

Blended Learning for Secondary School Teachers: Teaching a new programming environment to teachers of Informatics from the Cyclades island complex in southern Greece

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Aims of the seminar

- * familiarisation of the participating informatics teachers with tile programming in general and AppInventor in particular
- * developing a thematic virtual community that could support further development of those participants that choose to delve more deeply on the subject



Structure of the Seminar



- A preparatory solitary distant work on getting acquainted with the subject.
- A four hour synchronous seminar with mostly group work and some autonomous tasks.
- A subscription on the supporting virtual community is normally included in this part, though in the case of Cyclades it was also an optional part of the seminar enrollment.
- Some asynchronous personal work completes the learning activities.
- Further participation in the virtual community is voluntary.

The seminar



- For teachers of informatics in Cyclades
- Two instances: Friday 21/11/2014 and Friday 4/12/2014
- A total of 39 teachers, most of them in secondary education, as trainees
- Technical support offered by the Center for Informatics and New Technologies of Cyclades
- Instructors from the 4th Laboratorial Canter of Pireas
- Pedagogical monitoring by the School Counsellor for informatics in the area



Technical Solution

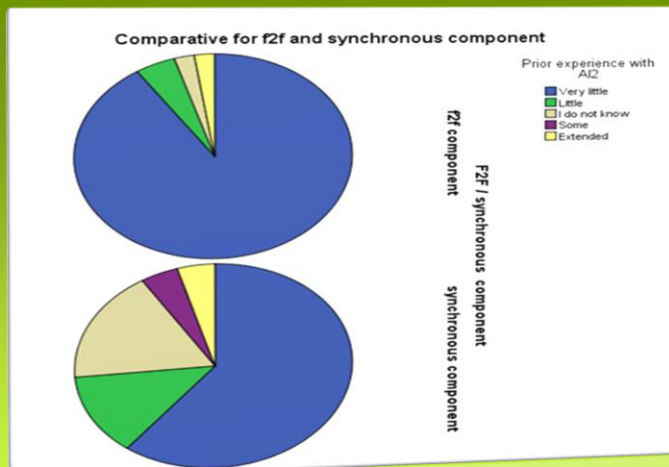


- Access from various labs and stand alone pc units not of the same or comparable configurations
- concurrent google hangouts for each session with parallel streaming of the proceedings
- Material available in the community and/ or a google drive:
<https://plus.google.com/u/0/communities/113682665764045653468?cfem=1#communities/113682665764045653468>
https://drive.google.com/drive/?tab=Xo&rfd=1#folders/oBzm_2Y95SrmlQThrcUVuSDRyVWM



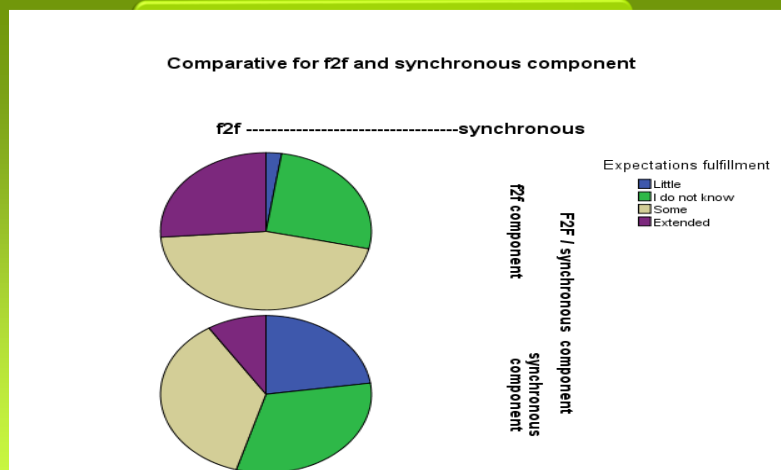
Learning activities

1. Installation of ApplInventor2 environment (mandatory) following detailed instructions Available via the virtual community.
2. Acquaintance with the environment (optional). Using a specifically developed guide. Available via the virtual community.
3. Presentation of installation and use of the emulator and companion modules of the environment (mandatory). Delivered during a synchronous session.
4. Demonstration by instructors and improvement by trainees of complete apps (mandatory). Taking place multiple times during a synchronous session.
5. Guided application development (mandatory). Still in groups, with scaffolding Instructions. Workout during a synchronous session.
6. Presentation of complete teaching scenarios (mandatory). Taking place multiple times during a synchronous session.
7. Participation in the virtual community (optional). Taking place in an asynchronous manner.



Prior experience with AI2

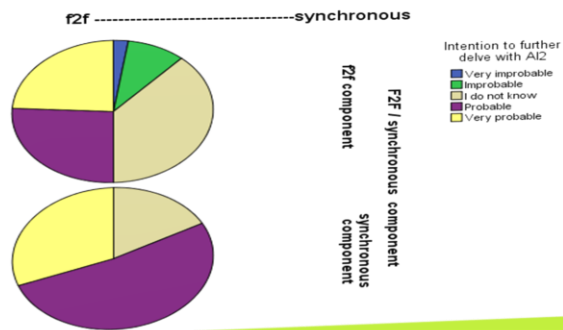
As self-reported by the trainees for both f2f component and synchronous component seminar participants. Note both the higher levels of prior engagement and the presence of ambivalence possibly indicating prior engagement of unclear success.



Expectations fulfillment

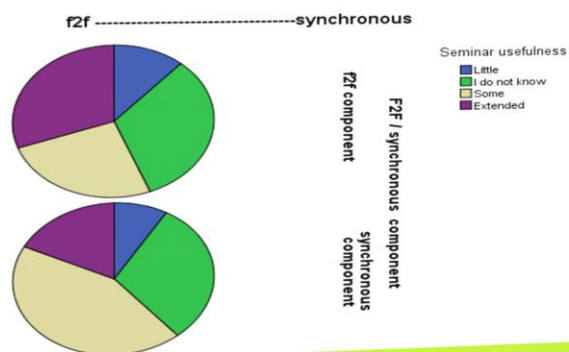
As self-reported by the trainees for both f2f component and synchronous component seminar participants.

Comparative for f2f and synchronous component

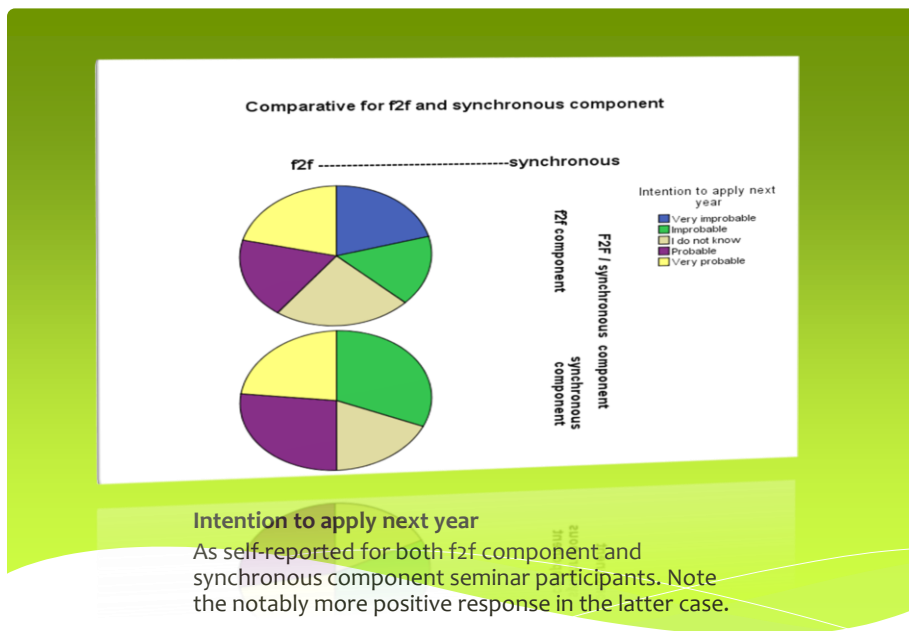
**Intention for further involvement with AI2**

As self-reported by the trainees for both f2f component and synchronous component seminar participants. Note the massively positive response.

Comparative for f2f and synchronous component

**Seminar usefulness**

As reported by the trainees for both f2f component and synchronous component seminar participants. Note the slightly more positive response in the latter case.



Results

- Generally positive outcome, need further study to generalise
- **Framework evaluation**
 - the light technical solution was beneficial to the seminar as a whole
 - streaming choice proved helpful on occasion
 - virtual community found fruitful especially for participants that maintained presence after the seminar conclusion
- **Seminar evaluation**
 - Impossible to accurately evaluate due to extensive mandatory use of ApplInventor in the new Curricula that came after the completion of the seminar



thank you!