Muslim Students and 21ˢᵗ Century Learning Strategies

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Abstract

In gazing around the world today it becomes apparent that technology has rapidly changed the way we learn, live and interact with one another. In many ways newer technologies demonstrate that many former teaching and learning methods and procedures, which were once considered proficient, are now inert and antiquated.

Because of today's advanced levels of technology and innovations, the youth see and understand the world in a very different way. Smart phones, touch pods, text messaging and other digitally based activities have changed the social landscape forever. One outstanding aspect of such technologies is the vast array of knowledge and information that can be accessed digitally.

As teachers and facilitators we must work to combine technological, pedagogical and content knowledge in order to capture some of the essential qualities needed to be effective teachers. More than ever, teachers must be capable of helping students transition into a global work place driven by creativity, problem solving and analytical thinking. Above all, 21ˢᵗ century learners and thinkers must be self-directed and globally aware.

Thus today, as educators who recognize these trends, we -- Musa Ramsey and Afnan Boutrid -- will conduct a workshop advocating the necessity of integrating technologically advanced knowledge with pedagogical and content knowledge. We will explore and define the three types of knowledge that help facilitate learning and introduce the TPACK concept, a framework developed by Michigan State University Professors Punya Mishra and Matthew J. Koehler. This will be presented and explained from an Islamic perspective, as we are Muslims who recognize the unique contributions of Islam to education, both present and past.

(Short Bio) Introduction:

Musa Ramsey is an Islamic Studies teacher presently serving as a Qur'an and Islamic Studies instructor at Al-Iman School Raleigh, North Carolina. He has been teaching for over 10 years in various schools and institutions throughout the United States. Ramsey has served as a contract chaplain for the U.S. Department of Defense and Departments of Corrections in at least three states. He served –21 years in the United States Army, including 15 years as a first line supervisor and manager.

For five years he was director of the South Carolina-based Brighter Youth Summer Activity (BYSA) program, a summer camp for young Muslim adults in need of counseling, mentoring and vocational training. Currently, Ramsey is an active member of the Islamic Center of Raleigh where he conducts weekly lectures on various topics and works with the local *dawah* committee to help promote a better understanding of Islam within the greater Raleigh community.

Afnan Boutrid is a Social Studies teacher at Al-Iman School. She graduated from Meredith

College as a Teaching Fellow and Honors Student with a B.A. in International Studies and a 6-12 grades History license. She attended Al-Iman school from elementary to 7th grade. At Al-Iman school, Afnan created the Model United Nations Club and is the advisor for the Student Council. Prior to teaching at Al-Iman School, she was teaching World History at Athens High School.

Digital technology has changed the way citizens live, work, and interact with one another; it has opened up new horizons for accessing information, net working and communicating. Time and distance no longer have a bearing on information that can be shared. Human tragedies and successes reach us from any part of the world in a few milliseconds at the touch of a finger. Now we can tie into global communities and access information from any number of angles and sources, and access institutions of learning worldwide, enrolling in courses not locally available, right from the confines of our homes, or anywhere we happen to be. Online learning and the convenience it offers is creating new types of classrooms that is changing the landscape of institutionalized education, previously administered in only brick and mortar classrooms.

Because of the dynamics of digital technologies, educators are faced with the challenges of upgrading the methodologies of education and finding new ways of integrating technologies into the classroom. This is a very perplexing and comprehensive process challenging on two fronts. First, training educators to stay abreast with rapid advances in technological devices and applications requires continuous training and practical knowledge. Second, educators must possess their creativity in order to integrate new technologies into the classroom. In other words, it is not enough to know how something works, one must also know how it can be used to enhance learning.

Here are a few key factors that should be taken into consideration when attempting to integrate technologies into your school or classroom:

1. Look at the needs of the curriculum. Are there certain curriculum tasks that require resources that can be facilitated through technology?

2. Consideration must be given to the costs and numbers needed to maintain technologies. High technological resources often require time, familiarity of the technologies (equipment) and upgrading. One should ask how comprehensive the technologies are, whether they require a techno- specialist or simply a co-worker who can serve as the school's tech person?

3. A central concern should be the effectiveness of the teacher in integrating technologies into the learning process and standard pedagogical procedures. Often times educators have the misconception that the technology will do the job for the teacher. Without creativity and solid skills, technologies become no more than sophisticated forms of entertainment for the students and all too often a source of fright for the teacher. To the contrary, technological integration should be a tool to enhance education and help open up a broad variety of channels to students used to a world saturated with information. The teacher who experiences success with technological integration is one who is both creative and an agile technological user.

Perhaps this diagram will crystallize what we have stated. Please refer to the diagram (figure1) below.

Figure 1

Professors Punya Mishra and Matthew J. Koehler of Michigan State University researched the use of technology and the process required. They argue that:

"Part of the problem has been a tendency to only look at the technology and not

how it is used. Merely introducing technology to the educational process is not

enough. The question of what teachers need to know in order to appropriately incorporate technology into their teaching has received a great deal of attention recently."

(International Society for Technology in Education, 2000; National Council for Accreditation of Teacher Education, 1997; U.S. Congress Office of Technology Assessment, 1995; U.S. Department of Education, 2000; Zhao, 2003).

Researchers Carr, Jonassen, Litzinger, Mishra and Koehler stated that their primary focus was on studying how the technology is used (Carr, Jonassen, Litzinger, & Marra, 1998; Mishra & Koehler, 2003). Some of this oversight can be attributed to the lack of theoretical grounding for developing or understanding this process of integration, according to Researchers Issroff, Scanlon and Selfe. (American Association for the Advancement of Science, 1999, 2001; Issroff & Scanlon, 2002; Selfe, 1990).

Professors Punya and Matthew explained that educational technology can best be understood and utilized when it is integrated into a framework known as TPACK, which suggest that education is a multifaceted function with many components and considerations. We will spend some time explaining TPACK and the framework for education that it advocates. Understanding these divisions of education in no way suggests that education must be reexamined or understood in a new way. On the contrary, what is implied here is that educators should develop a holistic concept of education by first understanding its various components and categories.

Islam and great jurists of the past have used the same methodology of categorization to codify and explain concepts, practices and principles. (* Give some examples of this – don't just say this without examples, particularly if you can find examples related to education.)

What is TPACK? Technological Pedagogical and Content Knowledge (TPACK) attempts to capture some of the essential qualities of knowledge required by teachers for technology integration in their teaching, while addressing the complex, multifaceted and situated nature of teacher knowledge. At the heart of the TPACK framework is the complex interplay of three primary forms of knowledge: Content (CK), Pedagogy (PK), and Technology (TK). See Figure 2

below. As must be clear, the TPACK framework builds on Shulman's[1] idea of Pedagogical Content Knowledge.

The TPACK approach goes beyond seeing these three knowledge bases in isolation. On the contrary, it emphasizes the new kinds of knowledge that lie at the intersections between them. Considering P and C together we get Pedagogical Content Knowledge (PCK), which is Shulman's idea of knowledge of pedagogy that is applicable to the teaching of specific content. Similarly, considering T and C taken together, we get Technological Content Knowledge (TCK), the knowledge of the relationship between technology and content. At the intersection of T and P, is Technological Pedagogical Knowledge (TPK), which emphasizes the existence, components and capabilities of various technologies as they are used in the settings of teaching and learning[2].
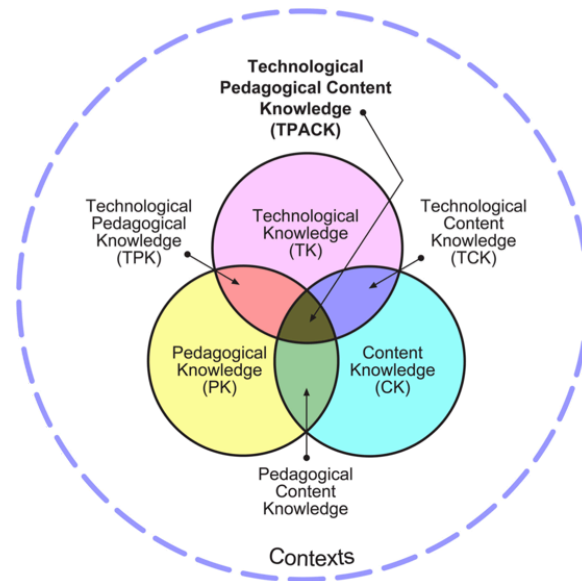

Figure 2

Of course, one may conclude that this framework is quite complex and theoretical in nature. (Don't add explanation points in a formal paper – if you want to emphasize a point, do it verbally.) One may think that educators already have *one hundred and one* tasks to perform throughout the week and now *you* are suggesting we put *TPACK* on the list. Maybe you need to *PACK* your bags and find a new profession. No one can identify or sympathize with a teacher's aggravation more so than another teacher. If we take a look at this concept from another angle we will find that it can serve as a "mental frame of reference" to help organize the abstract reality of

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[1] Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. Educational Researcher, 15(2), 4–14.

[2] http://tpack.org/tpck/index.php?title=TPCK_-_Technological_Pedagogical_Content_Knowledge

having everything thrust at you at once. Much too often teachers become overwhelmed with new ideas, concepts and techniques that require additional time and energy to maintain.

True professionals do not look for ways to find new work; rather, they look for ways to organize and prefect the work that they are doing. A good example of this can be seen in the scholarship of Imam Ash-Shaaf'i. He, along with many other jurists, were performing *ijtihad* and analogical deduction for many years without its procedures being arranged into a systematic code. Only after Imam Ash-Shaaf'i articulated and codified the fundamental principles of jurisprudence (*Al-'Usool al-Fiqh*) were others able to better understand it and collaborate to prefect its science. Students are human beings and human beings are complex by nature. If we don't work to enrich our teaching techniques with fact-finding research, educational analysis and assessments, we will only remain capsulated within our own limited understanding. I am not suggesting that we try to employ concepts and standards that are not relevant to our situation or circumstance – but I am suggesting that we become active seekers in striving to improve and prefect our role as educators.

Referring to the diagram (figure 2) above, the outer disconnected circle in the diagram suggests that the framework of TPACK must be understood within the contexts of a particular setting. Before we attempt to put this framework in a setting applicable to Muslims teaching in Islamic schools we believe that it would be beneficial to give a more detailed definition to the ever expanding concept of the term "*pedagogical knowledge*". Pedagogical knowledge is about the processes, practices and methods of teaching. It involves all issues of student learning, classroom management, lesson plan development and implementation, and student evaluation.

` It also includes knowledge about techniques or methods to be used in the classroom; the nature of the target audience (*differentiated instruction*); and strategies for evaluating student's understanding (assessments). A teacher with deep pedagogical knowledge understands how students construct knowledge and acquire skills; and develops habits of mind and positive dispositions towards learning. As such, pedagogical knowledge requires an understanding of cognitive, social and developmental theories of learning and how they apply to students in their classroom. The concept of pedagogy continues to grow as life, habits and techniques evolve.

Dr. Shulman[3] is one of the first professors, here in the west, who has analyzed education as a whole concept of learning and developed a framework to help us understand the process of

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[3] Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. Harvard
Educational Review, 57(1), 1–22.

education and how we can improve on transmitting information and knowledge from one person to the next. (** Are you sure of this – there have been researchers in this field for a number of years – support this statement with a quote from someone other than you, about his methodology and holistic understanding of education) Pedagogical knowledge must be understood as a science that takes into consideration a number of factors that help facilitate the conveyance of knowledge. In essence, careful consideration must go into understanding the student who is to be taught. If we do not understand these finer points in the process of educating, we might fall into the delusion that we are educating others, when in fact very little education is being achieved. Dr. Shulman argues that teachers and instructors must realize that teaching skills do not rest solely on the premise of content knowledge. In other words, the teacher may have a great deal of content knowledge about a given subject but remains incapable of teaching it to others due to the lack of pedagogical skills.

On a closer note, how many times have we observed the qualified teacher who comes from overseas to teach in an Islamic school? We are very happy because he has acquired special training in Islamic Sciences not readily available here in the U.S. We immediately conclude that he or she will give definition to our school and provide the students with specialized training in the religion that is so badly needed. After spending some time in the school we clearly realize that it would have helped tremendously if the new instructor had enrolled in a few local courses to help enhance his teaching skills and techniques. The lack of pedagogical knowledge and skills is usually characterized by the aggravation of not understanding why the students are not learning. Frequently, we resort to methods that were used when we were growing up. We are all familiar with the grave mistake and consequence of trying to apply outdated methods that proved effective in the past and certainly have no grid for success in today's society.

One of the great characteristics that have made the religion of Islam effective in all places and times is the ability of Muslims to make analytical assessments of their surroundings and apply Islamic principles, practices and knowledge in an appropriate way. Context awareness and environmental circumstances must be taken into consideration and play a major role in the course that must be chosen as we strive to educate the next generation of Muslims. In an Islamic context, a major portion of pedagogical knowledge is simply having a grounded understanding of who we are as Muslims here in this country. There can absolutely be no grid for pedagogy if we do not understand the Muslim youth that we aspire to educate.

In order to prepare our students for the work force of the 21st Century we must encourage

them to tap into, use, and enhance their creative skills.   In order to create creative learners, as educators we must integrate technology into our content. According to the TPACK model, technological content knowledge occurs when a teacher "select(s) and use(s) technologies to communicate particular content knowledge."[4] By implementing technologies, teachers will better be able to engage students in the learning process and content knowledge. As educators of Muslim students, we must be willing to step outside our comfort zones and create opportunities for our students to excel in our classrooms and in the real world. Teaching using technology is the key to capturing our students' hearts and minds and it is at the grasp of your finger tips. Never before has technology and information been as accessible and beneficial to us as teachers and our students.

When many teachers hear about integrating technology into the content, they think that it is enough to just teach using technologies. For example, the teacher uses PowerPoint to convey notes, instead of writing them on the white board. It is not sufficient enough for the teacher to use technology in the classroom, but the students need to be the ones implementing and experimenting with the technology. As teachers we are responsible for designing and facilitating lesson plans that allow the students opportunities to use varied technologies. Once the students are allowed and encouraged to use the technologies they will become more comfortable and well learned not only in the technologies but also in the content knowledge. Also, it is the "teacher's role to establish a learning environment that supports and facilitates the students as they construct and shape their own knowledge."[5] Many teachers use the excuse that they are not experts with technologies, so how can they teach technology, when they themselves are not comfortable. A teacher doesn't have to be proficient in certain technologies to teach using them.

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[4] Harris, J., & Hofer, M. (2009). Instructional planning and activity types as vehicles for curriculum-based TPACK development. 99-108.

[5] Hooper, S., Rieber, L.P. (1995). Teaching with technology. In A.C. Ornstein (Ed.), Teaching: Theory into practice, (pp.154-170). Needham Heights, MA: Allyn and Bacon.

It is important for the teacher to orient themselves with the technology, prior to introducing it to the students; however while the students are using the technology they will help the teacher learn new techniques and master the technology. When implementing technologies into the content knowledge the teacher should take certain steps into consideration. Prior to beginning a lesson the teacher should create a rubric and divide the tasks that the students will have to complete. The students should be presented and made familiar with the rubric and the tasks that they are going to complete. The more transparent the teacher is to the students with regards to the expectations the better the students will perform. Next, the teacher should explain the basic parts of the technology with the students. It is not necessary to teach step by step, but instead provide the students with a general overview and allow them the opportunity to experiment and discover the technology on their own. Students should them be left to research and complete their tasks on their own. The teacher is merely a mediator and is not to direct the students, but instead facilitate them in making their own decisions and taking responsibility for their learning. Students are to share their finished products with the class and then as a last step the students should reflect on their experiences. When working in groups it is crucial for the students to reflect on their contributions and the contributions of their group mates, this will ensure accountability and will allow the students a chance to debrief. When technologies are implemented into the content in a structured and well planned out manner the students are more likely to be engaged in their learning and will take the content to a new level.

Integrating technology into content knowledge is a very easy task if a teacher is willing to step out of his/her comfort zone and try new ideas. Examples of ways to integrate technology into content knowledge are:

- **Movies**: having students research topics, write scripts, film, edit and present videos on content knowledge.

- **Web Quests**: having students complete certain tasks by visiting certain websites that have been carefully chosen by the teacher.

- **Voice Thread**: having students create slideshows with narration.[6]

- **Auto-Tune**: Students write and sing songs that are related to content knowledge.

- **Gallery:** Students research, print, and organize pictures on certain topics. The images are then displayed around the classroom. The students walk around the classroom and reflect on the different gallery pieces.

- **Wiki Spaces**: Students are given opportunities to comment on content knowledge through discussion boards; that are carefully monitored by the teacher.

- **Current Events**: Students use on-line newspaper websites to find, print, and summarize current events that are happening, locally, nationally, and internationally.

Each of the technologies listed above has been integrated into a middle school social studies classroom and has been extremely successful. Overall the teacher found the students to be more engaged, retained more information, and reflected better when they completed tasked that were linked to different technologies. The students were also very eager to help the teacher to enhance her understanding of the above technologies. If the lesson is well structured and the students are clearly told of the expectations, then the lesson will run smoothly and the results will be very positive.

A specific example of how technology was implemented into the social studies content knowledge lesson on Apartheid was: students were required to research and create a film on Apartheid in South Africa. The students were given a detailed rubric that explained their assignments and they were shown an example of a video that was produced by other students on a similar subject. The students were divided into groups and each group member was assigned a

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[6] http://www.voicethread.com

task. The tasks were: Researcher, Director, Images Finder, and Script Writer. The students

worked in their groups to create a video about Apartheid. The teacher acted as the facilitator and

allowed the students to take charge of the entire project. The students decided what information

they would include in their video. They were also responsible for editing the videos and

producing a final copy of their project. This project allowed the students an opportunity to step

outside the classroom, learn new technologies (how to use a video camera, research on-line search

engines, and use digital editing programs), and act. It also "encourage (d) the students to develop

and express their own understandings of a given topic."[7] For example, one of the groups decided

to make a comparison between the Apartheid of South Africa and the Israeli occupation of

Palestine. If this content knowledge were presented to the students in a traditional format of

notes and handouts, the students would not be encouraged to think outside the box and make real

world connections. The end result of the project was a finalized video. The students viewed the

videos as a class during a viewing party and then they were each required to write a reflection

about their experiences. In the reflection the students discussed the content knowledge they

learned from the videos, how they worked as a team player, what they had contributed to the

project, and what their group mates had contributed. Instead of the teacher being the center of

the learning, the students took responsibility for their own knowledge and felt a sense of

accomplishment once the project was completed.

Technology is an extremely power tool that can be easily integrated into any content lesson

plan. As teachers we must be willing to step outside of our comfort zones and create learning

opportunities for our students. Our students should constantly be amazed and excited about the

tasks that they are required to complete. Our teaching tactics must be designed to prepare

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[7] Harris, J., & Hofer, M. (2009). Instructional planning and activity types as vehicles for curriculum-based TPACK development. 99-108.

students for the 21st century workforce and must instill in our students a sense of creativity and innovation.