

The Israeli Summer Seminars for CS Leading Teachers

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ABSTRACT

In this poster, we describe a four years experience of summer seminars for high-school computer-science (CS) leading teachers in Israel. The seminars featured encounters between CS researchers and teachers, as well as pedagogy based activities.

Categories and Subject Descriptors

K.3.2 [Computer science education]: Computer and Information Science Education – *computer science education*.

General Terms

Human Factors.

Keywords

Leading teachers, teacher education, computer science education (CSE), national center for teachers, community, seminar.

1. INTRODUCTION

One of the main goals of *Machshava* – the Israeli National Center for Computer Science Teachers – is to foster professional leadership of CS teachers. We believe that an organized group of leading teachers can serve as a model for other teachers, promote pedagogical objectives, and inspire other colleagues.

In the past four years, *Machshava* organized special summer seminars for CS leading teachers, called "On the frontier of computer science". The considerable outcomes of all four seminars show that the immense investment in the seminars' organization was worthwhile and very meaningful in the establishment of a powerful community of CS leading teachers.

2. GOALS OF THE SEMINARS

The seminars have four main goals. First, these seminars serve as a "playground" for meetings and discussions between teachers and CS researchers from academia and industry.

Second, the seminars are an opportunity to aid in the social integration process of teachers from different backgrounds.

A third goal is the strengthening of *professional* ties. Such ties can help in fruitful exchange of ideas and in the preparation of pedagogical activities for colleagues.

The fourth goal is forming a well appreciated and reputed reward that can motivate teachers to contribute to their colleagues. Therefore, contribution to the community is the key factor for acceptance to the seminars.

3. DESCRIPTION OF THE SEMINAR

The three-day seminars include lectures (by CS academic researchers or Hi-Tech industry leading researchers), workshops and special "show and tell" sessions.

The lectures expose the seminars' participants to state-of-the-art CS issues that are not usually addressed by the regular high school curriculum. These have the dual benefit of bringing CS teachers and researchers into closer dialog, and in giving the teachers valuable new ideas for their classrooms.

The seminars include a vital part of "show and tell" sessions, were *all* participants are required to prepare a short presentation. It can be a pedagogical problem they wish to share with their colleagues, pedagogical tips or interesting assignments.

Social interactions are essential to increase the group identity and strengthen relations among the leading teachers. Therefore, the academic program is blended with social events, joint meals, coffee breaks, and free time for "corridor talks". These social activities indeed proved themselves as a great tool in the group formation and helped remove barriers among the teachers.

4. OUTCOMES OF THE SEMINARS

The real success of the seminars is in the fresh motivation for further involvement in the community. Teachers suggest new workshops on their own initiative, and more teachers contribute to the annual teachers' conference.

In addition, teachers developed learning materials for their colleagues and helped with urgent issues of the Israeli school system.

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