

## THE CORRELATION BETWEEN TEACHING DISCIPLINE AND THE PERCEPTIONS OF STUDENT-TEACHER APPRAISAL IN THE ERA OF E-LEARNING

EITAN SIMON

Ohalo College Israel, [eisi@macam.ac.il](mailto:eisi@macam.ac.il)

**Abstract:** The paper aims to throw light on changes in the processes of student-teacher evaluation in the era of e-learning, changes in the realms of knowledge and skills required for future teachers.

**Keywords:** Teacher training, 21<sup>st</sup> century skills, student teacher appraisal, e-learning

### 1. INTRODUCTION

This paper describes part of the teacher-training process for the 21<sup>st</sup> century, a process that aims to provide the future teacher with a professional identity and acquisition of technological skills suitable for the modern era. The integration of technology in teaching constitutes an important facet of the teaching process and so this must be considered in any teacher-training process. The vision of teacher-training institutions aims to equip the future teacher with the best possible knowledge and tools for self-realization in teaching processes in school. In addition to changes in training processes, changes have also taken place in evaluation processes. This paper deals specifically with changes that have occurred in the practice of evaluation in a period when changes are being made in the learning programs due to the integration of technology in teaching.

### 2. LITERATURE SURVEY

A list of 21<sup>st</sup> century skills [1](Partnership for 21<sup>st</sup> century skills, 2014) can serve as the foundation for the construction of a new-alternative pedagogy aimed at training the citizens of the future, to be concerned participants in democratic society, with both local and global awareness and with skills to enable them to assimilate in a dynamically changing labor market. The component skills, which include collaboration, high order thinking skills and investigative thinking are not new [2], however, technology enables them to be realized in the education system in an innovative manner previously unknown. It is important for student-teachers to experience the use of the new pedagogy in order to help them to find ways to manage such learning in the future classroom and to be able to discuss the challenges involved. The overflowing knowledge and information found today on the Internet constitutes an important part of the learning process of student-teachers and of course for school students in a K-12 education system. The effective use of all the information that exists today constitutes a challenge for Internet users who need to select what is appropriate and fitting for school teaching. The era of the teacher with a blackboard and chalk has passed and we are now in an era of many simultaneous changes that constitute a challenge to the future teacher.

Some see these changes as a threat to teaching-learning processes, especially the changes that will be needed in the role of the future teacher. Will the teacher's role still be to transmit knowledge? Information? Will they provide examples/illustrations? Will they do something else? Different models for the teacher's image supplemented by technological capabilities that exist today constitute the source for the main change in the teacher's role. In the era of e-learning, the development of a teacher's professional identity, will be expressed in various dimensions from the physical structure of the school up to the redefinition of the teacher's role and thinking about sources from which the student will draw the necessary knowledge to integrate as an effective citizen in a future society.

Fullan and Langworthy [3] highlight the importance given by 21st century educational approaches to students' deep learning experience. A "learning partnership" approach is essential including a focus on positive relationships, nurturing students' aspirations, providing in-depth feedback and focusing on learning to learn and peer tutoring.

The issue of the integration of computer technology and the use of digital tools in teaching has important and large potential that is already realized in part at present and should be exploited for the benefit of the teacher and students in order to reinforce existing teaching skills [4]. This involves the assimilation of a world of content close to children – the world of the computer. Students can turn to knowledge that is nowadays available from any computer and experience alternative types of learning, and development of high level thinking and the educational setting is transformed, becoming more transparent and available at any given moment. Digital tools can construct new knowledge in the school with a wide variety of ways of involvement for students and teachers in a relatively short time and this can bring renewal and the construction of a wide range of pedagogic capabilities. Thus it is important to ensure that all students and teachers and student-teachers have a comprehensive program that includes the integration of technologies in different disciplines in both horizontal and vertical teaching and access to information banks that are available to all on the information highway of the Internet [4].

The teacher-training system in Israel has undergone many changes in recent decades, the most recent being the Ariav Plan implemented from 2009. These alterations mainly involved changes in the scope of teacher-training studies for future teachers without considering the many changes occurring in the worlds of content of information and knowledge and the ways to acquire them. Computer-supported teaching in teacher-training institutions constitutes an example of how the training process is changing to incorporate technologies (including course sites, the use of multimedia and advanced uses of social networks and mobile devices) in teaching. This allows flexibility in teaching and its modification for the heterogeneity of student-teachers, including the use of multiple-participant courses. The variety of technological tools available to lecturers allows them to present information in different ways, to conduct discussions and debate even outside the lesson and to provide the students with investigative assignments and new ways to produce and present their products.

The tools available to all on the Internet courses such as MOODLE courses permit follow-up after the performance and transmission of information in an immediate and direct manner. It is possible to see that the use of mobile devices as a teaching tool can contribute a focus for the student's attention to teaching and learning. This is a new teaching challenge that the institutions of higher education hope to learn and to assimilate in their teaching. Technology assisted teaching constitutes an important tool that will enable the achievement of teaching and learning goals for the 21<sup>st</sup> century. Good teaching is teaching that promotes good learning and good learning is the goal of any academic institute. We expect good lecturers to continually improve their teaching, to use new teaching approaches that enrich the learner, to use new tools, to foster interest and creativity in their students' learning and to continue independent life-long learning over the years of their academic activity and as the teacher for future decades during the development of their professional career.

In order to try to assist the student-teacher in their induction into the education system different parameters were modified in student-teachers' evaluation during their practical training. The change process involved discussion by a mix of all the pedagogic instructors, and the consideration of different evaluation tools for different disciplines and also the Ministry of Education evaluation tools. A joint staff produced a uniform evaluation tool for all the students while certain sections of the evaluation provided specific modified tools for each discipline that reflected the special features of the teaching discipline.

The research question: Are evaluation processes for student-teachers' test lessons influenced by the different teaching disciplines for which they are trained in an era of e-learning?

### 3. DESCRIPTION OF THE CASE

The research employed a questionnaire that was administered to 132 students who studied for a B.Ed. degree in education and teaching that aimed to prepare

them to be future teachers. The students were all performing practicum experience in Years 2 and 3 of their training (out of a four-year learning program) in the Ohalo academic college of teaching and education. The questionnaire was administered after the end of the first semester and again at the end of the academic year.

### 4. RESULTS

A total of 111 students responded to the questionnaire that was transmitted by Google.docs before the implementation of the change in student-teacher evaluation (Stage 1) and 83 responded to the questionnaire transmitted after the change process (Stage 2). The percentage of respondents that completed the questionnaire ranged from 62-84% respectively. The change in the percentage of respondents was due to an alteration in the method of administration of the questionnaires whereby at the first stage it was administered in the lesson time and the students were asked to respond on the spot while at the second stage the questionnaire was transmitted through Google.docs and the students were asked to respond within a week.

**Table 1:** Distribution of the student-teacher respondents at Stages 1 and 2, by disciplinary specialization

Specialization discipline	Number of questionnaire respondents at Stage 1		Number of questionnaire respondents at Stage 2	
	N	%	N	%
Jewish studies	26	23	22	26
English	47	42	39	48
Sciences	38	35	22	26
Total	111	100%	83	100%

**Table 2:** The Jewish studies student-teachers' responses to the questionnaires (N=22)

Item No.	Statement/Parameter	Pre-change	Pre-change	Post-change	Post-change
		Mean	SD	Mean	SD
1	<i>I was satisfied with the evaluation processes for my practical work</i>	3.85	0.94	3.96	0.87
2	<i>I derived additional knowledge in the field of teaching as a result of the feedback process</i>	3.86	0.96	4.06	0.93
3	<i>I derived additional knowledge in the context of teaching in general</i>	3.97	0.95	4.27	0.86
4	<i>I learnt about</i>	4.26	0.79	4.27	0.87

	<i>the points that I need to improve</i>				
5	<i>I learnt what are my strengths in teaching</i>	4.11	0.92	4.13	0.82
6	<i>I received detailed feedback on the procedure of the lesson</i>	3.89	1.06	4.00	1.03
7	<i>The feedback included consideration of subjects that are not within my responsibility (for example the number of learners in a class, physical conditions etc.)'</i>	3.05	1.19	3.73	1.11
8	<i>I was given practical suggestions to improve the teaching processes</i>	3.75	0.99	4.1	0.98
9	<i>I was satisfied with the feedback process</i>	3.63	0.99	4.03	0.87
10	<i>The feedback gave me a full picture of the teaching processes in the classroom</i>	3.57	1.02	4.00	1.00
11	<i>I was satisfied with the results of the feedback</i>	3.17	1.10	3.69	1.14
12	<i>The feedback included consideration of subjects with which I am not familiar in the pedagogic field</i>	3.82	1.03	4.13	0.92
13	<i>I received detailed feedback about the process of the lesson</i>	2.71	1.29	4.2	0.85
14	<i>There was a gap between the verbal feedback that I received and the</i>	3.21	1.21	3.43	1.41

	<i>grade I was given</i>				
15	<i>The feedback did not include consideration of the preparation process for the lesson</i>	2.55	1.25	3.43	1.45
16	<i>There was no consideration in the feedback to the connection between the plan for the lesson and its performance</i>	2.61	1.28	3.25	1.43
17	<i>Some of the dimensions for which feedback was given were not important</i>	2.51	1.19	3.41	1.3
18	<i>The feedback was adapted to the gauge that was presented to the class in didactic lessons</i>	3.61	1.12	3.90	1.13
19	<i>I knew what was expected from me during the teaching-learning process in the lesson</i>	3.85	0.95	4.13	0.88

**Table 3:** The English studies student-teachers' responses to the questionnaires (N=39)

		<i>Pre-change</i>	<i>Pre-change</i>	<i>Post-change</i>	<i>Post-change</i>
<b>Item No.</b>	<b>Statement/Parameter</b>	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>
1	<i>I was satisfied with the evaluation processes for my practical work</i>	3.82	0.94	4.02	0.92
2	<i>I derived additional knowledge in the field of teaching as a result of the feedback process</i>	3.76	0.98	4.10	0.92
3	<i>I derived additional knowledge in the context of teaching in</i>	3.82	0.98	4.28	0.86

	<i>general</i>				
4	<i>I learnt about the points that I need to improve</i>	4.05	0.90	4.36	0.86
5	<i>I learnt what are my strengths in teaching</i>	3.95	0.96	4.26	0.92
6	<i>I received detailed feedback on the procedure of the lesson</i>	3.79	1.03	4.10	1.12
7	<i>The feedback included consideration of subjects that are not within my responsibility (for example the number of learners in a class, physical conditions etc.)'</i>	3.10	1.17	3.41	1.20
8	<i>I was given practical suggestions to improve the teaching processes</i>	3.68	0.97	4.05	1.04
9	<i>I was satisfied with the feedback process</i>	3.62	1.01	3.97	0.91
10	<i>The feedback gave me a full picture of the teaching processes in the classroom</i>	3.56	1.02	3.87	1.05
11	<i>I was satisfied with the results of the feedback</i>	3.22	1.07	3.36	1.24
12	<i>The feedback included consideration of subjects with which I am not familiar in the pedagogic field</i>	3.73	1.01	4.10	1.02
13	<i>I received detailed feedback about the process of the lesson</i>	2.83	1.26	2.96	1.51
14	<i>There was a gap between the verbal feedback that</i>	2.73	1.25	2.85	1.41

	<i>I received and the grade I was given</i>				
15	<i>The feedback did not include consideration of the preparation process for the lesson</i>	2.65	0.95	2.83	1.57
16	<i>There was no consideration in the feedback to the connection between the plan for the lesson and its performance</i>	2.83	1.29	2.64	1.54
17	<i>Some of the dimensions for which feedback was given were not important</i>	2.72	1.23	2.90	1.41
18	<i>The feedback was adapted to the gauge that was presented to the class in didactic lessons</i>	3.56	1.11	3.87	1.21
19	<i>I knew what was expected from me during the teaching-learning process in the lesson</i>	3.78	0.95	4.20	0.87

**Table 4:** the Sciences studies student-teachers' responses to the questionnaires (N=22)

		<i>Pre-change</i>	<i>Pre-change</i>	<i>Post-change</i>	<i>Post-change</i>
<i>Item No.</i>	<i>Statement/Parameter</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
1	<i>I was satisfied with the evaluation processes for my practical work</i>	3.84	0.97	3.99	0.87
2	<i>I derived additional knowledge in the field of teaching as a result of the feedback process</i>	3.79	1.00	4.05	0.95
3	<i>I derived additional knowledge in</i>	3.86	1.01	4.23	0.89

	<i>the context of teaching in general</i>				
4	<i>I learnt about the points that I need to improve</i>	4.07	0.94	4.29	0.88
5	<i>I learnt what are my strengths in teaching</i>	3.99	0.99	4.21	0.84
6	<i>I received detailed feedback on the procedure of the lesson</i>	3.81	1.06	4.05	1.05
7	<i>The feedback included consideration of subjects that are not within my responsibility (for example the number of learners in a class, physical conditions etc.)'</i>	3.12	1.17	3.53	1.20
8	<i>I was given practical suggestions to improve the teaching processes</i>	3.70	1.00	4.03	1.03
9	<i>I was satisfied with the feedback process</i>	3.65	1.03	3.99	0.89
10	<i>The feedback gave me a full picture of the teaching processes in the classroom</i>	3.58	1.04	3.92	1.01
11	<i>I was satisfied with the results of the feedback</i>	3.24	1.08	3.52	1.28
12	<i>The feedback included consideration of subjects with which I am not familiar in the pedagogic field</i>	3.75	1.04	4.10	0.93
13	<i>I received detailed feedback about the process of the lesson</i>	2.83	1.26	3.07	1.55
14	<i>There was a gap between</i>	2.74	1.24	2.80	1.60

	<i>the verbal feedback that I received and the grade I was given</i>				
15	<i>The feedback did not include consideration of the preparation process for the lesson</i>	2.84	1.29	3.09	1.46
16	<i>There was no consideration in the feedback to the connection between the plan for the lesson and its performance</i>	2.73	1.23	3.84	1.19
17	<i>Some of the dimensions for which feedback was given were not important</i>	2.91	0.94	3.56	0.84
18	<i>The feedback was adapted to the gauge that was presented to the class in didactic lessons</i>	3.58	1.13	3.84	1.19
19	<i>I knew what was expected from me during the teaching-learning process in the lesson</i>	3.81	0.98	4.18	0.89

## 5. DISCUSSION

Differences were found between the responses of student-teachers answering the questionnaire before the change in evaluation (Stage 1) and the responses given by those who answered the questionnaire after the change in evaluation (Stage 2) as can be seen from Table 2 above. It seems that the student-teachers experienced better feedback from the pedagogic supervisors for test lessons in the era of integration of e-learning after the change in evaluation. Answers to the qualitative part of the questionnaire (open questions) indicated that the use of technological tools constituted a relatively small part of the teaching experience in schools, something that contradicts the college's credo that technological means should be integrated into teaching. No significant differences were found between the student-teachers in

different disciplines but it was possible to deduce that there was a significant improvement in the evaluation processes and the change had been important and that there was now more satisfaction regarding the evaluation process. The student-teachers thought that the evaluation processes were important and now more appropriate than in the past.

## 6. CONCLUSIONS

A more comprehensive study should be conducted regarding the fitness of the student-teachers' evaluation processes for the e-learning era. It is important to combine parameters of evaluation that relate to commitment to use technological tools in teaching in test lessons in order to encourage the student-teachers to learn to use these innovative technological tools as appropriate for the e-learning era. In this e-learning era with the integration of Big data, and the future potential to use Internet of Things (IOT), the ability of the pedagogic instructor and the education student to attain better performances in class a new level of questions should be asked concerning the contribution of technology-assisted learning that require reexamination of teaching-learning processes.

Thus too, evaluation tools should relate to the use of technological tools which should be expressed in the teaching of all age groups of students in the K-12 schools.

## LITERATURE

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