



Mathematics Teaching During the "Swords of Iron" War

Nitzhia Peleg

Education during war requires creativity and perseverance. With the outbreak of the war, the education system across Israel closed down, with efforts to transition to remote learning. Teachers found themselves suddenly facing a disrupted reality, requiring them to address enormous challenges and bring order to the chaos. Mathematics is known to be particularly sensitive to such changes, given the gap between its importance and its inherent difficulty. Mathematics is a rational and theoretical subject, disconnected from the ongoing events, and is taught using symbols, signs, and formulas, which are especially hard to teach and learn remotely.

To document how mathematics teachers coped with this sudden and immense challenge, the foundation turned to Nitzhia Peleg, a mathematics teacher and leader of teacher communities. From November 2023 to January 2024, Peleg held meetings with 25 teachers, subject coordinators, mentors, and supervisors from various districts and the Ministry of Education. The goal of these meetings was to present and analyze in real time how the education field and leadership operated during the immediate emergency period, without prior preparation or planning.

Main findings

- Teachers indicated that they exercised autonomy in determining how they would operate. In the emergency situation, they paid little attention to the guidelines from the Ministry of Education or the expectations of the school administration.
- For example, the Ministry of Education directive was to not begin learning but instead to focus on recreational and enrichment activities. However, mathematics teachers believed that returning to academic routine, particularly through a mathematics routine, would better benefit their students, and so they acted accordingly.
- As a result, in the first phase, there was an effort to create continuity in mathematics learning, despite the school closures. Learning mathematics became both an escape and a form of healing, and a means through which teachers discussed the situation with students.
- At this stage, teachers also dealt with students' lack of motivation and engagement. Some did not attend lessons at all, while others connected to the class on Zoom but did not listen to the lesson. Many struggled to complete assignments and homework and to demonstrate the required level of student involvement.
- The solutions teachers provided focused on personal interactions, such as individual conversations and sending encouraging messages to students: "Don't let Hamas win," "Learning is resilience," "You are the future of the country," "This is your responsibility on the home front," "When the war ends, you'll be behind."
- Various issues arose regarding teachers' availability. Challenges included teaching from home while their own children were present, teacher absences due to military reserve duty, anxiety over the situation, and difficulty dealing with constant changes.

- As remote teaching continued, learning weakened. Teachers, drawing on their experience from the COVID-19 period, realized that online teaching was not truly effective, did not foster meaningful learning, and made it hard to create interactions. Students did not retain information or put in effort (knowing the material would be re-taught in class later).
- The Ministry of Education decided to trim the curriculum, cancel exams and grades, and shorten both lessons and the school day. Teachers reluctantly had to slow the pace and depth of teaching and learning. Geometry was removed from the curriculum, with hopes to return to it once schools would reopen.
- There was a significant difference between teaching and learning processes that took place throughout Israel, generally, and those that took place in the evacuation centers for displaced individuals from the South and North. In these centers, the primary challenge was not remote learning but rather highly dispersed classes, extreme heterogeneity, and the direct confrontation with the disparities between the periphery and central regions of the country.