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Aligning Critical Need Language Teachers' Beliefs, Practices, and Cultures With Assessment

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The present study is a mixed-method research in design. It included 27 pre- and in- service teachers (12 Arabic and 15 Chinese) who attended a 2013 StarTalk summer institute. This study took place over the course of three weeks followed by two fall workshops. Using carefully designed sequences of blended learning modules, 27 teacher participants were afforded multiple opportunities to explore and examine teaching in a learner-centered classroom utilizing a variety of assessment practices. Data were gathered during the summer institute using online surveys, small group interviews, daily reflections, and online discussion board threads on Ning (an online platform). The results of the study draw attention to some of the challenges and complexities faced by critical need language teachers.

Keywords: teacher education, critical need language teachers, professional development, assessment, teacher beliefs

Introduction

To facilitate the transition for Chinese and Arabic language teachers to United States (U.S.) schools, the federal government has provided funding for various professional development programs. The aims of such institutes are to prepare teachers who come with different educational/schooling backgrounds to gain the appropriate training and professional development that will acclimate them to the culture of U.S. schools. One such program is being held at George Mason University (GMU) as a StarTalk summer institute funded by a federal StarTalk grant. The title of the 2013 institute was "GMU StarTalk: Creating the Authentic Assessment Toolbox for Today's Learner-Centered Classroom". Through a carefully designed sequence of blended learning activities, the summer program provided participants with a wide array of opportunities to explore and examine those critical considerations that directly influence transitioning to teaching in a learner-centered classroom, utilizing various assessment skills and strategies. The summer institute provided the attendees with 12 days of professional development workshops that focused on assessment in a foreign/world language classroom. Themes identified extended knowledge of second language acquisition and planning for standard-based language instruction and assessment; using assessment while integrating differentiation of instruction through various interactive activities for diverse learners; and addressing effective classroom management techniques. To ensure maintenance of skills and strategies learned, these summer workshops were followed by two fall meetings that took place in September and October.

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Instructional Activities

A week before the 2013 summer institute, the teachers actively engaged in a series of pre-institute readings, video viewings, and activities designed to introduce them to standard-based language instruction and assessment, while giving them background information that was useful during the face-to-face meetings. During the second week of the summer institute, the teachers engaged face-to-face in a five-day professional development workshop focused on learner-centered approaches to language teaching as highly effective tools for language learning. The workshops provided the teachers with hands-on training in the introduction and application of interactive approaches in language teaching and learning. Topics of the five-day training included, but not limited to, technology-based assessment, formative assessment, summative assessment, integrated performance assessment (IPA), and standard-based, learner-centered assessment. During the second week, the teacher participants attended professional development workshops in the morning that included individual sessions for Arabic and Chinese. In the afternoon, the teachers participated in a series of language specific group activities led by master teachers, paying particular attention to the three communicative modes (interpersonal, interpretive, and presentational). During the last two days of the second week, the teachers were able to apply theory to practice, working on-site with language learners in Chinese and Arabic who volunteered for a simulated children's camp.

The third week included online blended learning activities using Ning as a social mediated platform, allowing teachers to further their participation in a community of learners. During the third week of the institute, the participants were required to engage in the online discussions. Themes identified extended knowledge of second language acquisition and planning for standard-based language instruction and assessment; incorporating technology to facilitate learning and assessment; using assessment while integrating differentiation of instruction through various interactive activities for diverse learners; and addressing effective classroom management techniques. Each day, the facilitator of the online portion of the institute posted several prompts to the Ning site that was developed specifically for the summer institute attendees. At the end of the third week, the researchers extracted the responses to the online discussions that were posted.

Literature Review

The corpus of literature clearly reveals a need for more professionals with higher levels of proficiency in critical need languages in numerous fields. Some of these include national security, economic areas, interpreting, and translation. Among a number of factors that affect student opportunities to learn critical need languages, the most significant one is an adequate supply of competent teachers and high-quality instructional materials and resources. However, elementary and secondary school administrators who are interested in offering these language programs cite difficulty finding trained and/or licensed teachers and authentic materials (Brecht, Golonka, Rivers, & Hart, 2007). The shortage of critical need language teachers has become such an issue that many school district representatives are traveling to China and to numerous Arabic-speaking countries to recruit teachers (Haley & Ferro, 2011).

In the early 1990s, several scholars examined factors that posed challenges to critical need language teachers when transitioning into U.S. schools. McGinnis (1994) studied the differences between what he called the "culture of instruction and the conflicts that might occur between language students and teachers as a result of their often sharply divergent cultures of instruction" (p. 16). In "New Dimensions in Language Teacher

Preparation: Bridging Divides in Critical Need Languages" (Haley, Grant, Ferro, & Steeley, 2011) reported on two case studies that highlighted efforts to recruit and train teachers to enter U.S. schools as highly qualified Arabic and Chinese instructors. The two case studies illustrated efforts to address issues surrounding preparing teachers to transition into teaching in U.S. schools. These examinations provided additional data to support the impact and importance of sound pedagogical training and the need for on-going professional development opportunities.

Zhao (2009) observed that the culture of the U.S. schooling typically values individual differences and that there is an on-going attempt to protect one's individuality and uniqueness. When one studies the culture of schooling and education, this may be regarded as being in contrast to the cultures of education in many Arabic-speaking countries, China, and those countries that comprised the former Soviet Union. Richardson (2004) and Zhao (2009) noted that those countries historically placed a higher value on the collective than on the individual.

Other research studies have shown that teachers' personal educational experiences were often more influential in their selection of classroom skills and strategies than knowledge gained through teacher-led lectures during professional development or teacher education (Roberts, 1998; Wallace, 1991; Zhan, 2008). This can be attributed to the fact that when these teachers arrive in the U.S., even in cases where they have had no previous educational training, they bring with them their own attributes. The effects of personal educational experiences where these experiences occur have been studied in an effort to better understand how teachers frame their beliefs and perceptions about teaching and learning (Anderson, 1993; Cortazzi & Jin, 1996; Hu, 2002; Richardson, 2004; Zhan, 2008). This "additive" approach to teaching and learning is a positive construct we have readily adopted.

This "additive" model of acknowledging and embracing the backgrounds, skills, experiences, and strategies that these teachers bring with them, is a point of departure for the present study. The teacher participants were not asked to divest themselves of language or culture as a requisite for transitioning into U.S. teaching. Instead, this study was designed to examine one particular area of U.S. schooling—assessment. In the present study, we were particularly interested in learning about the teacher participants' beliefs and practices regarding assessment in U.S. schools and how they mediated between their native culture and the culture of U.S. schooling.

Study Objectives

In this study, we examined the extent to which Arabic and Chinese teachers mediated and incorporated target language culture into student-centered, performance-based assessments by asking the following questions:

1. How do the participating teachers' beliefs about assessment align with their practice and how do they mediate and incorporate the target language culture?

2. In what ways can teachers participating in StarTalk improve their assessment practices through a three-week workshop with applied practice?

3. How do teachers incorporate the following into their practice of assessment?

  (a) Collaborative learning;
  (b) Technology;
  (c) Differentiation.

Methodology

A mixed-method design was used to gather information about the perceptions of Chinese and Arabic teachers who participated in the 2013 summer institute—"Creating the Authentic Assessment Toolbox for Today's Learner-Centered Classroom". Patton (2002) advocated the use of triangulation by stating that "Triangulation strengthens a study by combining methods. This can mean using several kinds of methods or data, including using both quantitative and qualitative approaches" (p. 247). Further, according to Johnson (1997), employing multiple methods, such as observation, interviews, and recordings, will lead to more valid, reliable, and diverse creation of realities. In this research, we used both quantitative and qualitative approaches to data collection. Our research employed triangulation of observations, interviews, and recordings to obtain more reliable results. Also, member checking with other colleagues was employed to determine the accuracy of the qualitative findings. Data were collected from multiple sources: teachers' profiles, surveys, semi-structured and open-ended interviews, and field notes. The researchers examined the surveys, interviews, and observation data for themes that appeared across the responses. The research instruments included pre- and post- surveys completed online using Survey Monkey (a private American company that enables users to create their own Web-based surveys). The group interviews with the participants were conducted in English and audiotaped with the participants' permission, ensuring their anonymity. The audio recordings were transcribed, and then, the data were coded and broken down by restricting them in new categories to allow themes to emerge.

Member checking with other colleagues was employed to determine the accuracy of the qualitative findings. Most significantly, the final projects presented by the participants were coded and analyzed to determine the extent of how teachers mediated and incorporated target language culture into student-centered, performance-based assessment. The researchers then used these data to compare the participants' perceptions of abilities with their demonstrated performance-based assessments.

Participants

Table 1

Participant Demographics: Pre-institute Survey

Characteristics	Arabic (12)		Chinese (15)
Male	2		1
Female	10		14
Returning/New teachers	First time attending		9
	Second time attending		5
	Third or more times attending		13
Teaching status	Currently employed as a language teacher		23
	Currently not employed as a language teacher but interested in becoming a language teacher in the U.S.		4
	In-service with a license		11
	In-service with no license		13

For this study, we employed a purposeful sampling technique in choosing our participants, because we believed that by intentionally selecting individuals who could influence and shape our research questions and central phenomenon of our study (Creswell, 2005), we would gain a rich and in-depth understanding about our topic. The participants for this study were 27 Arabic and Chinese teacher participants (two males and 25 females) who attended the institute. The sample included 27 (15 Chinese and 12 Arabic) pre- and in- service

Arabic and Chinese teachers who were either currently employed as language teachers (23) or were interested in becoming a language teacher in the U.S. (4). Some of the teachers (11) held a teaching license, while others (13) did not hold any teaching credentials. The demographics for the participants is shown in Table 1.

Procedures

The 2013 study was designed to extend the results and findings of our 2009, 2010, 2011, and 2012 research studies. After a careful analysis of our previous research findings, we created and reviewed all of the instruments that would help examine teachers' perceptions and practices in incorporating target language culture into student-centered, performance-based assessments. Finally, we obtained the approval from the university's Human Subjects Institutional Review Board (IRB). Pre- and in- service Arabic and Chinese teachers were recruited for the 2013 summer institute through a variety of channels including notices sent to local school departments and private schools with Arabic and/or Chinese language programs. The in-service teachers were from Metro area public and private schools. The pre-service teachers were recruited through GMU, where they were enrolled in a state-approved licensure program. There were 30 available seats in the institute. The teacher participants completed an application for admission to the summer institute. The program director reviewed applications and decisions were made based on previous years of attendance, in- or pre-service status, and an equal number of Arabic and Chinese teachers.

Prior to the first day of the three-week institute, all the 30 participants were sent an email that described the study, its purpose, and a link to the Survey Monkey that contained the consent form and the pre-institute survey. Participation in the study was voluntary. To access the online pre-institute survey, the attendees had to first complete the online consent form. Completing the two online surveys took approximately 20 minutes each and the participants were asked for permission to extract their responses from the discussion prompts and group interviews. On the last day of the 2013 summer institute, the 27 participants who consented to the study were emailed a link to the post-institute survey. The post-institute survey was also created using Survey Monkey, utilizing the same design as the pre-institute survey. The majority of teachers, 27 out of 30 of the teachers, completed our pre- and post- surveys.

Instruments

Pre- and post- institute surveys. We created the pre- and post- institute surveys (see Appendices A & B) using Survey Monkey. Both the pre- and post- surveys consisted of 12 identical questions. The first four questions on both the pre-survey and the post-survey were focused on the collection of demographic data. The rest of the questions consisted of one multiple-choice question and seven open-ended questions which asked the participants to share their perceptions and knowledge regarding student-centered, performance-based assessment and the role of technology in assessing student performance.

Group interview protocol. At the end of the second week of the summer institute, the teacher participants actively engaged in connecting theory with practice by presenting two micro-teaching demonstrations with volunteer students. Right after these demonstrations, the summer institute lead researcher interviewed the participants in small groups. During these interviews, we asked the participants to share what they learned from this teaching experience; how they planned their lessons; what worked well during instruction; what did not work well during instruction; and what they will do differently with future implementation of these standard-based, learner-centered activities. The interviews were audio recorded and transcribed for further analysis. The full list of the group interview protocol questions appears in Appendix C.

Online discussion board. During the third week of the 2013 summer institute, the participants engaged in online discussions via Ning (an online social platform) by responding to daily discussion prompts posted by a facilitator. There were a total of 24 prompts. The topic of discussion prompts was based on the notion of assessment as a part of the ongoing instructional cycle, with standards and practices based on the American Council on the Teaching of Foreign Languages (ACTFL) guidelines. During this phase, the workshop attendees were asked to discuss their learnings and outcomes from the first week, as well as discussions on motivation, target language, beliefs and perceptions, assessments, cooperative learning, 21st century skills, and their progress towards standard-based, learner-centered instruction. These discussion treads also tapped into the participants' different challenges, whether they were first-time institute attendees or had attended previous sessions, and whether they were new to U.S. classrooms or had taught for a number of years. The full list of the discussion prompt questions appears in Appendix D.

Practice teaching observation. During micro-teaching demonstrations, the Arabic and Chinese master teachers took notes that were later used to validate and triangulate the data.

Pre- and post- workshop work samples. In order to triangulate our examination of participant learnings, we collected work samples one week prior to the workshop. After the workshop, the participants' work samples were also collected. New participants created an IPA as their final assignment while the returning participants created a rubric for an IPA. Participants' pre- and post- institute work samples were scored by analytic scoring rubrics. The analytic scoring rubrics for IPAs and rubrics for integrated performance-based assessment appear in Appendices E and F.

Results and Discussion

Research Question One: How Do Participating Teachers' Beliefs About Assessment Align With Their Practice?

During the post-teaching group interviews, the teachers exhibited their knowledge of standard-based planning by talking about their micro-teachings' measurable lesson objectives that were aligned with the state's science standards (Virginia Standards of Learning). The teachers believed that they incorporated the five C's (communication, comparisons, communities, connections, and cultures) of the National Standards of Communication, including culture and communities in their lessons, as one of the Chinese teachers explained:

> This standard was connected to the science. We try to embed the three communicative modes when we do activities to include the interpretive and interpersonal. This gets the students to talk and, then, we pair them. For the connection and the five C's, we try to have the students have a sense of food chain. So we know that they are learning this in science class already, so we tried to add a Chinese part to it, so there is a connection part. We also tried to add the culture, so we used a panda as an animal. (CT-3)

The teachers also believed that they were successful in employing all modes of communication including the interpretive mode, the presentational mode, and the interpersonal mode, as one of the teachers noted:

> Based on the objectives the formative assessment that we designed for activities included a matching game, guessing game, and flash cards, which fall into presentational mode…. I think also we had the interpersonal mode because the students had to help each other find the name of animals for their pictures. (AT-6)

Another teacher stated:

> We had the song which I think that was presentational assessment, but also at the end, they had an assessment where

they were doing a little dance and movement and others had to guess the animal which I think was interpersonal. (CT-10)

The teachers also believed that they were able to successfully incorporate formative assessments in their lesson plans by checking for understanding (6), using matching game (2), and guessing game and flash cards (5). One of the teachers explained:

> We started after each activity, we checked for their understanding and, for example, we were saying animal names and the students would tell their location and we would see how many of them could actually tell (observation), if some of them had a difficulty to present, then, we start another game to reinforce their learning. (CT-7)

Another teacher explained:

> Basically, I think after every activity, we do the checking. We do right after the activity and when they practice and when they did it, we kept checking. So, actually, we were very practical, so we modified it as we went on. It happens so naturally, you do not even think about it and it is hard to explain. (AT-4)

Other forms of formative assessments used in the micro-teachings included magic bag, matching game, complete teacher's sentences, Simon Says, singing songs, flip cards, smiley and sad, and dice rolling.

Research Question Two: In What Ways Can Teachers Participating in StarTalk Improve Their Assessment Practices Through a Three-Week Workshop With Applied Practice?

Overall, the teachers found the StarTalk summer institute experience to be a "very useful experience". The teachers believed that they "benefited tremendously from trainings received in this workshop" as well as the "experiences of other teachers". Results from the post-survey revealed that the StarTalk summer institute had a positive impact on the teacher participants' perceptions about their knowledge and understanding of assessment. The post-survey showed that 22.0% of the participants felt that their level of knowledge about assessment was high compared to 7.4% from the pre-survey data. Also, in the pre-assessment, 22% of the participants felt that their level of knowledge regarding assessment was low, while none of the participants rated their level of knowledge low in the post-survey.

Table 2 shows the change in teachers' self-perception about their level of knowledge about assessment from the pre-survey to the post-survey.

Table 2

Participants' Self-perception About Their Level of Knowledge About Assessment

	High	Percentage	Medium	Percentage	Low	Percentage
Pre-survey	2	7.4%	15	55%	6	22%
Post-survey	6	22.0%	11	40%	0	0%
Difference between pre- and post- surveys	+14.6%		+15%		-22%	

The teachers stated that through this summer institute, they learned about assessment in general and different assessment types, such as formative assessment, summative assessment, and their differences; became familiar with the process of designing rubrics and their uses in assessing students; and learned about backward design, IPA, and new methods of language teaching. The teachers also stated that they also learned how to design appropriate and effective assessment; develop lesson plans that focused on target language use in the classroom; appropriately use homework as a formative assessment and not as a tool for grading; use assessment as a motivator for learning; and stay in the target language in the class all the time and assess students' understanding frequently and adjust their teaching accordingly.

When asked about two examples of formative assessment, the teacher participants were able to identify most examples of formative and summative assessments that were presented to them during the training. Answers with most frequencies included "Exit slip" (5), "Check for understanding" (4), "Question & Answer" (3), "Short answer quiz" (2), and "Observation" (2).

The teachers believed that the most important considerations for planning for standard-based, learner-centered assessment were making the "assessment relevant to students' ability level" and "previous knowledge", including "different learning styles in assessment" and "making assessment realistic and meaningful".

When asked about the usefulness of assessment, the teachers believed that assessment was an important tool that can inform the learners by providing feedback to them (2), improve learning (3), and provide opportunities for students to demonstrate their success (5). They also believed that assessment can inform instruction by allowing the teachers to adjust the curriculum according to the assessment results (4), measure levels of students learning (4), provide feedback to the teachers (3), and measure goals and objectives (2).

The teachers also believed that rubrics are useful tools for students in assessment that can help the students judge quality of their work (3), provide guideline for students for self-improvement (3), clear learning expectations and grading (5), and provide guidelines for grading (2).

Research Question Three: How Do Teachers Incorporate the Following Into Their Practice of Assessment?

Collaborative learning. The teachers believed that they were able to incorporate collaborative learning in their teaching by working together in creating activities and also by pairing the students together to encourage collaborative work. The teachers also enjoyed collaborating with others, as they stated in their remarks:

> I think we really enjoyed collaborating with each other, because we come up with different ideas and activities and some of the things we mentioned I would also use in my own classroom. I also learned how teachers decorate their rooms. I usually work by myself and I found it joyful much more that I actually like working with others. (AT-1)

One of the Arabic teachers stated that:

> Because it felt like if the kids were not getting it right, you guys could jump right in, and if students did not say it right, you would say "Let us do that one more time". I just felt like I had two other sets of eyes and ears. And this is luxury that we do not have in our classrooms, right? But today, it was so invaluable to have them in the classroom. (AT-2)

Another teacher said:

> Since I was like the only teacher you know teaching Chinese in my school, so I do not have anyone to collaborate with me, but when I had you having the kids working with other teachers, you know, it creates a situation to transfer ideas and the teaching philosophy. So, that helped me a lot. (CT-8)

Another teacher believed that in real life situations, cooperative teaching, although very valuable, is hard to implement since:

> It is so beautiful that we work together and we got so many, you know, good ideas and activities also, because in the real teaching, actually, this is not happening. So, maybe we need two teachers. (AT-9)

Technology. The teachers recognized and acknowledged the impact of using technology. They were energetic in trying out new software applications with which they were not familiar. Some of their comments

are as follows:

> We can use technology in assessment in the teaching process and also use assessment to check understanding by using PowerPoint and also use SmartBoard. I just ask the students to come to the computer and just play or come to the SmartBoard. (CT-14)

Another teacher stated that as a result of this summer institute, she learned that "I love to use technology".

When asked how the teacher participants could tell if the students were understanding and learning, the teachers felt that the students understood and learned the lesson from their physical appearances, such as facial expressions and their eyes were revealing that they were smiling and having fun. Student performance was another evidence of their undressing as the students participated in activities, transported the information correctly, accomplished the objectives, made the food chain, picked the right food, answered the questions correctly, and retold their parents what they learned.

When the teacher participants were asked what worked well during their instruction and why they thought/felt it worked well, they mentioned the most successful part of their lessons:

(a) Use of multiple intelligences in assessment (5);

(b) Use of songs in teaching (7);

(c) Students' collaborative learning (6);

(d) Use of total physical response (TPR) (8);

(e) Use of formative assessment in the lessons (4);

(f) Cooperative teaching (3);

(g) Students' engagement (5).

When asked what did not work well during their instruction, the teachers mentioned the following problems:

(a) Time management (11);

(b) Over planning (could not finish all that was planned) (9);

(c) Inappropriate topic (hard theme for some students who did not study this subject (animal habitat) and did not have the background information about the topic) (4);

(d) Students' characteristics (shy students, different learning styles, students' complexity, etc.) (5);

(e) Unrefined strategies, such as the use of "Simon Says", which did not translate well into the target language and confused the students (7);

(f) Lack of rehearsal before teaching (3);

(g) Have difficulty in coordinating the flow of lesson with others (6);

(h) Failing to stay in the target language (4);

(i) Use of slang target language (Arabic) (2).

When the teachers were asked what would they do differently next time they try these kinds of activities, they mentioned the following changes:

(a) More group work (6);

(b) Time management (9);

(c) Practice before teaching (5);

(d) Use more technology (4);

(e) Stay in the target language (3);

(f) Modify some games (1);

(g) Know the students (2);

(h) Room organization (1);

(i) Explain the topic in English first (2).

When the teachers were asked what they learned about themselves as teachers as a result of this experience, they responded that:

1. They actually liked cooperative teaching (5);

2. They loved using technology (4);

3. They enjoyed games and fun activities (3);

4. They appreciated the feedback from their colleagues (10);

5. Some of the teachers were surprised that they felt silly, shy, nervous, and uncomfortable while teaching in front of other adults (4);

6. Some teachers learned that they could teach younger children as well as older children (3);

7. Other teachers felt that they learned that they need to work more on "modifying activities to keep students engaged, teaching-checking-reinforce, staying focused on the objectives of the lesson, working on being more active in class, and practicing more public speaking" (CT-11) (3);

8. Other teachers said that they realized that planning might be easy but applying it is hard work (2).

Conclusions

This study was a next installment of our annual research studies designed to examine our 2013 StarTalk teacher professional development summer institute. This program was specifically constructed for Arabic and Chinese pre- and in- service teachers. In the study, we focused on a mixed-method design. It included 27 teachers (12 Arabic and 15 Chinese). This study took place over the course of three weeks followed by two fall workshops. Using carefully designed sequences of blended learning modules, the teacher participants were afforded multiple opportunities to explore and examine teaching in a learner-centered classroom utilizing a variety of assessment practices. Data were gathered during the summer institute using online surveys, small group interviews, daily reflections, and online discussion board threads on Ning (an online social media platform). The results of the study draw attention to some of the challenges and complexities faced by critical need language teachers.

Critical need language teachers come with different educational/schooling backgrounds and it is incumbent upon programs like ours to provide the appropriate training and professional development that will acclimate them to the culture of U.S. schools. It was clear that the teacher participants were vibrant and active members of the learning community created in both the face-to-face segment of the summer institute, but also the online discussions that followed. As the teachers addressed assessment as a topic, it was obvious that they all required space in which to share their knowledge base and to identify areas they wanted to enhance.

We specifically framed this study around three primary research questions. First, we wanted to determine if teachers' beliefs about assessment aligned with their actual practice during their micro-teaching simulations. Results indicated that the teachers believed that they were successful in employing all modes of communication; that they incorporated the five C's of the National Standards of Communication; and that they were able to successfully incorporate formative assessments. Second, we examined teachers' ability to improve their assessment practices during this short period of time (three weeks). We discovered that results from the

post-survey revealed that the StarTalk summer institute had a positive impact on the teacher participants' perceptions about their knowledge and understanding of assessment. The teachers also stated that they also learned how to design appropriate and effective assessments; develop lesson plans that focused on target language use in the classroom; appropriately use homework as a formative assessment and not as a tool for grading; use assessment as a motivator for learning; and stay in the target language in the class all the time and assess students' understanding frequently and adjust their teaching accordingly. Third, we wanted to explore how teachers incorporated collaborative learning and technology in their assessments. We learned that the teachers believed that they were able to incorporate collaborative learning in their teaching by working together in creating activities and also by pairing the students together to encourage collaborative work. Finally, the teachers praised the use of the SmartBoard as an exceptional technology tool for their classrooms and vowed to use it in the future.

We are pleased with the results of this study. It contributes to the dearth of existing research on the professional development of teachers of critical need languages. We recognize that the present study highlights the need for further research and we hope this can serve as a platform to encourage other researchers to undertake a similar research agenda.

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Appendix A: GMU StarTalk 2013 Pre-survey

1. What is your name?

2. Do you currently hold a teaching license?

3. Are you currently employed as a language teacher?

4. What language(s) do you teach or will you teach?

5. What do you hope to gain from this StarTalk summer institute?

6. Describe your level of knowledge about assessment: High___ Medium___ Low___

7. Give two examples of a "formative assessment".

8. Give two examples of a "summative assessment".

9. List two important considerations for planning for standard-based, learner-centered assessment (example—age and level of learner):

   a.

   b.

10. In what ways is assessment important?

11. How are rubrics useful in assessment?

12. How can technology support assessment?

Appendix B: GMU StarTalk 2013 Post-survey

1. What is your name?

2. Do you currently hold a teaching license?

3. Are you currently employed as a language teacher?

4. What language(s) do you teach or will you teach?

5. What did you learn from this StarTalk summer institute?

6. Describe your level of knowledge about assessment: High___ Medium___ Low___

7. Give two examples of a "formative assessment".

8. Give two examples of a "summative assessment".

9. List two important considerations for planning for standards-based, learner-centered assessment (example—age and level of learner):

   a.

   b.

10. In what ways is assessment important?

11. How are rubrics useful in assessment?

12. How can technology support assessment?

Appendix C: Post-teaching Group Interview Protocol

Questions:

1. Let us begin by introducing ourselves. Please tell us your name.

2. Could you share with us how you planned and designed your activities for your lesson today? For example:

    a. What was the objective of your lesson?

    b. Was it based on the standard and if "Yes", which one?

    c. If not, how did you develop your objective?

    d. Do you think you were able to incorporate formative assessment? How?

3. What worked well during your instruction? Why do you think/feel it worked well?

4. What did not work so well during your instruction? Why do you think/feel it did not work so well?

5. What would you do differently the next time you try these kinds of activities?

6. How could you tell if the students were understanding and learning?

7. What did you learn about yourself as a teacher?

8. Is there anything else you would like to say about teaching the students in the language camps?

Closing: Thank the individuals for their cooperation and participation in the group interview. Assure them that their names/identities will be kept confidential.

Appendix D: The Week Two Online Discussion Questions (Ning Learning Community)

Day 1: Assessment, Culture, and Learner Centeredness

Whole group questions (During week one, we discussed the importance of cultural appropriacy and learner centeredness in developing assessments):

1. How will these concepts impact your future assessments?

2. What challenges do you face in making assessment learner-centered?

3. In what kinds of activities do you think that learner self-assessment could be appropriate in your classroom?

Small group questions (target language):

1. Have you used student self-assessment in your classroom? If so, what were the strengths of the assessments and what were the weaknesses? If you have not used a self-assessment, please describe what you expect could be strengths and weaknesses of doing so;

2. Refer to the ACTFL performance descriptors for language learners at http://www.actfl.org/sites/default/ files/pdfs/Perfor manceDescriptorsLanguageLearners.pdf, choose one of the presentational modes and one of the domains and explain how it could be used for student self-assessment;

3. Using the same mode and domain selected above, provide three examples of a learner-centered IPA that you could use in your classroom. Explain briefly for each how you could modify this as required for a multi-level class;

4. Please provide peer feedback to at least one other person on his or her assessment ideas, proposing substantive extensions, alternative applications, or modifications.

Day 2: Motivation and 21st Century Skills

Whole group questions:

1. Why did you study a foreign language? What were your motivations?

2. What motivates students to learn a foreign language? How does their motivation influence your teaching style?

Small group questions (Motivation during lesson):

1. What worked well in your first lesson last week? What areas can you identify for improvement?

2. Watch ___ video. What worked well in the video? What would you do differently?

3. What elements from the video can you incorporate into the lesson you used last week?

4. Post a revised lesson and provide peer feedback to at least one other group using the checklist provided.

Day 3: Classroom Management and 21st Century Skills

Whole group questions:

In your experience, what aspects of classroom management (discipline, organization, record keeping, managing groups, and teaching in the target language) are/will be challenging for you? What challenges would you like to address in the upcoming year?

Small group questions (classroom management):

1. What worked well in your first lesson last week? What areas can you identify for improvement?

2. Watch ___ video. What worked well in the video? What would you do differently?

3. What elements from the video can you incorporate into the lesson you used last week?

4. Post a revised lesson and provide peer feedback to at least one other group using the checklist provided.

Day 4: Assessment and 21st Century Skills

Whole group questions:

1. What are your challenges in using performance-based assessment?

2. What areas or challenges would you like to learn more about as you move forward?

Small group questions (assessment):

1. What worked well in your first lesson last week? What areas can you identify for improvement?

2. Watch ___ video. What worked well in the video? What would you do differently?

3. What elements from the video can you incorporate into the lesson you used last week?

4. Post a revised lesson and provide peer feedback to at least one other group using the checklist provided.

Day 5: Cooperative Learning and 21st Century Skills

Whole group questions:

1. What aspects of cooperative learning are challenging for you?

2. How are they different from your educational experience?

3. How do you view the role of the teacher in setting up cooperative learning activities?

4. What would you like to learn more about as you move forward in your career?

Small group questions (cooperative learning):

1. What worked well in your first lesson last week? What areas can you identify for improvement?

2. Watch ___ video. What worked well in the video? What would you do differently?

3. What elements from the video can you incorporate into the lesson you used last week?

4. Post a revised lesson and provide peer feedback to at least one other group using the checklist provided.

Day 2: Assessment and Technology

Whole group questions:

1. What are some examples you have seen of technology integrated into assessment?

2. What are some other ideas you have?

3. Please share some websites you have used for classroom assessment or could use.

Small group questions (critical thinking and problem solving):

1. What are the benefits of technology for differentiating classroom assessment?

2. Refer to the ACTFL performance descriptors for language learners at http://www.actfl.org/sites/default/files/pdfs/Perfor

manceDescriptorsLanguageLearners.pdf, choose one of the presentational modes and one of the domains and explain how technology could be used to assess this domain;

3. Using the same mode and domain selected above, provide three examples of a learner-centered, technology-based IPA that you could use in your classroom. Explain briefly for each how you could modify this as required for a multi-level class;

4. Please provide peer feedback to at least one other person on his or her assessment ideas, proposing substantive extensions, alternative applications, or modifications.

Day 3: Assessment and Standards

Whole group questions:

1. When you plan instruction, what are the steps you take to integrate assessment? To what extent do you use backward design?

2. How does the notion of learner-centeredness inform the above process?

3. How do the five C's inform the process?

Small group questions (by level):

1. Returning participants: Please describe an example of a standards-based IPA you have used; how did your lesson scaffold toward this assessment of your classroom objective? How were the 4Cs addressed? In what ways was the IPA learner-centered and suitable for a differentiated classroom?

2. New participants: Think about a standard-based outcome and explain the backwards design steps required for students to achieve it.

3. Refer to the ACTFL performance descriptors for language learners at http://www.actfl.org/sites/default/files/pdfs/Perfor manceDescriptorsLanguageLearners.pdf, choose one of the presentational modes and one of the domains and explain how you would use backward design to help students reach this outcome, and how you could differentiate instruction to provide additional scaffolding for students in need of this/additional challenge for students able to exceed performance goals at each step of the lesson.

4. Using the same mode and domain selected above, provide three additional examples of a learner-centered, technology-based IPA that you could use in your classroom. Explain briefly for each how you could modify this as required for a multi-level class.

5. For returning participants, please explain how you would quantify this IPA in the form of a rubric—which aspects would you assess?

6. Please provide peer feedback to at least one other person on his or her assessment ideas, proposing substantive extensions, alternative applications, or modifications.

Day 4: Assessment and Rubric Development

Whole group questions:

1. What are the most important principles of rubric development for measuring an IPA?

2. To what extent can you differentiate instruction and assessment using a standard grading rubric for IPAs? Please provide an example to illustrate your point.

Small group questions (by language and level):

1. Refer to the ACTFL performance descriptors for language learners at http://www.actfl.org/sites/default/files/pdfs/Perfor manceDescriptorsLanguageLearners.pdf, choose one of the presentational modes and one of the domains and explain how you would assess this aspect of language through an IPA;

2. For new participants: Using the same mode and domain selected above, please design a full learner-centered, standard-based IPA that you could use in your classroom. Explain briefly how you could modify this as required for a multi-level

class. Please refer to the grading rubric in the syllabus to ensure quality design;

3. For returning participants: Please plan an IPA, describe it, and develop a full rubric for it. Your description and rubric should follow the final assignment guidelines in the syllabus (below);

4. Please provide peer feedback to at least one other person on his or her assessment ideas, proposing substantive extensions, alternative applications, or modifications.

Please post your final projects to the "Final project" folder for your language group and level. Thank you!

Final Assignment for New Participants: Integrated Performance-Based Assessment

The task:

1. Write an introduction (approximately one page);

2. Explain the student population for whom the assessment is being developed (i.e., middle school students, level 1);

3. Describe how this assessment relates to a thematic unit;

4. Describe how the IPA will assess each of the three modes of communication by referring to the ACTFL performance guidelines;

5. Create an assessment;

6. Prepare a few teacher-made materials for the IPA;

7. Include a student-centered performance assessment for each of the communicative modes.

The evaluation:

Your instructor will provide you with specific feedback using the following rubric.

Final Assignment for Returning Participants: Rubric for Integrated Performance-Based Assessment

The task:

The scoring rubric for an IPA should be developed for a well-described IPA.

In an introduction (approximately one page):

1. Explain the student population to whom the IPA is being administered (i.e., middle school students, level 1);

2. Explain the thematic/content area to which the IPA relates;

3. Explain how your rubric will target each of the three modes at the appropriate level and distinguish between ability levels using ACTFL criteria.

Your rubric should:

1. Evaluate student performance levels/evidence of literal comprehension and interpretive comprehension in the interpretive mode, using ACTFL's three performance levels;

2. Evaluate student performance levels/evidence of student use of language functions, text types, and communication strategies (quality of engagement and interactivity and clarification strategies) as well as message comprehensibility and language control for the Interpersonal Mode, using ACTFL's three performance levels;

3. Evaluate presentational tasks based on student use of language functions, impact of message, comprehensibility, and language control using ACTFL's three performance levels;

4. Each task performance level should be described at the "Exceeds", "Meets", or "Does not meet" expectations level.

5. Language in the rubrics should concrete and helpful feedback to students.

The evaluation:

Your instructor will provide you with specific feedback using the following rubric.

Appendix E: Analytic Scoring Rubric (Integrated Performance Assessment):

Final Assignment for New Participants

Criteria	Approaches standard	Meets standard	Exceeds standard
The IPA contains a short introduction that explains the student population and their diverse needs and 21st century skill targeted.	The IPA contains a short introduction that explains three of the five areas describing the population.	The IPA contains a short introduction that explains the student population and their diverse needs, including four of the five areas.	The IPA contains a short introduction that explains the student population and their diverse needs in great detail, including age, level, multiple intelligences, student interests, and motivation.
The IPA contains an introduction that provides details of the standard-based, thematic context.	The IPA contains an introduction that mentions but does not describe the standard-based, thematic context.	The IPA contains an introduction that provides a general overview of the standard-based, thematic context.	The IPA contains an introduction that provides significant details of the standard-based, thematic context.
The introduction explains how the IPA assesses each of the three modes by referring to the ACTFL performance guidelines.	The introduction does not show how the IPA assesses each of the three modes and/or fails to reference ACTFL performance guidelines.	The introduction mentions the three modes but does not explain how they are assessed by referring to the ACTFL performance guidelines	The introduction explains in detail how the IPA assesses each of the three modes by referring to the ACTFL performance guidelines
The IPA contains a student-centered assessment for the interpretive mode.	The IPA contains an assessment for the interpretive mode or for several modes.	The IPA contains a student-centered assessment for the interpretive mode.	The IPA contains a clear, detailed, engaging, and original student-centered assessment for the interpretive mode.
The IPA contains a student-centered assessment for the interpersonal mode.	The IPA contains an assessment for the interpersonal mode or for several modes.	The IPA contains a student-centered assessment for the interpersonal mode.	The IPA contains a clear, detailed, engaging, and original student-centered assessment for the interpersonal mode.
The IPA contains a student-centered assessment for the presentational mode.	The IPA contains an assessment for the presentational mode or for several modes.	The IPA contains a student-centered assessment for the presentational mode.	The IPA contains a clear, detailed, engaging, and original student-centered assessment for the presentational mode.
The IPA contains teacher-made materials that facilitate the assessment of each of the three modes.	The IPA contains a few teacher-made materials that may or may not facilitate student-centered assessments.	The IPA contains several teacher-made materials and most facilitate student-centered assessment.	The IPA contains several teacher-made materials that all facilitate student-centered assessment.

Appendix F: Analytic Scoring Rubric

Criteria	Approaches standard	Meets standard	Exceeds standard
Rubric evaluates interpretive mode based on all elements appropriate to student level, including both literal and interpretive comprehension.	Rubric evaluates interpretive mode based on some but not all elements appropriate to student level.	Rubric evaluates interpretive mode based on all elements appropriate to student level, including both literal and interpretive comprehension.	Rubric evaluates interpretive mode based on all elements appropriate to student level, including both literal and interpretive comprehension, with unique descriptors created for each element.
Rubric evaluates interpersonal mode based on student use of language functions, text types, and communication strategies as well as message comprehensibility and language control.	Rubric evaluates interpersonal mode based on some but not all key student functions.	Rubric evaluates interpersonal mode based on student use of language functions, text types, and communication strategies as well as message comprehensibility and language control.	Rubric evaluates interpersonal mode based on student use of language functions, text types, and communication strategies as well as message comprehensibility and language control, with unique descriptors created for each element.
Rubric evaluates presentational tasks based on student use of language functions, impact of message, comprehensibility, and language control.	Rubric evaluates presentational tasks based on some but not all key student functions.	Rubric evaluates presentational tasks based on student use of language functions, impact of message, comprehensibility, and language control.	Rubric evaluates presentational tasks based on student use of language functions, impact of message, comprehensibility, and language control, with unique descriptors created for each element.
All performance levels are fully described for each criterion in the rubric.	Most performance levels are described.	All performance levels are described for each criterion in the rubric.	All performance levels are fully described for each criterion in the rubric in concrete language.
Language in the rubrics provides helpful feedback to students.	Language may be helpful but general.	Language in the rubrics is specific or performance oriented.	Language in the rubrics is specific and performance oriented so that students know exactly which areas are their strengths and weaknesses in a particular performance.

Current Teacher Professionalization Issue and Its Development Paths in Chinese Higher Education[*]

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The paper is to discuss the current middle and low situation of teacher professionalization in Chinese higher education by making an analysis of the five reasons that cause such issue, trying to draw the outline of the concrete development paths for Chinese teacher professionalization in higher education, so as to establish the mode for teacher professionalization in Chinese higher education, and hoping to change the backward situation. This paper illustrates many issues about teacher professionalization: The requirements for teacher professionalization become a must in Chinese higher education; the consciousness of teacher professionalization is weakened by persons in charge of the university and college; teacher professionalization is ignored by administrative department in higher education; teachers in higher education are forced by the marketing economy to fuzzy about teacher professionalization; and teacher professionalization in higher education is forced to meet with the rapid social reform. From the external environment, especially for Chinese teacher professionalization in higher education, two items must be done well: 1. Teacher professionalization research projects must be deepened all-side; and 2. Teacher professionalization must definitely execute the admission system for teacher standards.

Keywords: mainland China, teacher in higher education, teacher professionalization

Introduction

Teacher professionalization, especially in Chinese higher education, is not only an old issue but also a new one. With the rapid development of China's economy, society, and education, teacher professionalization inenvitablly becomes a very prominent issue, because all kinds of talents for society and civilization contrinution normally need to be taught or helped by teachers. If teachers are qualified, the teaching and education certainly will be resulted in a good way. There is a saying, "Where there is a good teacher, there is good teaching effect". It is no wonder that one of the essential requirements for teacher professionalization has been the most important task in all kind of education and teaching. We cannot imagine what will happen if teachers are not qualified. It is undoubtedly very terrible that the human knowledge is spread by teachers who are not qualified and lack of professionalism. Generally speaking, teachers who are engaged in higher education usually take most of the responsibilities for the excellent teaching, wonderful education, and key

science research in any country, which concerns about the prospect of education for any nation. Therefore, great attention must be paid to teacher professionalization.

The Definition of the Teacher Professionalization Concept

Just as the term implies, teacher professionalization means the special requirements for teachers in moral behavior, knowledge area, teaching ability, etc.. The word "professionalization" can be regarded as a verb, which means a dynamic process in the development of a teacher's career. Therefore, the definition for the concept of teacher professionalization is sometimes hard to give because it involves lots of aspects, which means it can be a rather complicated system project. The definition for teacher professionalization should be divided into different levels and areas. To be more specific, it can refer to the following aspects of a teacher: professional quality (specialized knowledge, special skill, and undivided idea), training system (training agent, professional content, and special textbook), assessment system (professional examination, specialized regulation, and particular standard), etc.. In a word, teacher professionalization has been a multidimensional, dynamic, and continuous process. For example, the process of teacher professionalization must be carried out by way of special training agent and administration system for teacher education from content to measure, from degree and certification to test and recognition, and from discipline knowledge to professional ethics. That is to say, if such a definition must be given in the end, we believe that all the following connotations should be included. Teacher professionalization means the continuous access to a teacher standard in the process of his/her whole teaching career; teacher standard means that a teacher can achieve the extent of a very good class content teaching, an excellent example in his/her daily life, a wonderful teaching skill, and some better teaching results. Shortly speaking, teacher professionalization can refer to a harmonious, co-development, and all-over progress between teaching and learning, which covers that teachers should continuously develop cultural and science knowledge, unendingly deepen professional basic theory, gradually improve teaching ability, and increasingly strengthen education regulations. A teacher usually embodies the characters of knowledge, academy, discipline, culture, skill, capacity, profession, morality, and society. Therefore, teacher professionalization in reality is a synchronous dual dynamic process between general development as a common person and special development as a vocational person. It means the high-standard development as a human being and also the whole development as a teacher.

Issues About Teacher Professionalization

Teacher profession, as a vocation, develops almost as early as our human being. Teacher professionalization, as an issue, was put out in a clear way from a book *A Suggestion for Teacher's Position* by United Nations Education, Science and Cultural Organization (UNESCO) (1966). It says that the vocation being a teacher must be regarded as a special vocation. Nevertheless, the issue of teacher professionalization has been a prominent problem, but especially worse in China.

Requirements for Teacher Professionalization Become a Must in Chinese Higher Education

Due to the rapid development of knowledge, culture, technology, and society all over the world, information has become the main trend. Teachers who take the responsibility for human's culture and knowledge inheritance in higher education must be suitable for the requirements. So, the irreplaceable role of teacher carries the duty of teaching knowledge, answering questions, and solving problems. It is crucial for a country's education and future. We cannot imagine that education can happen properly without teachers, and

no country can do education well if the country is away from teacher professionalization. As time goes on, professionalization in all fields becomes more and more specialized. That is to say, relatively speaking, teacher professionalization is getting more and more important, urgent, and necessary. Because the college and university enrollment rate is expanding in China, there exist two severe and prominent contradictions: (a) quality and quantity; and (b) degree and certification. In this case, the consciousness for teacher professionalization becomes inevitably weakened, which cannot meet with the demand for our modern education and requirement. Furthermore, it causes the education and teaching quality cutting down. The current teacher professionalization in Chinese higher education is actually in middle and low stages.

The Consciousness of Teacher Professionalization Is Weakened by Persons in Charge of the University and College

Persons who are in charge of the university and college take the obligations. On the one hand, they are responsible for the teacher appointment, teaching arrangement, education administration, etc.. On the other hand, they are also responsible for the teacher professionalization. However, with the increasing economy and gross domestic product (GDP) with 7%-8% development in over past 30 years in China, the demands for all kinds of talents in all fields become more and more urgent. The situation forces them to expand enrollment of students, which means to foster talents rapidly so as to firstly satisfy the quantity demands for the variety of talents. Thus, on the one hand, the number of students in higher education increases rapidly; on the other hand, the quantity of teachers is not enough for teaching, let alone the teaching quality. In this situation, teachers' professionalization thought, teaching skills, and discipline knowledge are all more or less neglected.

Teacher Professionalization Is Ignored by Administrative Department in Higher Education

The large-scale merge and upgrade of higher education in China forces universities and colleges to make one-sided pursuit of large in size and all-round in courses. It may be regarded as a share of teaching resources, enhancement of teacher forces, and reinforcement of information exchange. However, in reality, this kind of merge and so-called upgrade caused the responsibility shift in administration, in teacher distribution, and in teacher assessment, and the severe unbalance in courses proportion. What is more, the most depressed situation is the consciously or unconsciously reduced number of teacher or normal universities and colleges, where teacher training usually happens. Some normal or teacher universities and colleges have changed their names or radically shifted the courses in different majors design, even misunderstand the role of every discipline's core knowledge, largely reduce the required subjects for normal or teacher colleges and universities, neglect the necessary knowledge for normal students, and lack of the actual practice for teacher training. All of these situations mentioned above lead to the oblivion of the teacher professionalization.

Teachers in Higher Education Are Forced by the Marketing Economy to Fuzzy About Teacher Professionalization

Because of economy, politics, and history, teachers in Chinese higher education have been working within their universities and seldom part with their teaching position. The study-like teaching and research are quite a common phenomenon. They hardly get a chance to touch or meet with the reality in social situation and often limit themselves between their own college or university and some exchanging-relation ones, let alone the share of international education information. Therefore, they especially lack of the platform to regain some new specialized knowledge, education theory, teaching training, and self-improvement. Nevertheless, the concept of lifelong education exists by the teachers only in its name. Teachers, now facing the rapid social reform, have no

way to deal with and, therefore, lack of the teacher professionalization thought by accident, which confined teachers' devotion, morality, and specialized ideas. All these can explain why some teachers with certain scientific research achievements or good teaching would like to seek for an administrative position that makes the teacher professionalization changing into a so-called China-feature teaching position. In higher education, most teachers have been unalternatively active appliers for science projects, blind faith persons for publishing articles, slogan criers for professional thought, and neglectful persons for teaching practice. Thus, the situation mentioned above has been the hindrance and bottleneck for the improvement and enhancement of education and teaching quality. So, it is urgent and necessary and also a hard job for teacher professionalization in Chinese higher education.

Teacher Professionalization in Higher Education Is Forced to Meet With the Rapid Social Reform

Teacher profession, undoubtedly, is one of the social vocations. "Engineers of the human soul" is the high reputation for teacher vocation in China. In modern science-technology society, teaching and research must be advanced together as time goes by, and the requirements for teacher professionalization have been the common sense in the society. But, from the point of teachers, people are used to the teacher standard on their own duty, even to limit teachers' social behavior. If any teacher dares to go one step beyond the prescribed limit, he/she would be regarded as guilty of heterodoxy. Therefore, human model seems to be the only character of being a teacher in China. It is rare to consider or to make research into should-be enjoyment rights from the teacher vocation, especially the rights as a professional personnel. Thus, teacher professionalization is not only to meet with the requirement and pressure of teaching itself, but also to be severely challenged by a variety of demands in society. The reform of teacher professionalization in higher education becomes more and more urgent.

Development Paths of Teacher Professionalization in
Chinese Higher Education

The issue of teacher professionalization in the history has been paid much attention by all nations. They all have different ideas and various models to make the teacher professionalization better. However, generally speaking, to start with, the method of doing teacher professionalization in Chinese higer education can be divided into two parts: from teacher professionalization external environment and its internal itself. The external environment means a lot for teacher professionalization, which likes the parts of an engine, indispensible; the internal itself means the potential motivation of the teacher professionalization, which likes an engine's inherent mechanism, seamless.

From the external environment, especially for Chinese teacher professionalization in higher education, two items must be done well:

1. The item of teacher professionalization research project must be deepened all-side. The research into the teacher professionalization of higher education in China falls behind, and the current situation for the research affects little. Of course, there are still some researchers who hold some viewpoints. Zhang (2007) believed that teacher professionalization could be realized through academic study, degree courses learning, teaching practice, and international exchange. Lin (2006) deemed that from a macro level, the institutional and policy levels must be taken into consideration to provide the favorable external environment for the improvement of teacher professionalization in universities and colleges; from a micro perspective, the perfected development mechanism of teacher professionalization must be established. Teacher professionalization in reality can be

regarded as a process of how a teacher is near the standards. As the saying goes, "Nothing can be accomplished without norms or standards". The "norms or standards" here refer to the standard or scale of the teacher professionalization. There is no deny in China that some laws and regulations have been made for the favorable external environment of improving teacher professionalization. China Education Commission (1994) defined firmly and definitely the teacher professional position: Teacher is the professional personnel who carry out the responsibility of education and teaching. China State Council (1995) for the first time clearly and formly prescribed the teaching profession access system, and the enacted policy of Teacher Qualification Certificate ensured the operating mechanism of teacher professionalization in the form of law. The key point for teacher professionalization at present is how to exert these systems to be effective largely so as to drive the all-over development of teacher professionalization in Chinese higher education;

2. The item of teacher professionalization must definitely execute the admission system for teacher standards. To be a teacher needs some special training for the vocation. For example, students who just graduate from medical college or university cannot immediately be engaged in medical service. They cannot do the medical service only after graduation from five to eight years' study in medical college learning, and before the work service, they should get some pre-post training and some clinical practice and pass the entrance examination for the job. What is more, these requirements are also needed by many other jobs, such as driver, announcer, tour guide, auditor, judge, lawyer, cook, architect, accountant, etc.. Without such kind of practice and certificates, none of the jobs mentioned above can be done well. Because of the poor foundation (large population and different grounding) in China, its education history has been lagged behind many other countries. What is more, the recent enrollment in higher education leads the absence of teacher quantity, let alone the quality, which causes the neglect of the teacher standards. Therefore, anyone who wants to be a teacher, especially a qualified teacher, must be definitely excuted the admission system for teacher standards. Without such rigid process of teacher professionalization, the teacher may probably be not qualified. That is to say, any individual person who wants to be a teacher undoubtedly must take and pass the severe national entrance examination for teacher certificate, and then, spend some time on practicing teaching before taking the job. This admission contains lots of meangings. In a word, teacher professionalization means, in reality, the harmonious development of teachers' individuality, culture, and specialization.

From teachers internal themselves, especially for Chinese teacher professionalization in higher education, and according to the development connotation and extension of teacher professionalization, the following three aspects should also be done well:

1. Firmly establish the consciousness of teacher professionalization. The establishment of teacher professionalization consciousness will be helpful to the master of overall point of view for the teacher professionalization at a macro level, teachers who have enough consciousness for teacher professionalization will be greatly helpful to do the teacher professionalization well. We know that any vocation with its professionalization can be achieved maximum result with little efforts so as to be respected in the society. As a matter of fact, teacher professionalization is the process of teaching thought, teaching goal, teaching means, teaching mode, teaching evaluation, etc., and is a constant enriching and development period, during which, teachers gradually impart knowledge and educate people, from naive to mature and also from lower to upper stage. Teachers can only better themselves in their own professionalization and can do well in their own teaching area and become experts, so as to effectively instruct and spread human's knowledge and culture and promote the inheritance of human civilization. Only in this way can our instruction mode be last, education

foundation be stable, education mansion be steady, and social development march ahead greatly;

2. Make an effort to practice factors of teacher professionalization. The practice of factors of teacher professionalization is helpful to better individual practice of teacher professionalization at a micro level. The factors for teacher professionalization are mainly characterized as the lifelong learning concept should be kept by teachers, because teachers must constantly absorb new knowledge while they are generously instructing. Only in this way can they keep the balance between learning and instruction. The teaching reflection must be constantly paid attention to by teachers. Teaching reflection can embody the ability and proficiency of teacher professionalization, which is helpful to the promotion and strengthening of a teacher's ability for education and thought for teacher professionalization. The social benefits of a teacher must be considered carefully for it sometimes can determine the success or failure for teacher professionalization. Any one, including teachers, cannot live well without material interests, which sometimes can stable teachers' vocation thought and also vice versa can draw attention from others. Furthermore, it also can promote the healthy and smooth development of teacher professionalization. The diversity awareness of teacher professionalization must be established by teachers. Teachers can vary from personality, environment, teaching, potential, practice, learning, etc., and also can be greatly influenced by different social development. Therefore, teachers should be aware of such varieties in teacher professionalization;

3. Teacher professionalization involves not only teachers themselves, but also the social rigid demands. Our society is certainly on the one hand responsible for teacher professionalization. All organizations and groups, governments, and enterprises, especially the education administration commission, have the obligation, big or small, for the teacher professionalization. On the other hand, the higher the professionalization is, the better the quality for talents cultivation will be. From the history point of view, the teacher vocation has been emphasized differently in various times by different countries. Teacher professionalization and teacher vocation development also develop differently. It proves in the history term that whatever the teacher vocation is stressed or with higher teacher professionalization, the education and society must have an excellent development. China, in reality, is a country that is an official rank considered to be the sole criterion of one's worth. That is to say, the power of government in the policy decision of education is stronger than social groups. Currently, the groups in China consisting of people from education specialism or areas have weak influences upon the education policy-making, which exist only as some unpowerful agents. Shortly, teacher professionalization in China is influenced greatly by government and society.

Conclusion

Nowadays, teachers in Chinese higer education encounter with lots of development puzzles. First of all, the possible solution to it is to recognize the reasons and admit the shotcomings, then, we should adjust some policy to change the unfavourable situation and become professional teachers. If a teacher gets the professional quality, he/she can enjoy his/her teaching and promote the education and teaching effect. Therefore, how to become a professional teacher in Chinese higher education is not only a necessary agenda, but also an urgent and important task. China Education Commssion must pay more attention to this key point because it concerns about the quality of China education and its long development. Only in this way can teachers have the environment to improve their own teaching and educational factors so as to better their teaching experience. As for teachers themselves, they need to concentrate on all the things mentioned above. In sum, teacher professionalization in fact refers to the qualities that a teacher should get. The scientific spirits, humanistic

quality, and lifelong learning concept of a teacher cannot be rested on theoretic level but be carried on all aspects of teacher professionalization. Therefore, teachers must try hardly from social adjustment and self-effort to become experts in education field, not a "book-teach-Smith" (UNESCO, 1966).

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From Assimilationist to Pluralist Discourses: A Multilingual/Multicultural Curriculum Frame for East Asian Americans in the United States

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Upon their arrival to the United States (U.S), East Asian American immigrants live in diverse and multilingual settings in which assimilationist discourses proliferate. This paper analyzed the possibility of drawing a pluralistic and intercultural curriculum frame for diverse settings with culturally and linguistically diverse (CLD) individuals across the U.S.. An analysis of the European Guide for the Development and Implementation of Curricula for Plurilingual and Intercultural Education, including a compared lecture of the literature, was utilized for framing a multicultural curriculum. Insights from state of art literature review suggested that the recommended multilingual/multicultural curriculum frame may assist to shift polarized views to pluralist discourses in the U.S..

Keywords: pluralist discourse, multicultural education, pluralistic curriculum frame, assimilationist discourse

Introduction

Immigrations toward the United States (U.S.) are the source of cultural and linguistic diversity across the country. Most of immigrants arriving in America face moral panics and social anxieties (Aguirre & Lio, 2008) while interacting with Americans or with other diverse immigrants. These feelings are provoked by panoply of factors: differences in their beliefs, habits, values, way of being, and speaking that they bring to the U.S.. In counterpart, mainstream U.S. language policies tend to be mostly restrictive. The pattern followed by the policies consists of mainstreaming all the immigrant learners into one language, English.

One language policy implies one culture policy. However, the term "assimilation" was used when speaking about cultures applies also to languages. The assimilationist discourses practiced in the U.S. do not consider the linguistic and cultural "diversity" in which English learners live. Fortunately and actually, diversity "is the focus of a wide-ranging corpus of normative discourses, institutional structures, policies and practices in (…) public sector agencies, the military, universities and professions" (Vertovec, 2012, p. 287). However, this ray of hope and chance is not carried out in real educational practices despite the aforementioned age of diversity.

The raising trend of claims for diversity discourse is the product of the recognition of the minority rights and the linguistic human rights (Skutnabb-Kangas, 2008). But, diversity discourse must be considered as a

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public corporate language in institutional structures, practices, and policies (Vertovec, 2012, p. 288). At a higher exponential portrait of this theoretical framework, "super-diversity" underlines "a level of and kind of complexity surpassing anything the country has previously experienced" (Vertovec, 2007, p. 1024). This complexity includes ethnicity, race, culture, religion, social class, and language. A similar image is reflected in the U.S., where theoretically samples of culturally and linguistically diverse (CLD) individuals from each country across the world can be encountered.

Linguistically, the super-diversity approach breaks with studies on ideologies of language because they restrict the plurilingual idea (Blommaert & Rampton, 2012). Instead, under the plurilingual approach, individuals find their path in a complexity, complementarity, and dynamicity of linguistic (diverse) norms that enable them to easily move from one repertoire or register to another. This communicative competence is a linguistic application of the polycentricism. Polycentricity supposes that individuals are in a continuous learning process even though to some extent they may fallaciously consider themselves as experts (Blommaert, 2013).

The frameworks mentioned above help better plan for a pluralist educational discourse that reflects the super-diversity on its curricula. Whether pluralist discourses in education are relayed by the communities of practices or not, they seem a thoughtful medium that supports the anti-oppressive education (Kumashiro, 2000). Henceforward, any approach that will be used in this paper is an efficient antidote against the assimilationist discourses in the U.S. educational system, where East Asian Americans, for example, are merged into one ideology.

This paper aimed at exploring the possibility of drawing a pluralistic and intercultural curriculum frame for super-diverse settings in the U.S.. To address this purpose, the following inquiry question will be explored: In view of the linguistic super-diversity of East Asian Americans, how would be framed a pluralist educational guide that could benefit the entire super-diverse America?

For the sake of a good understanding of this paper, the following sections will consist of a brief panorama of the assimilassionist discourse in the U.S., then, a review of the features of the European guidelines for a pluralist curriculum, a section on a linguistically and educationally plural East Asian, and another section on the intents of framing a pluralistic curriculum for East Asian Americans in general. Finally, a conclusion and implications for pluralist curriculum developers will end this paper.

Assimilationist Discourses in America

Linguistic Assimilation: Restrictive Policies

Every two of 10 students in the U.S. are from an immigrant family and speak a language other than English at home. Researchers have argued that the language spoken at home is a resource to be preserved. Restricting the use of children's home language at school affects students' performance and teachers' ability to meet their needs as English language learners (ELLs). When talking about restrictions, policymakers are the first actors to be targeted. In fact, several state legislatures have ruled for English-only instruction. Californian Proposition 227 is the most famous that impacts on ELLs' school achievement (Wentworth, Pellegrin, Thompson, & Hakuta, 2010).

Theoretically and virtually, somewhere in the U.S., all world languages are spoken (Gándara & Hopkins, 2010) due to the huge vague of immigration from all over the world. This diversity means challenges for the American educational systems and also for these immigrant students. Several reasons intensify the grade of these challenges: unequal repartition of ELLs across American schools, few opportunities to interact with

native English speakers due to the increasing number of ELLs pre-schools, and segregation even into the same school (Gándara & Hopkins, 2010).

To rapidly let these students learn English, policymakers of some U.S. states (California, Arizona, and Massachusetts) argue that it is important for them to abandon their native language, so they can focus on the learning of English. Conversely, to guarantee a good learning of English to the increasing number of ELLs in the U.S., states need to contract certified English teachers.

Even though there is no official language policy in the U.S., the abandon of native languages for the benefice of English in educational and public setting is a characteristic of language policy in the U.S.. Some weak protection measures have been taken for indigenous languages. The Treaty of Guadalupe Hidalgo, for example, was supposed to extend the right of using Spanish in the territories taken by the U.S. to Mexico. However, U.S. law never provided special protection for the use of Spanish in these territories. Without law protection, it is estimated that only 20 out of the 175 American Indian languages spoken today will survive to midcentury (Gándara, Losen, August, Uriarte, Gomez, & Hopkins, 2010).

Historically, the English-only movement has reflected this lack of law protection for non-English languages. Over the years, some states have approved bilingual education while others mandated English-only instruction. During the 19th century, waves of immigrants to the U.S. obliged some states to allow bilingual instruction. Nevertheless, between the 1880s and 1960s, a lot of repressive policies were promulgated. These policies included the repression of Indian language policies formerly aimed at civilizing Indians and containing them on reservations. Also, the Naturalization Act of 1906 was included among those repressive policies since immigrants were required to speak English prior to be naturalized U.S. citizens (Gándara et al., 2010).

Language Policy and Political Issues

Language cannot be examined in isolation from the socio-political conditions of its use. In the years 1960s-1970s, language policy was seen as non-political, non-ideological, but technical and even pragmatic. The first purpose of language policy was to solve language problems of emergent postcolonial states for the sake of national unity. However, the historical, social, and political issues were not considered in that times (May, 2008).

The presentist approach of language policy is all made of historical issues that led to hierarchize languages according to the most and less spoken. These politics are accompanied by the raising of modern nationalism. For example, the thinking behind the terminology "official language" is that language becomes a political unit that is restricted according to the state boundaries. As a result, the state takes control of language ideologies and makes norms that regulate and shape the linguistic practices (Bourdieu, 1991). Under these lenses, it is impossible to establish a specific practice that can maintain both the majority and minority languages.

The specific linguistic practice referred to in the previous paragraph is a picture of the linguistic human rights frame. The latter consists of a tridimensional feature that multilingual countries need: a national or official language, a lingua franca (among different groups), and an official recognition of the native language. The first two frames should be included in a human rights-oriented educational language policy, while the third is grounded on deficit theories or thinking that haunt most of the state and national policies on minority education (Skutnabb-Kangas, 2008).

An illustrative case is provided by the Texas Administrative Code (TAC) in its Chapter 89—"Adaptations for special populations". Deficit theories are patent when the goal of bilingual education is stated: "to enable English language learners to become competent in listening, speaking, reading, and writing in the English

language through the development of the literacy and academic skills in the primary language and English" (TAC, 1988, Chapter 89, p. 1201b). In other words, rather than fostering the literacy development in both languages, bilingual education is used as a bridge toward mainstream English-only classes. Thus, assimilationist discourses are kept even in a state with no determined official language.

Cultural Assimilation: Stereotypes on Asian Americans

Because language is an intrinsic component of a culture, linguistic assimilation infers cultural assimilation. One of the ways that assimilationist discourses are transmitted consists of stereotyping individuals that come from the same geographical region. Scholars have tried to categorize East Asian Americans, for example, based on the characteristics they found in only one or two different ethnic groups.

Their assimilationist discourses suggest that Asian Americans give an important place to introversion while extraversion violates their harmony (Eap, DeGarmo, Kawakami, Hara, Hall, & Teten, 2008); they activate their conservative cultural identity when they are referred to with American only spectrum or bicultural Asian American spectrum (Uhlmann, Poehlman, Tannenbaum, & Bargh, 2011); they are strongly engaged in the struggle for social justice (Aguirre & Lio, 2008); they practice authoritarian parenting; they value male children over female (Paat, 2013); and so forth.

In the name of assimilationist discourses, studies mentioned above were conducted on a specific ethnic group of a particular Asian country. However, these characteristics can be misunderstood and generalized to either East Asians or Asian Americans in general. And yet, there is still such a cultural and overall linguistic diversity within Asians and Asian Americans, even among those who share the same geographical space. Linguistically (and culturally), a pluralistic discourse is necessary in order to avoid provoking frowns and, most importantly, to advocate for a pluralistic educational frame for them. Europe already issued a pluralist frame that can be considered as benchmark to model a multilingual/multicultural curriculum for East Asian Americans. Its features are explained below.

Model of a Pluralist Educational Frame: The European Guidelines

The rationale for attempting such a pluralist educational discourse talks of itself. The result arisen from achievement evaluation of CLD students in the states with restrictive language policies is a clear example. In Arizona, where the Proposition 203 limited the type of educational programs, a comparative study of CLD students was conducted before and after the approval of this policy. The achievement before and after the Proposition 203 were nearly identical. In some learning areas (reading and mathematics), students' achievement declines right after the Proposition 203 even though it raised three years later (Mahoney, MacSwan, Haladyna, & García, 2010).

A similar study on the impact of language policies on academic achievement and engagement of CLD was conducted in Boston public schools. In fact, under the slogan "English for the Children", Massachusetts approved the Chapter 386 of the Acts of 2002, which mandates the method sheltered English immersion in classrooms (Commonwealth of Massachusetts, 2002). Findings show an impact on CLD students' engagement after the approval of the Chapter 386: decreasing attendance and enrollment in English learning programs, increasing rate of grade-level retentions, and a very slight change or impact of the passing rate of CLD students before and after the restrictive policy. The same gap persisted between students in English learning programs and those in mainstream classrooms (Uriarte, Tung, Lavan, & Diez, 2010).

Following the framework drawn above, pluralist discourses give no chance to prefer a dominant language when choosing between a mother tongue and a future one. This is an innate need crystallized in linguistic human rights as a research area in the early 1990s. On the one hand, linguistic human rights provide a sponsorship to the mother tongues as a medium of education. They are fundamental for the language maintenance and prevent any kind of linguistic and cultural genocide (Skutnabb-Kangas, 2008). On the other hand, the co-occurrence of several languages in the same social setting (multilingualism) is beneficial to the community (Blommaert, 2014) even though immigrant languages and cultures are politically posed as threats to the existent culture or language (Vertovec, 2011). In this multilingual context, linguistic resource, linguistic competence, and the diversified community are constantly changing. The dynamic rationale of this multilingualism/multiculturalism comes from a wide range of formal, informal, structural, and pragmatic learning/acquisition tactics (Blommaert & Backus, 2011).

In the middle of this theoretical panorama, the deal is to find how to frame a new educational frame that supports the pluralistic discourse for East Asian Americans. The Council of Europe developed a guide to implementing the curricula for super-diverse setting. Table 1 depicts the guidelines of the European implementation of curricula for pluralist discourses in education.

Table 1

Summary of the European Frame for Plurilingual Education

Pre-requisite knowledge/competence	Curriculum features	Curriculum applications (teaching)
Vision of curriculum: organizing learning and extending it beyond the school.	Multilevel coverage: activities; Pace coordinating: competence-acquisition.	Approachable content, methods, terms; Awareness of transfers: identical linguistic categories and transferable intercultural competences.
Levels of education: macro (state/regional), meso (school), micro (class/group/teaching), and nano (individual).	Focused on literary, aesthetic, reflective abilities, autonomy, and cognitive development.	Increase synergy in teaching modern and classical languages.
Plurilingual/intercultural competence: easy use of diverse repertoires to communicate and to connect past and new experiences.	Focused on acquiring plurilingual/intercultural competence; Cross-over link between languages as subjects.	Link knowledge and competence to acquire intercultural competence; Make plurilingual and intercultural education an explicit goal.
Teaching languages is a single process: Teachers must be encouraged to work closely together.	Cooperative: built on activities fostering exchange between teachers, teachers-learners, and learners.	Comparable activities: for understanding written texts, oral texts, reflective observations, and analysis of phenomena.
Socio-linguistic analysis of the setting and the school (languages, perceptions, verbal behaviors, etc.).	Specific: Aims must be specific.	Encourage learners not to restrict themselves to certain languages; Teach students how to respect others and to listen to others.
The Common European Framework of Reference (CEFR) for languages descriptors: help define the target competence in foreign languages.	Experiential aspect: learners to experience different learning modes = variety.	Experience of spatial expression: gesture, register variation, tactile (semiology, graphic systems), etc.; Gradual introduction of several languages.
Teacher training: according to professional interests, able to enhance interdisciplinary transfers.	Coherent (logic) but not standardized; Aimed at the consistency of options along the school years.	Assessment of learners: mostly formative (possible to have summative or certification assessment) and self-assessment.
Evaluation skills: to evaluate the implementation of curriculum.	Realistic: analyzing existing situation and available resources.	Teaching languages must function as knowledge-building instrument.

Note. Source: Beacco et al. (2010).

Toward a Pluralistic Educational Frame for Asian Americans

Plural East Asian

First of all, the definition of "Asian" shows the super-diversity of people and ethnic groups belonging to this term: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. It includes people who indicate their race as "Asian Indian", "Chinese", "Filipino", "Korean", "Japanese", "Vietnamese", and "other Asian" or provide other detailed Asian responses (Hoeffel, Rastogi, Kim, & Shahid, 2012, p. 2).

Further precisions are important to restrict the semantic field of East Asian Americans. Asian Indian includes individuals who indicate their race as "Asian Indian" or respond such as India. Likewise, the same definition is given for Bangladeshi, Bhutanese, Burmese (Myanmar), Bruneian, Cambodian, Chinese, East Timorese, Filipino, Indonesian, Japanese, Korean, Laotian, Malaysian, Maldivian, Mongolian, Nepalese, Singaporean, Sri Lankan, Taiwanese, Thai, and Vietnamese.

As a result of this diversity, Table 2 shows a linguistic panorama of East Asian countries.

Table 2

East Asian Languages

Country	Institutional languages	Developing languages	Vigorous languages	Languages in trouble	Dying languages	Living languages
India	75	127	178	55	12	447
Nepal	11	20	26	56	8	121
Bangladesh	5	11	16	8	-	40
Bhutan	4	1	14	8	-	27
Sri Lanka	4	-	1	1	1	7
Maldives	2	-	-	-	-	2
East Timor	2	1	10	5	1	19
Indonesia	21	97	248	265	75	706
Malaysia	11	19	10	86	12	138
Thailand	6	24	17	22	7	76
Brunei	8	3	1	3	-	15
Philippines	43	70	45	13	10	181
Vietnam	1	15	51	37	5	109
Cambodia	4	5	1	9	5	24
Laos	4	10	48	22	2	86
Myanmar/Burma	10	34	50	18	4	116
Singapore	6	6	1	10	1	24
China	14	23	111	122	28	298
Mongolia	6	1	3	1	1	12
Taiwan	5	7	1	2	7	22
Japan	2	-	1	11	1	15
South Korea	2	-	-	-	-	2
North Korea	1	-	-	-	-	1
Total	204	394	783	646	159	2,186

Note. Source: Lewis, Simons, and Fennig (2013).

Here is a complex panorama of linguistic pluralism in East Asia. Even though the accountability in this chart might have deducted the international linguae francae, such as the Chinese Mandarin (spoken in more

than three countries), the diversity would remain intact. Thus, there is a need of elaborating a pluralist educational frame for East Asian Americans. However, the "plural Asian reality" was also reflected in their schooling systems.

Diverse Schooling Systems in Some East Asian Countries

Japan. Japanese schooling is influenced by Confucianism which focuses on learning as a means toward an honest life on the earth. Despite a strong tie to the traditional background, Japan has taken a step forward to establish a modern schooling system (Numata, 2006). Before World War II, precisely in 1907, and according to the Japanese Department of Education, a triple sequence goal inspired by the imperialistic organization dominated the Japanese school education: pursuing learning and cultivating arts, developing intellectual faculties and performing moral values, and advancing public good and fostering common interests (Numata, 2006).

After the World War II, the education sought to contribute to the world peace and welfare through the democratic principles. Therefore, following the "spirit" of The Fundamental Law of Education promulgated in 1947, the education was conceived to develop individuals' personality based on the love of truth and peace, the development of individual value, the respect of labor, and the sense of responsibility and independent spirit (Numata, 2006). In addition, a look to other educational systems, such as British, French, Hollandaise, and the American, was necessary to revamp Japanese schooling system. But it still was "difficult to transplant a complex system such as schooling from one culture to another, especially when each culture has long-established traditions" (Numata, 2006, p. 46). Considering the culture transferring for those engaged in Japanese education today, it is necessary a school system reform that may adjust the good traditions from the old schooling system to the new model (Numata, 2006).

Beyond the Japanese schooling organization which is made of pre-schools, primary schools, secondary schools, schools and learning institutes, and higher education, all under a school administration instance, the curricula are in charge of the Ministry of Education, Science and Culture. Each board school has the responsibility of adjusting the curriculum according to the school needs (Numata, 2006). At school, teachers put the accent on the group life.

South Korea. The philosophy that holds South Korean schooling system is of forging an ideological image of citizen highly independent, fond of the well-being of humankind, and the development of democracy. The curriculum is promulgated by the Ministry of Education and Human Resources Development, but, similarly to Japan, it is organized by schools and teachers (Jung, 2006).

The success of South Korean schooling comes from many parameters, such as tradition, private and public contributions, and national laws enforcing the education for all. Culturally, South Korean education helped at rediscovering and appreciating traditional values as well as helping people confront waves of foreign cultures. Thus, cultural diversity is one of the constant challenges and controversies in South Korean schooling since discrimination still prevails among the various groups and generations. The creation of a curriculum that reflects diversity and social change is necessary (Jung, 2006).

China. Similar to the aforementioned schooling systems, the main objective of Chinese education is the improvement of the human capital ready to compete with others at a global scale. Therefore, from the reform of curriculum, the accent was put on the quality of students. Also, this reformed curriculum expanded the socialist goals to incorporate global demands in education, such as information technology and English language. The

move is from a subject-based to an integrated content. The acceptance or selection of curriculum content is made according to three principles: relevance to students' life, connection to the global society, and its connection to the science and technology development (Wing-Wah, 2006).

Although the three schooling systems exposed above are rooted in similar strong religious traditions, they have gone through different development stages and reforms across the times. Each country has adopted reform to adapt the curriculum to modern demands. However, these reforms are far to shape the culture underpinning "the daily practices of students, teachers, and education officials" (Wing-Wah, 2006, p. 97). Because, in the U.S., children from these countries or born from East Asian parents are from diverse culture backgrounds, the required reform hinges on a cultural shift. Only well elaborated guidelines of a pluralist discourse into the curriculum are able to flex the cultural differences.

Findings

The content of this section is an attempt to answer our inquiry question previously formulated: In view of the linguistic super-diversity of East Asian Americans, how would be framed a pluralist educational guide that could, moreover, benefit the entire super-diverse America? The answer to this question requires an adaptation of the above suggested European pluralist frame.

In language education, a gap between the conventionally accorded form and the collectively shared manners of making meaning always will persist among the members of a community. Another internal dichotomy within learners performing their first language and becoming proficient in a second or third language is imminent. Potentially, both cases may provoke bilateral conflicts: self-other, native-nonnative speaker, or culture one-culture two. To minimize the clash, a third instance, a "third culture" must be considered (Kramsch, 2009, p. 233). Compared to the monolingual-multilingual debate in the U.S., the thirdness is a synonym of plurality or diversity (super-diversity) in which must be based a pluralist discourse.

As suggested above, East Asian Americans come from very diverse linguistic backgrounds since homeland or since family values they acquired from their parents with a full or strong homeland cultural background. Once emigrated in the U.S. or once grew up, they settle in pluralist cities and towns or interchange with diverse people all over the world. In the name of super-diversity, they are neither isolated any more, nor limited to work with people from the same language groups than them. Mobility, mixing, and dynamicity (Blommaert & Rampton, 2012) are now the new features in which East Asian immigrants or born Americans live. Thus, the pluralist educational discourse to be depicted here applies also for other diverse people who share the same geographic setting than East Asian Americans.

As for the European guide for plurilingual and intercultural education, the attempt of a pluralist education framework not only for the aforementioned people, but also for immigrant minorities in the U.S. gears onto three important axes: the pre-requisite knowledge, the curriculum draft features, and the draft of teaching practices.

Pre-requisite Knowledge or Competence

As pre-requisite knowledge or competence, the understanding of (super-)diversity is very important. The sociocultural setting in which immigrants live in the U.S. is complex and dynamic. Their linguistic patterns are going through numerous shifts that embrace numerous social, historical, cultural, and even technological factors. Therefore, homogeneity, stability, and boundedness are out of matter in a pluralist discourse (Blommaert & Rampton, 2012) and multilingual ideologies.

Language ideologies refer to a set of beliefs or feelings about languages. These beliefs comprise social, linguistic (structures, morphology, context, semantic, etc.), anthropological, cultural, cross-cultural, and political experiences that speakers have of a language in general. However, in this frame, the scope is much extended, it reaches a global aspect beyond one language border or policy (Farr & Dominguez, 2005). One single reason allows the move toward multilingual ideologies: "A proper language is bounded" (Blommaert & Rampton, 2012, p. 10). In contrast, the community is not "bounded" in one or two linguistic repertoires. Pluralist discourses are expected to go beyond borders. This is what is called "transborderism".

The notion of linguistic groups in the community or the notion of speech community must be replaced by the notion of "community of practice". Defined as a group of persons informally and with passion shares their knowledge and expertise (Wenger & Snyder, 2000), community of practice in education aimed at connecting people, providing a shared context for those people to communicate, enabling dialogue, stimulating learning, disseminating existing knowledge or practices, introducing collaborative processes, helping people organize in order to get tangible results, and generating a new knowledge. Similarly, this notion requires a step-by-step process of building that must be a pre-requisite for building a pluralist education frame in the U.S.: building relationships, learning and developing the practice, taking action as a community, and creating knowledge in the domain (Cambridge, Kaplan, & Suter, 2005). This design can be applied at different levels of education (macro, meso, and micro) and fostered in the local community. Here is where parental involvement must be promoted.

As for the European implementation of plurilingual and intercultural education, there is a need of knowing how to foster the building of individuals' own repertoires of plural linguistic and intercultural resources (Beacco et al., 2010). The focus must be on the efficient implementation of the foreign languages learning because the American public education has underestimated the learning of foreign languages due to the austerity plan (Beale, 2010). Also, since there is not one single complex set of linguistic norms anymore but many competing ones creating a linguistic policentricity (Blommaert, 2013), it is important to strengthen the communicative skills in order to have access to polycentric linguistic repertoires. This task requires schools, communities of practices, students, and parents to work together to strengthen foreign languages learning.

Knowing how to work in cooperation is another requisite prior implementing a pluralist educational frame in U.S. schools. Similar to the European guide, each level of the organizational structure must know that they belong to a process or a system that needs the conjunction of all its pieces to work. Teachers must be encouraged to work together, students with teachers, students with students, administrators with teachers and students, school with parents and communities of practices, and so forth. In the U.S., the pluralistic discourse in education requires a shift from individualist (competition/selfishness) approach to cooperative perspective. This cooperative feature reinforces the East Asian cultural background based on the sense of community (solidarity).

For these Asian Americans, it is essential to strengthen their identity in the middle of a culture and linguistic pluralism. This is why they should be taught their heritage languages and be initiated to their heritage culture. Parents and schools are responsible for guiding them (home-country trips, visit to family members, long distance videoconferences with family members, study abroad programs, cultural sketch playing, dancing classes, etc.). However, to this heritage background, there is another pluralist discourse or reality that is added since they are living in a super-diverse setting: They "can no longer be straightforwardly associated with particular (national, ethnic, and sociocultural) groups and identities; their meaning-making practices can no longer be presumed to 'belong' to particular languages and cultures" (Blommaert & Backus, 2012, p. 6).

This new panorama conflicts with the advocacy for the ecology of language, which requires learners to focus on identity and to learn another language (Pahl, 2008). The corrective to this latter approach would be represented as following:

Ecology of languages = Identity + Languages (not just one language)

Conversely to this heritage background, life settings end to influence (immigrant) learners' values, self-perceptions, and beliefs. Most of them may have developed both identity registers. A recent study (Esquinca, 2012) referred to these children as being "transfronterizos" (trans-border). Formerly bilingual/bicultural children are different from their monolingual/monoculture peers; they become a diversification of the diversity (Blommaert, 2013; Vertovec, 2007). Thus, being transfronterizos is having a trans-identity, but overall holding a "super-identity" under a super-diversity frame and in a pluralistic discourse.

Furthermore, a Common Framework of Reference for Languages (CFRL) based on the CEFR for languages must be prepared. Similarly to the CEFR, the CFRL would have to emphasize on the formative aspect of assessments in order to replace the summative aspect commonly practiced in the U.S. (Test of English as a Foreign Language (TOEFL), Graduate Record Examination (GRE), etc.). Additionally, another pre-required knowledge for implementing a pluralist educational discourse in the U.S. is the evaluation skill. Administrators must follow up the way the curriculum is implemented and care of teacher professional training to interdisciplinary and polycentric transfers.

Curriculum Draft Features and Draft of Teacher Expectations

The main features of the pluralist curriculum for the super-diverse children in the U.S. are drawn from the European guide mentioned above. Those features are described below. When a curriculum covers a multilevel of activities and is coherent, teachers can plan crossover activities that point to the same goal. In addition, they are up to use or to explore different linguistic repertoires in teaching (Beacco et al., 2010).

At any time, the curriculum must address learners' immediate needs in classroom but overall out of classroom. Teaching will have to engage learners into authentic experiences, real-life activities, and pedagogic tasks with equal opportunities to participate and to contribute (Lee & Buxton, 2011). Real-life experiences need to be transmitted through the available multilingual repertoires, which are taught through a foreign language instruction that follows the communicative skills schema (Beacco et al., 2010).

Illustratively, the "culturally and linguistically affirming interaction" refers to the way teachers foster students to link the language in which the content subject is taught to their daily reality (Celédon-Pattichis & Gómez, 2011, p. 132; Curran, 2003). The best formula to apply this term emerged in a dual language/bilingual classroom setting into a pluralist educational discourse is to motivate students to make use of the plural linguistic repertoires and super-diverse intercultural competence they acquire. The reason is that they are not anymore bounded by one or two languages/cultures.

The focus on the communicative competence in foreign languages learning brings a policentry dimension to the curriculum design in a pluralist educational discourse. Communicative competence must "be understood as the capacity to acquire multiple normative orientations and shift from one set of norms (…) into another (…) and back again" (Blommaert, 2013, p. 194). Beside communicative competence, a pluralist curriculum must tend to metacommunication. When teachers elaborate metacommunicative activities, they must think of the implementation ways of both the task and the language supporting them (activities) (Beacco et al., 2010).

The collaboration between educators and educators, educators and learners, learners and learners, school

and parents, and communities of practices has to be the heart of a pluralist curriculum. A crossover teaching approach should be preferred by a pluralist discourse. The plurilingual and intercultural education is a complex system in which each participant aforementioned must be considered as a simple process (Beacco et al., 2010). The failure of one process endangers the whole system. One of the figures of collaborative teaching/learning approach is the mutual instruction or peer-instruction.

When a curriculum is based on CFRL or common descriptors for various languages, it underlines not only the knowledge and attitudes during the course, but also the learners' abilities/skills to achieve tasks in classroom and in the community. In other words, languages are not only studied as a medium of communication and content subjects, but also promoted to go beyond these descriptors (Beacco et al., 2010). Therefore, teachers are expected to generate teaching expression and production strategies as aligned in the CFRL. At the same time, they play a fundamental role of cultural and social workers for CLD learners. Instructors have to reconcile, translate, and transform learners' cultural differences (Li, 2013).

Table 3

Pluralistic Education Frame for East Asian Americans

Pre-requisite knowledge/competence	Curriculum draft features	Draft of teaching expectations
(Super-)diversity: awareness on paradigm shifts; multicultural	Multilevel coverage and activities	Coherent activities: use of plurilingual aids (films, television, etc.)
Multilingual ideologies: shift from one language ideology to multilingual ideologies	Cohesive spectrum	Alternating language repertoires in teaching
Community of practices: abandon of the idea of linguistic groups (speech community); parental involvement	Focus on learners' immediate needs out of the classroom	Engaging learning experiences and opportunities; Authentic real-life activities
Plurilingual/intercultural skills or competences: focus on foreign languages learning; awareness of the importance of knowing languages	Focus on communicative skills in foreign language learning (open choice of languages and gradual diversification); communication competences	Culturally and linguistically affirming interaction: connecting the languages to daily realities—discourse genres
Cooperative competence: focus on team works	Focus on collaborative and crossover approach	Mutual instruction, peer-working partner/diversity of teaching approach
Construction of super-identity: Heritage language/heritage culture/identity + pluralism; Ecology of language = identity + languages learning	Focus on metacommunication and on access to the meaning	Metacommunicative activities: implementation of the activities and the language that supports them
The CFRL descriptors	Curricula must be built under the CFRL descriptors (knowledge, skills, and attitudes).	Generating teaching methods according to the reception and production strategies aligned in the CFRL.
Evaluation skills: evaluation of the effective implementation of curriculum	Curricula must indicate how often they must be evaluated.	Assessment of learners: mostly formative (or certification assessment) and self-assessment
Teacher professional training: to pluralistic perspectives, lessons	Continuity of programs (coherence)	Function of bilinguals, assessing learners' readiness; Innovating strategies

Note. Source: Blommaert (2013); Blommaert and Rampton (2012); Cambridge et al. (2005); Celédon-Pattichis and Gómez (2011); Beacco et al. (2010); Curran (2003); Farr and Dominguez (2005); Lee and Buxton (2011); Li (2013); Pahl (2008); Wenger and Snyder (2000).

Conclusions and Implications

1. Terminologically, the use of "frame" firmly stands since it results difficult to "make" a recipe that can

function in all the super-diverse settings. Each location may have different realities and contexts related to the composition of the student body, the teacher preparation, and predisposition to accept other cultures, or the environmental factors (weather, cataclysms, climate change, etc.), and to political issues;

2. As a result, by the underneath of the terminology, this "frame" is called to be flexible. Administrators and teachers are expected to be trained to integrate and develop flexibility skills in their respective functions and tasks as long as multilingual/multicultural or CLD students show a higher level of flexibility;

3. It can be argued that due to the fast adaptability/flexibility skills of students (children), they might be the one to be asked to adapt to the teacher's ways. This would take us back to the assimilationist discourses. In fact, equilibrium must be found between CLD home and school values and customs. Failure to harmonizing the two parts will lead to a distorted and confusing educational mind;

4. A school with a super-diverse student background is free to intent the heroic and idealistic mission of adapting the curriculum to each student's cultural/linguistic background. Otherwise, it can be possible to group them according to their shared values and cultural traits. But, this practice is dangerous because it fosters stereotyping. Best of all, educators must not only promote a cross-cultural or the cultural pluralism approach, but also be trained to the praxis of cross-culturalism or cultural pluralism because a well elaborated pluralistic curriculum is not based on the educational policy reform. Above, Wing-Wah (2006) affirmed that reform did not necessarily change the culture of a setting where students, teachers, and other educators live;

5. The point here is not to adopt home country or the host country's schooling system/curriculum of students. Both attempts result in a big absurdity. As explained above, imposing host country view (through the teacher) is an assimilationist perspective. Adopting home country schooling can lead to cultural separation and means transposing realities unconnected to new settings while these students have both particularity; East Asians inside and American and East Asian inside (Ekiaka-Oblazamengo, Chih-Hsin, Yi-Ju, Shu-Chuan, & Yulin, 2014). Figure 1 represents how the interaction between teacher and CLD students is expected to occur:

Figure 1. How the interaction between teacher and CLD students is expected to occur (The arrows in this figure show how teacher and students must move forth and back from one to another side. This is the cross-cultural or the negotiation (flexibility)).

6. It is not a question of fostering curriculum anarchism, but it is an adhesion-into-the-globalization matter where both teachers and students must be ready to access and operate in more than one thinking system, to move from a micro or restricted system to a large one, so that they will be able to share the same constructed realities (Lincoln & Guba, 1985). This is a clear clue of educational harmony and social peace building.

The pluralist educational frame presented above is a response to this growing tension between different people who live together. The above frame follows the same script than the "anti-oppressive" education, which

is grounded into the consideration of biases based on class, race, gender, sexuality, and other social markers as handicaps to a betterment of the quality of education (Kumashiro, 2001). These biases and other stereotypes are at the root of social injustices and assimilationist discourses. Thus, the "anti-oppressive" education through the pluralist educational frame in the U.S. may be a big part of the solution.

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Revisiting the Concept of an Integrated Curriculum and Its Implications for Contemporary Islamic Schools

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The dilemma and confusion of the Ummah will never end without a clear understanding of the meaning of "integration" and "Islamization of knowledge". Muslims are still confused and doubtful about the kind of Islamization direction to take. Different scholars differ in their interpretation of the theory of Islamization of knowledge and suggest different approaches and methodologies to it. In order to have a better scenario, the study attempts to address the following set of questions: 1. What are the causes and effects of the bifurcation or dualism in the educational system of the Ummah? 2. What is the nature of the integrated curriculum as perceived by existing contemporary Islamic schools? and 3. What are the implications of revisiting the concept of the integrated curriculum from the Islamic Weltanschauung for contemporary Islamic educational system? In order to elucidate the above questions, the philosophical and historical methodologies as well as analytical study would be employed. Relevant texts, conceptions, and ideas from the three main kinds of sources—primary, secondary, and tertiary sources of literature—will be reviewed and analyzed. As a result, the balance judgment can be made in order to implement the concept.

Keywords: Islamic education, Islamization of knowledge, Islamic school, integrated curriculum, educational dualism, contemporary issues of Muslims

Introduction

The most crucial crisis faced by the Muslim world today is rooted from the problem of educational dualism, i.e., the existence of two systems of education, namely, the national, modern secular system and the

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traditional, Islamic religious system. Several shortcomings in both kinds of education have been successfully highlighted. Initially, Muslims were dissatisfied with the former because they realized that Islamic religious sciences were taught ineffectively and insufficiently in the sense that the compartmentalized instruction incapable to relate the relevance of the subject matters to contemporary life. Meanwhile, the essence of acquired sciences does not reflect the Islamic Weltanschauung (Al-Faruqi, 1997, pp. 7-9). On the other hand, Muslims also were not pleased with the latter because of the limited content of its curriculum. Furthermore, its methodology of teaching perceived (Al-Faruqi, 1997, pp. 16-23) does not allow for critical and creative thinking. Both systems of education have considerably failed to produce an Islamic integrated personality (Al-Faruqi, 1997, pp. 16-18). The national education seems to be designed to produce professionals deficient in religious values while religious education has developed religious specialists who were unable to participate actively in society and were not critically and creatively responsive to deal with current issues of the Ummah[1]. Consequently, this dualistic problem creates a dilemma in the Ummah and needs an urgent solution to overcome it[2]. In other words, there should be no segregation between religious and non-religious education in Islamic education. Both of them should be unified and integrated. Hence, an integrated curriculum is proposed to be the best resolution in solving the issue of educational dualism in the Muslim system of education.

The Bifurcation or Dualism in the Educational System: Its Causes and Effects

A serious question arises on how to resolve the issue of dualism or bifurcation in Muslim educational system nowadays (Rosnani, 1996, p. 6). This issue is seriously debated among Muslim scholars who have continuously attempted to revive the excellence of the Ummah. These committed scholars have gathered in the First World Conference on Muslim Education in 1977. They diagnosed that the malaise of Muslim Ummah is through the process of secularizing Muslim children intellectually, mentally, and emotionally due to the impact of colonialism in most Muslim countries. Many scholars unfold the chaotic situation occurring in the Muslim Ummah at present, that is, the emergence of two contradictory types of people; people who are too busy with worldly activities and people who are concern with hereafter matters. This scenario creates dichotomy in the society.

Al-Faruqi (1982) asserted that the core of the malaise of the Ummah was undoubtedly its intellectual and methodological decline. The educational system is the breeding ground of the disease. He argued that the present state of education in the Muslim world is at its worst because of its bifurcating curriculum that comprises opposing components, one "Islamic" and one "modern". Lack of clear and specific vision leads to the insoluble problem of low standards in the Muslim world institutions (Al-Faruqi, 1982). In the case of Malaysia for instance, Rosnani (1996) identified the problem of bifurcation or dualism in this country as caused by the existence of dualistic education, namely, modern secular education and traditional religious education that began during the British colonialism. This phenomenon posed a serious dilemma for Muslims in Malaysia[3]. Najum (2004) described that this dualistic phenomenon also occured in Pakistan, i.e., "a vast gap" between the

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[1] The whole community of Muslims bound together by ties of religious (*The New Oxford Dictionary of English*, 2008).
[2] Rosnani (1996) elaborated "the Muslim dilemma" in her book entitled *Educational Dualism in Malaysia* (pp. 9-12).
[3] For further elaboration about the history of dualism in educational system in Malaysia, see *Educational Dualism in Malaysia* (Rosnani, 1996, pp. 9-17).

traditional and the modern, formal systems of education, which can be obviously seen in their graduates having different attitudes and point of views. Najum (2004) also asserted that "This phenomenon has led to a painful social strife and a fractious civil society" (p. 85).

In another study, Shahed (1984) perceived a crucial problem faced by Muslims, particularly in education, which arises from its contact with Western philosophies and attitude during imperialism and colonialism. Although Muslim countries have now gained independence, they seem to have no choice except to imitate Western styles and also to adopt Western philosophies in order to gain rapid prosperity and material achievement. These Western materialistic, nihilistic, and totalitarian philosophies totally destroy Muslims' identities. Fortunately, there are some present Muslims who think about their future as a distinct community and people, having deep roots in their own philosophy. Freda Shamma (1980) also exposed that the Western or secular education and its underlying values, which had been integrated into Muslims' life, destroyed the "Islamic social system" (as cited in Linda, 1996). This phenomena also studied by another Muslim writer, Sala-ud-Din (2003), who believed that the Western education was transplanting its values through the art of "integration". In this process of integration, gradually, the Muslim children will neglect Islamic values and identity in order to be integrated into the Western system and, therefore, make a compromise with Islamic doctrine and ideology. Undoubtedly, the ultimate aim of the Western or secular education is to produce secular individuals who will assimilate secular values; and in the future, will be able to develop a secular society (Sala-ud-Din, 2003).

Shahed (1984) seriously elucidated how the Western educational system affected Muslims' life to become carbon copies of the West and, consequently, made them lose their own identities. This system is actually also facing failure in the West when it only produces an individual who suffers from a sense of loneliness and isolation and a lack of direction. His notion that the Western educational system "creates a capital 'I' in the psychology of man to the exclusion of the world" is fair in the sense that it does not nourish the human souls with noble virtues and values and encourages self-interest and individualism. He explained further about compartmentalization of knowledge in Western education and its effect in the development of individuals who have been totally cut off from the spiritual roots. His claim that this education does not produce confidence, determination, and discipline in students is rather doubtful because, in fact, this system is able to encourage very strong self-confidence and self-determination without any limitations in students albeit their individual interest (Shahed, 1984).

Subsequently, according to Sala-ud-Din (2003), the Western orientation in the educational system has led to "miseducation" and there is an urgent need to Islamize that system. It is claimed that the educational system without Islamic values and doctrine becomes "a force for disintegration and a recipe for disaster" (Sala-ud-Din, 2003). Al-Faruqi (1982) stated that "There can be no hope of a genuine revival of the Ummah unless the educational system is revamped and its faults corrected". He proposed that the present dualism in Muslim education should be totally rejected. Another prominent Muslim scholar, Rahman (1984), commented on the negative Muslims' attitude to knowledge and negligence of *Quran* in the later medieval centuries that "perceives both higher knowledge and faith are mutually dysfunctional". As a result, knowledge becomes "purely secular" and disintegrates into two different types, namely, "religious" and "secular" sciences. Therefore, Rahman (1984) suggested the reformation of traditional education and its integration with the modern knowledge. Therefore, these claims and proposals should be revised.

Identification of the Need of Integrated Islamic Curriculum
as an Ummatic Solution

It can be noted that the process of "integration" in the educational system provides a fertile ground because the period of schooling is very long. Normally, children would spend two years on pre-schooling, six years on primary, and another five to seven years on secondary education, in addition, three to four years at the tertiary level. Starting from the earliest age of three to four years at the nursery, the Muslim children are already exposed to numerous elements of schooling and its surroundings and continuously absorb the underlying values in various approaches of integration. Thus, the effect of values in education within the social system is inevitable. The environment should also be taken into consideration in order to achieve the success of the educational process of integrating values. In this case, Muslims are obliged to focus on the nature of knowledge and its values that should be transplanted or integrated in their children's minds, souls, and attitudes. Here, the significance of the concept of "integration" is obvious in the educational system and its curriculum. It is a matter of fact that many insightful Muslim scholars and academicians have identified the need of integration of both religious and acquired sciences in curriculum as the best resolution in educational problems. Rosnani (1996) analyzed the similarities and differences between both educational systems in the case of Malaysia in terms of aims, contents, and methodology. She concluded that as a result from reconciliation between the national, secular system and the Islamic, religious school system after independence, there is compatibility between them that gives hope for the possibility of a synthesis.

Ghazali (1989) also supported the idea of integration and claimed that integrated knowledge is essential in developing every aspect of human potentials and producing a well-balanced being. For him, the development of mental, physical, emotional, ethical, and aesthetical aspects cannot be enhanced without the process of integration in the educational system. He strongly believed that Islam perceives all types of knowledge are complementary meaning that "empirical, sensory, and intellectual knowledge" have never been divorced from divine knowledge. Therefore, disintegration of knowledge from its "unitary form" will lead to "compartmentalization of knowledge", which is contradictory to Islamic tradition. Narongraksakhet (1995) from Southern Thailand also identified the need for an integrated curriculum in Islamic educational system. He perceived from the Islamic Weltanschauung, both kinds of knowledge—religious and modern—should be integrated because the true Islamic education is not a mere theological teaching or the teaching of *Quran, Hadith,* and *Fiqh*, but also covers all branches of knowledge that taught from the Islamic perspective. He also reminded Muslims to be aware of "superficial integration" that can cause harm to the Muslim Ummah. The chairman of Syifa Budi Foundation Jakarta, Indonesia, Saelan (2000), also highlighted the urgent need of effective implementation of an integrated curriculum by eliminating the barriers amongst different courses and conveying the whole courses with the hope to produce "integrated individuals". The concept of Islamic integrated curriculum is highlighted in order to stimulate the scholar, critical, and innovative thinking of students with integration of Islamic values.

Our brief review indicates that most Muslim educators, academicians, and scholars have reached a conclusion that there is a need to provide a truly Islamic system of education that can benefit all Muslims.

The Development of Contemporary Islamic Schools

Previously, traditional religious schools were less popular and were neglected due to their bad

performance largely attributed to the lack of qualifications and skills among their teachers. Moreover, the instructional activities were not keeping up with the contemporary era and technology. It is sad to say that many of their graduates faced difficulties because they could not find employment. On the other hand, the national secular schools became more popular and, therefore, were preferred by Muslims parents. Freda Shamma (1980, as cited in Linda, 1996) suggested that a good solution to this phenomenon was a "marriage between the traditional and modern Westernized school". She claimed that this solution "acts as a precursor to the modern Islamic schools". This new type of Islamic educational institution attempts to integrate harmoniously both kinds of education, i.e., Islamic and modern (as cited in Linda, 1996). Consequently, Islamic private schools that provide an alternative, that is, a combination of both modern secular and Islamic religious curricula was established. In these modern private Islamic schools, the individuals involved were able to make decisions and policies in curriculum planning in accordance with their common needs and problems. Their aspiration is producing a well-balanced individual.

According to Yusuf (2001), a chairman of International Board of Educational Research and Resources (IBERR), the emergence of contemporary Islamic school movement was inspired by the First World Conference on Muslim Education and spearheaded by Professor Syed Muhammad Naquib Al-Attas and the late Professor Syed Ali Ashraf. The significant development and prolific achievements of contemporary Islamic schools have met the aims of the conference. Obviously, there has been a significant growth of various kinds of Islamic educational institutions, which attempt to realize the different ideas and understanding of the concept of Islamic education. These Islamic schools are usually supported by non-governmental organizations or community and community based; as they cater for the needs of the community they serve. Some schools are even founded by a group of parents who share the common interests of fostering Islamic values among their children.

The number of Islamic schools in different parts of the world is increasing from year to year. There are over 400 schools in the United States, over 80 in United Kingdom, 50 in South Africa, and several in Holland, Australia, and other Western countries (Yusuf, 2001). A survey conducted by the Islamic Society of North America (ISNA) and the International Institute of Islamic Thought (IIIT) in 1987 reported of only about 50 private Islamic schools in United States, however, in 2004, the number of schools has increased to approximately 220 (Islamic Schools League of America, n.d.).

It is a fact that Islamic schools, either public or private, are obliged to implement curriculum that is integrated and strive to realize the aim of Islamic education. This endeavour has been assisted by some organizations or foundations that attempted to produce instructional materials for these schools. Therefore, Muslims should recognize the presence of certain non-profit making organizations that comprise of some committed individuals who always put serious effort to gear those Islamic schools into realizing their mission. For example, IQRA is an international educational foundation, which has planned to develop an integrated curriculum that would harmonize the divine knowledge and the worldly knowledge. It has proceeded with the production of instructional materials including textbooks and study guides[4]. Another movement has launched an educational work called "Tarbiyah" project that promotes the inspiration and transformation of students through the process of teaching and learning in order to transform the world in the future. It has integrated the national curriculum with Islamic principles and output of a "brain-based research". Hence, it avoids pure rote

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[4] For further details about educational project developed by IQRA, please visit http://www.iqra.org.

learning and makes learning more meaningful using students' ability to think and comprehend (Shamma, 2004).

In a separate study, Shamma (2004) has recognized two distinctive approaches in the present Islamic curriculum. The first approach is traditional and limited; developed by IQRA[5] and IBERR[6]. This approach accommodates all Islamic knowledge into one "Islamic studies class", meanwhile, the rest of the curriculum "remains secular". The second approach is called as "the entire curriculum approach", which is "still in the developing phase". This approach involves integrating Islamic knowledge into every subject of the curriculum and, hence, the inevitable need to rewrite the curriculum. The well-known projects of this approach are the "Tarbiyah" project developed by Br. Dawud Tauhidi[7] and Foundation for the Advancement and Development of Education and Learning's (FADEL)[8] integrated Islamic curriculum. Its proponents argued that "Islamic studies should be an integral part of every subject, not related to just one Islamic studies class". For the time being, the former approach is considered more practical than the latter in the sense that it emphasizes on the necessity of how much information the students will grasp in terms of the way in presenting educational material to the students (Tauhidi, 2001).

The Ambiguous Conceptions of the Islamic Integrated Curriculum in Contemporary Islamic Schools

The proposal of implementing an integrated curriculum has been extensively discussed among rigorous and vigorous Muslim educators as well as curriculum developers. They have viewed that the implementation of an integrated curriculum is significant and it is not a mere luxurious benchmark of Muslim identity. Consequently, Islamic schools have been established with the mission of integrating a genuine Islamic philosophy of Islamic education and its accompanying elements into educational curricula in order to produce an ideal and integrated Islamic personality as well as a well-balanced generation through an integrated approach based on devotion to God, the Almighty. Susan, Ann, and Sommieh (2005) identified the goals of an integrated curriculum as the enhancement and appreciation of students' learning. Integration of curriculum enhances quality time management, in the case of its effective and systematic practice would prevent "backtracking and substitutes depth of learning for shallower repetition". This integration enlightens and encourages learning and its practical exercises in life. They further posited that "If learning and teaching are ways of glorifying God, then integrated learning reflects the unity of all creation, and the marvelous connections and pattern in Allah's creation" (Susan et al., 2005).

However, there is an absence of a clear-cut concept of the "integrated curriculum" from an Islamic

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[5] IQRA' International Educational Foundation is a not-for-profit organization, which was established in 1983 in the State of Illinois. It involved some Muslim educators and professionals who possess both traditional religious and modern secular academic background representing an "international movement for the dynamic applications of modern methodology to the teaching of Islamic studies at all levels". For more information, please visit http://www.iqra.org/about/intro_panel/intro.html.

[6] The IBERR was initiated by a group of dedicated Muslim educationists in 1993 and chaired by Yusuf Islam. It is a response to the call "Islamization of Knowledge" and its vital role is research and publication development in ensuring the effectiveness of contemporary Islamic schools. For further details, please visit http://www.iberr.org./research.htm.

[7] In this project, the core content and methodology of curriculum is based on tawhidic principles. All subject matters are integrated with outstanding themes (powerful ideas) and ought to be taught via reliable instructional models in order to ensure the effectiveness of the students' learning and practical experiences in this era (Tauhidi, 2001).

[8] The FADEL project was initiated in 1995 under the sponsorship of the International Islamic University and gained assistance from more than 25 professors of various countries. They discovered a list of basic themes in *Al-Qur'an* relating to essential aspects of Islam that must be captured by students.

perspective. The diversity and ambiguity of this concept can be obviously seen in several perspectives or statements issued by some Islamic private schools, such as in Malaysia. The first example is the International Islamic School in Gombak, which claims that it emphasizes on "the formulation of a curriculum that caters for the development of a balanced and holistic Islamic personality". Its curriculum attempts to manifest the "blueprint of an integrated curriculum where Islamic teachings and values are imbedded across all subject areas"[9]. The second example ADNI Islamic School asserts that of its potential to be a "shining example" with the combination of three elements, i.e., "traditional Islamic belief and practice", "modern scientific understanding of Islamic theology", and "a powerful technology of positive social change". These elements are being "fully integrated into the lifestyle of students" in an educational setting with the goals of improvement of character, behaviour, academic performance, and spirituality (ADNI Islamic School, 2004). The third example is the Integrated Islamic School (IIS) in Kota Damansara which also promotes quality and integrated Islamic educational programme from the preschool to tertiary level through the integration of two types of curricula, i.e., national curriculum (Integrated Curriculum for Primary School (KBSR)) and Diniyyah or religious curriculum (Islamic Religious Department of Selangor (JAIS) Syllabus) and IIS educational programme[10]. Another example, primary Islamic schools and secondary Islamic al-Amin schools underline their mission to cultivate Soleh Wa Musleh (good and reform) students via the integrated educational system. Recently, a new model and its components have been introduced into its system: "integration" of Integrated Curriculum for Secondary School (KBSM) or KBSR and al-Amin religious syllabus, i.e., "Tasawwur Islam and Ilmu Alat" (Sungib & Anfal, 2001). In sum, these diverse perceptions indicate the complexity and ambiguity of the concept of integrated curriculum, which reflects different translations among Muslim intellectuals and academicians who interpreted it in accordance to their own needs and aspirations.

Implications of Revisiting of the Concept of Integrated Curriculum

It could not be denied that some contemporary Islamic schools are no different from the other public schools in the sense that their curriculum remains the same due to in practice, it is not truly integrated between both national and religious systems. For this reason, several implications of revisiting the concept of integrated curriculum are proposed.

Reflection of the Theory of Islamization of Knowledge

We should revise and reflect on the theory of Islamization of knowledge with the consideration of the ideas and thoughts of respective prominent scholars, such as Syed Naquib Al-Attas (Al-Attas, 1991), Ismail Raji Al-Faruqi (Al-Faruqi, 1982; 1997), and Fazlur Rahman (Rahman, 1984). They have different understanding and approaches on how to "Islamize" contemporary knowledge or secular disciplines. The study of their views is to identify the common essence and synthesis, so that a mutual understanding of Islamization of knowledge could be reached out. For instance, Al-Faruqi (1997) perceived Islamization of knowledge as the integration of new knowledge into:

> The corpus of the Islamic legacy by eliminating, amending, reinterpreting and adapting its components to the worldview of Islam and its value dictate. The exact relevance of Islam to the philosophy—the method and objectives of the discipline should be determined. (p. 37)

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[9] For more information about the IIS, please visit http://www/iis.edu.my/curriculum.html.
[10] It refers to pamphlet provided by the IIS, Kota Damansara. Retrieved from https://sites.google.com/a/adni.edu.my/main-copy/.

In other words, the Islamization of knowledge mainly involves integrating all subject disciplines into the Islamic Weltanschauung. Thus, the main focus of every educational activity is absolutely the essence of Islamic values and beliefs which are derived from the *Quran* and *Sunnah*. All the conferences on Islamic education have emphasized this only criterion to assess the extent of Islamization of the goals, objectives, curricula, and instructional material of an educational system. Thus, we need to reflect on this theory of Islamization of knowledge.

Crystallization of the Concept of "Islamic Integrated Curriculum"

It is a matter of fact that most Muslim scholars and academicians have suggested a synthesis of the dualistic system in Muslim education through the process of integration between both acquired and revealed knowledge with the fact that the concept of knowledge in Islam is unitary. But, Rosnani (1996) reminded that "before any real integration can occur, its philosophical grounding must be examined so that it can be anchored on a firm foundation" (p. 16). The absence of a clear-cut definition of the concept of "Islamic integrated curriculum" leads teachers, students, and society as a whole to grapple with ambiguous perceptions about it. Therefore, scholars, academicians, and researchers must pay attention to this confusion and put effort to crystallize this concept of Islamic integrated curriculum and any other related concepts including the term "Islamic" itself. These concepts must be revisited not only from the Islamic theoretical perspective but also based on historical ground. This might help Muslim academicians and educators get better understanding in dealing with educational matters and problems. Parents also will be aware of sending their children to Islamic schools as a necessity for Muslims not because of other motives. It is hoped that the implementation of an integrated curriculum becomes meaningful and effective.

Consideration of Beliefs and Values as the Main Contributing Elements in Implementing Integrated Curriculum

As what has been suggested by many scholars to revisit the concept of Islamic integrated curriculum, its contributing elements in achieving the aims of Islamic education could not be ignored. The term "Islamic" in nature refers to submission to God, related to one's belief and faith that must be taken into consideration in Islamic education. The ultimate aim of this Islamic education is closely related to character building, i.e., producing an integrated Islamic personality that requires Islamic values as its foundation. Hence, these two elements, i.e., beliefs and values, should be considered as key elements in the implementation of the Islamic integrated curriculum. Children are exposed to their surrounding and its influences from their parents, teachers, peers, and audio-visual media. Therefore, it is essential to instill their souls with genuine Islamic beliefs and values in a truly conducive environment, so that they may realize their roles as the servants of God and His vicegerents and also know how to being a Muslim.

Revision of Acquired Knowledge With Elaboration of Quranic Metaphysics

Rahman (1984) believed that modern knowledge had no fault but it had not been applied in the right way. He suggested that "It is the upholders of Islamic learning who have to bear the primary responsibility of Islamizing secular knowledge by their creative intellectual efforts". For him, the target of Islamizing several fields of learning cannot be really fulfilled unless Muslims effectively perform the intellectual task of elaborating Islamic metaphysics based on the *Quran*. It is a fact that secular Western education which deals with fully-acquired and human-made knowledge always promotes alien ideas, such as multiculturalism and tolerance that influence learners to perceive religion as an individual's private, not for their public life. For

this fact, the practice of this kind of knowledge should be revised meticulously from the Islamic point of view.

Modification of the Methodologies of Religious Teaching

It is sad to mention that the methods employed by most Islamic or public schools to impart the Islamic knowledge are either traditional or westernized styles, which leads to stagnation of Islamic teaching and learning as well as alienating learners' minds from true Islamic understanding. It should be realized that the integrated curriculum for Islamic education must also promote multiple intelligences as well as creative and critical thinking. Thus, religious teaching must be presented in a more pleasant way through integrated approaches and methodologies. It is necessary also for religious learners to relate the contemporary issues and reality with religious understanding and appropriate religious ruling. The notion that "Islamic education is a cause of terrorism" should be eradicated. The misconception about Islamic schools which merely for the memorization of *Quran* and teaching religious subjects, such as *Hadith*, *Fiqh*, *Tawhid*, etc., should be corrected. Hence, the stereotype style of teaching for religious studies should be modified creatively.

Creating a Pragmatic Model of Islamic Integrated Education

It cannot be denied that the process of implementing an integrated Islamic curriculum is not easy because several attempts to harmonize both secular and Islamic knowledge have not fully succeeded and are facing a lot of challenges and difficulties. For instance, IBERR admits this challenge through a statement that "Practical experience over the past decade has demonstrated that putting the concepts of Islamic education into practice is not easy" (IBERR, 2000). However, it is important to note that the implementation of an integrated curriculum should be able to produce the balanced growth as well as an integrated Islamic personality. Therefore, a pragmatic model of the integrated Islamic curriculum should be thoroughly designed which should fulfill the ultimate aim of Islamic education as well as applicable to all levels of educational institutions and relevant to the current world.

Conclusion

The Ummah needs greater contribution and cooperation among Muslim scholars and all individuals to regain its excellence, solidarity, and liberation from secularization and dependence on the West. Thus, all parties and individuals must concern on how to develop an Islamic integrated curriculum as a means to produce an Islamic integrated personality in accordance with Allah's will. It is hoped that this study could inspirit curriculum developers and school founders and administrators in striving for the academic excellence of Muslim education by providing a clearer picture of the concept of "Islamic integrated curriculum" and its application. Then, teachers and educators will upgrade their commitment and understanding of their Islamic Weltanschauung with respect to achieve the ultimate aim and goals of Islamic education. In a nutshell, a newly Islamic integrated curriculum and subject matter for contemporary Islamic schools need to be devised urgently to promote Islamic identity solidarity for the Ummah. It is for the need of the young generations to be instilled with pure Islamic values and beliefs from the beginning in a very comprehensive, critical, and creative manner by using a newly revised, integrated, and dynamic approach to education.

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American Economic Decline: A Consequence of Lower Educational Standards

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This short paper is an analysis of the relationship between economic and political policies and educational results. A global economic recession caused general financial slowdown throughout the world. This, in turn, together with rising and virulent anti-government sentiments, resulted in decreased funding at all levels of educational expenditures. Moreover, the loss of financial security for the majority of the American population and the expanding increase of wealth in the pockets of the very rich, have led to economic and political ruptures in American society and exposed its overall civilized decline. The evidence for this analysis comes largely from data from international and national organizations and from current economic researchers and analysts.

Keywords: income inequality, cultural decline, economic decline, educational standards

Introduction

The world economy suffered beginning in 2008 when global economic growth became sluggish, particularly in Europe, and the American economic growth was between 1%-2% in the Organization for Economic Cooperation and Development (OECD) countries after 2008. It was the worst recession in modern history. According to OECD (2008) reports, further deterioration is forthcoming. Public consumption and expenditure was in the negative range resulting in a downward trend in funding for public schools. Less tax revenue because of the loss of employment, combined with decreased governmental support, also led to declining school funding. All had a profound impact on schooling. American economic decline is partially responsible for its lowered educational standards and negligible test score results.

Just as wealth has increased for the wealthy and decreased for the poor, education attainment levels between the wealthy and the poor have also widened. The gap in the United States (U.S.), for example, is about 40% larger than it was in 1980. The average spread on a standardized test at this writing is about 125 points between the top 10% of children from rich families and the bottom 10%. This point spread is more than twice the gap between White and African American students. Moreover, the divide is not just between the rich and the poor, but also between the rich and the middle classes. Family income is the chief predictor of schooling success. Income and educational inequality is a global problem. But its damaged image in the U.S. has enlivened educational and political debate about the loss of American pre-eminence.

It is easy to claim that America is in a state of unabashed and unrestrained decadence. But, this can also be considered a part of personal liberty and a shibboleth of the radical conservative movement, to conduct one's

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life without restraint—to spend more than to save, and to respect the free market more than government regulations on corporate improprieties. This condition can equally be viewed as a collective lack of public discipline to emphasize personal liberty at the expense of public common good resulting in the decrease in public investments, including education, that might benefit future generations.

Weak Educational Results

Based on the 2009 results of the Programme for International Student Assessment (PISA), the U.S. ranks dismally with other developed countries (PISA, 2009). It ranked 24th of 34 countries in math literacy and 11th in reading literacy. Moreover, about 25% of Americans do not finish secondary school. Hence, there is a strong correlation between economic inequality and diminished educational results that predictably will lead to diminished capacity for intellectual influence needed in the technological age.

Like educational achievement results, economic statistics reveal the truth about the poor financial habits that could so easily be a part of school learning, but rarely are. Americans save less than anyone in the developed world, have more or less flat incomes, over-consume, and have considerable personal debt. As a country, America has a growing increase in income inequality, current accounts in deficit, and unsustainable so-called federal entitlement programs.

The slow erosion of educational standards, not just in reading and math, also shows up in cultural standards, some of which might be the result of declining art courses in schools and the decrease in school funding at all levels. One observable fact is the lack of the aesthetic in everyday cultural life, revealing how little American slaves learned and practiced from earlier civilizations, a point noted later in this paper. Nearly everything culturally is drab and mediocre, a clear indication that Americans settle for anything pedestrian. This is clearly evidence in culturally anemic and flaccid television shows and in the movies made for general consumption. Expressions of beauty do not just have to be displayed on the walls of museums. Americans can beautify useful places of public life, like Grand Central Station in New York, the colorful displays of flora and fauna along the retaining walls of Scottsdale's highways, or what the United Arab Emirates did with the Dubai airport.

One example of America's literate and information index is the number of books people read. In 1978, according to Pew Research Center polls in 1978, only 8% of Americans did not read a book in a year. In 1990, that ratio was 16%. In 2013, the ratio had quadrupled as 23% of Americans did not read a book. True, people can receive information via other sources among them. But a civilized society cannot long prevail in a globalized setting when its people fall further and further behind in an information age where talent, technology and science, and art are more needed than ever to sustain a high civilized standard.

The Results of Income Inequality

Prosperity usually implies wealth. But what does having wealth imply? Is it used to feed runaway desires, ostentation, and extravagance? Having wealth does not usually lead to investment in ideas, life improvements, or public welfare, and it does not automatically lead to an increase in jobs, and therein, partially lay the tale of American decline. Conservative government policies and laws have lowered corporate income taxes and those for the rich. By default, therefore, income inequality has burdened the poor and middle classes with the majority of taxes necessary to sustain public expenditures, the majority of which typically go to schooling. Income inequality has become the most controversial topic about capital and social

advantages and disadvantages. A traditional view is that wealth inequality will eventually stabilize over the years and that no state intervention is needed for this to occur. Historical analyses, however, reveal that the concentration of wealth does not automatically equalize. This conclusion is true also in other developed countries. Universally, income from wealth grows faster than wages. The concentration of wealth also implies that the wealthy will have more influence on the political system and manage elected officials to favor its class (Blow, 2014).

Fragility in economic growth, widening income disparities that create an aristocracy of wealth, and reluctant political will to change policies has resulted in apathy about slowing the measured income inequality (Piketty, 2014). Piketty's (2014) book, *Capitalism in the Twenty-First Century*, which reveals economic data over the last 300 years, show the negative influence of high rates of income inequality. A famed economist and Nobel Prize winner in economics, Joseph Stiglitz, made a similar case in his book *The Price of Inequality* (Stiglitz, 2013).

But, it is the loss of jobs that speaks volumes about where America is heading. The loss of so-called manufacturing jobs to foreign countries is over simplified. Technology has changed how industries compete everywhere. Businesses have adapted to the technology and can be just as efficient with fewer employees. Meanwhile, more and more workers have skills that are outdated for the more sophisticated technological world.

Highly educated and highly skilled workers, the winners in the schooling arena, will move to where the higher-paying jobs are. Most workers cannot or will not relocate, which means lower- and middle- class Americans will suffer the consequences of globalization and the slow diminishment of wages. But capital moves at electronic speeds and successful businesses adapt to global markets with technological efficiency and with fewer workers.

Zakaria (2012) claimed in *The Post-American World: Release 2.0* that the post-American world is not about America in decline but the rise of other countries, what he called "the rise of the rest". According to the United Nations 2013 Human Development Report (United Nations Development Programme, 2013), China has surpassed Japan as the world's second largest economy. India, as the world's largest democracy, is reshaping its economy and social policies. Brazil has significantly raised its living standards. Indonesia, Turkey, Mexico, South Africa, and Thailand are becoming more economically creative and inter-dependent.

Viewed from a global perspective, many other countries are also in decline because of rising populations, lack of natural resources, poverty, and civil discord, particularly in the Middle East. The combination of excessive populations, continued presence of drought, and the exhaustion of natural resources, leads to social and political instability. The so-called Arab Spring, mislabeled only as a political awakening, was partly due to a combination of the lack of natural resources, food, and water among the most obvious reasons, and excessive population pressures in the Arab world.

Zakaria (2012) claimed initially that the new world order did not herald that America was in decline. He modified that view where he acknowledged that America was in "relative decline" (Zalaria, 2012, p. 56). America is declining slightly economically, as Europe and Japan, two of the world's stronger economies. In early 2014, Europe had a 12% jobless rate while America's was slightly less than 7%. Europe will have a longer and more painful recovery if it can sustain the value of the euro currency, especially in the Mediterranean countries. America has a slightly higher growth rate than Europe and a much larger one than Japan. In these times of mediocre economic recovery that does not argue for enhanced optimism.

The American economy shows some signs of recovery, but they are weak. Admittedly, that can all change, but not soon. Essentially, American and global economy is flat, below the minimum recovery that began ever so slowly in 2009. Financial fundamentals remain uncertain. In short, America has moved slightly out of recession, but economy recovery has been modest at best. It may never reach the heights it enjoyed in 2008 prior to the collapse.

The chasm of income inequality is apparent and is altering the dynamics of the marketplace. The six heirs of the house of Walmart together hold wealth of $69.7 billion, equivalent to the collected wealth of the bottom 30% of the U.S. population (Zakaria, 2012, p. 10). Between 1987 and 2007, funding for U.S. corrections and prisons exceeded the expenditures for higher education in 48 states (Zakaria, 2012, p. 19).

About 60% of the newly created jobs go to hourly wage-earners receiving about $15 an hour, such as those with good jobs in car manufacturing plants in the South. Raises in the minimum wage will hardly cause a ripple in the economy, but will give a breath of relief to those in the lower income earning class. About 25% of Americans considered themselves lower or lower-middle class in 2008. In 2014, that percentage rose steeply to 40%.

The top 5% of wage-earners accounted for nearly 40% of personal consumption expenditures in 2012. That ratio was 27% in 1992. The top income earners are driving the economy, not the middle or lower class. More broadly speaking, 90% of the overall increases in inflation-adjusted consumption between the recession years of 2009 to 2012 was generated by the top 20% of all households. The middle class is eroding in income and purchasing power, which is not good for a healthy economy that relies on mainly on consumers.

Economic growth worldwide had been extraordinary prior to 2008, literally doubling from $31 trillion in 1999 to $62 million in 2010. Yet, $50 trillion was also lost in 2008-2009. That amount will not be regained any time in the near future. America preached a capitalistic religion to the rest of the world, and the globalized world got the message. But the result for everyone was a delusion of gigantic proportions.

The Role of Political Dysfunction

The problems of poverty and income stagnation for the middle class are also partially the result of political decisions in the U.S.. Too many Americans, partly because of ignorance of civics and constitutional principles poorly taught in schools, only honor antagonism and harsh ideologies that define the U.S. heritage as two countries, just like the original North/South divide between states. The political parties today are poisonous and have gravitated towards respective conservative and liberal power bases and not the common good. Campaign finances, the flood of corporate money to members of Congress, the so-called think tanks belching ideological attacks on the other party's ideas, and the trivialization and sensationalism of the electronic media have all contributed to a degradation of public discourse and the failure of a national commitment, leading to the solution of common national problems.

The bankruptcy of Detroit and a few smaller cities could be a symbol and prediction of the future of urban America. The polarization of American society and the inability of its poor and eroding middle class to generate sufficient personal savings or taxes essential for public necessities foreshadow what urban America, once the great economic hope of civilization in the 20th century, might become in the 21st century.

One specific arena of concern is the attack on public safety, primarily through the cozy relationship of government with corporations. It is widely believed, because it is mostly true, that financial institutions, like banks, gamed the system to gain profits at the expense of the health of the economy and taxpayers' trust. The

recession that began in 2008 in the housing industry was the result. The energy corporations, particularly oil, coal, and chemical companies, regularly ignore federal regulations or get state regulators to intervene on their behalf, to deregulate public protection from chemical spills, and for the public's expected use of clean water and clean air. The shutdown of Toledo's drinking water in the summer of 2014 was the direct result of an increase in potassium bled into rivers and into Lake Erie from widespread pesticide use. Actual pollution is occurring, not just the political pollution coming from the far political right.

The pharmaceutical industry incessantly plies the public airwaves with ads for pills it is pushing on the public for normal physical process that do not need medication. The free market system of corporations and businesses need to provide jobs and to stimulate the economy. But their lapses into deceit and multiple threats to public safety need strong government regulation and supervision. The U.S. Constitution's main purpose, after provisions for the common defense, is the promotion of "the general welfare".

The Republican Party, as a group, has not shown to be responsible advocates for reasonable economic practices, using only slogans about human liberty and antipathy toward government actions to thwart economic progress for the benefit and the "general welfare" of all citizens. Contrary to incessant radical Republican claims that the deficit needs to be reduced, it declined by half from 9% of gross domestic product (GDP) to just 4% in 2013. Also, in late 2013, overall government spending fell by nearly 5%. Federal government spending dropped by 12.6%, partially caused by the government shutdown in 2013. Contrarian politics, severe political dysfunction, and civil and cultural polarization, from which, there is no easy recovery, have contributed as much to slow economic growth as have the lackluster and highly extolled free enterprise private sector.

The Slow Economic Recovery

From 2008 to 2013, the GDP has risen only about half as much as the typically recovery since the end of World War II. The federal budget deficit has shrunk in half. Housing prices still remain 5% lower than in 2009. Household debt remained unchanged. According to the Federal Housing Finance Agency (2013), the home price index remains 15% below the peak reached in the first quarter of 2007 and 5% lower than when the recovery began.

Dinah Walker, an analyst with geoeconomics at the Council on Foreign Relations, has drawn historical parallels with the American economy. She showed that the current recovery was far below the average of past economic recoveries and once projected recoveries (Walker, 2014).

Here are some other key indexes to show the slowness of the recovery and how, pending dramatic upswings in financial wizardry, America will not recover its fat financial status that ended in 2008, a financial condition boosted by excessive personal debt and wide-eyed expectations of continued rising housing prices.

Household debt was unchanged through 2013 and 3.3% below the June 2009 level. The average household in 2013 had a $120,000 home mortgage and each household had an average of 13 credit cards (Zakaria, 2012, p. 46). According to the 2014 report of the Stanford Center on Poverty and Inequality, the annual median household income in the U.S. in 2014 was $52,300, a 7% decline from the 2007 figure of $56,100 (Stanford Center on Poverty and Inequality, 2014).

Consumer spending accounts for about 70% of the economy. Some uptick in the economy occurs during holiday seasons. But, as debt deepens and more families and individuals have less to spend, the overall economy will not rebound dramatically. But—and this is a very important political component to the economy sector—Republican intransigence on federal spending and animosity toward President Obama, will continue to

stifle economic growth. Their stated political policies of starving the beast and shutting down the government to get government spending reductions are the antithesis of sound and proven economic policies.

The Decline of Civilizations

For the most two centuries, America has risen steadily in those dimensions considered essential to civilization, as once Babylon, Persia, Egypt, Greece, Rome, China, and England did. But a study of history quickly reveals that there is no prolonged civilized advancement indefinitely over time. With the possible exception of China, Egypt, and Rome, the majority of the world's great civilizations did not continue to thrive beyond a couple of centuries.

Normally, a great civilization thrives because of its higher rate of literacy and productive behaviors. A society stagnates when the majority of its people are illiterate or semi-illiterate, uninformed, and unproductive compared with other societies. The evidence is compelling that erroneous political and economic policies have negatively impacted American society. But there are always data to indicate that Americans themselves have treated citizen responsibilities as a privilege and not acivic obligation. American social and political divisiveness is partly historical, to be sure. But equally significant is that impulses for self-satisfaction—like purchasing houses they could not afford or maxing out multiple credit cards—have decapitated the more persuasive influences to support the common good, defined in the U.S. Constitution as the "general welfare" that is the foundation of the democracy.

America is also in decline even if the only template of comparison is history. Georg Wilhelm Friedrich Hegel (1770-1831), the German idealist philosopher and historian, believed that all history was logically cyclic consisting of a world spirit. Marx, Engels, and Lenin borrowed his ideas but turned Hegelian theory on its head, renamed it dialectical materialism, and made class struggle the basis for the practice of history. Through revolution, they claimed that the world would overthrow the world of bourgeois capitalism and bring about the triumph of the proletarian, the socialist working class. They created instead an oligarchy of the privileged.

Similarly, communism, as a philosophy of history model and as an economic practice, was shown to be an economic misadventure. The failed socialist states, combined with absolutist rulers, included the Nazi regime of the Third Reich, the defunct Union of Soviet Socialist Republics (USSR), China under the insanity of Mao, and the Pol Pot regime in Cambodia, among other political failures. Killing dissidents for suspect economic practices did not lend credibility to the socialist theory. There is no predetermined order of how societies will behave, although it is predictable that there will always be conflicts and wars within and between states.

With the exception of North Korea, Cuba, and a few desperate despots in parts of Africa and Latin America, Marxism is a bankrupt economic system. Confidence in that fact does not lessen that politicians or policymakers have learned the lessons of how capitalism should be succeed or how reliable economic theories can be sensibly applied.

Conclusion

Today, in contemporary America, the re-emergence of anti-government hysteria, born during the 300 years of American slavery in the South and a subsequent century of segregation, and misguided ideas about the complete freedom of market free enterprise, have castrated the American financial system and paralyzed government with venomous legislative dysfunction. Additionally, globalization, the loss of manufacturing jobs, the ever-present conditions of inadequate housing, dysfunctional schools, crime-filled neighborhoods, and a

host of social disorders can also be cited as potential causes of American ennui.

Most worrisome of all, the dismal performance of sound educational standards for all citizens, the lack of curriculum strength for teaching about personal finances, the convergence of reckless financial economic policies, and corporate and personal consumer greed, have all combined to result in a perfunctory economy that only benefits the wealthy. Wage-earners and day laborers, middle management and small businesses, and householders and housewives, are all trapped in a stagnant economy, from which, recovery will be slow and uncomfortable. The convergence of multiple questionable political and economic policies and personal spending habits have resulted in a depleted economy and declining tax funding for essential and long-term education needs. This sequence in turn is all a recipe for a serious decline of a civilization whose previous achievements were once marked by global performances in science, literature, and arts. Only a determined and widespread political incentive and concentrated will overcome these setbacks and will American society be rescued from an ambivalent future.

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A Long-Term Analysis of Social Networks of Students From a University Program for Seniors

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The most important conceptualizations of quality of life have three basic pillars in their definitions: psychical dimension, psychological dimension, and social dimension. We focus our attention on the social dimension and specifically on how lifelong learning could improve seniors' quality of life. The purpose of this study is to analyze senior students' social networks at the Universitat Oberta per a Majors (UOM), from the 2006-2007 to 2011-2012 academic years. Application of a social support questionnaire was used as a research method. A total of 261 questionnaires were validated. Dimensions of lost relationships (and sources), new relationships (and sources), feelings of loneliness, perception of changes on their social network from five years beforehand and for the following five years, and influence of the educative program in these changes were evaluated. Most of the sample confirmed that they had lost relationships in the working environment, but in general, they have increased their social network; feelings of loneliness were rare and they think that their social networks will be stable. They considered that the UOM program had a strongly positive effect on their social networks. In conclusion, positive effects of lifelong learning are demonstrated in this study, specifically improving senior students' social networks.

Keywords: seniors, lifelong learning, quality of life, university programs for seniors

Introduction

The increase in life expectancy, the progressive increase in demographic ageing, and the social, cultural, and economic situation of the elderly population have caused, especially in developed countries, a continuous interest in the dissemination of culture and the education of elderly people. It occurs and is being generalized that the majority of institutions, including universities, give open access to this collective, and the development of educational opportunities for people aged over 50 is being given much weight. Since the appearance of the first educational and cultural offers, different purposes and models of programs for elderly people have been elaborated with the aim of providing permanent education and improving their level of physical, mental, social, and cultural health, as well as their quality of life in general.

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Education has traditionally been aimed at a specific age group and, once over this age, people could not continue studying or simply increase or update their knowledge. This situation has changed and, according to Orte and March (2006), one of the most significant facts that characterizes the social reality of the more developed countries is the generalization of the education process to all sectors of society. We share the ideas of the above-mentioned authors, which are to assert the existence of a democratization of education which has reached all sectors of society and has made the idea of learning throughout life (or lifelong learning) possible, which affects all groups of people, regardless of age or other personal circumstances. As indicated in March (2008), one of the major challenges faced by the education system, since its legal institutionalization and consolidation of the right to education for all citizens, has been the real achievement of the democratization of education, providing for equality in opportunities for the entire population.

The concern about issues related to the gerontology field and its relationship to other areas is becoming more common and even relevant institutions, such as United Nations Educational, Scientific, and Cultural Organization (UNESCO), which began to worry about ageing in around 1958. However, it was in 1974 when, at its 18th general conference, it referred to the link between ageing and education and gave it content and specific budget. Continuing at the international level, we have to make reference to the 5th International Conference on Adult Education, organized by UNESCO, held in Hamburg in July 1997 (UNESCO, 1997). This conference is known as the Hamburg Declaration, and it was here that the foundation to make lifelong learning a reality was laid. As Martínez and Criado (2008) indicated:

> The growing demand and supply of educational courses for seniors attract the interest of institutions, organizations, etc., and of the involved people, by choosing a way that is oriented toward active ageing through personal fulfillment. In this sense, the desire for knowledge, thereby taking advantage of the opportunities, could not be attained because of economic, political, or personal circumstances. (p. 35)

As mentioned above, universities, as higher education institutions, have opened their doors to the seniors group, providing a wide range of opportunities. The Balearic Islands are no exception and the University of the Balearic Islands (UIB) has been developing a university program for seniors, known as Universitat Oberta per Majors (UOM), for more than 15 years. It is an educational and cultural project aimed at the elderly population, under the auspices of the university and with the support of national and regional social institutions and, in some cases, of educational institutions, such as in the Balearic Islands (Orte & March, 2006). We are not talking about a senior university but about an officially recognized program, courses, etc., offered by some public and private Spanish universities. The denomination "university programs for seniors" is the name that has been agreed by the representatives of this type of programs, respecting the proposal by the ministry which says that only centers recognized as such can be called universities. At the national level in Spain, these programs were initiated systematically in the academic year 1993-1994 (Orte, Macías, & Vives, 2008).

The UOM consists of different programs developed throughout the geographical territory of the Balearic Islands (Mallorca, Menorca, Ibiza, and Formentera). In the academic year 1998-1999, the program was launched on campus with 32 students. From that moment, the program expanded to the towns of Mallorca, Menorca, Ibiza, and Formentera, thus achieving a university project for seniors, which is accessible and suitable for the territory and students in each of the islands. The UOM is already an established project with a broad social impact, especially among people over 50 years old. Therefore, we intend to expand the aims that were targeted from the beginning and go on adapting them to a changing situation, in both society and our

reference group, always with the intention of raising awareness of the older people in our community and fostering active, positive ageing.

In this case, to carry out the study, we built on the program that is being developed on campus. The senior diploma at the UOM (diploma sènior de la UOM) is a UIB qualification in its own right, with 500 hours class study. It consists of three academic years of 160 hours each, plus 20 compulsory hours which are intended for the final diploma project that students must do in the third year to obtain the relevant qualification or certification. Each year consists of courses in all areas of knowledge that can be taken at the UIB. The subjects the students have to take are divided into compulsory, elective, and supplementary activities. In the last year, the students have to choose between doing a project on ethnographic research and getting involved in a volunteer project, which can be either in the social field or in the area of education and culture. While the former is directed toward students who have interests in research and in developing their skills and abilities in that area, the latter is for people whose personal interests are more related to solidarity issues and who want to expand upon them, or topics they are not familiar with but would like to know more about.

Methodology

During five academic years (from 2007-2008 to 2011-2012), a longitudinal study was carried out on the social relationships of the students of the UOM. Data were recollected through a close-ended questionnaire based on the principal questionnaires for social support of the elderly (Fernández-Ballesteros & Zamarrón, 1996; Medina & Carbonell, 2004; Gómez, Verdugo, Arias, & Navas, 2008) and on a consultation with experts about its first version. The questionnaire includes three main parts: socio-demographic data, information about social relationships, and data about social support. Our principal hypothesis is that having participated in the UOM produces significant and positive changes in the social networks of the senior students assessed.

Therefore, the results in the variables were analyzed: lost relationships, gained relationships, the origin of each of these, sense of loneliness and changes in the social network during the last five years, perception of its maintenance at the present and of the social network in five years' time, and the effect the UOM had on their social relationships. The selected group was a collective of students from the senior diploma at the UOM, since it was a stable and formal group with features that allow continuous evaluation. The inclusion criteria were to be a senior diploma student in the academic years mentioned above and to be over 55 years old. The total sample presents 369 senior diploma students from the UOM.

Results

With regard to the sample, 59.1% were women, of which, 63.1% were between 60 and 69 years old (26.3% were over 69 and 10.6% were under 60); 65.5% were born in the autonomous community of the Balearic Islands and their marital status was mostly married (62.3%), 17.3% were widowed, 12.5% separated or divorced, and 7.3% single. The percentage of married students was almost the same as people living with their partner or with their partner and children (63.1%), 26.6% lived alone, and 8.9% with other relatives. With respect to education, 38.8% had non-compulsory non-university education (6.5% university studies) or primary education (31.4%). Most of them were retired (43.4%) or early retirees (13.3%).

As shown in Table 1, there were more relationships gained than lost. In this sense, more than half of the participants assured that they had not lost any relationships in the last year (53.5%), while they gained some (42.5%) or few. It should be noticed that the losses were usually friends or relatives (16.5% in both cases),

work colleagues (26.3%), or acquaintances from associations or clubs (24.9%), especially from the UOM (34.1%).

Table 1

Lost Relationships vs. Gained Relationships

	Lost relationships	Gained relationships
Many	2.7%	19.0%
Some	14.6%	42.5%
Few	25.5%	23.3%
None	53.5%	8.7%
No answer	3.8%	6.5%

The truth is that these data may help understand that the respondents do not feel lonely. In fact, 74.3% rarely or hardly ever have a sense of loneliness, 5.4% often feel lonely, and 17.3% sometimes. It is noteworthy that a possible cause for this is the value placed on their social network. In this sense, we must understand the importance of the network being active and that, in the event it is needed, it will be activated. Related to this issue, the students noticed that if they needed their network over a period of time that is considered to be medium term (five years), it would be maintained. Among the respondents, 35.2% of the informants had this perception often and 24.4% sometimes.

Finally, we highlight the results about the perception of the social network within a 10-year period; that is to say, the perception of the changes their social network underwent during the last five years and the feelings they have about its development over the next five years. As shown in Table 2, the perception is of a stable social network (40.9% consider that it remained the same for five years and that within the next five years, it will not have changed (43.6%) or, at most, it increased (36%) during the last five years or will increase (25.5%)).

Table 2

Perception of Changes in the Social Network (Five Years)

Changes in the network (five years ago)		Changes in the network (within five years)	
It has increased	36.0%	It will increase	25.5%
It has decreased	14.4%	It will decrease	9.2%
It remains the same	40.9%	It will remain the same	43.6%
Do not know/no answer	8.7%	Do not know/no answer	21.7%

Conclusions

As mentioned in the previous sections, the importance of elderly people becomes increasingly more relevant, not only because of their exponential increase on a global scale, but also because of the numerous contributions the group can make to society, from the family to the macro-social level. However, these contributions have to break through barriers and myths that gradually disappear.

The first obstacle that needs to be overcome is the negative self-perception when reaching a certain age. Positive self-perception, valuing their own potential and abilities and, therefore, lifelong learning, along with active ageing policies, play a decisive role in seniors' quality of life. In this respect, it is worth highlighting the importance of the proper use of leisure time and the proven benefits of lifelong learning, with particular emphasis on the effects of university programs for seniors.

This is why perception plays an important role when valuing the dimension of social support in each person's quality of life. In this sense, our focus was directed at the social network. Our first goal was to help understand the positive and stable effects of social networks that arise from the university programs for seniors, meaning that these not only enhance pleasure and desire for learning, but, at the same time, have a positive impact on their social networks. The second objective was to help break the negative myths about elderly people and their social environment. The study shows that there are more relationships gained than lost and, therefore, this should make us reflect on the benefits of educational programs for seniors. Not only do these programs provide educational opportunities that allow the development of skills and abilities which the students had not been able to develop in earlier years, but they are also of direct benefit for their social networks and, therefore, their quality of life.

In this sense, the students themselves are the ones who point out that these friendships are the social source where most changes occur. On the one hand, these are one of the most frequently cited sources of losses (together with the family); on the other hand, the sample shows that it is also where most relationships are gained. A possible explanation for these changes is that they share the space weekly and on a regular basis, with other people who are enrolled on the same senior diploma, and who occasionally become colleagues (increase of the social network through associations, clubs, or UOM) or friends (increase of the social network through friendships).

Another point we should consider is the feeling of loneliness. Our results demystify the direct relationship between elderly people and loneliness and differentiate being alone from feeling lonely. It is possible that these results help understand why the evaluated seniors perceive their social network as solid and stable over time, since most of them not only feel that it has not changed significantly in the last five years, but also that it will not change in the five years to come and, if there were any changes, it is more likely to be (or have been) an increase and not a decrease. Therefore, considering the latter perception, we may understand that apart from seeing positive changes at a quantitative level (increase in relationships), the evaluated seniors also perceive their social network as having quality, because they understand that the people who are part of it would remain as a support in the medium term (five years) if needed.

Finally, we propose deeper analysis of these preliminary findings using various avenues of research. It would be interesting to know that the results differentiated through some of the socio-demographic variables that have proved to be significant in various studies (Lin, Ensel, Simeone, & Kuo, 1979; Medina & Carbonell, 2004). Such variables may be gender, age, level of coexistence, and educational level. Another issue worth doing research on is whether the feeling of loneliness, the loss of social relations, or negative perception of the social network relates to the transverse moment of the investigation (proximity of retirement, death of a relative/friend, or independence from their children) or to a more stable and permanent vision of the social network.

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Superstitious Beliefs Held By the People of Ilorin, Kwara State, Nigeria

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This study examined the scientific explanations and educational implications of superstitious beliefs held by the people of Ilorin in Kwara State, Nigeria. A total number of 250 respondents were purposively sampled across the three local government areas (LGAs) in Ilorin metropolis, namely, Ilorin South, Ilorin West, and Ilorin East. The instrument used for the study was research designed interview protocol. The interview protocol was to find out the superstitious beliefs held by the people of Ilorin metropolis and to provide their scientific explanations. Four research questions were raised and answered. The data collected were subjected to frequency counts, percentages, and chart presentation. The results showed that the people of Ilorin South, Ilorin West, and Ilorin East held some superstitious beliefs about nutrition, menstruation, health, diseases, death, heredity, barrenness, animals, birth, family planning, growth, pregnancy, and water. The superstitious beliefs collated and their scientific explanations undergone both face and content validation by three experts from the Department of Science Education, University of Ilorin. From the findings, it is recommended among others that religious parastatal should lay emphasis on personnel responsibility in the determination of one's fate rather than blind reliance of some spiritual processing.

Keywords: superstitious beliefs, scientific explanations, people of Ilorin, Ilorin metropolis, educational implication

Introduction

Taking a cursory look at the standard of living and welfare of people globally, the impact of science and technology cannot be over emphasized. The attitude of humans towards nature manifests their traditional way of life and culture, which is prevalent in Africa. The traditional or common sense refers to one's viewpoints, beliefs, attitudes, outlook, or ways of life. For instance, in the traditional belief, the elders' words are assumed to be words of wisdom. Scientists (philosophers) use logical, consistent, and systematic thinking in their efforts to reach sound conclusions about man, the world, and everything that exists—natural and supernatural. From the philosophical point of view, pure reasoning is used to clarify ideas by asking questions. This is unlike physical sciences, which use empirical data to establish the truth of their findings. While the traditional believers search for the wholeness of knowledge and beliefs of people to an extent, scientists and philosophers ask and answer second-order questions which deal with qualitative analysis as against the quantitative analysis that characterizes the empirical studies.

The question which requires direct answer is scientific, but the question that is approached from different

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angles as deemed necessary by the individual respondents is logical. "What is her name?" is a direct question which requires a specific answer like "Her name is Bilikis Abdulsalam". A question like "Who is she" is not a definite question and so does not anticipate a straightforward answer. It could require knowing her name, her mission, her family background, her occupation, her qualifications, and so on. Therefore, different people may approach the question from different perspectives. The first question which required a direct answer is scientific but the second question which could be approached from different angles is a logical question. A logical question is a second-order question. It tries to give a holistic and comprehensive answer to questions and implies the traditionalists' belief that "There is no absolute knowledge or truth". Based on this, "Every conclusion reached is tentative and open to future or further investigations" (Amaele, 2005).

A superstitious belief is a belief or practice generally regarded as irrational belief resulting from ignorance or fear of the unknown. It implies a belief in unseen and unknown forces that can be influenced by objects and rituals. Examples of common superstitions include the belief that "Bad luck will strike the person, in front of whom a black cat walks under a ladder", "A bird in the house is a sign of a death", and so on.

It is prevalent in Ilorin metropolis that some categories of people have mystical powers or knowledge to predict future occurrences through the use of sand, water rotary, and glass. So, sorcerers, fortune tellers, and even spiritual Islamic scholars were looked upon to tell their future and even determine their prosperity in life. Some pastors were looked onto as well for safety. Therefore, scientific explanations and people's superstitious beliefs for a phenomenon may, in some cases, contradict each other. In view of this, the negative effect of superstitious beliefs is that they often serve as misconceptions to the interpretation of natural phenomena. Thus, the researchers decided to conduct a study on the superstitious beliefs held by the people of Ilorin. This study documents the superstitious beliefs that are prevalent among the people of Ilorin metropolis, provides scientific explanations to the identified superstitions, and finds out the educational implications of the superstitious beliefs to classroom teaching.

Statement of the Problem

People find it difficult to accept wholly scientific explanations for natural phenomena as a result of information disseminated to them by their elders, royal fathers, and spiritual leaders. The people of Ilorin attached much value to faith than scientific concepts, so, their superstitious beliefs inhibit their scientific learning and meaningful understanding of its concept. The problem is further compounded by the fact that superstitious beliefs that are prevalent among the people of Ilorin were attached with misconceived ideas, religions, explanations, and spectacular ways of thinking. If not so, the appearance of solar and lunar eclipses would not be superstitiously believed to be a bad omen. Instead of finding scientific explanations to these phenomena, they embarked on special supplication and offer of supererogatory prayers. A superstitious belief about an eclipse is that during an eclipse, the sun is being swallowed by demons. Some people do not cook during an eclipse because they think that there are many germs around during that time. Some pregnant women who believe in superstitions believe that they should stay indoors during an eclipse as their baby may develop abnormalities.

The following three questions guided this sudy:

1. What are the superstitious beliefs prevalent in Ilorin metropolis?
2. What are the possible scientific explanations for each of the superstitions?
3. What are the educational implications of superstitious beliefs?

Research Method

The research type adopted for this study is the descriptive type, using the survey method which describes and interprets what exists, such as opinions, attitudes, beliefs, and events, without manipulating the variables. The beliefs prevalent among people of Ilorin metropolis were documented and a scientific explanation was given to each of the superstitions by the researchers.

The researchers chose 250 people as the sample size from 2,950,000 people (Ilorin Emirate Development Progressive Union (IEDPU), 2005). This was the population of Ilorin East, Ilorin South, and Ilorin West local government areas (LGAs). These areas were subdivided into sub-units to create effective awareness. Out of 16 wards in Ilorin East, Ilorin South, and Ilorin West LGAs, a stratified sampling of five wards was selected. A list of towns and villages in each of the five wards selected was made and a stratified sampling of male and female, young and adult, educational and uneducational, and Muslims and Christians was used.

The instrument consisted of two sections: Section A requested for basic and personal information of the respondents, such as age, sex, religion, and educational background; section B contained 15 items based on the research topic. The items were intended to find out the various superstitious beliefs on different areas of life among the people of Ilorin metropolis. The researchers asked the respondents to mention superstitious beliefs in specific areas of life which included family background, life (marriage and and child rearing), death, funeral, health, pregnancy, courtship, occupation (such as farming trading), weather conditions, religion, witchcrafts, spirit, and so on.

The instrument was validated by administering it to 20 people from a ward which was not among those selected for the study. They were asked to study and make comments on the categories of the superstitious beliefs. They were also asked to mention the superstitious beliefs which they hold onto in the categories. It was given to three science education lecturers from the Faculty of Education, University of Ilorin for their comments on the structure and usability of the instrument. A pilot study involving 25 people (15 males and 10 females) was conducted using the interview protocol. The 25 people were selected from the towns and villages, where the face validation of the instrument was done. The instrument was administered twice leaving an interval of four weeks. The responses of the subjects on the two administrations were analyzed using percentage.

The researchers were assisted by two research assistants to collect data and information from the 50 potential respondents from each ward, using the interview protocol. The researchers worked in three wards while the research assistants worked in two wards. They were trained on how to administer the interview protocol and the tape recorder that was used.

The research questions raised were answered using descriptive statistics, such as frequencies, percentages, rankings, and the quantitative analysis of the respondents' responses to interview items. Thereafter, the superstitious beliefs compiled were given their scientific explanations by the researchers and three other science educators validated the scientific interpretation.

Data Analysis and Results

Out of the purposive sample of 50 respondents in each of the proposed LGAs, there were 653 responses from Ilorin South, 959 from Ilorin West, and 716 from Ilorin East during the interview.

The most prevalent superstitious beliefs held by Ilorin East people are shown in Table 1 and Figure 1.

Table 1

Presentation of Data Obtained From Ilorin East

Age of class respondents	No. of respondents within the age class	Nu	Me	Ba	Pr	Bi	Hr	Fp	Tr	Di	He	An	Wa	Dh
21-30	23 (46%)	24 (24.44%)	22 (38.60%)	21 (35%)	26 (31.32%)	26 (40.63%)	26 (45.61%)	28 (38.89%)	31 (46.27%)	17 (40.48%)	13 (31.71%)	22 (40%)	22 (42.31%)	3 (25%)
31-40	20 (40%)	23 (42.59%)	26 (45.61%)	31 (51.67%)	45 (54.22%)	29 (45.32%)	25 (43.86%)	32 (44.44%)	29 (43.28%)	20 (47.62%)	21 (51.22%)	27 (49.09%)	23 (44.23%)	8 (66.61%)
41-50	7 (14%)	7 (12.96%)	9 (15.79%)	8 (13.33%)	12 (14.46%)	9 (14.06%)	6 (10.53%)	12 (16.67%	7 (10.45%)	5 (11.91%)	7 (17.03%)	6 (10.91%)	7 (13.46%)	1 (8.33%)
Total	50	54	57	60	83	64	57	72	67	42	41	55	52	12

Notes. Number of males = 29, number of females = 21; number of uneducated = 15, number of educated = 35; and number of Muslims = 43, number of Christians = 7.
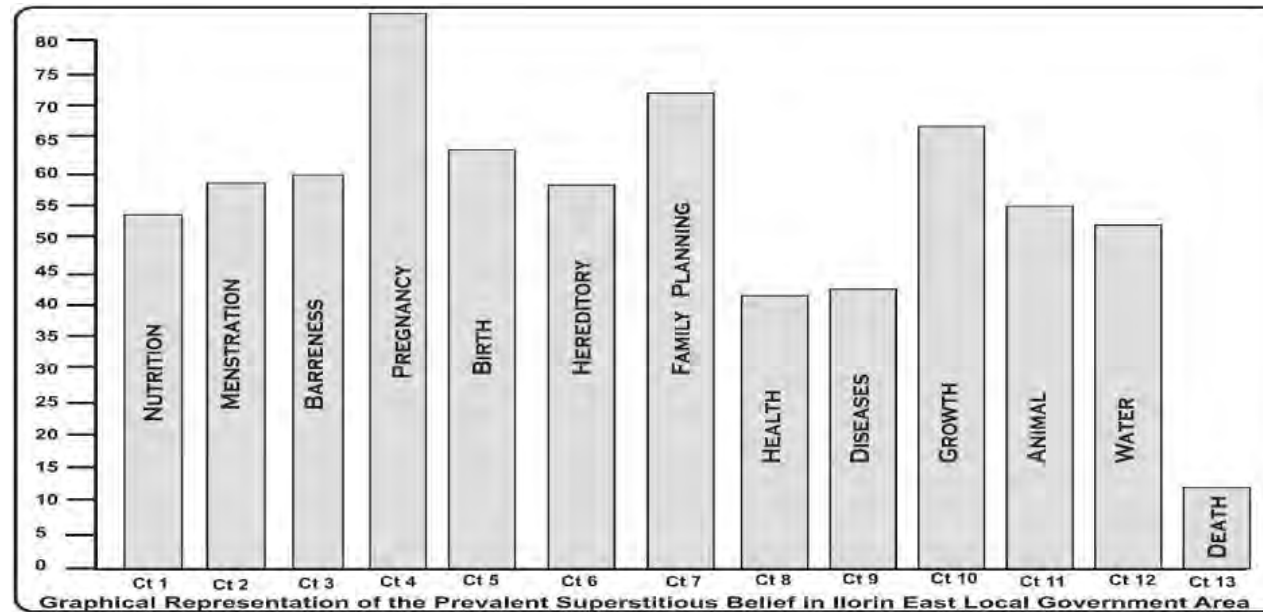

Figure 1. Bar chart presenting each category of superstition against the number of responses from people of Ilorin East.

The most prevalent superstitious beliefs held by Ilorin West people are shown in Table 2 and Figure 2.

Table 2

Presentation of Data Obtained From Ilorin West

Age of class respondents	No. of respondents within the age class	Nu	Me	Ba	Pr	Bi	Hr	Fp	Tr	Di	He	An	Wa	Dh
21-30	15	30 (19.74%)	25 (35.71%)	24 (30.38%)	21 (25%)	23 (31.08%)	19 (30.16%)	21 (26.92%)	20 (28.51%)	22 (29.73%)	18 (25.71%)	23 (30.67%)	17 (29.31%)	3 (15%)
31-40	27	46 (30.26%)	32 (45.71%)	43 (54.43%)	47 (55.95%)	40 (54.05%)	37 (58.73%)	43 (55.13%)	39 (55.71%)	40 (54.05%)	37 (52.86%)	41 (56.90%)	33 (56.90%)	12 (60%)
41-50	7	75 (46.34%)	10 (1.43%)	11 (12.66%)	12 (14.29%)	9 (12.16%)	7 (11.11%)	13 (16.67%)	9 (12.86%)	11 (14.86%)	13 (18.57%)	10 (13.33%)	6 (10.34%)	4 (20%)
51-60	1	1 (0.66%)	3 (4.29%)	2 (2.53%)	4 (4.76%)	2 (2.70%)	-	1 (1.28%)	2 (2.86%)	1 (1.35%)	2 (2.86%)	1 (1.33%)	2 (3.45%)	1 (5%)
Total	50	152	70	79	84	94	63	78	70	74	70	75	58	20

Notes. Number of males = 30, number of females = 20; number of uneducated = 19, number of educated = 31; and number of Muslims = 48, number of Christians = 2.
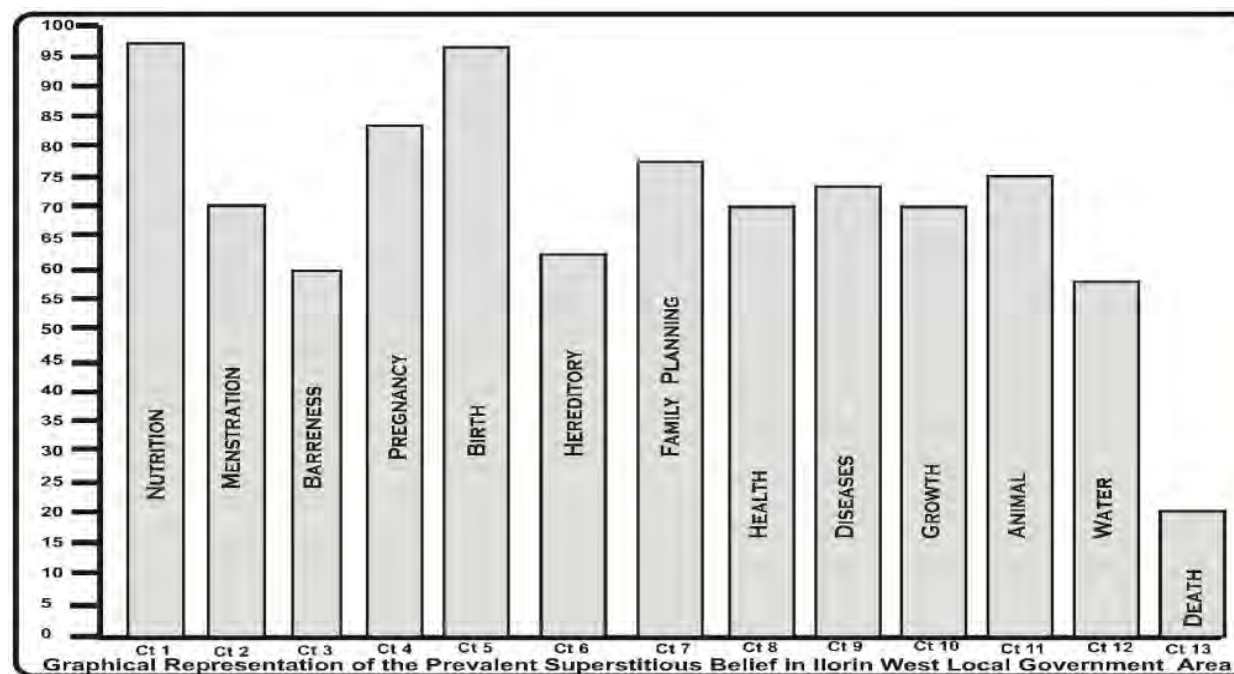

Figure 2. Bar chart presenting each category of superstition against the number of responses from people of Ilorin West.

The most prevalent superstitious beliefs held by Ilorin South people are shown in Table 3 and Figure 3.

Table 3

Presentation of Data Obtained From Ilorin South

Age of class respondents	No. of respondents within the age class	Nu	Me	Ba	Pr	Bi	Hr	Fp	Tr	Di	He	An	Wa	Dh
11-20	3 (6%)	5 (9.62%)	5 (7.94%)	2 (2.77%)	5 (7.33%)	2 (4.29%)	2 (3.28%)	1 (6.64%)	7 (12.28%)	1 (2.78)	2 (4.76%)	5 (8.33%)	2 (4.65%)	-
21-30	21 (42%)	20 (38.46%)	24 (38.8%)	25 (47.17%)	26 (38.24%)	17 (36.17%)	25 (40.98%)	27 (44.26%)	21 (36.84%)	17 (47.22%)	17 (40.48%)	24 (40%)	17 (39.53%)	6 (60%)
31-40	20 (40%)	22 (38.46%)	27 (42.86%)	20 (37.74%)	30 (44.12%)	23 (48.12%)	26 (42.62%)	24 (39.34%)	20 (39.34%)	17 (47.33%)	17 (46.48%)	25 (41.67%)	15 (34.88%)	5 (60%)
41-50	3 (6%)	4 (7.69%)	5 (7.94%)	5 (9.43%)	3 (4.42%)	2 (4.26%)	5 (8.20%)	5 (8.20%)	5 (8.77%)	1 (2.78%)	3 (7.14%)	4 (6.67%)	5 (11.63%)	-
51-60	3 (6%)	1 (1.92%)	2 (3.18%)	1 (1.89%)	4 (5.88%)	3 (6.38%)	3 (4.92%)	4 (6.56%)	4 (7.08%)	-	4 (7.14%)	2 (3.33%)	4 (9.30%)	-
Total	50	52	63	53	68	47	61	61	57	36	42	60	43	10

Notes. Number of males = 29, number of females = 21; number of uneducated = 17, number of educated = 33; and number of Muslims = 44, number of Christians = 6.
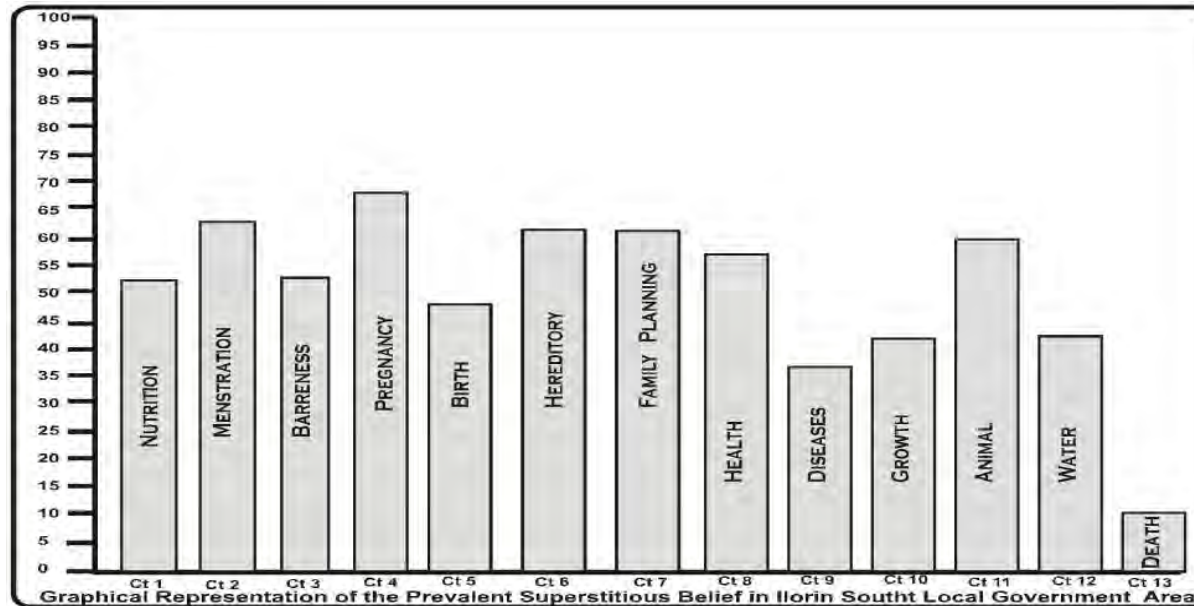

Figure 3. Bar chart presenting each category of superstition against the number of responses from people of Ilorin South.

The superstitious beliefs held by the people of Ilorin metropolis were in the following areas: nutrition, menstruation, heredity, health, death, animal, water, disease, barrenness, family planning, and birth.

Most of the superstitious beliefs held by the people of Ilorin metropolis are found to be non-prevalent. This is confirmed from the total percentage of the prevalent to non-prevalent superstitious beliefs (59%), which might be due to the fact that these superstitious beliefs are not widely used any more.

Superstitious Beliefs and Their Scientific Explanations

The most prevalent superstitious beliefs and their scientific explanations are listed in Table 4.

Table 4

Superstitious Beliefs and Their Scientific Explanations

No.	Superstitious belief	Scientific explanation
1	To predict the sex of a baby: Suspend a wedding band and held by a piece of thread over the palm of the pregnant woman, if the ring swings in an oral or circular motion, the baby will be a boy.	During the fertilization of egg when male Y-chromosome meet with X-chromosome of a female defiantly, the off-spring will be male. The woman will only give birth to a baby boy because her egg was fertilized by one of her husband's sperm bearing Y-chromosome.
2	In order not to see a ghost, all windows should be opened at the moment of death so that the soul can leave.	Scientifically, overcrowded locations lead to poor ventilation and ill-health stress. But, there is no scientific proof.
3	A pregnant woman eating snail will cause excessive salivating of the child.	Excessive salivating is due to the salivary gland present in the child's mouth and has nothing to with eating snail by the mother.
4	People believe that the god small-pox (sonpona) should be called by its name especially if one wants to prevent the re-occurrence of the outbreak.	Small-pox is not a disease caused by god but through infection. Small-pox virus is responsible.
5	Eating garri and mangoes may lead to stomach disorder.	Scientifically, cassava contains hydro cyanide and it has been removed during the garri processing, but if not properly removed, it is likely to cause stomach disorder to some people.
6	Some women find out that when they breastfeed, their sexual arousal and desire are diminished.	It is doubtful if this is due to lactation. A young baby takes up a great deal of time and energy so that less is available for other things, one of which may be the libido. And with a helpful man, you can enjoy both breast feeding and sex either simultaneously or in sequence.
7	Mandrak is a mysterious plant believed to have the power of preventing sterility in men and animals, causing barren woman to bear children and compelling love.	Mandrak is thought to have aphrodisiac and fertilizing properties.
8	Never look at a cat closely because when it spits into your eyes, the eyes will go blind.	To prevent us from the possible bite from cat that can result to serious health problem, like rabies.
9	It is a taboo to lean on the wall while it is raining.	The electric charge from the lightning can be conducted by building materials, via the rod, thereby, causing electric shock.
10	A solution of lime and salt taken by a woman is a family planning method.	This may prevent proper development of the baby in the womb which may lead to the death of the baby.
11	If you want your child to resemble you, sleep with her picture under your sleeping mat or pillow.	This is just to bring the husband close to the pregnant woman.
12	Never pass a child or bay through the window because this may stunt its growth.	This is just to teach moral and precaution on where to and how to handle babies.
13	Having sex with a menstruating woman is unclean and spoils traditional medicine used as protection by man.	Since menstrual discharge is a waste product, therefore, it may cause infection.

Educational Implications of Superstitious Beliefs

1. Loss of concentration: Indulging in activities of superstition can have negative impacts on the study of a student. A mind which waivers towards beliefs and curriculum lacks concentration. One may not be able to give his/her full output or may fail in his/her exams;

2. Lack of interest in studies: The knowledge of unknown becomes a matter of excitement for kids. They might start finding the discovery of something different and more interesting as compared with the repetitive school curriculum. This can lead to lack or total loss of interest in studies;

3. Mental disorders: When a person's personal experience in superstitions leads to a strong belief, it becomes a tough task to make him/her realize the reality from truth. The foundation of a personal experience is closer to one's intellect than other's fact-based realities. It can result in paranoia and other mental conditions which may exhibit unnatural behavior and unknown fears;

4. Hampering the development of an individual's personality: Change of focus amongst the students hampers the development of their personality instead of acquiring virtues necessary for individuals to live in a society. Individuals are seeking in seemingly beneficial tasks;

5. One's belief strengthens another's: Just like a communicable disease, superstition can manifest itself through the word of mouth. For a teenager who has a slight inclination towards such beliefs, a casual conversation with a superstitious person can spread and strengthen his/her own personal beliefs in such matters.

Conclusion

The findings have shown that the respondents from Ilorin West have more superstitious beliefs followed by Ilorin East and Ilorin South, as part of their culture and traditions. Some illiterate and educated people in Ilorin believe in superstitions because they were passed onto them by their elders, which gives a clear idea that superstitious beliefs play an important role in directing and shaping attitudes, norms, and behaviour of people of Ilorin metropolis. Out of 245 superstitious beliefs held by the people of Ilorin metropolis, only 35 (29.56%) were prevalent. The remaining (71.44%) were not prevalent. This is in agreement with Atmore and Stacey (1979) (as cited in Adewara, 2012), who proposed that "The past is gradually becoming a lost past". This implies that superstitious beliefs are gradually fading away.

Recommendations

The following recommendations were considered appropriate and relevant based on the findings of this study:

1. Science educators should endeavor to relate science more closely to learners' societal or cultural environment so as to minimize the conflicts that might arise from the students' views of the world and that of science;

2. Government and other organizations should support any association in its efforts to eradicate superstitious beliefs and discriminate against women and children;

3. Civil society must not shy away from openly discussing the effect of superstitions on the social and spiritual lives of the people;

4. It is important for religious organizations to stress on the role of personal responsibility in the determination of one's fate rather than the blind reliance on some spiritual processes to automatically change one's fortunes from poverty to riches overnight.

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Education Instruction in Physics and Chemistry for Engineers

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The studies of science, technology, and society (STS), the tendencies known as science in social context (SSC), and sustainability in education (SE) represent in the field of scientific education approaches with notable pedagogical potential. However, in our Iberian-American context, the STS, SSC, and SE materials published have been concentrated on the secondary education and the teacher formation, few investigations were orientated to engineering education. According to these educational paradigms, the Department of Physics-Chemistry, University of Cienfuegos, carried out an experience for developing the binomial terms education instruction in scientific disciplines for undergraduate engineering programs. The traditional thinking of science professors agrees that the key to achieve a successful performance in teaching is exclusively the deep knowledge of scientific concepts, however, this is not a whole truth. We consider that the knowledge of disciplinary subject includes the educational potential of each theme under study. This view is also addressed to the formation of values claimed by Cuba society as honesty, professional courage, future orientation, attitudes for changing, and human solidarity. The present proposal integrates enormous educational potential of our disciplines in three dimensions: the energy dimension, the socio-historical perspective, and the environmental approach. The energy dimension is associated with the knowledge of scientific basis about common and alternative energy resources. The socio-historical perspective allows understanding the historical character of the scientific work and its social impacts. Finally, the environmental approach should contribute to the formation of professional competences for searching solutions to the present planetary emergency. This didactic project shows examples for developing these dimensions and orientates them towards the achievement of human and professional competences.

Keywords: science education, science-technology-society (STS), enviroment relationships

Introduction

Higher education in Cuba comes to develop the fourth generation of undergraduate programs. In these programs, general educational and instructive objectives are declared. These objectives constitute rector ideas for structuring the prescribed curriculum and developing the practical curriculum until the disciplinary level.

Horruitinier (2007) emphasized the importance of identifying the educational potentialities of the subjects to develop a systemic approach of the educational work from the curricular component in Cuban universities.

In a general view about the understanding of the educational work, we recognize that:

1. The conception of the educational process, as a social complex process, does not pursue only to develop knowledge, abilities, and habits, but feelings and values;

2. The understanding of the lesson like a saturated act of educational premeditation;

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3. The acceptance that the law of the unit of the instruction and the education, as any other social regularity, requires the conscious performance of its main protagonists: professors and students.

In the formation area through physics and chemistry classes, we admit that:

1. These disciplines can make an important contribution in the development of basic capacities, such as the objectivity in the analysis of problematic situations; the relevance and the rationality for identifying the causes of problems; and the incentive and the initiative in the formulation of alternatives for conflict solution in reflexive application of scientific methods for taking decisions in the daily and professional life;

2. The tribute to the formation of certain values was very often claimed by Cuba, like honesty, professional courage, favorable attitude to changes, and future orientation and solidarity;

3. The necessity to overcome the dichotomy expressed in the visions of a science through the education or an education through the science (Holbrook, 2005). We defend the importance of retaining the pedagogic "traditional" arrangement of the scientific knowledge but including a triple perspective: its energy, environmental, and social-historical dimensions;

4. The didactic implications of a deep knowledge of the disciplinary content. According to the aforementioned philosophy, the depth knowledge of the subject does not reduce to the system of concepts, principles, laws, and theories that conform a branch of the science. It also means, in a very important way, the competence to identify and to develop the educational potentialities of the subject in classes;

5. The importance of the emotional atmosphere of our classrooms or lecture auditorium.

We share the growing importance that it has been granted by a great number of investigations in regard to the affective atmosphere of educational activities. Democratic, safe, and balanced environments contribute to the development of personal and professional values and, at the same time, promote a significant learning of the scientific knowledge.

Educational Potential of Physics and Chemistry for Engineers

We consider legitimate in the methodological plan to integrate the enormous educational potential of our disciplines in three dimensions that represent the hard nuclei of the scientific knowledge: the energy dimension, the socio-historical perspective, and the environmental approach.

The energy dimension is associated with the knowledge of the scientific basis of the current and alternative sources of energy generation. Any operation or process of engineering takes into account the evaluation of its energy efficiency. The energy crisis to scale planetary demands the studies of energy sources from a triple perspective: scientific, socio-economic, and ecological (Hernández & Liubov, 2009; Mulder, Segalas, & Ferrer-Balas, 2012).

The environmental dimension is registered in the professional competence formation for taking decisions that contribute to the solution of the present planetary emergency. The presence of environmental contents presents the didactic benefit of anchoring a significant knowledge from our epoch and, at the same time, wakes up the additional motivation for the appropriation of the physical content. Important studies of science, technology, and society (STS) (Ferreira-Gauchia, Vilches, & Gil-Pérez, 2012) have inscribed a new acronym STS + E (E stands for environment) to emphasize the importance of the environmental topics. Ríos and Solbes (2007) verified that:

> An appropriate treatment of the relationships STS + E helps to increase the interest of the students towards the contents of the subjects; it improves the professor's methodology and raises the connection with the reality of the taught

contents, increasing its utility. (p. 48)

A study carried out in the Department of Physics-Chemistry, University of Cienfuegos, confirms the wide predilection of students in the domain of environmental global problems related to the processes and objects of the profession (Delgado, Del Risco, & Botana, 2007).

The social-historical dimension reveals the temporary character of the scientific knowledge, the race to the infinite that means the expansion of its horizons, the social resonances of its technological applications (Vilches & Gil-Pérez, 2011), and examples of the scientific personalities that have dedicated their efforts at the noblest causes of their time (Campbell, 2006). It is not only to foment the historical culture of the students of engineering, but also to insert the knowledge in the temporary matrix, in which concepts, laws, and theories were generated, as well as to reveal the drama that accompanies great discoveries. It always produces an emotional indelible effect in the human intellect. The importance of the historical referent was exposed with unbeatable eloquence by Erwin Schrödinger (1956), who won the Nobel Prize in Physics and wrote:

> History is the most fundamental of all sciences, because there is no human knowledge that does not lose its scientific character when men forget the conditions in which it was originated, those questions which it was necessary to respond and the functions for which it was created. (Schrödinger, 1956, p. 132)

A Typical Example in the Syllabus of Physics for Engineers

Next, these three dimensions are illustrated for a universal topic of the physics study—Nuclear Physics.

The considered facets in Figure 1 for tenergy dimension are not the only ones, but with their presentation, we want to promote readers' active reflection. The contents associated with this problem of nuclear energy can be enunciated as follows: from fermi atomic pile to nuclear reactors; nuclear industry and security protocols; and technical viability of thermonuclear reactors and nuclear techniques in different sectors of society.
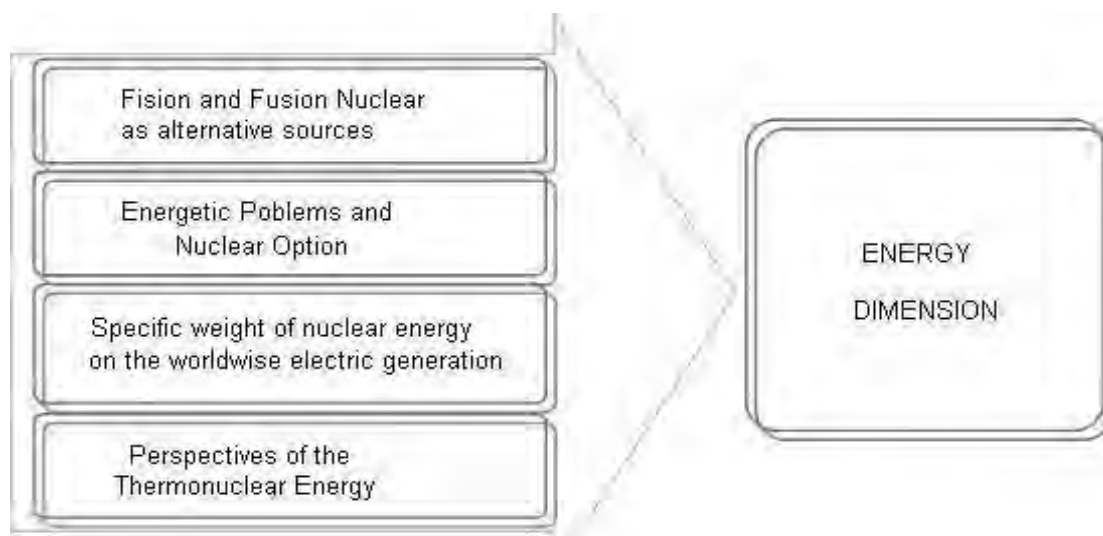

Figure 1. Energy dimension of Nuclear Physics.

On the other hand, some contents that promote environmental education about this theme are included in Figure 2. All instructional efforts done for creating an awareness about the environmental problems associated with the development of nuclear energy are few.
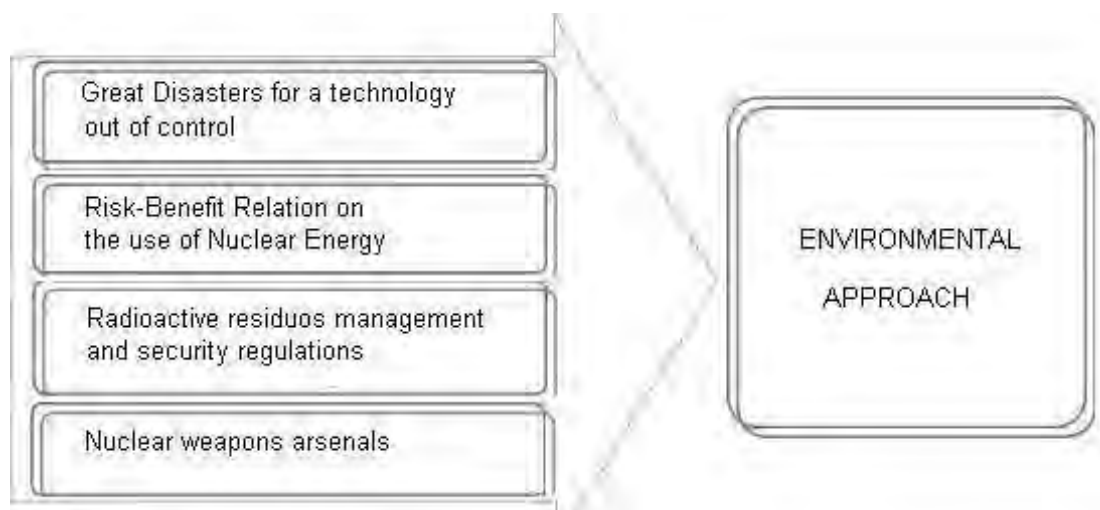
Figure 2. Environmental dimension of Nuclear Physics.

From our point of view, to refer to historical subjects together with the contents of nuclear science is relevant and ethically necessary, such as those showed in Figure 3. As a result of our investigations, we have confirmed that few professors of physics in our context know the content of, for example, "The Franck Report" or "The Russell-Einstein Manifesto", and their knowledge about the history of Manhattan project is incomplete.
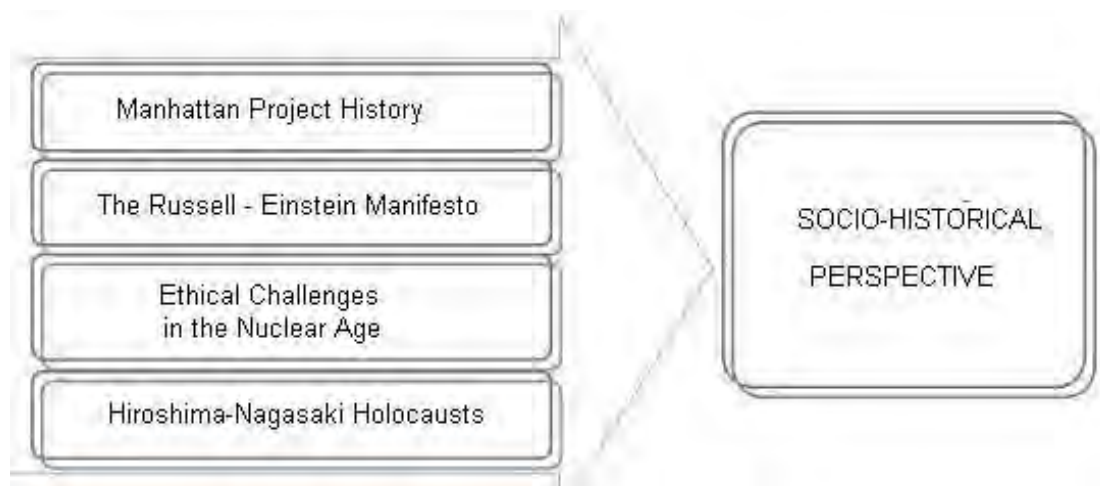

Figure 3. Historical dimension of Nuclear Physics.

Another Example in the Syllabus of Chemistry for Engineers

In connection with the educational potentialities of chemistry, we subscribe the importance of following the conductive thread of structure-properties-applications-impact. Faithful to this principle, we expose the contents associated with each dimension in the development of the topic "structure of the substances", where generally the university courses of engineering begin.

In our times, the contents of this theme should include together with the classical simple structures those associated with the emergency planetary: fossil combustibles and its derivatives, bio-combustibles, old and new generation of refrigerants, greenhouse gases, atmospheric pollutants, chemical weapons, toxic metals and its compounds, the simplest pesticides, water-contaminants, and non-degradable plastics. Besides these, we should

examine ceramic superconductors, intercalation nets, fullerenes, new fibers, biodegradable polymers, and others. More than making a full inventory of these contents, our purpose is to propose readers the identification of eventual absences.

The energy dimension of chemistry (see Figure 4) plays a key role for knowing of the chemical process and should be a cornerstone for the understanding of how energy is generated at present, and finally, how is poisoned our planet.
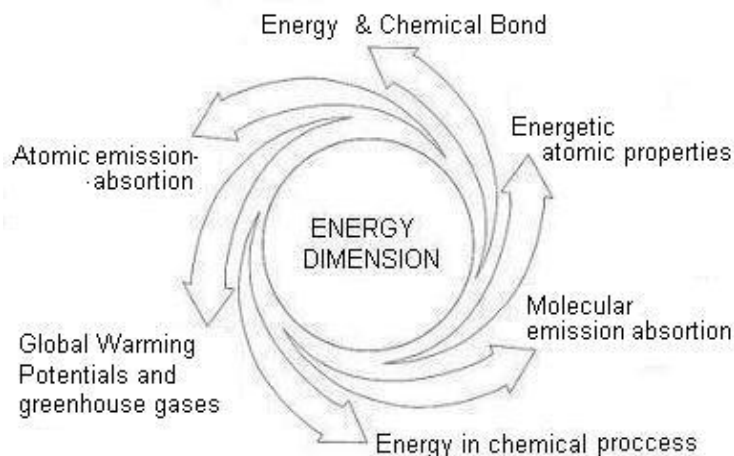

Figure 4. Energy dimension of chemistry.

The syndrome of the shortage of time to fulfill the analytic programs, so extended in the intuitive opinion of science professors, vanishes due to the motivations developed when these themes are included in seminars and other forms of activities to promote the debate, like those showed above in the environmental or historical dimension (see Figures 5 & 6) of the unit of "structure of the substances". The outstanding legacy of paradigmatic scientists and advances and setbacks experienced in international agreements regarding the dramatic climate change fertilize the appropriation of the contained scientific complexes implied in the study object (Cruickshank & Fenner, 2012).
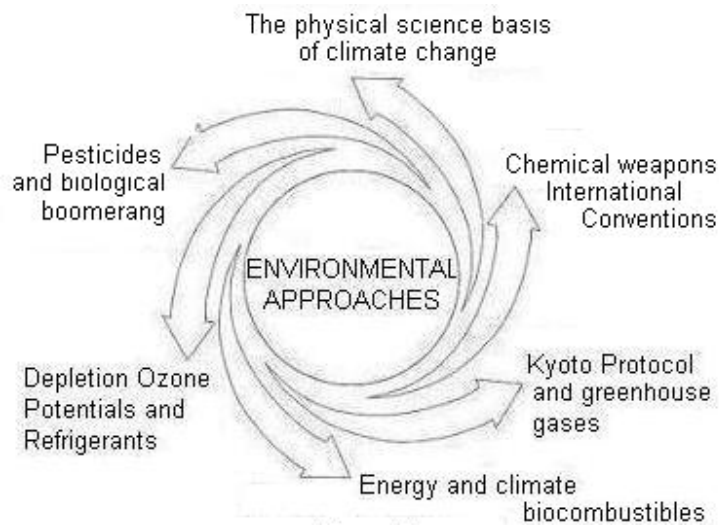

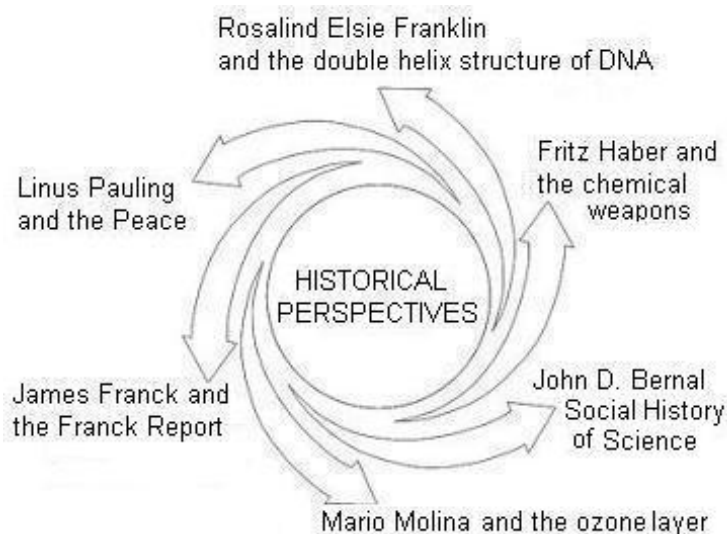*Figure 5.* Environmental dimension of chemistry.

Figure 6. Historical dimension of chemistry.

We recommend dealing case-studies in the socio-historical dimension with the promotion of the polemic, stating different points of view. In Figure 6, it appears some examples for nourishing the discussion. Everybody knows the contribution of Linus Pauling to the theory of chemical bond, but only few know his relevant dedication to peace. A similar situation is observed with respect to Fritz Haber. All people know the synthesis of Haber, but his contribution to the development of the first chemical weapons is unknown. Paradoxically, these performance norms lead the way to an affective atmosphere in the classroom and it has a high value in the cognitive order as well as in professional and human competences formation.

The development of the social resonances that can be present in the scientific content does not admit a reductionist vision. A coarse simplification of the social repercussions derived of the application of a certain scientific content far from to promote a desirable educational effect is a reason of indifference and rejection for students. However, team work about these problems can contribute to a significant learning of these subjects (Vilches & Gil-Pérez, 2012).

System of Didactic Actions for the Development of the Educational Activity

The system of actions recommended next neither seeks to define rigid procedures to guide our educational practice, nor to dilute the derived differences of the particularities of the discipline or of the professor's personal style, but to offer alternative of performance in physics and chemistry classrooms according to the predominant approaches expressed by physics and chemistry professors of University of Cienfuegos.

The permanent derivation of the scientific knowledge toward their dimensions along the whole activity develops a source of student motivation.

The clear formulation of the learning objectives during all educational activities should guide the activity of students in its autonomous work of administration and search of the knowledge but keeping a comprehensible correspondence with the objectives of the evaluation. The culture of apprehending the objectives declared as rules for students' own evaluation is part of a productive strategy of learning.

The teaching centered in the solution of problems, like invariable resource during the class contributes to the development of knowledge, abilities, and habits with a personal significance. The process of teaching learning should mean the renouncement to the employment of the lineal algorithm during the solution of the

problems, the promotion on the contrary of the spaces for the development of the scientific doubt, the formulation of queries, and the hypothesis enunciation in the solution of the educational tasks.

Students should take advantage of their individual experiences. The statement of this action would seem to indicate the defense of the main precept of constructivism in terms of teaching, and it is in fact much more. It is the exhortation to an interactive atmosphere where the dialogue prevailed in any organizational form of the class, where the utility of the previous knowledge is recognized, and where the prediction or the hypothesis formulation comes before the solution of the new educational problem. In connection with the above-mentioned, the combination of independent work and the socialization of learning should be favored in selecting the organizational ways of teaching. Scientific work, for its essence, is a team work, and consequently, in physics and chemistry classes, interaction should be propitiated and, at the same time, independent work should be privileged. Seminars, workshops, and practical classes should prevail in the classics conferences. Any activity should promote group work and interpersonal communication among students.

The opportune use of different means of learning (charts, outlines, diagrams, publications, and technical reports) and the handling of the bibliography under the professor's supervision constitute ways to turn classrooms into learning laboratories.

The appropriate and efficient employment of information and the communications technologies (ICTs) contributes to increasing the interest and the preparation of students, and provides resources that facilitate the professor's list, like generator of didactic materials, in a creative process of renovation and constant innovation.

Demands and Relationships in the Affective Climate of the Activity

Owing to the deterioration of the values in the university scenario, it is a necessity to develop the empire of courtesy, sincerity, and collaboration in the interpersonal relationships between professors and students.

The promotion of the polemic and the debate, starting from the confrontation of different points of view, is a road to generate an affective climate in classrooms. This practice, as a general rule, implies to refute the learning of the algorithm to solve the model solution of the problem and to fertilize the alternatives that can lead to the successful solution of the problem in different situations. The defense of the own approach and the respect for the opinion of the other one should preside over the discussion. These performance norms in the interpersonal relationships have an importment value in the cognitive order as regards professional and human competitions.

The development of the content in a committed way reveals that the social resonances that are present in the current world do not admit a simplistic vision of the approached problems. A coarse simplification of the derived social repercussions of the application of a certain knolewdge is a reason of indifference and rejection for the student body.

The control of the preparation of the students for the educational activity should become a systematic process to discern, to favor, and to stimulate the individual and collective successes, even if a minute progress is observed. It should be conjugated the hetero-evaluation and the evaluation driven by the professor with the development of self-evaluation and co-evaluation of students in the dynamics of the process. Student regulation should be developed to promote self-refection on the results of learning.

Conclusions

1. The act of the science lesson should be saturated by an educational intention that supposes the deep knowledge of the scientific content although it is not drained with this;

2. The determination of the educational potentialities of the discipline and the exploitation of them during the classes are legitimate responsibilities of the science professors;

3. The affective atmosphere of the activity should be characterized essentially by the conscious participation of the students in the learning construction themselves and the existence of interpersonal relationships based on values of democracy, equity, and personal dignity.

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Achieving ORPHEUS Standards in Ukraine: Illusion or Reality?

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While the whole world has been discussing the standards and strategy of Doctor of Philosophy (Ph.D.) programmes as a driving force of biomedical sciences development, Ukrainian science is surviving under limited funding; lack of governmental supporting and systematic quality control; stagnation in national policy of Ph.D. education; and undeveloped international mobility scheme for Ph.D. students. Is it possible to implement high quality standards in such a microenvironment? Not yet. However, awareness of the problem is the first step in its solving. Two years of experience of M. Gorky Donetsk National Medical University's (DonNMU) collaboration with the Organisation for Ph.D. Education in Biomedicine and Health Sciences in the European System (ORPHEUS) has revealed to the development of a new model of Ph.D. education, joining national rules and requirements, but directed to achieving of European standards. This model is funded by DonNMU and targets to the following milestones: (a) optimization of scientific supervision by selection of scientists whose papers are published abroad and cited in international scientific journals; (b) organization of Ph.D. education, including ethics and methodology of scientific research, biostatistics, and fundamental and specialized courses; (c) creation of research environment by implementation of modern methods in universities' clinics and laboratories, and cooperation with leading laboratories and institutions in Ukraine and abroad; (d) development of multidisciplinary scientific projects approach by shifting of clinical medicine to fundamental sciences and collaboration with specialists on chemistry, physics, social sciences, etc.; and (e) strict selection of Ph.D. candidates with certificated English and encouragement of international mobility of Ph.D. students and dissemination of their achievement and experience. Indeed, it is a long and thorny path, but we believe that "You must have long-range goals to keep you from being frustrated by short-range failures", as Charles Noble said.

Keywords: Doctor of Philosophy (Ph.D.) program, reforming, Organisation for Ph.D. Education in Biomedicine and Health Sciences in the European System (ORPHEUS) standards

Introduction

While the whole world is discussing standards and strategies of Doctor of Philosophy (Ph.D.) programmes (Lackovic, 2004; Kovačević, 2013; Campo-Ruiz & Paccini, 2013; Červinka, 2013; Harris, 2014), Ukrainian science is surviving under limited funding and governmental support in a highly centralized system of administration, experiencing deep stagnation in national policy of Ph.D. education and lack of systematic

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quality control. Such problems as discrepancies between educational system in Europe and Ukraine, undeveloped international mobility scheme, and low motivation and scarce career opportunities for young scientists, exacerbate the crisis.

By now, Ukrainian scheme of Ph.D. education is not only irrelevant to the world scientific community, but also has somewhat dubious standards when official requirements do not necessarily coincide with the actual result. For instance, the formal training of a Ph.D. student comprises only philosophy, foreign language, and specialty. The rest of time is considered to be dedicated to self-education and scientific research. Consequently, the most successful students must be those with the strongest self-motivation and, partly, a persistent supervisor. Such an attitude toward tertiary education leaves Ph.D. candidates in Ukraine without highly necessary skills and competencies that are vital for their careers. As a result, a reputational, qualitative, and financial gap grows, limiting probability of Ukrainian young scientists' integration in European scientific community.

Is it possible to implement high quality standards in such a microenvironment? Not yet. Can we, though, run the risk of losing a generation of talented people with further decrease in research and innovation activity in Ukraine while European universities are investing heavily in Ph.D. programmes and the next generation of young people. Who will be the innovators of tomorrow? Not at all, since awareness of the problem is the first step of solving it. To find the ways to tackle this problem, we initiated a Ph.D. programme reform in Ukraine in 2012 (Dumanskiy, Sulaieva, & Zinkovych, 2013).

Organisation for Ph.D. Education in Biomedicine and Health Sciences in the European System (ORPHEUS) Standards

As the first step, we compared Ph.D. programmes in Europe and former Soviet Union countries and found that they are quite different and widely vary in content and organization. To choose the model of Ph.D. programme installation in Ukraine, we addressed the ORPHEUS experience and recommendations.

ORPHEUS is an association of European biomedical and health science faculties and institutions[1]. It is founded in 2004 by the first President Zdravko Lackovic and has a wide range of activities, including the following:

(a) To develop the standards for Ph.D. education;

(b) To safeguard the Ph.D. as a research degree and strengthen career opportunities for Ph.D. graduates;

(c) To give active support and guidance to members of ORPHEUS in enhancing their contributions to medicine and society in general;

(d) To provide information to members of ORPHEUS and all Ph.D. candidates all over Europe;

(e) To represent higher education and research in biomedicine and health sciences and to influence policy making at national, European, and international level;

(f) To encourage cooperation among members of the association and the development of effective bilateral and multilateral networks;

(g) To promote cooperation in research and development of joint Ph.D. programmes;

(h) To promote harmonisation of Ph.D. programmes in biomedicine and health sciences;

(i) To encourage mobility of Ph.D. candidates and academic staff;

(j) To stimulate quality assurance of Ph.D. research and education, and in particular to develop an

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[1] For more information, please visit http://www.orpheus-med.org.

accreditation process of Ph.D. programmes in biomedicine and health sciences.

Since 2004, ORPHEUS has organized annual thematic European conferences in Zagreb, Helsinki, Aarhus, Vienna, Izmir, Bergen, Prague, and Lausanne. On the basis of those conferences and in cooperation with Association of Medical Schools in Europe (AMSE) and World Federation for Medical Education (WFME), ORPHEUS develops standards for Ph.D. education (ORPHEUS/AMSE/WEMF, 2012).

ORPHEUS Standards as a Tool for Ph.D. Programme Development

The ORPHEUS/AMSE/WFME Ph.D. standards document, published in January 2012, is a practical tool for development and quality assurance of Ph.D. programmes. Another document, the new Ph.D. principles document: "Best Practice Based Principles for Innovative Doctoral Training", approved by the European Union Council of Ministers (2011), is fully compatible with the Ph.D. standards document. For this reason, ORPHEUS has expressed a wish to work closely with the European Commission on implementing this in the field of biomedicine and health sciences. The Ph.D. standards document provides a basis for global conversations concerning the quality and content of Ph.D. programmes.

The Ph.D. standards document is the result of large-scale consultation over many years at ORPHEUS conferences, workshops, and individual contributions from almost all European countries, with the resulting consensus striking a balance between specificity and flexibility. However, one thing is to have an agreed set of standards, another is to have them implemented. The ORPHEUS/AMSE/WFME Ph.D. standards document is a practical tool for quality assurance of Ph.D. programmes (Jonsson, Mulvany, & Lackovic, 2012).

The First Ph.D. Programme in Biomedical Sciences Development in Ukraine

Two years' experience of collaboration with the ORPHEUS has led to the development of a new model of Ph.D. education in Ukraine, joining national rules and requirements and directing to the achievement of European standards. This programme includes changes in:

(a) Admission policy;

(b) Educational courses for Ph.D. candidates;

(c) Requirements for scientific projects;

(d) Demands to supervisors;

(e) Quality assurance.

Formally, the common Ukrainian admission criteria, which are similar to ORPHEUS postulated standards, include:

(a) A master's degree;

(b) Clinical work experience (two years) for candidates in clinical disciplines;

(c) List of publications, reflecting that the candidates have achieved some prior research experience or a scientific review on relevant topics.

In reality, however, they do not correspond. Thus, qualification of Ukrainian and European masters, as well as meaning of "research experience", are rather different.

Revision of Admission Criteria

To create competitive conditions, we have implemented new selection criteria for Ph.D. candidates, so that they are selected not only on the basis of the nationally required entrance exams on philosophy, foreign

language, and specialty, but also on a range of additional qualifications, such as the following:

(a) An International English Language Testing System (IELTS) or Test of English as a Foreign Language (TOEFL) certificate;

(b) Academic effectiveness/achievements;

(c) Number and rating of publications;

(d) Certificate of recognized educational international courses (COURSERA) or lab-training, proving the level of knowledge and skills in biosciences.

Requirements to Supervisors

The second direction of activities was optimization of scientific supervision by selection of people who are scientifically qualified, which means that they will normally have a Ph.D. or Doctor of Sciences (D.Sc.) degree, and are active scholars with a steady scientific production that contributes to the peer-reviewed literature (Harris, 2014).

It is essential to note that Ukrainian biomedical sciences are not sufficiently associated with world scientific community due to many reasons, including not only stagnation of national science and lack of equipment, but also a rather low overall level of scientific staff performance, associated with language barrier, non-recognized qualification, and lack of motivation. That is why few scientists have high personal ranking (score) and publications in international peer-reviewed journals.

We believe that the best way to improve the situation is to use the recommendation of ORPHEUS standards about formal training for supervisors and international co-supervision for Ph.D. students. It is essential that supervisors participate in international schools, since it not only improves the quality of supervision, but also serves as a handy way for internationalization of scientific research in Ukraine. It is also essential for Ukrainian scientists to acquire a broad international scientific networks and to be able to introduce a Ph.D. student into the international scientific community. A further step for Ph.D. supervision improvement might be organization of a bidirectional exchange of academic staff aiming at understanding peculiarities of research environments in different countries and targeted correction of some gaps in local Ph.D. programmes.

Implementation of Ph.D. Education

In Ph.D. reform, we placed a special focus on doctoral education and training and prioritized the development of career opportunities for early stage researchers (Mulvany & Lackovic, 2012). This has became possible through further strengthening of university support to structured doctoral education. The developed Ph.D. programme is multimodal and includes mandatory and elective courses, targeting to stimulate interdisciplinary approach and develop transferable skills.

The mandatory courses include courses in ethics, health and safety, research methodology, statistics, nationally required philosophy, and foreign language. The last course is quite important for Ukraine bearing in mind the language barrier and limited use of English in everyday life. Elective discipline-specific components are directed to support Ph.D. candidates in their scientific research. Development of multidisciplinary educational programmes is useful for shifting clinical medicine to fundamental sciences and collaboration with specialists on chemistry, physics, social sciences, etc..

Courses in transferable skills include training of Ph.D. students in presentation of their research (oral/poster/papers) to academic audiences, in university teaching, in linguistic skills, in grant application, in

critical evaluation of scientific literature, and in career development and networking.

In addition, an obligatory element of Ph.D. training is participation in conferences and workshops in the home country and abroad. The overall workload corresponds to Ukrainian and European standards and is equal to 30 European Credit Transfer and Accumulation System (ECTS) points for three years.

The distribution of the subjects during the years of Ph.D. training is shown in Table 1.

Table 1

Distribution of the Subjects During the Years of Ph.D. Training

Year	Content	Assessment
1	Ethics and methodology of research; Transferable skills training	Project development and defense
	Elective courses on fundamental disciplines, immunology, and molecular biology	Exam on philosophy and foreign language
	Main specialty; teaching training	
2	Elective courses	Exam on specialty; Publications; Presentations
	Specialty; teaching training	
3	Elective courses; trainings of transferable skills	Publications; Dissertation defense
	Specialty; teaching training	

Research Environment Development

One of the most important factors for Ph.D. candidates and institutions is the research environment, which, according to ORPHEUS standards, determines the success of an individual Ph.D. programme. Research environment means not only facilities necessary for the project, but also access to other laboratories, preferably in other countries, to promote internationalization. The best way to fill the gap between high ORPHEUS standards and pure Ukrainian scientific microenvironment is to follow ORPHEUS recommendation: "Institutions lacking facilities or expertise in particular fields should collaborate with stronger institutions…" (ORPHEUS/AMSE/WFME, 2012).

The Role of the University in Quality Assurance of Ph.D. Programme

The role of the university in realization of the programme is based on its primary functions of management and organization of the process and, consequently, requires several steps:

1. Revision of foreign language teaching. According to the evaluation of students' achievements, the points to grasp were: practical, rather than formal evaluation of entry level of a student with subsequent adjustment of the study plan to his/her needs; language practice in the environment of international scientific community (through international mobility scheme, e-learning, etc.); and special attention should be paid to professional skills in language learning;

2. Adapting scientific project according to the world standards realized through basic course and adequate planning;

3. Activization of multidisciplinary research projects;

4. Implementation of new technologies in the body of research;

5. Development of cooperation between universities (workshops, internships, etc.) for technical advancement of research, acquisition of new skills, etc.;

6. Familiarization of students with grants and stipend programs available in the world and encouragement

of participation.

As each of the steps of the programme is assessed by the feedback mechanism with the supervisor, Ph.D. students, Ph.D. management staff, and examination board, it guarantees the quality of acquired skills and knowledge and formation of an adequate set of competences needed for scientific research completion.

Conclusion

Using ORPHEUS standards, a new concept of Ph.D. education was developed in DonNMU. The objectives of new Ph.D. programmes were to reinforce excellence, dynamism, and creativity in scientific research by improvement of young researchers' education, as well as implementation of academic mobility scheme. To support high quality projects, we used the competitive system of admission and activation of cooperation mechanisms through networking at the national and international levels. Placing a special focus on doctoral education and training, we prioritized the development of career opportunities for early stage researchers. The developed Ph.D. programme is multimodal and includes mandatory and elective courses, targeted to stimulate interdisciplinary approaches and develop transferable skills. Development of multidisciplinary educational programmes is useful for shifting of clinical medicine to fundamental sciences and collaboration with specialists on chemistry, physics, social sciences, etc..

In conclusion, we hope that the reform in Ph.D. programmes will allow us to improve the quality of research and professional characteristic of Ph.D. candidates, and connect young Ukrainian scientists with the international scientific community.

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A Study of the Influences of Emotions on Scientific Creativity

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This study aims to investigate the influences of different emotion responses from students toward their scientific creativity. Thirty 7th grade students participated in this study. Two instruments were used in this study. One consisted of 30 affective pictures and the other instrument was the Scientific Creativity Test. The affective pictures consisted of 10 positive emotional pictures, 10 neutral emotional pictures, and 10 negative emotional pictures. The results of this study indicated that compared with the neutral emotional pictures, pictures displaying both positive and negative emotions could improve students' scientific creativity.

Keywords: affective pictures, emotion, scientific creativity

Introduction

Creativity is an important ability to produce knowledge theory and knowledge application. The training of creativity has been gradually emphasized in every domain of knowledge, such as esthetics, music, literatures, and science. Although creativity is very important for every domain of knowledge, a man who has the creativity of music domain may not have the creativity on science domain (Collette & Chiappetta, 1994). Therefore, the definition of scientific creativity needs to be well defined. The most difference between creativity and scientific creativity is that the scientific creativity is based on the background knowledge of science. The scientific creativity emphasized that the creativity should be processed logically and scientifically (Hu & Adey, 2002). Based on the definition of scientific creativity, creativity skills of an individual play an important role in society. The creativity skills used within science affect the direction of science discovery.

Excepted for the gifts or insights, the emotion is a very important factor affecting such scientific creativity (Lubart & Getz, 1997). Although emotions play an important role in performing scientific creativity, the effects of emotions in inducing scientific creativity were not well understood in previous studies. Petty and Cacioppo (1986) found that positive emotions improve a person's scientific creativity. On the other hand, George and Zhou (2002) indicated that negative emotions improve the skills involved in scientific creativity, while positive emotions restrain such creativity. Furthermore, Filipowicz (2006) proposed that positive emotions raise the performance of scientific creativity in some cases and restrain it in other cases. What is the real effect between emotion and scientific creativity is the major question that we want to understand. The aim of this research was to examine the influences of different emotion responses from students toward their scientific creativity.

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Research Design

Participants

Thirty 7th grade students ($N = 30$; Mean age = 13.4; $SD = \pm 0.6$ years) participated in this study, and were grouped into three groups (Group A, B, and C) randomly. Each group involved 10 students.

Instruments

Scientific creativity survey. The instrument used in this study was the Scientific Creativity Test (Hu & Adey, 2002). Since this instrument would be used three different times with the same test group, the key concepts of some of the questions were changed. The end result was three versions of Hu and Adey's instrument. Each version was translated into Chinese. An acceptable Cronbach's *α* score was reached on each translated version (Scientific Creativity Survey I—0.88, Scientific Creativity Survey II—0.91, and Scientific Creativity Survey III—0.92). Table 1 shows an example from Scientific Creativity Survey I.

Table 1

Scientific Creativity Survey I (With Chinese Version)

No.	題目(Chinese version)	Questions (English Version)
1	請盡可能的寫下一片玻璃的科學用途，越多越好。	How can a piece of glass use for? Please write down as much as you can.
2	如果你能夠搭太空船到外太空的行星去，你會想研究什麼樣的科學問題？	If you can have a trip to visit a planet in the outer space, which scientific research questions do you want to know?

Note. Source: Adapted from Hu and Adey (2002).

There are three scorers in this study. All of them are scientific researchers and science teachers of junior high school. They will score each student's surveys individually and discuss with each other if the scores are far from others. There are three score standards which they need to follow:

(a) Scores of fluency: One thought get one point;

(b) Scores of flexibility: One category get one point;

(c) Scores of originality: Very originality get two points; a little originality get one point.

Emtional pictures. The past studies mentioned that pictures are a good way to induce humans' emotions (Stanley & Knight, 2004). Hence, this study chose 30 pictures to induce students' different emotions. In these pictures, 10 showed for positive emotions, 10 showed for negative emotions, and 10 showed for neutral emotion, which means not to reflect any emotion. Figure 1 shows examples of these pictures.
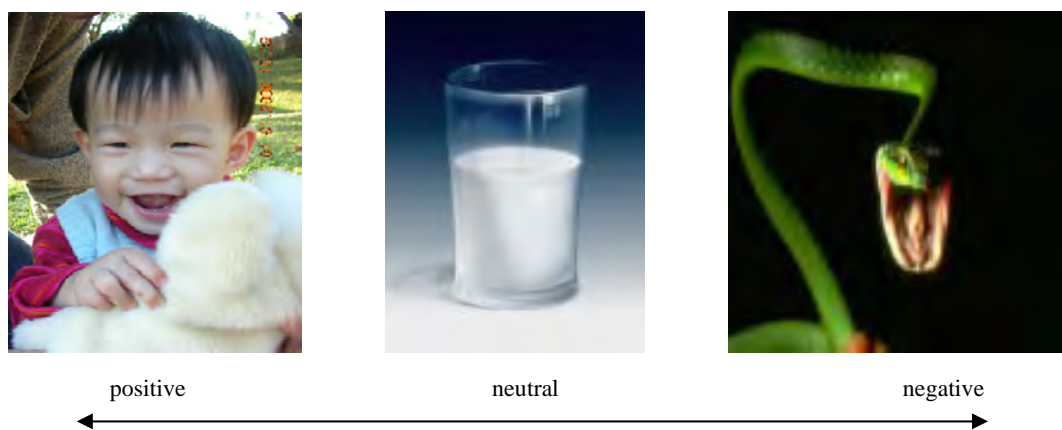

positive   neutral   negative

Figure 1. Pictures used to induce students' different emotions.

Procedures

An example of the procedures of this study is shown in Figure 2. In the second week, Group A was changed into inducing neutral emotions and Group B was changed into inducing positive emotions. In the third week, Group A was changed into inducing negative emotions and Group B was changed into inducing neutral emotions. However, Group C was all inducing negative emotions in these three weeds. Group C is the control group.
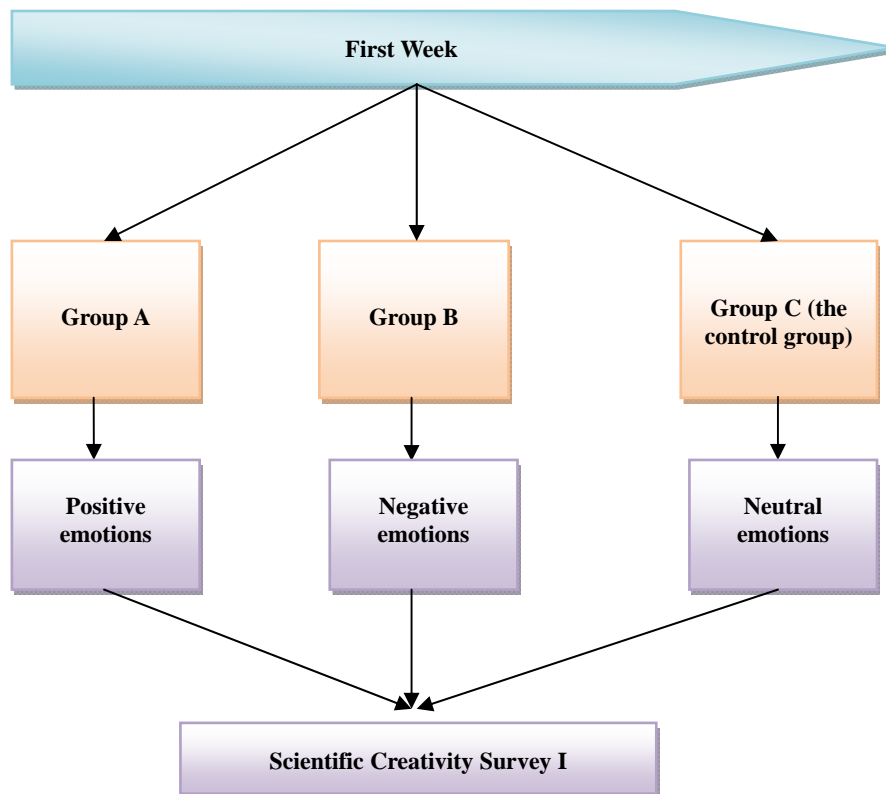

Figure 2. An example of the procedures of this study.

Discussion and Conclusion

Table 2 shows the results of different emotion responses from students across the three surveys. In Table 2, Group C (the control group) was treated by neutral emotions in these three treatment, and the similar scores explored that these three surveys could reflect the similar abilities of scientific creativity. Such slight variance indicated that neutral emotion responses may not induce students' scientific creativity.

Table 2

Different Emotion Responses Across the Three Surveys

	Group A	Group B	Group C
Scientific Creativity Survey I	58 (positive)	53 (negative)	33 (neutral)
Scientific Creativity Survey II	30 (neutral)	44 (positive)	30 (neutral)
Scientific Creativity Survey III	50 (negative)	29 (neutral)	33 (neutral)

In groups A and B, there also revealed a similar variance among both positive and negative emotion responses (see Figure 3). Such variance seemed to indicate that the creativity of junior high school students in

this study was affected by these two emotional responses. The contribution of this study suggests that both such emotions can motivate creativity but that such affects are culturally sensitive.
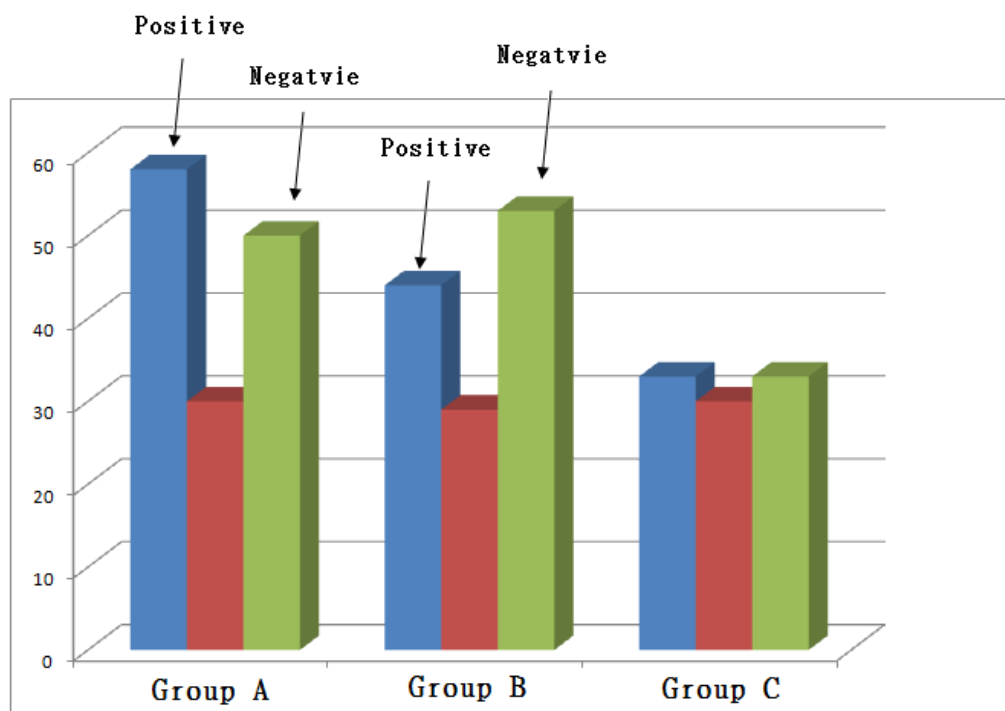

Figure 3. An example of the procedures of this study (The columns which do not mark mean "neutral").

In a previous study, George and Zhou (2002) found that positive external stimulus (e.g., in the form of pictures) might restrain students' creativity, but negative stimulus excited students' creativity. The data collected in this study seem to indicate that in the east junior high school students, both positive and negative stimuli excite students' scientific creativity. Such results call into question the common belief that general creativity might be different from scientific creativity. This study suggested that further research need to consider about the different definitions of creativity. Also, teachers need to consider about students' emotions when training their scientific creativity.

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