

NURTURING FUTURE EDUCATORS: EXPLORING NEW FRONTIERS OF COLLABORATIVE TEACHER TRAINING MODEL

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Abstract

In 2021, the Israeli Council for Higher Education introduced the Vadmani-Inbar framework, marking a pivotal shift in teacher training. This framework, which replaced the Ariav framework, prioritizes clinical training to bridge the inherent gap between theory and practice in teacher training. As academic coordinator of clinical training in the teacher certificate school of Bar-Ilan University's faculty of education, the author has been actively involved, over the last six years, in developing and assimilation of a clinical model for teacher's training that allows optimal implementation of the clinical core component of the new framework. Over the course of this period two fundamental processes were developed: the creation of a non-disciplinary mandatory course conducted within schools, promoting theory-practice alignment through observations, reflective discourse, and workshops; and the establishment of a specialized disciplinary clinical training track that ensures close coordination between the academia and the field. This clinical training model encompasses a diverse range of learning modalities, including face-to-face and individual instruction, as well as online learning facilitated by learning management system (LMS), and artificial intelligence (AI) tools. Through these academic routs, students are actively engaged in disciplinary and pedagogical content, working extensively within and outside the classroom. They are expected to generate new relevant knowledge and engage in continuous reflective dialogues in order to contribute to the development of a knowledge base that is continuously evolving. Formative and summative evaluations of each student are conducted collaboratively by teachers and academic coordinators, considering various Knowledge, Skills, and Abilities parameters (KSA). Collaboration with schools across diverse sectors in Israel offers students the opportunity to integrate into different educational settings, fostering discourse and cross-sector acquaintances. This study focuses on a research of this clinical training track, that won 2023's Council for Higher Education of Israel call for proposals under the category "experience-integrated academy". Analyzing qualitative interviews and a quantitative questionnaire allows us to examine how this process, led by academic leaders and mentoring teachers, contributes to fostering continuous collaborations of learning communities among students, educators, school personnel, and education professionals. The study provides insights into clinical training, both in terms of the transformative potential of Vadmani-Inbar's framework, as well as its potential to improve teacher education, thereby improving education quality.

Keywords: *Clinical teacher training, teachers training in Israel, theory and practice, Vadmani Inbar framework.*

1. Introduction: Paradigm's Winds of change

In the dynamically evolving educational milieu of the 21st century, defined by unprecedented global shifts, rapid technological advancements, and the increasingly pivotal role of individual agency, the realm of pedagogy has encountered complexities and challenges of a new magnitude. The Vadmani-Inbar Framework, inaugurated in Israel in 2021, represents a strategic response to these paradigmatic shifts. It highlights the crucial role of clinical training in guiding students through a multifaceted and sometimes enigmatic educational landscape, emphasizing the need to address ethical, social, and moral dimensions within the teaching profession. This approach fosters the holistic well-being of both individuals and groups, thereby enriching the educational experience (Vadmani-Inbar, 2020, p. 4).

The framework spans a spectrum of critical areas, including the establishment of robust linguistic foundations, the development of adaptable, dynamic curricula and assessment methodologies, and the integration of educational experiences with real-world contexts. This necessitates a nuanced comprehension of information as an evolving, interdisciplinary entity, cultivated through interactive processes and tailored strategies.

In response to these imperatives, five guiding principles for training educators in Israel are defined (Ibid, pp. 4-6):

1. Institutional flexibility within a comprehensive framework.
2. Progressively intensive and continuous training geared towards a master's degree.
3. Adaptable teacher training programs for diverse age groups and specializations.
4. Designing cohesive teaching and training curricula that integrate core elements of academic disciplines, pedagogical theories, and clinical training.
5. Emphasis on practical, experiential learning in teacher education.

This article examines the application of these principles, focusing particularly on the fifth, a cornerstone of the new framework that stresses the experiential dimensions of learning and teaching. This principle advocates for clinical training, aiming to bridge the gap between theoretical knowledge and practical application in teacher education, marking a significant shift from traditional pedagogical models towards methodologies akin to those in fields such as law and medicine. This paradigm shift not only redefines the trajectory of teacher education but also has potential implications for enhancing teacher efficacy, improving student learning outcomes, and contributing to the evolution of the educational paradigm at large. Note that the development and implementation efforts described below began earlier, in 2018, as part of preparations for the upcoming framework. Therefore, the study includes data from 2020 graduates onwards.

To gain a full understanding of the meanings of this new paradigm, we should first compare it with the prior Ariav Framework, which established the foundational principles for teacher training in Israel between 2008 and 2021. While acknowledging the importance of practical training, the Ariav framework primarily focused on academic-disciplinary knowledge of students. For instance, its first principle: 'The professional teacher operates based on disciplinary and pedagogic-didactic knowledge in a systematic and evidence-based manner regarding their own teaching and their students' learning' (Ariav, 2008, p. 2). Similar sentiments are woven throughout all other principles, such as: 'Teaching is an activity rooted in theoretical-research knowledge and the wisdom of reflective-practical action, and it is not a marginal profession based on implementation recipes' (Foundational Principle 4, *ibid.*) or 'The committee views the field of teacher training as an academic field in every respect' (Foundational Principle 7, *ibid.*).

This spirit, which permeates the document, does not necessarily diminish the value of practical experiences and their integration with academic and disciplinary content. However, for the enhancement of such integration, the Ariav framework primarily focuses on induction programs, i.e., the first year of a teacher's work after completing their teaching certificate, rather than on the training phase, as can be inferred from Foundational Principle 3: 'Teaching is a complex profession (contrary to its simplistic public image), and therefore the acquisition of knowledge and the ability to be a teacher is a complex and gradual process. **It is impossible to impart all the knowledge base required for a future teacher during the initial teacher training** (emphasis in original, N.T). Therefore, training programs should be focused and basic, with additional layers of knowledge and skills learned during the teacher's induction period and throughout their working years (Lifelong Learning). Within its mandate, the committee dealt only with issues pertaining to the initial training stage' (*ibid.*). Ultimately, the Ariav framework required a minimum of 9 annual practical training hours for an elementary education certificate and 6 hours for a secondary education certificate (*ibid.*, p. 7). In contrast, the Vadmani-Inbar framework increased the number of hours by 50% for an elementary education certificate and by 100% for secondary education. This shift in approach heralds a significant paradigm change from conventional pedagogical models, aligning teacher training more closely with methodologies found in fields such as law and medicine. Such a transformation not only redefines the trajectory of teacher education but also holds potential implications for enhancing teacher efficacy, improving student learning outcomes, and contributing to the evolution of the educational paradigm at large.

Effectively bridging and reducing the gap between theoretical knowledge and practical application is widely recognized in the field of teacher education. Many researchers consider this alignment crucial for enhancing the quality of teacher training programs. Flores, Santos, Fernandez and Pereira for example, highlights pre-service teachers' perspectives on this issue as a key element in maintaining the quality of teacher education. The researchers emphasize the need for a curriculum that is both integrated and responsive, effectively merging theory with practice. Such an approach not only addresses the immediate training needs of future teachers but also prepares them to respond to real-world educational challenges more effectively (Flores, Santos, Fernandes & Pereira, 2014).

In a recent study made in Israel, the researchers examine the roles of mentor-teachers in the practicum phase of student-teachers' education. Utilizing a constructivist field-grounded theory approach, they analyze multiple cases to develop a comprehensive taxonomy. The study identifies six mentoring practices: Adjusting the Challenge, Engaging in Cooperative Activity, Providing Behavioral Guidance, Remaining Involved, Welcoming Change, and Sense-making. These practices are detailed and exemplified through various specific actions observed in mentor-teachers. Upon the aspect of student-teachers' sense of self efficacy this study finds that the mentor-teachers' practices, as categorized in the taxonomy, play a significant role in enhancing student-teachers' feelings of capability and

confidence in their teaching abilities. This is reflected in the way mentor-teachers guide, support, and provide feedback to the student-teachers, ultimately contributing to their professional growth and self-efficacy in the classroom (Carmi & Tamir, 2023)

In the ensuing section, we will outline the innovative approach taken in our clinical training model of teacher education, specifically its goal of bridging the gap between theoretical knowledge and practical implementation. By implementing this model, teacher training can be adapted to meet the evolving needs of 21st century education in accordance with Vadmani-Inbar Framework principles. A primary objective of this program is to produce educators who are both knowledgeable about their particular fields of expertise and capable of applying this knowledge in dynamic classroom environments. In conclusion, we will discuss how the specific components and methodologies of this program directly affect the students' pedagogical skills and self-efficacy as indicated by our research.

2. Clinical training model: Description and ecosystem

The clinical training model is intricately designed to intertwine theoretical learning with practical application, providing an educational experience that is comprehensive and holistic. Two components make up the program, each with a different volume. The minor is a three-credit, non-disciplinary course that includes foundational theories directly relate to classroom instruction. Although the academic content continuously updates, it always emphasizes essential teaching knowledge such as educational objectives, guidelines for understanding and implementing curricula and study materials, the use of taxonomies in learning and assessment processes, the development of lesson plans through thinking routines, and the familiarization of students with contemporary teaching practices.

It is not just about theoretical learning; these theories are also applied in a variety of practical contexts. Faculty members use a trimodal approach to impart this knowledge, reading academic papers, participating in workshops, and reflectively observing professional teachers in heterogeneous groups.

The major portion of the training program consists of nine credit points. The program lasts for the entire school year, rather than just the academic, and emphasizes the practical application of each student's discipline. This part of the program provides students with opportunities for hands-on experiences and direct exposure to practical applications of theoretical concepts through a mentoring process led by teachers and academic leaders in schools. This approach intends to foster an enriched learning experience, deepen understanding of disciplinary, technological, pedagogical and content knowledge (TPCK) and provide close and unmediated encounters with school life. The curriculum is further complemented by ongoing reflective dialogue, focusing on the application of theories and critical thinking about their various interpretations and practical outcomes.

Throughout the program, learning processes are active, constructive and involve regular interactions between all participants. Observation of lessons, exchanging feedback, teaching in classrooms, delivering individual lessons, utilizing LMS platforms for digital asynchronous and synchronous teaching and learning, completing unique personal projects, participating in peer-learning meetings and actively contributing to School' day-to-day life are among the activities the students participate in. In addition, they also have simulations with actors in Bar Ilan's Center of Simulation in Education, "Halev". These activities aim to nurture a wide range of pedagogical skills, from knowledge acquisition to the creation and application of new knowledge, peer learning, receiving and giving feedback, time management and responsibility, using digital platforms, adapting content and pedagogy to these platforms and comprehensive assessment processes. But most importantly, it is intended to instill the students with a sense of professional pride and self-efficacy that will assist them in their future careers. Students' final grade is based on a portfolio containing a wide variety of assignments and other elements like regular attendance, involvement level, personal initiative, and active peer learning. Ongoing feedback from the mentoring teachers and academic leaders, coupled with formative assessments, ensures continuous reflection and improvement.

As the key to the success of such an array, it is important to establish and maintain a diverse and inclusive ecosystem. A designated academic coordinator ensures effective collaboration with teachers from a wide range of schools, encompassing state secular, state religious, ultra-Orthodox, Arab education, and a variety of educational networks. This variety provides students with a wide exposure to diverse teaching environments and practices. Inclusion is an essential principle, with students with disabilities actively participating and sometimes finding employment in the schools where they are trained. In addition to regular interactions with mentoring teachers and students, the program includes interactions with school principals and occasional engagements with external content experts, including Ministry of Education professionals and school officials. Establishing this ecosystem is essential for the program's success. It is an ongoing, year-round process that necessitates regular maintenance. The operational model we developed is based on four continuously evolving and refining Discourse circles, which operate in a repetitive cycle.

In the innermost circle, faculty members collaborate to formulate the core content. They collectively select and target academic content, structure the syllabus, and determine evaluation

indicators. While the program's core is consistent for all, each group and individual engages differently, as lecturers have the freedom to choose their methods of material explanation, depth of exploration, and workshop conduct. Additionally, due to the collaborative nature, involving faculty, students, teachers, pupils and schools, activities may be modified based on initial discussions and changes throughout the school year.

The academic coordinator is situated in the center of the second circle. It is a major mediating role between the university, the school's principals, appointed activity coordinators, and mentoring teachers. The academic coordinator must re-establish parts of the ecosystem annually, maintain constant communication with schools and addresses any issues that arises.

The third circle consists of each school's appointed coordinator which is responsible for guiding the teachers, real-time coordination, and keeping in touch with lecturers and academic coordinator to manage activities and resolve issues.

Finally, the fourth circle are the students, teachers and pupils, regularly meeting and engaging school's activities. They conduct an ongoing continuous dialogues with the schools and faculty, reflect and share their experiences, contributing to their practical learning and development.

3. Research method

We adopted a mixed-methods approach for our research, which included both quantitative and qualitative analysis. The qualitative component is based on in-depth interviews with graduates of the clinical program, aiming to delve into their experiences, levels of satisfaction, and perceptions of self-efficacy. The quantitative component is based on a questionnaire designed by Tal Carmi, Eran Tamir, and Rinat Arviv-Elyashiv, which is partly founded on their previous research (Carmi & Tamir, 2023). Specifically, our study employs segment of their questionnaire aimed at assessing self-efficacy among students who have participated in various training programs (Arviv-Elyashiv & Rosenberg, 2022). Based on Cronbach's alpha, we found a reliability of 0.94 for the questionnaire used in our study.

Two groups of students who graduated between 2020 and 2023 were examined. The experimental group is composed of 44 graduates of the clinical training program described above. The control group consists of 33 graduates of other different programs. In the experimental group, 68.2% of students are females, and 31.8% are males, with an average age of 36.86 (SD=13.70). Similarly, 66.7% of the students in the control group are females, 33.3% are males and their average age is 35.18 (SD=11.58). Based on chi square tests, it was determined that there were no differences in any of the background variables examined between the two groups.

4. Findings and conclusions

The qualitative analysis reveals that students who participated in the clinical training program express high satisfaction with the process, a strong sense of self-efficacy, and a deep commitment to the teaching profession. The interviews explores the extent to which students felt the clinical training process contributed to their readiness to work as teachers, their confidence at the beginning of their careers, and whether they see themselves continuing in the teaching profession. Here are some examples of the responses:

“This training significantly boosted my readiness and confidence to teach. Starting to teach, I had some apprehensions, but my training facilitated a smooth transition into teaching. I plan to continue teaching, aiming to specialize and continually learn” (Ariel Izaks, graduated in 2020).

“This process equipped me with numerous practical tools for my current teaching job, from lesson planning and classroom delivery tips to discipline management. Observing real-time classroom dynamics allowed me to leverage an experienced teacher's insights, avoiding common beginner mistakes. Despite my initial apprehensions, my confidence has grown over time, most likely due to the clinical training which eased my insecurities” (Reut Idan, graduated in 2021).

“This experience with my educational mentor significantly increased my confidence in handling both routine and challenging situations, especially as a class teacher but also in my subject area. I always felt relatively confident about teaching, but this experience undoubtedly enhanced my confidence. I envision continuing in the educational field, whether in a formal school setting or in informal education” (Shoval Riani, graduated in 2022).

“This practical experience significantly prepared me for my teaching role, instilling confidence and a thorough understanding of the curriculum, and fostering my growth and potential for taking on expanded roles in the future. I find my work as a teacher highly meaningful and see myself continuing to develop in teaching and possibly taking on additional roles” (Anat Rotem, graduated in 2023).

“This intensive training approach significantly prepared me for teaching, allowing me to focus on essentials. At my current school, I felt confident to start teaching, thanks to the knowledge and self-assurance gained during training. I certainly see myself continuing in education” (Tal Putterman, graduated in 2023).

All respondents emphasized the importance of the interpersonal relationship they developed over time with their mentor teachers, which they viewed as a critical component of the training process' success. Furthermore, many students indicated that their mentor teachers continued to support and advise them long after the training had ended.

Quantitative analysis indicates distinct differences between the two groups, which supports qualitative questionnaire findings. 90.7% of the research group respondents are employed as teachers compared to 66.7% of the control group. Furthermore, 62.79% of the research group participants indicated that they intend to remain in the teaching profession for more than five years, compared to 42.42 % of the control group.

For self-efficacy, similar results were found. An independent sample T test indicated that there was a significant difference between the groups. Therefore, the average self-efficacy level of students who participated in the program ($M=3.98$, $SD=0.54$) was significantly higher than the average self-efficacy level of the students in the control group ($M=3.61$, $SD=0.79$). The Cohen's D finds that belonging to various groups contributes approximately 65% to the variance in general ability. A simple logistic regression was performed to predict affiliation to each group, based on the overall sense of self-efficacy. The regression was found significant ($p<.05$), showing that overall affiliation to one of the groups could be accurately estimated at a rate of 62.3%. Specifically, affiliation to the experimental group could be predicted with an accuracy of 84.1%, and affiliation to the control group at an accuracy rate of 33.3%.

Based on separate T-analyses conducted for each item, the source of the distinctive differences between the two groups lies in an increased sense of self-efficacy among the graduates of the clinical program in promoting school initiatives and projects, arousing their pupil's curiosity, promoting their achievement, developing lesson plans and study units, evaluating pupils, and developing various assessment tools.

The most striking differences were found in clauses related to cooperation with colleagues, and managing classroom learning processes. However, students' perceptions of their ability to influence school decisions and conduct showed the smallest differences. This may be a common experience for newly hired employees in any organization. Nonetheless, it appears beneficial for students to have more opportunities to engage activities that enhance their sense of organizational affiliation and develop their leadership skills.

The results of this short study indicate that the experimental group has distinct advantages in terms of integration into the profession, commitment to it, and sense of self-efficacy. The clinical training model can be further improved by expanding the research and deepening the analysis of the results.

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References

- Ariav, T. (2008). *The guiding principles in teachers' training programs in all higher education institutions in Israel: The committee report*. The Council of Higher Education. Retrieved from Council for higher education website
- Arviv-Elyashiv, R. & Rosenberg, K. (2022). Teacher-education in retrospect: Novice teachers' perception of their preparedness for teaching. *Dapim*, 78, 83-105.
- Carmi, T., & Tamir, E. (2023). An emerging taxonomy explaining mentor-teachers' role in student-teachers' practicum: What they do and to what end? *Teaching and Teacher Education*, 128, 104121.
- Flores, M. A., Santos, P., Fernandes, S., & Pereira, D. (2014). Pre-service teachers' views of their training: Key issues to sustain quality teacher education. *Journal of Teacher Education for Sustainability*, 16(2), 39-53.
- Vadmani-Inbar. (2020). *The guiding principles in teachers' training programs in all higher education institutions in Israel: The committee report*. The Council of Higher Education. Retrieved from <https://bit.ly/3C7ksZ9>