New Technology and a Changing Perspective about Teaching Hebrew

Using New Technological Tools to Teach Hebrew as a Second Language in the FSU

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The rapid development of technology in the last decade fosters renewed thinking about how it can be harnessed for educational projects in general and for teaching the Hebrew language in particular. The use of technological tools for teaching Hebrew abroad is especially significant. In the former Soviet Union (FSU) countries Hebrew is studied in various frameworks, among them universities, Ulpans (intensive Hebrew language programs) and other adult education courses, Jewish day schools and Sunday schools. This paper will present several projects which use technological tools that contribute to their effectiveness and without which some projects would not be possible.

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The Neta Program in Jewish Schools in FSU countries: The Teaching and Teacher Support Process

The status of a school as a Jewish school, that requires inclusion of Jewish subjects in addition to the general national school curriculum, is inherently difficult. Both parents and children naturally tend to attribute the utmost importance to general subjects that can, as they see it, advance the young learner in the future. They perceive the status of Jewish subjects as secondary, sometimes even negligible, and as a result this is often the perception of school management. The work of Hebrew teachers under these circumstances is of course difficult, as they must also contend with pupils' low motivation and the disinterest of other entities, including parents and school management.

Who are the Hebrew teachers that teach in Jewish schools in FSU countries? They are shelichim (emissary)-teachers from Israel as well as local teachers. All shelichim-teachers hold an Israeli teaching certificate, yet in most cases did not gain experience in teaching Hebrew as a second language prior to embarking on their mission. Most local teachers do not have training or experience in this field as well and their command of Hebrew often requires improvement. Therefore, both groups of teachers need, whether they recognize it or not, professional training and support in second language teaching methods, and many local teachers must also improve their command of the Hebrew language. Add to this the high turnover of teachers for varied reasons such as the limited time that Israeli teachers are allowed to stay abroad and the low wages paid to local teachers. Under these circumstances the heightened need for teacher training and supervision is evident.

This paper will only describe the professional training provided to Hebrew teachers that teach according to the NETA ("Youth for the good

of Hebrew") program as part of the Aleh ('Hebrew for Youth') project.[2] The principles however are suitable for every graded program.

The NETA program targets 6th–11th grade pupils and its goal is for learners to acquire a good command of the language. It goes without saying that the teachers' high professional level is vital to this task. In the program orientation course teachers learn NETA program principles, get acquainted with program material and teach sample lessons. Despite the importance of this course, it is only the first step in the training and support process.

In the first stage of NETA project implementation (which preceded the ALE project) the responsibility for teacher supervision and support in 12 Jewish schools in Russia,[3] the Ukraine and Moldova (2005-2009), was placed on two trainers from Israel. Part of their duties entailed visiting every school several times a year, observing classes and providing feedback to teachers. Despite the supervisors' high professional level, the new professional horizons they opened for the teachers they worked with and their diligence, their work was not sufficiently effective since the newcomers needed more frequent supervision. Moreover, it is vital for teachers to work jointly with supervisors at the lesson planning stage, something that requires considerable investment from both parties. For the most part this visit format did not provide the teacher and the supervisor with time enough to design the lesson together before it is observed by the supervisor. It was also not feasible to recruit additional supervisors from Israel due to lack of funds as well as the small number

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2   The 'Hebrew for Youth' Project (ALE) is implemented as part of the Hefziba (formal Jewish Zionist education in the FSU) project, with the financial assistance of the Pincus Fund for Jewish Education in the Diaspora and the Genesis Philanthropy Group (GPG).

3   The NETA project was operated in 2005-2009 with the funding of the AVI CHAI Foundation, Ohr Avner Foundation, the Israel Ministry of Education and the Jewish Agency for Israel.

of experts trained to supervise the NETA program and who were willing to take upon themselves the intensive travel regime it required. As for local teachers, some gained extensive experience during the project operation period, were trained to supervise and even awarded a supervisor certificate by the world NETA project. Their integration as project supervisors seemed beneficial and even necessary, at least as supervisors in the school in which they taught. Yet paradoxically, their employment as supervisors interfered with their ongoing teaching responsibilities and forced school management to replace them, at least part of the time, with less experienced teachers. It is not surprising that the idea was not received favorably by the schools, not to mention their displeasure regarding the possible travel of these teachers to other cities which would interfere with the school routine even further.

Only the development of video communication technology enabled far-reaching change in the field of teacher supervision. It was decided that most supervision would be conducted from a distance via videoconferencing between the supervisee and the local supervisor. Thus supervisors would not be absent from their place of work and would only need to schedule time convenient for both parties. Since introducing this change, every 'supervision cycle' is conducted in three stages. In the first stage the supervisee presents the lesson plan and when needed the supervisor suggests improvements when needed. In the second stage the observed lesson is recorded and the recording sent to both the supervisor and the supervisee – so that the supervisor does not have to observe the lesson in real-time. The third stage includes joint analysis of the lesson and planning of the next observed lesson. It is important to note that observation of the lesson via video eliminated the problem of teachers who were also supervisors since the teachers no longer have to choose between the two activities.

In this supervision process extensive effort must be invested in accompanying the supervisors in their ongoing work. This endeavor requires the attention and scrutiny of world NETA project supervisors. The project supervision map was redesigned in light of the change: the supervisor's professional abilities rather than political borders or geographic distances are now the key determining factors. For example, supervisors from Moscow can supervise teachers from Kazan and Kishinev, a supervisor from Kiev can supervise her colleague who is a beginning supervisor in St. Petersburg who in turn supervises a teacher in Kiev.

Recording a Hebrew lesson conducted in a distant location: the NETA program "ALE - Hebrew for Youth" project

'Mishpahtenu School'   Herzl School   Ort School
(Kazan, Russia)   (Kishiniev, Moldova)   (Odessa, Ukraine)

Despite the pronounced importance of the project's supervision component, at the outset we faced some tension among teachers, some of whom did not see observation of their class lessons as support and support but rather as a test of their professional qualifications. Several teachers also felt that the joint planning of a lesson with the supervisor is an unnecessary burden and made efforts to avoid this task. This required supervisors to balance necessary criticism with sensitivity.

It is interesting to note that the teachers adjusted quite quickly to having the camera in the classroom and at times even tried to contact

the project manager recording the lesson. Inevitably, a conversation in Hebrew with an individual in another country will become an attraction for pupils and will motivate them to invest greater efforts in their Hebrew studies. Cleary a language that is only used in a class context is not perceived as having great value which is a challenge for the project. Informal communication with native speakers may seemingly be the key factor in mastering a language, however it is difficult to design an effective class framework that will motivate native speakers the same age as our pupils to participate in such a project. A feasible solution would be to initiate communication between pupils in Jewish schools from various Diasporas (Russia, Australia, United States, Mexico, South Africa, etc.), since Hebrew would be the only language children studying in the same NETA program could use to communicate between them.

Improving Teachers' Command of Hebrew

As noted above, in addition to cultivating the teachers' teaching methodology skills, some local teachers also need to improve their command of Hebrew. This holds true not only for Hebrew teachers in Jewish schools but also for Ulpan and Sunday school teachers. Most teachers from these three groups recognize the importance of improving their Hebrew.

As far back as 2004 we developed and implemented the 'distance learning' project with the participation of more than 100 Hebrew teachers in various frameworks every year (see bibliography). The project structure enabled the participants to improve their reading comprehension, grammar, essay writing and to a lesser extent listening comprehension. Speaking skills were not included in the project as it is difficult to improve these skills through distance learning.

Clearly the problem could only be solved with the development of video communication technology with only moderate requirements regarding a typical user's computer capabilities and available network bandwidth. The necessary software and hardware development level was reached about 4 years ago and provided the infrastructure for implementing an experimental project. The project initially targeted Jewish Agency teachers from Khabarovsk located in the far eastern part of Russia. The fact that these teachers were so geographically far from where the seminars were conducted meant that they could not participate since travel costs were very high compared to the cost for teachers from closer locations. The teachers' high motivation level and desire to improve their mastery of Hebrew required an urgent and adequate solution.

The first classes were held in the Jewish agency office where teachers would huddle around the computer screen and learn from a teacher located in Moscow via Skype. Despite numerous difficulties, they continued their studies in this manner for four years, while technology gradually advanced. The support of the Pincus Fund for Jewish Education in the Diaspora, the Jewish Agency for Israel and at a later date the Dutch Jewish humanitarian fund, enabled us to open new virtual classes for teachers in ulpans, day schools and Sunday schools. The curriculum in all classes was corresponded to that of the program taught by the Division of Hebrew Language Instruction at the Hebrew University Rothberg International School. All Hebrew levels, except for basic Hebrew, were taught. Another program, 'ooVoo', provided the technological infrastructure through which it was possible to connect a teacher to 5 students in a virtual classroom (with the latest version of the program a virtual lesson can be conducted with 11 participants). Compared to the Hebrew Online project in which students see the teacher but the teacher does not see the class (see Rodovsky's article in the bibliography), in the classes described

here, students see each other as well as the teacher, and the teacher sees everyone (see Dr. Maryanchik's lecture in the bibliography). While the chat feature can be used, it is more convenient to show the desktop on the screen and on it a prepared presentation or a Word document in which the teacher types in real-time.

Level "Gimel" (3rd) video lesson

Participating teachers from the following cities: Ulyanovsk, Oryol, Syktyvkar, Kazan (Russia); the teacher, Ms. Alexandra Kravtsova, is in the lower right-hand corner

Level "Hey" (5st) video lesson

Participating teachers from the following cities: Lvov, Dnipropetrovsk, Poltava, Kiev (Ukraine) and Ufa (Russia); the teacher, Mrs. Irina Barkusskaya, is in the lower right-hand corner

It is important to note that a relatively small number of pupils in a virtual class increases considerably the lesson cost per participant. Thus it is advisable to find ways to save time without undermining the students' progress. One part of the lesson, which at first thought should not be discontinued, is checking homework. After all, how can a teacher advance the class without checking that everyone has learned the study material from the previous lesson? Yet this takes up a lot of time which should be saved in a regular lesson, not to mention a video lesson. There are undoubtedly homework assignments that must be checked in class. Furthermore, students must also devote time to other exercises such as: conjugating nouns and verbs, syntax exercises and clozes as well as

reading and listening comprehension. Checking these assignments can be computerized.

We recently developed a method to use computerized exercises (see Dr. Maryanchik's lecture in the bibliography). These exercises can be designed using a simple software program. The advantage of most computerized exercises is the immediate feedback students receive when they make a mistake that is corrected by the software program. Using this system changes the nature of homework assignments. Now the assignment not only asks to 'do the exercises', but rather to 'repeat the exercises until they are performed without mistakes'.

With SunRav, the software program selected to design the exercises, different types of questions can be formulated:[4]

- Single-choice question (the user can choose only one correct answer from a list of possible answers);

- Multiple-choice question (the user chooses a number of correct answers from a list of possible answers);

- Fill-in questions (the examinee enters a word or a combination of words in a specified field that is compared to a list of templates – the list of correct answers);

- Arranging items;

- Matching items from two lists.

Text, pictures, a voice file or a video file can be included in the questions. The exercises can be designed in such a way that questions will be asked randomly or in a predetermined order. If needed, student answers will be checked and even sent to the teacher via email for

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4   According to the terminology of the Academy of the Hebrew Language, the first two types of questions are called 'choice questions'. To distinguish between them we will use the following terms in this paper: single-choice question and multiple-choice question.

additional assessment. Writing exercises using the software is quick and simple: technically, an entire booklet of exercises can be converted into a computerized format within a week at the most.

We would like to stress that while using computerized exercises under regular study conditions can improve the effectiveness of learning process, which is vital in the virtual format.

Let us return to the video lessons. Infrastructure development will soon provide the ability to conduct a lesson in a virtual classroom the size of a regular class, however the lesson structure will be different and will utilize all the advantages the computer offers.

With respect to virtual teaching of Hebrew to beginning level students, an important question should be asked for which there is no unequivocal answer as of now: should time and effort be invested in practicing handwriting, or is typing in Hebrew sufficient in this day and age? On the one hand, the effectiveness of cultivating handwriting skills is dubious, particularly in a virtual lesson in which the teacher cannot see what students are writing in their notebooks. However, lack of this skill may turn into a disadvantage for students because almost everyone will encounter a situation in which handwriting is required. Beyond this issue, when it comes to virtual teaching there are no substantial differences between teaching beginners and teaching students with higher level knowledge of Hebrew.

Online Tests[5]

To increase the effectiveness of class learning and teacher training advanced means of assessing student progress are needed. Due to the geographic range of the various ulpans throughout the FSU along with technological developments in conducting virtual lessons, it was important to design a virtual test system.

In light of the curriculum we adopted we also chose the Hebrew University's level testing model as an effective achievement measurement tool. These tests, written by Ms. Olga Dubova[6] under the supervision of Ms. Varda Yishai,[7] were already been used to assess students' progress at the Moscow State Maimonides Academy as well as the language mastery level of Jewish Agency teachers at the beginning of the century.

The new task we faced involved converting these tests into an online format. The idea and its implementation were based on a technology similar to that used to develop computerized exercises, in this case using the webserver version - SunRav WebClass. It was decided to start by developing level A tests for ulpan students to be followed by tests for higher levels – for both ulpan students and teachers. We also took advantage of additional capabilities the software offered to address additional aspects of online testing:

• To assign a point value to every question reflecting its difficulty level in relation to other test questions.

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5   See article written by the authors of this paper in **Hed HaUlpan Hachadash, 99** (in the   bibliography).

6   Ms. Olga Dubova is a senior Hebrew teacher who has worked for many years in Moscow State University and at the Moscow State Maimonides Academy.

7   Ms. Varda Yishai is a senior teacher in the Division of Hebrew Language Instruction at the Hebrew   University.

- To ensure that test questions are in a secure protected database on the website
- To utilize advanced user authorization capabilities.

Similar to computerizing regular exercises, computerizing test exercises is not technically sophisticated, however ideationally we first had to develop computerization principles as well as guidelines for conducting the online test.

The Hebrew University level test is divided into four sections: reading comprehension, cloze, grammar exercises and an essay. The first three sections can be computerized, however the fourth section, an essay, cannot be checked automatically. To clarify, we will examine each test section separately.

1.   **<u>Reading comprehension</u>**

In a regular, offline level test, the 'reading comprehension' section includes an expository text followed by comprehension questions. There are usually three types of questions: single-choice, multiple-choice and questions that require expanded answers. The first two question types do not pose any problem in converting them into a computerized format however the third question type, with expanded answers, cannot be assessed automatically. Computerizing this type of question requires substantial changes, even reformulation. Taking this into consideration, questions of the third kind were rewritten in the format of one of the other two question types. This reformulation of questions of the third kind into choice questions requires the person writing the test to select the alternative question type (single or multiple choice), and to word the question sagaciously. Furthermore, these types of questions are easier for

the examinee compared to their original format, and must therefore be assigned a smaller value.

Seemingly it would only be natural to use single-choice questions in the reading comprehension section due to the extensive use of such questions in American test format, usually with four possible answers. Using this system in Hebrew level tests seems ineffective. For example, an examinee who answers one-third of the questions correctly in the 'reading comprehension' section can choose a strategy of random guessing on the remaining questions. In the 'American question' model this student will receive an additional 17% that will be added to the 33% he should get, and will receive a passing grade that he does not deserve. Therefore we can conclude that computerization of the 'reading comprehension' section should be based on multiple-choice questions that address the guessing issue while assigning point values close to those that would have been obtained on the original expanded-answer questions.

2.   **Cloze**

In the cloze section the examinee inserts missing words based on the context. This section assesses reading comprehension ability as well as correct use of morphological forms and idioms. In the non-computerized format the exercise is evaluated based on an assessment of the words inserted with respect to these criteria, and this assessment determines whether the answer will be accepted or rejected. Computerized assessment of this section requires an expanded list of possible templates for all the options that would be considered reasonable. The examinee's choice sometimes demonstrates understanding of the context and correct use of the word in terms of its form, yet the answer would not sound right to the native Hebrew speaker. In tests evaluating low level Hebrew knowledge,

there is no choice but to accept these answers, even if the collocations are incorrect. Therefore, automatic assessment should initially be combined with manual assessment in order to expand the list of templates. This is possible if reasonable answers given by examinees are included in the computerized list.

3.   Grammar

The grammar section can be computerized without making substantial changes to the original version of the test. Similar to the regular test, examinees tested in the electronic format receive many questions related to conjugation forms and syntax. Examinees must assign the correct preposition form, write several words, use one or another grammatical combination, etc. Questions in this section are single-choice or fill-in questions, usually with more of the latter. Examinees may encounter technical difficulties in this section as extensive typing without mistakes is required due to the numerous fill-in questions.

4.   Essay

As stated, the essay cannot be checked automatically, yet cannot be eliminated since it is the only test component that assesses written writing skills. Examinees can choose to write an essay in handwriting or type it on the computer. If they choose the first option, the essay must be scanned.

Since our main goal was to assess ulpan students' language mastery level, initially only beginner level tests (A level) were converted into an electronic format. For the first cycle of tests conducted during the period between the end of May and the beginning of June 2011, all Jewish Agency ulpan students in the FSU who had already completed their level

A studies were invited to take the test. Almost 200 individuals residing in 21 cities in seven FSU countries registered to take the electronic test, and some tests were conducted simultaneously in several cities. Distant supervision of the test and video recording of the classroom during the test were conducted using the oovoo software described above. Cameras were positioned such in a way that all of the examinees in the room could be seen as shown in the following pictures. In addition to observing from a distance using cameras, Jewish Agency representatives were also present in the room during the test.

Level "Alef" (1st) test in the city of Vilna (Lithuania)

Level Alef (1st) test in the city of Minsk (Belarus)

Test results are encouraging: more than half the examinees passed the test (the passing score is 50% of the maximum score for every question and 65 points out of 100 on each test). The tests helped identify issues requiring further attention in the learning process. For example writing the essay was found to be a weak point among many of the examinees. In certain instances this stems from the examinees' difficulty expressing themselves in writing even in their mother tongue. Nonetheless greater emphasis should be placed on this aspect as part of the learning process.

Summary

This paper reviews the projects that use new technological tools, discusses the effectiveness of these tools and their contribution to advancing Hebrew teaching processes in the FSU and presents existing challenges. We have shown that the use of technological tools helps all parties of the language learning process: students, teachers and those in charge of the system.

We undoubtedly face a far-reaching system change in language instruction. Owing to this change, command of the Hebrew language, currently the province of only a small segment of Jewish people in the Diaspora, may become the province of many.

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