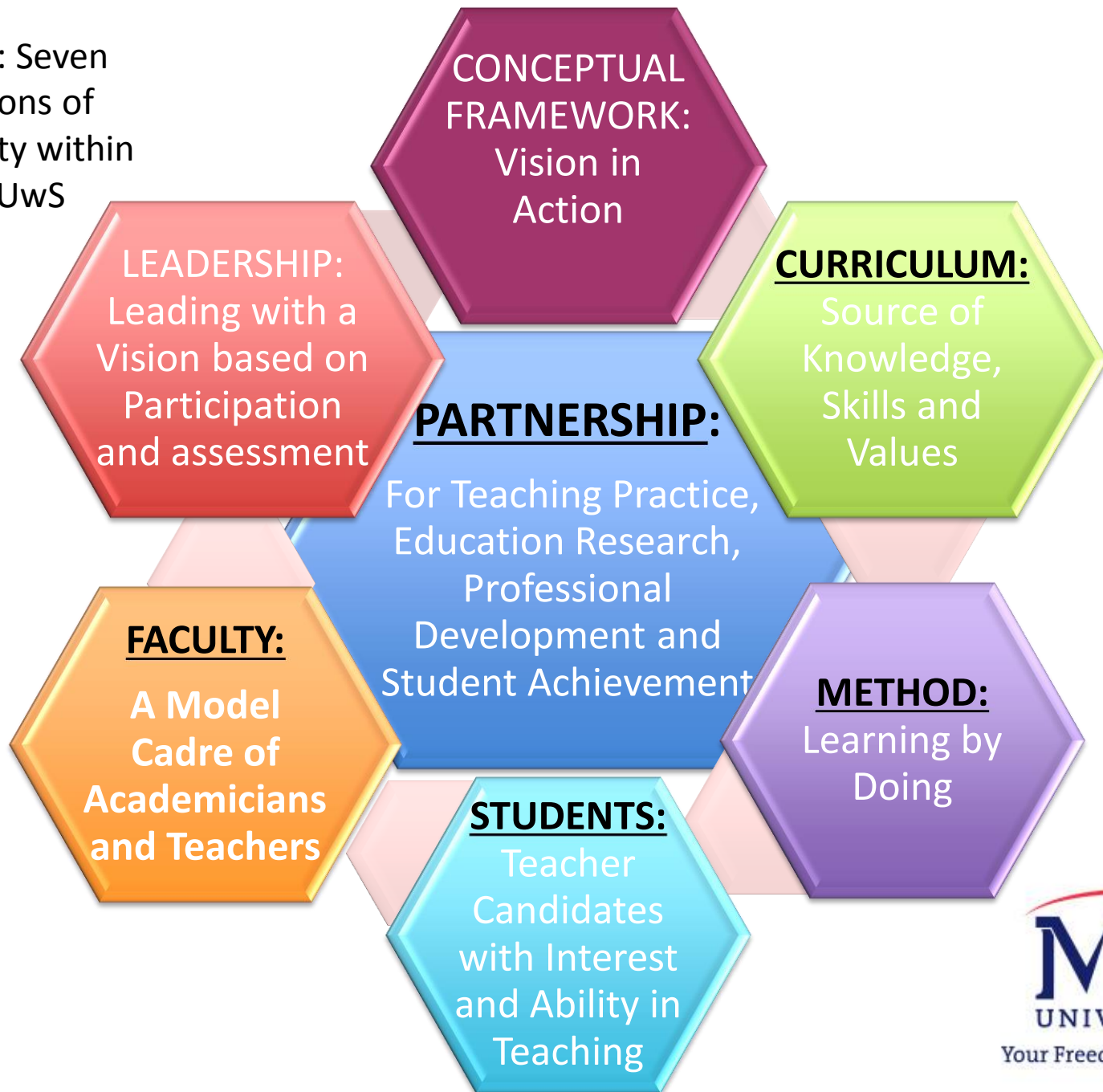# Mathematics Teacher Education with University within School model and Flipped Classroom Technique

Zelha Tunç-Pekkan, Ph. D.

Figure 1: Seven Dimensions of University within School- UwS

CONCEPTUAL FRAMEWORK: Vision in Action

LEADERSHIP: Leading with a Vision based on Participation and assessment

CURRICULUM: Source of Knowledge, Skills and Values

PARTNERSHIP: For Teaching Practice, Education Research, Professional Development and Student Achievement

FACULTY: A Model Cadre of Academicians and Teachers

METHOD: Learning by Doing

STUDENTS: Teacher Candidates with Interest and Ability in Teaching

First Year Implementation of UwS

- https://www.youtube.com/watch?v=3TAJfE3GLS4

Akademisyenler ortaokula döndü

Eğitim fakültelerinin akademisyenleri bugüne kadar "öğretmenlik yapmadan öğretmen yetiştirdikleri" sözleriyle eleştiriliyordu. MEF Üniversitesi ise yeni öğretmen programıyla, akademisyenleri ortaokul sıralarıyla buluşturuyor. Eğitim fakültesinin akademisyenleri Ayazağa Ortaokulu'nda öğretmenlik yapıyor.

20 Ara 2014 Güncelleme 10:28 TSİ | Konular Türkiye, Eğitim

512 | Paylaş

Üniversitenin Dekanı Mustafa Özcan da sık sık okula geliyor. Matematik dersini ise akademisyen Zelha Tunç Pekkan veriyor.

[Fotoğraf: Umay Aktaş Salman/Al Jazeera Türk]

Umay Aktaş Salman

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Flipped Classroom

https://www.youtube.com/watch?v=4uAtAgt4T0E

https://www.facebook.com/MEFuniversitesi/videos/vb.643018822415628/956690747715099/?type=2&theater

Second Year Implementation of UwS

Co-teaching 6th grade classroom (Ayazaga O)

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- Introduction to Mathematics Teaching(University)
  First year students- 15 pre-service teachers with Flipped classroom method

Content of the course

- NCTM, MEB curriculum and programs.
- 'Being Middle School Teacher'- NCTM. Six chapters
- Jo Boaler's videos on mathematics education
- Darüşşsafaka ve MEF Schools visits
- Tutoring: Ayazaga Ortaokulu. Taught mathematics to a pair of 6th grade students for 8 weeks
- 6th grade : Division, multiples, divisibility, prime numbers, common multiple and divisors, Angles, ratio, fractions and operations on fractions

Blackboard and Course Materials

Week 8- Tutoring 3

Dear All,

This week will meet with Ayazaga Students and talk about divisibility and Prime Numbers.

Divisibility game:

bölünebilmeoyun(1).docx

Here is Fulya's video about Prime Numbers:

bandicam 2015-10-23 22-06-17-733.mp4

I will also post the student handouts here soon

Week 10:Nov 9-13, 2015

Dear All,

1) Tuesday is Nov 10. Therefore, there will be a ceremony to remember M. Kemal Ataturk's life and memory at Ayazaga Middle School. We will be there. This ceremony will take the third class period therefore we should plan to teach only one class period. Just remember this.

here is the plan done by the teachers and contributions from Zeynep and Sude:

asal_sayılar_ogrenciyeverilen.docx

asal_sayılar.docx

elee.mp4

Flipped Classroom

- For 8-weeks,
- a pair of pre-service teacher prepared plan and materials to be used with their students,
- shared with me and classroom teacher,
- then took videos of those lessons to be shared with the other pre-service teachers

-

Sample pre-service teacher video

- https://www.youtube.com/watch?v=1n3s1weh3qI&feature=youtu.be

Delete | **Availability** ⌄

	Name	Visibility	Last Modified Date	Entries
☐	Darussafaka Visit- Reflection paper	Private	12/30/15 12:42 AM	15
☐	FINAL EXAM	Private	12/30/15 1:02 AM	18
☐	MEF International School Visit	Private	12/21/15 6:41 PM	12
☐	MEF Ulus- National Middle School Visit	Private	12/21/15 8:07 AM	11
☐	Mathematics Class visits reflections	Private	11/10/15 7:52 AM	13
☐	Teaching Practice Lesson Plan-1	Private	10/11/15 5:27 PM	12(9 new)
☐	WEEK 2- Reflection on NCTM Standards	Private	10/1/15 10:00 PM	17
☐	Week 1- Being a teacher	Private	10/14/15 1:35 PM	12
☐	Week 11- November15-20	Private	12/1/15 11:24 AM	14
☐	Week 13- Nov 30- Dec 4, 2015	Private	12/7/15 2:11 AM	10
☐	Week 4- Professionalism and Mathematics Teaching	Private	10/9/15 2:30 PM	15
☐	Week 5- MEB Curriculum and Teaching Video	Private	10/27/15 7:19 PM	10
☐	Week 6- Tutoring and Ayazağa Experience	Private	10/19/15 5:26 AM	16
☐	Week 8- Tutoring	Private	11/9/15 8:31 AM	13
☐	Week 9- Nov 3. 2015. Tuesday. Ayazaga Experience	Private	11/9/15 4:33 AM	12

Course Content

Help

Messages

Blogs

Journals

Discussion Board

My Grades

Additional Resources ▦

Email ✉

COURSE MANAGEMENT

▾ **Control Panel**

▸ Content Collection →

▸ Course Tools

▸ Evaluation →

▸ Grade Center →

▸ Users and Groups

▸ Customization →

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Examples from Journals

REFLECTION

1) Who is tutor? How effective is the tutoring than normal class teaching? Why? Please refer to the classroom slides.

Tutor is a kind of teacher but generally they haven't got a lot of experiences. Tutors work with 2 or 3 students and in tutoring we call students as a tutee. Tutoring has positive effects on students' success. It is useful for tutors and tutees. Tutoring is effective because, in tutoring you have only 2 or 3 students. You can see their mistakes easily and with this you can forestall these mistakes.

Sometimes students don't want to ask question in a classroom environment. They may think their friends laugh at them. If they don't understand the topic, they can't ask and then they won't be able to learn. But in tutoring, tutees are able to ask questions without any hesitation.

Another reason for students' success is, tutors are using different strategies. These strategies help them to teach better. Some strategies are, nurturing tutees, modeling for tutees, motivating tutees, asking questions, giving feedback and using examples. They all improve our teaching skills. If we use these strategies, we can be more effective on students.

2) How was your tutoring experience at Ayazağa Middle School? Write your observations and comment on those observations (it might be about the school, class, or the children you tutored).

My tutoring experience was so good at Ayazağa Middle School. When I came into the classroom, some students run and hugged me. I felt perfect at this moment. Then we met with our tutees. I worked with Furkan and İnanç. I know them from the last semester so it was easy to make a communication with them. I asked some questions like how was your summer or what did you do in holiday. Furkan said something but İnanç didn't want to talk. I realized that it will be hard to talk with İnanç. He was so silent.

Then we studied math for 2 ours. It was good because they were able to solve questions. They always wanted to solve another question. We had a good time.

I also liked the last part of our day. Mr. Ata talked with us and I think he said really good things. I like Ayazağa Middle School because people in Ayazağa are so kind and cheerful. We

- I never felt any regret while I am teaching them. I always said 'fortunately'. I really like teaching and I hope I was helpful for those students. I wish I will be a good teacher and I really like to help more and more students. This experience help me to feel like a teacher. I saw my working area and it was full of wonderful students. (ÖğretmenAdayı1)

- After I had this experience, I can say that, fortunately I decided to be a teacher. You will teach your students some important information. They will look you with lovely eyes. When I was at primary school, I was sharing my secrets with my teacher. Some of them will share their secrets with you. They will trust you. (Öğretmen Adayı 2)

Future Math Teachers Video

Learning to be Flipped Learning Teachers at MEF University

- https://www.youtube.com/watch?v=J627tTbuGoc&feature=youtu.be

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Thanks…

References:

Özcan, M. (2013). Okulda Üniversite: Türkiye'de Öğretmen Eğitimini Yeniden Yapılandırmak için Bir Model Önerisi. [TÜSİAD Raporu]. http://www.tusiad.org/__rsc/shared/file/TUSIAD-Rapor-egitim-Aralik2013.pdf

Bergman J., ve Sams A. (2012). Flip your classroom: Reach every student in every class everyday. International Society for Technology in Education.

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