increases his awareness. That is why the prophet is reported to have said that the best (the most virtuous) among humankind are those who learn and teach it to others. Although, regarding this, he was particularly referring to the teaching and learning of the Qur'an, the pivot of Islamic knowledge. Nonetheless, consistent with al-Zarnūjī (2014), the Islamic knowledge, for which the Qur'an serves as the focal point of reference, transcends beyond mere spiritual knowledge to scientific knowledge like medical science, and so forth, as well. It could be argued that Muslim professionals like medical doctors and engineers who are also well-educated religiously or morally set for themselves better goals in life, which are often consistent with the Islamic belief in God.

Due to the significant role ethics plays in the Islamic teaching and learning process, al-Zarnūjī (2014) proposes that teachers should focus more on the moral challenges in the society. In contemporary times, when students are expected to aim toward specific goals, the technical know-how to facilitate the achievement of those goals becomes the main focus of attention in the teaching process (Elliott, 2015). A student who has high aspirations requires dedication to achieve his goals. Nonetheless, from the Islamic perspective, nothing could be properly accomplished without religious values or divine intervention. This is why the learning process moves conterminously with the religious ethics. al-Zarnūjī (2014) points out that in building students' intellectual capabilities, the system should take into account the ethical issues bordering on human relationship such as respect, humility, and obedience. These issues are crucial to successful learning even in modern times.

From the foregoing discussion, it has become clear that, in Islam, morality plays a vital role in shaping student's future aspirations. This makes the learning a mechanical process of facilitating the student's moral and rational transformation through the application of specific principles. For that reason, the programs ought to be relevant to the student's goals as well as those of the society. In this vein, the studied programs are expected to move hand-in-hand with the needs of the larger society. This is to enable the graduates to use their expertise to contribute toward the achievement of societal goals in the long run. That is necessary because the society is the ultimate target of the entire education system. However, it appears that the issue of how to design quality programs that back students' purposes in life while helping society to achieve its goals remains a major challenge of education at all levels today. Yet, addressing this challenge is crucial in helping students to properly engage with the core elements of learning in a comprehensive way.

Toward A Comprehensive Learning Process

Generally, learning (*ta'lim*) can be conceived as the process of acquiring knowledge. Therefore, its main features are critical thinking and pragmatic problem-solving skills (Weinstein, 2012). The urge to learn can be active in a person throughout his lifetime. This is because it is a human instinct. Despite this, the understanding of what happens in a person's immediate surroundings is part and parcel of the individual's thinking skills, and this increases during the period of learning in school. One's physical experience in a particular environment influences one's intellectual behavior, sense of judgment, and ability to solve problems. Thus, an individual who studies in an educational environment where ethical standards are very low is likely to have a different understanding of what is right or wrong in the larger society.

A comprehensive teaching that imparts to students virtues in combination with critical thinking and problem-solving skills produces individuals who serve the society better. In ensuring that students' behavior and character are shaped within the learning environment, it is important to design the principle for regulating their interactions. These principles grant the teachers the opportunity to assess the students' problem-solving capabilities through observation, for example, during extracurricular activities (Siayah et al., 2019).

Educational principles are often designed using alternative strategies such as peer review and institutional networking, all of which play significant roles in enhancing the quality of teaching and learning (Elliott, 2015). When teachers show active interest in students' moral well-being both in and outside the classroom, they create the atmosphere for the students to support each other to learn these moral values. Thus, from the Islamic perspective, a comprehensive learning takes place within an education system in which the essential guidelines for teaching and learning are guided by these tenets. For this reason, al-Zarnūjī (2014) posits that the teaching and learning process has some core features. The teacher transfers knowledge through lectures on a subject to the student. The student is then expected to preserve it by not only listening but also writing, carefully observing, behaving calmly, and trusting in God (*tawakkuḥ*). Indeed, these features are very important and manifest in the teaching and learning process at all levels.

Learning also involves the acquisition of skills (be it for reasoning or for solving problems), transformation of human behavior, and the management of personal preferences (Jonassen & Grabowski, 2012). It, therefore, aims toward the development of the person in totality (Brophy, 2013). However, the learning ability develops in stages. Therefore, the quality of the conditions, both within and outside the classroom, is fundamental to the holistic or comprehensive learning process because it enhances the students' gradual self-awareness and in-depth appreciation of the processes of life (Parhan, 2018). The theory of learning is largely based on the fundamental assumption that the student is at the center of the teaching and learning process (Siayah et al., 2019; Slade & Prinsloo, 2013). For this reason, any attempt to improve the problem-solving expertise of students must include

educational principles that incorporate various skills or subjects. While the skills for resolving complex problems are major components of education programs, these skills require customized learning. It is from this perspective that al-Zarnūjī (2014) argues that, if the training and development programs target the students' mind and spiritual self, the students will be prepared to face all challenges. Thus, among such training and development programs is what will aim at both the physical transformation and the building of the soul.

The contextual meaning of "building the soul" is spiritual self-discipline or continence, which is central to hard work within the social context. However, self-discipline or continence also implies forbearance in carrying out duties in the learning process. This demands careful planning, observation, and evaluation, all of which require creativity and self-control (Zimmerman, 2008). It is important to note that if students are guided in the learning process by experienced teachers, they show creativity in their way of thinking and doing things. As the teacher is expected to guide the students in a learning process in which both the ethical and technical aspects shall move hand-in-hand, the teacher becomes an all-inclusive or comprehensive educator. This is because the above conglomerates will ultimately lead to comprehensive education that will promote self-criticism or introspection, self-discipline, self-motivation, and willingness toward self-responsibility. This will, in turn, encourage the student's self-reliance, self-assurance, independent thinking, and spiritual fortitude that will eventually make him the perfect man (*insān al-kāmil*) in the Muslim society.

In addition to the above coordinates that will help to bring about comprehensive education from the Islamic educational perspective, many other variables are needed to sustain it. The provision of sustainable support for achieving results-oriented education is a necessity for modern life. This is due to the significant role education plays in developing and nourishing people's potentials for continuous societal growth. That suggests that to facilitate a comprehensive learning, all important stakeholders of an educational institution must discharge their duties as required.

In examining comprehensive learning, al-Zarnūjī (2014) outlines six important requirements in the *nadzom* "alālā":

أَلَا لَا تَنَالُ الْعِلْمَ إِلَّا بِسِتَّةٍ × سَأْتِيكَ عَنْ جَمُوعِهَا بَيَانٍ
دَكَاةٍ وَحِرْصٍ وَاصْطِبَارٍ وَبُلْعَةٍ × وَإِرْشَادٍ أُسْتَاذٍ وَطُولِ زَمَانٍ

The different version of this *nadzom* appears in Ibrōhīm al-Bayjūrī's (2009) *ḥasyiyat, Ḥasyiyat al-Bayjūrī* 'alā *Syarḥi al-'Allāmat ibn Qōsim al-Ghōzī*:

أَحْيَ لَنْ تَنَالُ الْعِلْمَ إِلَّا بِسِتَّةٍ × سَأْتِيكَ عَنْ تَفْصِيلِهَا بَيَانٍ
دَكَاةٍ وَحِرْصٍ وَاجْتِهَادٍ وَبُلْعَةٍ × وَإِرْشَادٍ أُسْتَاذٍ وَطُولِ زَمَانٍ

However, in this article, the difference of these two was not discussed.

Based on the *nadzom* *nadzom* "alālā", comprehensive learning include ingenious acumen or capability for learning (Arabic: دَكَاةٌ), fervent desire or motivation for learning (Arabic: حِرْصٌ), resilience and commitment to the learning process (Arabic: اصْطِبَارٌ or اجْتِهَادٌ in other version), sufficient sustenance or financial support when learning (Arabic: بُلْعَةٌ), guidance of a teacher or teacher's inspiration in learning (Arabic: إِرْشَادٌ أُسْتَاذٍ), and length of time or time management in learning (Arabic: طُولُ زَمَانٍ). As the above are crucial for the comprehensive education, we shall examine them below.

Ingenious Acumen (Capability for Learning) (Arabic: دَكَاةٌ)

al-Zarnūjī (2014) points out that the first requirement for learning is ingenious acumen or intelligence. This requirement weighs more on the side of the student than the teacher

although, as a matter of fact, it is a requirement for the teacher as well. Intelligence here is the ability to understand the relationships between issues through the process of mental abstraction and sensitization of data that create new methods for solving difficult problems (Chiappe & MacDonald, 2005). This becomes an important motivation for learning in the first place because it reduces pressure on the brain. An intelligent student solves research problems easily without stress and this encourages him to learn more. This suggests that intelligence, as the capacity to acquire and apply knowledge, accelerates the performance of the intellect and the ability to reason, which, in every practical sense, bears the logic of education at all its levels today. Naturally, a high level of intelligence enables people to think, understand, and properly reason about what they see or perceive. Beyond that, intelligence also helps one to practically transform a piece of idea into tangible product or use this idea to formulate new theories. The intellect at this level is the developed form that tries to contextualize ideas to generate new ones for improving one's well-being (Bråten & Strømsø, 2004). Given that every human being possesses a different level of intelligence, the ability to understand information or interpret data also varies significantly. This explains why students perform differently at the same level of education. Thus, as it has been indicated in al-Zarnūjī's *Ta'lim al-Muta'allim Ṭarīq al-Ta'allum*, intelligence is significant in the learning process because it helps the students to interact with ideas.

Intelligence determines a person's ability to learn. This is because it describes the human ability to skillfully use reason to understand ideas in a variety of situations and to apply this knowledge in different circumstances of life. The cognitive process has many aspects. These include, among others, memorizing, logical thinking, creativity, and problem-solving techniques (Candler, 2011; Fuchs & Flügge, 2014; Gardner, 2011; Jung & Haier, 2007; Shearer, 2019; Shearer & Karanian, 2017; Sternberg & Grigorenko, 2004; Ummah, 2018b). Indeed, al-Zarnūjī (2014) emphasizes that a successful learning requires the effectiveness of all the aspects of one's cognition. Thus, in the context of applied behavioral knowledge, particularly clinical psychology, the human intellect has been one of the most widely researched topics. High level of intelligence implies fully developed cognitive ability and these, together, determine the success of the comprehensive learning process.

Fervent Desire (Motivation for Learning) (Arabic: *حِرْصٌ*)

In education, the motivation to learn plays an important role in encouraging the student. This requirement is of primary importance or, perhaps, even more important than the first one (Glynn, 2011; Shin, 2018). This is because an intelligent person who finds himself in a school but does not have the slightest motivation to learn any particular field of study is like a round peg put in a square hole (Setiawan & Saputri, 2019). The flair for learning, which al-Zarnūjī (2014) refers to as motivation, arises from the combination of conscious, subconscious, and unconscious factors. These are the intensity of the student's desire or need, moral incentive or the value of the expected outcome, and personal expectations. These factors also serve as the background for the achievement of goals. For example, a student expends extra energy in studying for a test because he or she wants a good grade. Here, the desire for a good grade, which ultimately serves as the benchmark for getting a good job after school, motivates him to learn more although he might not be so intelligent. Thus, motivation is very important for learning. In the conscious attempt to acquire a particular skill, therefore, motivation becomes a major consideration. For the teachers, however, dedication and self-sacrifice are major motivations although there are many others.

Motivation enables the individuals to pursue their goals with enthusiasm and conscious effort. Consciousness increases one's learning potentials and ability to grasp ideas (Schutte, 1998). It facilitates personal concentration, which in turn enables a student to perform well in class. Therefore, motivation has a substantial impact on the emotional well-

being of students and this manifests in the outcomes either positively or negatively (Runco, 2005). It reflects in the performance of students in a wide range of activities. In short, motivation affects all the personal decisions of a learner. It plays a leading role in enhancing the desire that backs the achievement of goals. As it has already been implied, it enables students to accomplish a task with an engrossing interest. This is, irrespective of whether it is easy or difficult, because motivation not only increases their desires but it also maintains their enthusiasm and resilience (Boekaerts, 2003).

al-Zarnūjī (2014) also posits that students are also motivated if the teacher pays maximum attention to their opinions, judgments, and values and appreciates their efforts and performance in the learning process. This is a good motivation because human beings are naturally more disposed to do better when praised than when criticized; therefore, at the elementary levels of learning, this should be taken seriously.

Resilience (Commitment to Learning) (Arabic: *اصْطِبَارٌ* or *اجْتِهَادٌ* in other version)

Resilience is the capacity to recover quickly from difficulties. It is a stable state of mind that enables a person to tolerate either delays in the fulfillment of personal goals or, particularly, the prolongation of suffering without anxiety. In Islam, resilience (*sabr*) is viewed as an important human quality. It concerns the ability to persevere in time of inconveniences and the subconscious effort to trust in God for the right time. In this case, one could argue that the Islamic concept of resilience has a close affinity to the trust in God (*tawakkul*) which is within the ambit of the development of the soul. The soul remains active even in the face of severe challenges. Nonetheless, the human physical ability to resist these challenges is always a problem in the mundane existence. Generally, resilience has two main dimensions (Shihab, 2007):

1. The physical (external) dimension: This denotes the ability to relax or persevere, for example, in the discharge of one's religious duties such as prayers, *haji*, and so forth. It is obvious that imresilience could affect the quality of one's prayers, whether in a congregation or not. Whoever is in a hurry does not pray properly. This category also includes fortitude in times of suffering and both natural and unnatural delays in the fulfillment of personal goals.
2. The mental (internal) dimension: This includes the ability to control one's desires in such a way that one's behavior will be free from shameful characteristics or emotional conditions such as excessive anger, quick temper, and so forth.

Consistent with al-Zarnūjī's (2014) discourse, both categories above are important for the student. A quick-tempered student is likely to encounter challenges not only in relating with his colleagues but, as well, his own teacher when he is rebuked. However, learning could be very frustrating at certain stages of one's life and requires resilience and perseverance to succeed. This is the basis of the Arabic proverb which reads, *al-najāh 'āqibah al-ladzīna yajtabidūn* [which literally means, "success is the reward of those who work hard (persevere)"]. Hence, in the process of education, it is necessary for students to be patient in all its categories. For al-Zarnūjī (2014), being steadfast is at the root of all success. Nonetheless, he also argues that rarely are there people who can be patient in all things. This is in line with the axiom that everything is surely intended to a certain level, even the highest, but it is rare for anyone to keep up in achieving what is intended. The implication is that resilience is a major determinant of success in all aspects of human life. Closely associated with the issue of resilience and perseverance is what one could refer to as "the staying power." al-Zarnūjī (2014) puts forward some essential principles for enabling students to stay put and continue to exert mental power during the periods of learning. These include the following.

1. It is essential that students always learn under the guide of a teacher. Normally, when people learn by listening, they relax, tolerate, and capture ideas faster than when they

read on their own. Therefore, for al-Zarnūjī (2014), students should learn mainly by listening to the teacher during the instructional hours. It appears that, due to the rigorous nature of the education delivery at the higher level, where students are encouraged to do independent research, this principle might be more relevant to younger learners. Yet, it should be noted that even at the higher levels, students patiently listen to lectures delivered by their teachers. Even among terminal research students, there are directed-reading and thinking and consultation for thesis research (Valeri-Gold, 1987). All these require students' resilience in waiting and listening to the teacher known by different titles at each of the levels (e.g., teacher, tutor, lecturer, supervisor, or mentor). The contemporary university students face the challenge of access to low-quality information due to the upsurge of Internet resources. With the advent of the worldwide web, the present university students have more access to information than any other generation of learners. Regrettably, however, much of this information is prejudiced, faulty, or even incorrect. Many individuals promulgate mischievous information on the Internet due to either ignorance or ill motive. This requires students to exert extra mental effort to synchronize their own thoughts with the information they read to think beyond or outside the information box. In an era of human insecurity caused mainly by misconstrued religious beliefs and values, higher research students' access to information is of primary concern in higher Islamic educational institutions. Therefore, the teachers' directing of reading and research at all levels is very important.

2. A student is not supposed to leave a book until he has completely grasped the content at any material moment. This brings in the issue of perseverance. The human mind captures ideas in stages. Hence, when one is learning for a purpose, putting the learning material or the book down when one has not fully captured its salient ideas is discouraged by al-Zarnūjī (2014). The implication is that one should attempt to study only when one has adequate time for the learning. Once one begins to learn, one must continue until one has fully comprehended the lesson.
3. A student should not leave a subject for another without having clearly understood the first one. This is, particularly, important in one's private studies outside the instructional hours. During this period, switching between subjects is not the ideal.
4. A student should not vacate the learning environment when specific lessons on a certain subject are in session unless one is forced by necessity (*darūrot*). When one leaves a class while a lesson is in progress, it will take one some moments, when one returns, to adjust to the pace of learning with one's colleagues. Therefore, it is in the student's interest to wait for the teacher to conclude the lesson before deciding to leave.

As a skill in learning, resilience is a virtue that enables students to endure in the course of their studies. Thus, perseverance and resilience are crucial to learning. On the teacher's own side, resilience is significant for tolerating the eccentric behavior of students and ensuring their academic success.

Sufficient Sustenance (Financial Support when Learning) (Arabic: *تَلْعَةُ*)

Financial support is a major challenge in the quest for knowledge whether at the formal or the non-formal levels. It is an important ingredient for achieving one's purpose in education (Setiawan et al., 2019). A sound financial standing helps the student in the payment of fees and eases the suffering caused by the cost of living during the learning period. This is because students are not to depend on others for their sustenance. We identified a few expenditures in educational institutions. These, among others, include tuition fees and the cost of the physical facilities like the learning materials. The extent to which funds are

available for managing the above has implications for the performance of the student. A student who has a reliable source of funding is better motivated to perform well in school.

However, this financial support also does not concern the student alone but the learning environment itself as well as the teachers. It is a fact that the instructors themselves are better motivated to give out their best if they are supported through the provision of teaching and learning materials necessary for at least the teaching process. When the necessary resources for both teaching and learning are provided, then we can expect quality education that reflects the commitment of the parties to bring about quality educational results.

In creating an atmosphere for quality education delivery, therefore, funding is very important. Partnership can play a crucial role in sustaining quality education. This reduces the expenditure students may have to incur while supporting learners with limited or inadequate financial resources (Pouncey, 2013). This happens if a chunk of the educational expenses are borne by the state although that also comes with its own challenge. The separation of educational institutions from state funding affects the quality of education and, consequently, students' enrollment and opportunities. The success of educational institutions largely depends on the availability of financial support (Robinson, 2007). This implies that the issue of funding is an important factor in the learning process be it on the side of the student or the teacher and whether at the lower or higher levels. This makes the perspective of al-Zarnūjī (2014) in this regard very relevant today.

Guidance of a Teacher (Teacher's Inspiration in Learning) (Arabic: إِرْشَادُ أُسْتَاذٍ)

The role of teachers in inspiring students can't be underestimated in the learning process (Siayah et al., 2019). In the course of instruction, a student is expected to be inspired by the teacher. This inspiration increases the student's emotional attachment to the learning process. The teacher's way of instructing must support the cognitive development of the student. As a moral agent in the learning environment, the teacher is an exemplar whom the students would try to follow. Hence, this inspiration is essential. al-Zarnūjī (2014) identifies three types of teachers. These are

1. *Shaykh al-ta'lim*: refers to a teacher who merely imparts knowledge. He might or might not be interested in the students' moral well-being (*akhlāq al-karīmah*). The interest of this teacher is to improve the cognitive or mental ability of the student.
2. *Shaykh al-tarbiyyah*: refers to a teacher who, in addition to transforming the mind of the student, also concerns himself with the student's moral well-being.
3. *Shaykh al-tarqiyyah*: refers to a teacher whose method of teaching transforms the student's way of thinking (cognition), moral as well as the spiritual well-being. This is the Ṣūfī-teacher who is superior to the first two.

This means that, as a role model, the teacher must have a noble personality that is worthy of emulation and respect. Students often observe the behavior and attitude of their teachers not only during the teaching and learning process in the classroom, but also, outside the learning environment. That being the case, the teacher's role in inspiring the students with noble values must manifest both within the school and outside it.

A noble teacher possesses good character traits that influence his students to admire him (Osguthorpe, 2015). For al-Zarnūjī (2014), the quality of education also depends on the ability of teachers to perform this key role in the process of teaching. Furthermore, a good relationship between the student and the teacher is crucial for enabling this inspiration and the striving for excellence through guidance. However, achieving such a relationship requires that the student respects the teacher. This will create the enabling opportunity for the teacher to give out his best in sincere and dedicated manner through combined physical, mental, and spiritual efforts. This will eventually bring the teacher to the third category above.

Students are able to perform better under teachers who understand their weaknesses and show them love through professional guidance in class. However, a good relationship between the parents and the teachers is also very important in maintaining respect between the teacher and his student. Whatever the case, as the teacher is an inspirer or a model for the students, al-Zarnūjī (2014) maintains that it is necessary for him to always stay away from reprehensible ways of life.

Length of Time (Time Management in Learning) (Arabic: طُولُ زَمَانٍ)

Time management here refers to the right time to learn and how each period is utilized by both the teacher and the student during the learning process. The first refers to the time during which learning is most preferred. On the other hand, the second refers to the process of planning and organizing the day into periods to make judicious use of time for specific activities and increase productivity. al-Zarnūjī (2014) maintains that learning requires careful management of time.

To achieve good results, both the teacher and the student have to be cautious about time. The proper management of time also has an impact on students' performance (Hartley & Nicholls, 2008; Nasrullah & Khan, 2015; Wile & Shoupe, 2011) It is an undeniable fact that students perform better when certain subjects are taught during specific periods of the day (Klein, 2001). For example, the memorization (*hifz*) of al-Qur'ān is better fit for the early morning and writing is better fit for the afternoon (Asy'ari, 1930). This is because, apart from the spiritual benefits, according to our experiences and a research by Muhammad Hasyim Asy'ari (1930).and Millar (1980), morning learning has a superior immediate recall than learning in the afternoon or evening. Anyone who memorizes will surely forget something at some point. For this reason, although al-Zarnūjī (2014) argues that listening to the teacher makes the learning easier, he further stresses that through writing, students will be able to retain much of what they listen to from their teacher.

This perspective of al-Zarnūjī (2014) explains the two main modes of learning, namely, learning by listening and learning by writing. As it has already been stressed, the former is the easiest mode of learning. However, it requires a strong retentive memory. On the contrary, the latter is the more difficult because it also involves listening, in addition to writing, reading, and memorizing. In other words, after one has listened to the instruction and committed it to writing, one has to re-read later and memorize it.

Nonetheless, al-Zarnūjī (2014) places much emphasis on writing (after listening) as the best mode of learning because it is the most effective type for students with weak and retentive memories alike. This is because everyone can refresh his memory from what he wrote down earlier in the event of forgetfulness, which is a likely consequence of memorization. Furthermore, mathematics is probably better grasped when it is taught in the morning than in the afternoon depending on other factors (Asy'ari, 1930; Klein, 2001; Pope, 2016; Wile & Shoupe, 2011). However, people pick a language faster when they begin to learn it when they are young, preferably before the age of puberty (Asy'ari, 1930; Johnstone, 2002). This confirms the view by Penfield & Roberts (1959) and Lenneberg (1967) who argued that as children mature, certain changes in the brain gradually render it incapable of absorbing languages unconsciously as it occurs in the formative years.

From the above, it is clear that not teaching or learning at the right time invariably affects the quality of the outcome. Therefore, the prioritization of activities is a necessity in time management and it helps to synchronize the most important activities with the available time space (Schutte, 1998). This suggests that specific time management strategies have to be devised. Generally, a well-structured educational institution has a department (e.g., timetable planning committee) for helping both teachers and students to manage time wisely.

In spite of that, the effectiveness of time management also depends on some other personal factors. The success in the management of one's time varies largely according to

individual abilities and responsibilities (Priem & Butler, 2001). There are many ways by which time could be managed effectively for good learning results. One is to make an up-to-date record of all important personal activities in order of priority so that the most important ones come first. This is then followed by the allocation of specific periods for each of these activities bearing in mind the effort one will have to put in each of those activities as well as the goal set for every particular activity.

Conclusion

From the foregoing discussion, it could be realized that al-Zarnūjī's (2014) discourse on quality learning contains important principles that could be useful for improving the performance of students and teachers today. The principles of his treatise, *Ta'lim al-Muta'allim Ṭoriq al-Ta'allum*, could address important practical shortfalls in the present implementation of educational policies. The essential theme that applies to virtually all education systems is the production of good and well-informed personalities whose knowledge will not only be relevant but, as well, transform the society and maintain moral values. From the Islamic perspective, these moral values include what, from the point of view of the al-Qur'ān and the prophetic *ṣunan*, is capable of ensuring peace and tranquility at all levels of the society.

For al-Zarnūjī (2014), therefore, Islam understands education or learning as an all-inclusive phenomenon that covers all aspects of human development, be it rational, spiritual, or emotional. Therefore, all these must be achieved by the student at the end of his training. From al-Zarnūjī's (2014) standpoint, anything less than the above defeats the purpose of education. The aim of Islamic education is to produce graduates with values to facilitate successful life here and in the hereafter. To achieve this aim without compromising the scientific or rational knowledge that is needed for the society's material well-being, these values are expected to be merged with the scientific fields of knowledge. Islam views this type of education as an obligation (*farḍ*) and it could be incumbent on the individual alone (*farḍu 'ayn*) or the society as a whole (*farḍ kifāyah*). For this and other reasons, the quest for knowledge is seen as a form of worship (*'ibādāt*).

This article examined the students' learning requirements detailed in al-Zarnūjī's (2014) best-seller treatise entitled *Ta'lim al-Muta'allim Ṭoriq al-Ta'allum*. The book expounds the principles for achieving quality education and could be useful for improving the performance of both students and teachers today. These principles address important practical shortfalls in the present implementation of educational policies. The book details the requirements for bringing about well-informed personalities whose knowledge will be relevant for the transformation of the society and the maintenance of moral values.

In attempting to appreciate these requirements, although the research is basically library-based, it addresses several issues that affect students and, to a large extent, teachers, in the teaching and learning process. al-Zarnūjī (2014) identifies six principal requirements that could promote quality learning among students and, to some extent, quality teaching among teachers, in the *nadẓom* "*alālā*":

أَلَا لَا تَنَالُ الْعِلْمَ إِلَّا بِسِتَّةٍ × سَأْنَبِيكَ عَنْ مَجْمُوعِهَا بَيَانٍ
دِكَاةٍ وَحِرْصٍ وَاصْطِبَارٍ وَتُبْلَعَةٍ × وَإِرْشَادٍ أُسْتَاذٍ وَطُولِ زَمَانٍ

The different version of this *nadẓom* appears in Ibrōhīm al-Bayjūrī's (2009) *ḥāsyiyat, Ḥāsyiyat al-Bayjūrī 'alā Syarḥi al-'Allāmat ibn Qōsim al-Ghōẓī*:

أَحْيَى لَنْ تَنَالُ الْعِلْمَ إِلَّا بِسِتَّةٍ × سَأْنَبِيكَ عَنْ تَفْصِيلِهَا بَيَانٍ
دِكَاةٍ وَحِرْصٍ وَاجْتِهَادٍ وَتُبْلَعَةٍ × وَإِرْشَادٍ أُسْتَاذٍ وَطُولِ زَمَانٍ

However, in this article, the difference of these two was not discussed.

Based on the nadzom *nadzom* “*alālā*”, comprehensive learning include ingenious acumen or capability for learning (Arabic: دَكَاةٌ), fervent desire or motivation for learning (Arabic: حِرْصٌ), resilience and commitment to the learning process (Arabic: اصْطِبَارٌ or اجْتِهَادٌ in other version), sufficient sustenance or financial support when learning (Arabic: بُلْعَةٌ), guidance of a teacher or teacher’s inspiration in learning (Arabic: إِشْرَافٌ أُسْتَاذِيٌّ), and length of time or time management in learning (Arabic: طُولُ زَمَانٍ). It is found that these requirements are still relevant to the contemporary situations. It also came to light that much of what the student grasps comes from his engagement with his teacher through listening and observation both in and outside the classroom. Therefore, it is undeniable that high cognitive or intellectual ability is an important requirement for learning at all levels. Nonetheless, it is argued that the quality of learning, whether in the classroom or outside it, does not always depend on the student’s cognitive ability alone. Rather, it is also determined by a multiple of motivational factors such as the desire for learning and funding (Kubanyiova, 2006).

In addition, favorable conditions within the classroom environment (e.g., a good relationship between the student and the teacher) are major motivations for students (Pintrich, 1993). These also have an impact on the learning outcomes (Brophy, 2013; Kubanyiova, 2006). Furthermore, teachers play a vital role in creating the above favorable conditions and the motivating learning environment because they are expected to adopt numerous positive measures to inspire through demonstrative teaching. The way to test of any educational factors, of course, develop instrument to measure quantitatively. In this work, the development of instruments is yet to do.

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