Yael Yondler
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Cultivating Future-Oriented Learners

Polyphonic Education in a Changing World

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Preface: Evolving Polyphonic Education in a Teacher Training College

In this book, we introduce an innovative humanizing educational paradigm. The paradigm aims to assist educators in designing a technology-rich learning environment that encourages learners to delve into real-life skills while nurturing humanistic inclusion, dialogue, and empathy values. We maintain that practical experience is a good way for learners to gain life skills and democratic values and turn them into an inseparable part of their personalities. Such a solid, value-based backbone will make them thriving members of a democratic society and help them contribute to their fellowmen.

A paradigm is born when new ideas reshape thinking fundamentals (Robinson, 2011). Various ongoing processes create favorable conditions for change: Technology has changed our approach to learning and thinking, and the COVID-19 pandemic has accelerated socio-cultural changes that introduce constant changes and uncertainty into our reality (the VUCA age—Volatility, Uncertainty, Complexity, and Ambiguity). Additionally, various threats in different areas characterize our time: democracy is under threat worldwide, and ecological, economic, and cultural crises shadow the world. We maintain that educational systems and processes are central to contending with these challenges and driving the change processes required to cope with them. Teacher education institutions must, therefore, prepare teachers-to-be to adapt to the volatile conditions and respond to the needs of their students and society in general.

These circumstances spurred the emergence of the proposed paradigm, given that changing rules and assumptions also change practices. We are increasingly aware of the central role of teachers in their capacity as educators, who are not merely "teaching technicians" but guide their students in shaping their identities, instilling in them values in response to burning issues. The proposed innovative, humanizing paradigm opens before teacher-educators ways to contend with the challenges they face. We have named it **the polyphonic paradigm.**

Polyphony in Education

Polyphony, originating in ancient Greek, means multiple voices. In the educational context, it represents a conceptual approach that allows for the simultaneous existence of two or more voices, where each voice is complete in itself, and no voice is secondary to the other voices (Naot-Ofarim & Solomonic, 2016). The educational concept deriving from this paradigm leans on a value-based worldview combining two educational approaches: humanizing and constructive-social. The response this combination offers enables learners to function successfully in the twenty-first-century global world, encouraging learner co-agency (OECD, 2017). We see this combination as beneficial as it enhances learners' well-being, individual mental and social welfare, and the communal welfare of society.

Technology has a significant role in the polyphonic paradigm. Consistent with the two combined educational approaches, technology assists educators in designing polyphonic, multi-spatial learning environments. Thus, the paradigm sets out from the understanding that nowadays, educators must be able to use technology in designing a learning environment that couples individual and collaborative learning spaces. In the individual knowledge spaces, teachers provide differential responses to the learners, encouraging them to build their knowledge independently, assert themselves, and actualize their potential. In collaborative spaces, teachers urge learners to communicate and collaborate toward creating products jointly while fostering collective knowledge for the community's common good. Hence, the polyphonic educational paradigm offers teachers a conceptual educational framework that functions as a "polyphonic lens," allowing them to scrutinize their approaches and practices in a changing reality. The paradigm aims to assist them in building "polyphonic wisdom" and putting together "a new whole," allowing for self-contemplation.

The polyphonic perspective was also the basis for setting up the community of the book's writers. In the context of teacher education, the polyphonic worldview facilitates in practice the emergence of pedagogical and technological innovation communities within a teacher training institute, applying the "knowledge-building community" methodology (Scardamalia & Bereiter, 1994, 2006). The purpose of these communities is professional development through learning or building a new body of knowledge. Such communities may be directed top-down and practice formal learning. However, more often than not, they actualize their unique learning potential (DuFour, 2004), directed bottom-up by the community members without a prior agenda or formal structuring (Vangrieken et al., 2017). A polyphonic worldview corresponds to the "knowledge-building community," as both maintain that diverse opinions are powerful and capable of building and expanding knowledge for the community's common good. In practice, both openly cultivate mutual relations between the personal and collective good in a structured manner. While encouraging individual learners to build personal knowledge and optimize their abilities and skills (Aloni, 2022), they also offer them interaction opportunities that contribute to building collective knowledge.

The process described below is an experience-based illustration of how a polyphonic worldview leaning on the knowledge-building community methodology gives birth to an innovative pedagogy in an educational institute in a spiral, bottom-up, and top-down movement. These two directions feed each other, generating growing knowledge. Such spiral processes embody the essence of a democratic polyphonic worldview attentive to the emergent needs of the field and the individuals functioning within it. It encourages individual proactiveness and considers group diversity a resource toward personal and collective knowledge building, where the whole exceeds the sum of its parts.

The Community's Story

The process began in 2017, when Kibbutzim College of Education, the largest teacher education college in Israel, opened two classrooms featuring innovative learning spaces. Another one followed a year later. At that time, Israel's Ministry of Education published a call for setting up 1500 innovative learning spaces that challenge the traditional classroom layout. The new learning spaces, titled Future Learning Spaces (FLS), were equipped with advanced digital and other means. Each of these spaces had the potential to illustrate various advanced pedagogical models combining technological and physical means. This top-down opening move represented the perception that a teachers' education institute is a change agent, should be attentive to the lecturers' needs and ongoing future-oriented changes, and must venture to innovate and rejuvenate. Thus, based on the assumption that a teacher is not a "sage on stage" but a partner in the learning process, the college decided to train future teachers in using innovative learning spaces and create opportunities for the students to experience knowledge building (Yondler & Blau, 2021).

To encourage using the FLSs in their first year, the teacher educators who were willing to use them received techno-pedagogical support from a member of the college digital pedagogy team. They were free to practice teaching-learning in any way they thought best. This exploratory process, where the teachers had complete freedom of action, made utilizing the FLSs a bottom-up experiment with unpredictable results. The teachers who used the FLSs that year expressed their professional satisfaction and noted the FLSs' contribution to the learning quality. In the second year, a knowledge-building professional teachers' body began to form, with a two-directional top-down and bottom-up nature. The top-down element involved research literature that indicated the need for FLS teaching practices and discussed the complex interrelations between space and the other mediators of learning (Kali et al., 2015). The complementary bottom-up direction emerged after the first exploratory year taught the participants they should join forces to build pedagogical and theoretical knowledge based on the FLS experience. Consequently, we became an active professional community intent on creating the collective knowledge required to conceptualize innovative teaching models in FLSs. The community functioned as

a "collective brain" within a kind of innovative human laboratory, where the members experience each FLS teaching and contribute their experience to the community's collective knowledge. As such, the community explored, examined, shared, discussed, and documented new models, thus building knowledge. Throughout the process, it sought to find a response to the theoretical and practical challenge that emerged from the literature: How FLS teaching redefines teaching with regard to its three main components—pedagogy, space, and technology (Radcliff, 2009). The community also resolved to share the evolving knowledge with the college faculty members and colleagues from other academic institutions in various ways, such as workshops, conferences, and article writing. These prepared the ground for writing this book.

Writing the Book

The described chain of events motivated the community members to jointly launch an academic writing project to advance the theoretical conceptualization of the practical experiences under the guidance of this book's editors. We began by organizing the available information and formulating the unique characteristics of each teaching model. Initially, we asked the community members to complete each an identical table describing their model's elements and value, including title, abstract, background, theory-practice links, theoretical and practical contribution, conclusions and summary, and a paragraph dedicated to the writers' personal experience, titled "On a personal note." The table kept updating over the process, and following the polyphonic spirit, the chapters took on a similar structure while highlighting the uniqueness of each. We repeatedly asked the writers to highlight the synergy between space, technology, pedagogy, and content in each model, and its contribution to educational theory and practice. Having read the completed tables, we returned them to the authors for corrections, refinements, and expansions. We also invited expert community members to assist the writers in assimilating the essentials of the evolving conceptual framework—humanism and collectivity in physical and digital spaces.

The detailed tables were the basis for the next stage—writing the chapters. We read them, and after several rounds of revision, they underwent peer review and were re-emended. This elaborate process created a common language between the community members, elucidating the complex relations between theory and practice and between pedagogy, technology, space, and content. Like the community's knowledge building, we attached much importance to implementing the polyphonic approach in the book writing process, ensuring that the book's purpose, content, and writing were congruent. The main challenge was shaping work modes where the particulars converged into one polyphonic composition while the whole shaped the "how" and "what" of the particulars. With this in mind, the editors, in a top-down move, guided the writers in using a focused terminology to describe their polyphonic model. A complementary bottom-up move followed, where the writer had to

describe their model's unique polyphonic combination of pedagogy, space, technology, and content. This dialogue-based process yielded an indicator that helped create a common lexicon and outline for all the chapters.

The Book's Structure

The book's structure follows the worldview underlying the polyphonic paradigm, highlighting the tension between unity and uniqueness. Its first two chapters—a foreword and an introduction—are the umbrella that brings together the other book chapters. The foreword, *A Polyphonic Humanizing View of Pedagogy and Technology*, written by Punya Mishra and Lok-Sze Wong, points out the book's added value in times of educational crisis. Punya Mishra, whose TPACK model (Mishra & Koehler, 2006; Mishra, 2019), is the basis for integrating technology into education and is a world authority in this field. The introductory chapter, *Technology, Values, Pedagogy, and Multiple Learning Spaces: Creating a "New Whole" in a Complex Reality* by Yael Yondler and Nissim Avissar describes the polyphonic approach principles, setting a theoretical basis for the book. It is followed by 13 chapters organized in four parts, each feeding the polyphonic composition. Each chapter introduces a specific teaching, learning, and assessment model responding to a particular socio-educational issue, illustrating an option for implementing the polyphonic approach in education and teacher training.

Below is a brief description of the book's four parts and their chapters by order of appearance.

The chapters of the Part I engage with issues of diversity and inclusion in education. They explore ways to contend with culturally diverse individuals and groups and their interrelations in educational frameworks. The first chapter by Miri Shonfeld introduces a teaching model that uses virtual platforms and tools to advance collective learning and intercultural skills. The model, which highlights gamification components leading to enjoyable experiential learning, paves the way for learning in 3D worlds. Students from two colleges participated in a competition styled after the television program *Race for a Million*, where teams competed in performing various tasks. The participants gained social experience in a varied learning space that allowed for interrelations and brought the groups closer while enhancing identity and belonging elements. In the second chapter, Miri Yochana's teaching model uses collaborative learning of English as a second language to introduce diverse identities. To achieve the model's goals, she assigned a learners' group to design a teaching unit engaging with issues of diversity and fairness and implement it in practice by teaching another group. Over the process, the students learn from each other and contend with social and cultural dilemmas using various digital teaching aids. They develop multicultural skills along with pedagogical proficiency and technological literacy. In the third and last chapter of Part 1, Tami Seifert connects two worlds that seem very far apart: social media in an intercultural virtual space context and body movement in various physical spaces. This type of learning

generates numerous simultaneous events involving different social interactions. They spur the students to grow as learners capable of mediating knowledge resources, cultures, and diverse viewpoints to design learning environments. Combining physical movement with social media experiences expands the platform and, at the same time, enables the students to self-expand and express themselves.

The Part II comprises two chapters focusing on issues of sustainability and socio-environmental accountability in a glocal context and on implementing the eco-humanistic approach in education (Aloni & Veugelers, 2023). Chapter 4 by Dafna Gan and Adiv Gal engages with current eco-humanistic challenges, such as climate change, refugee immigration, invasive species, and decreased biodiversity. The authors propose a transformative education model that promotes personal and social change through active, collective, outdoor learning (on the beach, on a riverbank, and in the desert), applying various digital pedagogy tools. An enjoyable multi-channeled learning experience acquaints the students intimately with various natural resources and the threats they face. It develops their critical thinking and urges them to take action toward reducing the environmental crisis. In Chap. 5, Netta Baryosef-Paz and Dafna Gan introduce another facet of eco-humanistic education combining sustainability, literature, and art. Their model illustrates a holistic, inter-disciplinary learning option that uses multiple pedagogical spaces in a non-hierarchical and non-chronological manner. The proposed learning mode challenges the traditional teaching and learning patterns, replacing them with a flow that creates a challenging uncertainty, requiring both teachers and students to re-adapt and be flexible. The contemplation accompanying these experiences gives rise to a comprehensive student experience and the realization that sustainability is omnipresent.

The Part III comprises three chapters engaging with dialogue between different, even opposing, approaches, namely, the ability to move between different viewpoints and explore reality through each. In Chap. 6, Efrat Harel introduces a teaching model whose purpose is to advance multicultural preschool education. The students form four groups (four homes with four mothers), representing different approaches to a predefined educational-linguistic issue. They engage in a debate that heightens the awareness of each group to the different rationale of the other groups' approaches. In the process, the participants develop listening and inclusion skills while re-exploring their own identities.

In the model introduced by Guy Moshe Pinku in Chap. 7, the students form four groups to discuss public matters based on Dewey's educational approach. The model confronts polarization trends and a shallow, harsh, public and educational discourse, offering an alternative pertinent, critical, fact-based discussion. Initially, the students determine their individual stands on the discussed issue. They then formulate with their group co-members arguments supporting a stand different than theirs, applying elements of contemplation and self-assessment. Following the experiential part, they learn its theoretical rationale and are introduced to Dewey's approach.

Chapter 8, the last in this part, aspires to cultivate dialogue skills through reading and role-playing. Lily Glasner aims to encourage teachers-to-be and their future students to read for pleasure, that is, regard reading as an activity that creates

interest, enthusiasm, and involvement. To this end, they engage in a digital role-playing game revolving around a controversial topic or dilemma. Each participant assumes the role of a figure having a particular stand about the discussed topic. It is a dynamic, amusing game involving a lively real-time debate. After hearing each stand, the others react to it. In the process, the figures and stories come to life, offering collectively a sweeping interpersonal experience.

The last Part IV is dedicated to fostering self-direction and independent learning skills. Its chapters explore ways to develop independent, resilient learners with a sense of self-efficacy, capable of navigating their learning and life in our complex world. In Chap. 9, Efrat Kotzer addresses the challenge of differential learning, where students learn in individually tailored diverse ways, channels, and paces. The presented model follows the Universal Design Learning (UDL) approach. It helps develop various learning skills related to learned content using visual and auditory means to represent and express the knowledge acquired. This learning process can assist learners in identifying their strengths and discovering the learning method that best suits them, while creating an inclusive and equal educational and social environment.

Chapter 10 focuses on online learning, which currently occupies a significant place in educational systems and is predicted to expand further in the future. Adva Margaliot and Dvora Gorev describe a process of collaborative online learning. The process peaks with the students designing complex learning activities combining technology, pedagogy, and humanistic values. Special attention is given to promoting motivation, efficient learning, autonomy, creativity, and innovation. These elements advance all self-learning and self-direction (personal growth), yet none is self-evident in an asynchronous online course.

In Chap. 11, Ayelet Weizman introduces an innovative model of space education that helps contend with uncertain situations characterizing our time. Over the study period, the students face increasingly complex challenges combining content, technology, and pedagogy within a supportive, enabling environment. The learning combines advanced technologies with innovative pedagogies in contexts of education and space and boosts the ability to cope with complex challenges and improve self-efficacy and mental resilience. These are vital personal resources in an era characterized by volatility, uncertainty, complexity, and ambiguity.

Tal Shemer-Elkayam's model in Chap. 12 derives from the multiple-intelligence theory and project-based learning (PBL), creating a basis for teaching and learning processes that respond to learner diversity and enhance individual strengths. The learners' assignment is collectively producing an applicative digital product using the different individual strengths of the group members. It offers the students multiple choices and allows for considerable learner autonomy.

In Chap. 13, the last in Part 4, Miki Kritz introduces a teaching model using multiple screens displaying simultaneously different aspects of a learned topic to enable exploring the interaction between them. The model enables students to study and experience the perspectives of the teachers' trainer, the teacher, and the students in parallel. After learning how to use a particular techno-pedagogical tool, the students carry out activities related to the roles of schoolteachers and students. The

activities include creating a product using the learned tool and presenting it to the group. This structure allows for learning in various channels while keeping aware of different perspectives and parallel processes.

Nimrod Aloni, a leader in humanizing education in Israel, concludes the book with an epilogue titled *Holding the Stick at Its Two Ends: Humanizing Empowerment and Technological Power in the Service of Education and Learning*. The chapter discusses the value of the polyphonic approach in the current ongoing educational crisis. Aloni suggests that collaborative humanizing pedagogy in hybrid learning spaces is vital for future education in a changing society. Such an approach will advance a more humanistic and less polarized society that allows for individual voice diversity, yielding a complex, broad-horizon collective composition.

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Foreword: A Polyphonic Humanizing View of Pedagogy and Technology

> *I believe all schools, all theories can be useful in some place, at some time. But I have discovered that one can only live by a passionate, and absolute, identification with a point of view. … For a point of view to be of any use at all, one must commit oneself totally to it, one must defend it to the very death. Yet, at the same time, there is an inner voice that murmurs; "Don't take it too seriously. Hold on tightly, let go lightly." Peter Brook, author, theater and film director*

Polyphony, in music, is used to describe a texture consisting of two or more independent melodic voices. It is a style of composition in which each voice has its own melody, rhythm, and expressive qualities while harmonically interweaving with the other voices. Polyphonic music often results in a complex and rich sound, where multiple voices create both harmony and counterpoint, leading to depth and interaction in the composition, where the whole is greater than the sum of its parts. Polyphony is often contrasted with monophony where there is just one dominant melodic voice.

The Russian philosopher and literary critic, Mikhail Bakhtin, expanded the idea of polyphony from music to human discourse, describing it as a feature of texts or utterances that incorporate multiple voices or perspectives, without subordinating them to a single authoritative or dominant voice. Polyphony, according to him, allowed for diversity, complexity, and ambiguity in meaning, and challenged the idea of a single truth or interpretation. As he wrote, even "truth is not born nor is it to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction" (Bakhtin, 1984, p. 110). Bakhtin saw polyphony as a positive and creative force that enriched and transformed language and culture. He contrasted it with homophony which he described as the tendency to impose a single voice or perspective on others, a tendency that he saw as oppressive and limiting. As he wrote, "The essence of polyphony lies precisely in the fact that the voices remain independent and, as such, are combined in a unity of a higher order than in homophony" (Bakhtin, 1984, p. 17).

At the heart of polyphony and its respect for multiple voices is a deeply humanizing worldview. By reflecting the diversity and complexity of human experience, expression, and cultures, polyphony allows for multiple voices and perspectives to

coexist and interact in non-reductive ways. By not imposing a hierarchy and valuing the uniqueness and autonomy of each voice, it fosters dialogue and understanding. By encouraging listening with openness and curiosity while questioning existing norms and inviting new possibilities and meanings, it stimulates creativity. It thus celebrates human dignity, freedom, plurality, and potential.

This contrast between multiple voices vs. a single voice becomes particularly relevant in educational contexts. Most traditional educational systems are more akin to monophonic music, where the voice of the teacher (or the broader educational system) is given primacy over others (learners for sure, but sometimes even teachers). As Bakhtin would argue, these structures and systems are limiting, dehumanizing, and oppressive. In contrast, polyphony in an educational context creates humanistic systems, where every individual, including learners, in a particular context is valued for what they bring to the educational conversation. It seeks to be multi-directional and non-hierarchical, valuing openness and creativity, recognizing multiplicity as being key to learning and education.

Polyphony helps prepare our learners in the globally interconnected, complex world we currently live in and for the indeterminate, emerging future as well. Learners are learning within the context of globalization; the ravages of the Covid-19 pandemic, imminent challenges of climate change, rapid technological change (particularly the expansion of internet and social media technologies and now AI), and the re-emergence of (post)colonial indigenous narratives. We have come to realize that a dominant monophonic approach to education only oppresses and does disservice to the complexity of current educational contexts, and the cultures and histories of learners and educators.

One of the critical drivers of change in the world and in education comes from technology and its evolution: from the invention of writing to the printing press and all the way to our social-media saturated present. Looking specifically at the invention of the printing press—arguably one of the most significant technological advances of human cultural evolution—it allowed for mass literacy, and in some ways, it can be argued that our educational system is built around the "book." Books facilitated the inscription and sharing of ideas, leading to the Renaissance, Reformation, and Scientific Revolution. They democratized information access, challenged authority, and popularized transformative ideas, with lasting effects. Today, because of the advent of the Internet and social media, we are seeing the next round of how changes in technology impact how we think, work, and socialize. In many ways, the culture of social media is more akin to an oral culture than one solely based on print (Leahy et al., 2022; Mishra et al., 1996). We can see the relative unraveling of the ways of thinking and being that were based on a print culture as we move into a social media dominated world. One can only guess how the rise of new AI technologies will influence how we live and work. These digital media, and their protean nature (Koehler & Mishra, 2008), can be seen as both a challenge and an opportunity for polyphonic humanizing pedagogy. Digital and networking media make possible new forms of communication, interaction, and expression—through online forums, digital storytelling, virtual reality, and artificial intelligence.

That said, technology also brings forward new risks, such as fragmentation, alienation, and manipulation.

These ideas of humanistic polyphony and the role of technology are key to understanding this book. Drawing on these themes, as well as on developmental psychology, learning theory, and humanizing pedagogy, this book presents a framework for designing and implementing educational experiences that foster dialogic and polyphonic learning. Learning in this context occurs through active participation in meaningful communication with others, where learners co-construct knowledge, challenge assumptions, explore alternatives, and reflect on their own thinking. The diversity of these voices and perspectives helps learners develop critical awareness, empathy, creativity, and intercultural competence.

In addition to offering learners humanizing polyphonic learning opportunities, this edited book humanizes teachers' current lived experiences. The vision offered by this book is exciting and yet ambitious, given the weight that teachers and administrators currently carry. The vision and frameworks describe a very different way of doing instruction and schooling, within very different systems than we currently have (Wong & Mishra, 2021). This book asks a great deal of educators during a time when the demands on them are greater than ever. In addition to helping their learners meet grade level standards and manage the stress of high-stakes tests, educators bear the burden of public expectations to catch their learners up because of a perceived "learning loss"; the very real responsibility of helping their learners, colleagues, and themselves heal from the multiple traumas caused by the COVID-19 pandemic; the current political and culture wars; the rise of tribalism across the geo-political sphere, the socio-emotional impact of social media, and more.

It is within this complex context that the chapters in this book offer a way forward, by providing examples that bring these ideas to life, illustrating what the vision could look like within educational contexts. The authors demonstrate that creating humanizing curricula and learning spaces where learners thrive is feasible in our current socio-historical, political, and economic contexts (Wong & Mishra, 2021). In fact, humanizing curricula and learning spaces can address some of these challenges by helping learners, educators, and families heal (Wong & Mishra, 2021).

Finally, this book itself is an example of humanizing polyphonic discourse, living by the ideals that it preaches. Though each chapter in this book is complete in and of itself, it is the way in which these different pieces speak to each other that give this book its intellectual heft.

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Acknowledgments

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Yael Yondler   is an educator and researcher. She leads the Learning Design path of the Master's program in Technology in Education at Kibbutzim College of Education. An educational assessment specialist, she trains assessment coordinators. She trains and leads academic and other learning teams and communities in knowledge-building and learning design in hybrid spaces. Dr. Yondler's post-doctoral research on digital literacy was conducted at the Learning Technologies and Learning Systems Program of the Open University of Israel.

Nissim Avissar   is a clinical-social psychologist, teacher educator, and qualitative researcher. He heads the teaching-advancement units at Kibbutzim College of Education and trains educators and therapists. His expertise covers cultural sensitivity, social-emotional learning (SEL), resilience building, and coping with trauma and crisis. His current academic research and writings focus on ethnic and class gaps in education and resilience building in a complicated violent reality.

Dovi Weiss   is Head of Digital Learning and Training Development Specialization (B.A) at Ono Academic College. He also consults various organizations on effective and innovative learning, particularly in educational technology. Until 2021, he headed the digital pedagogy unit and management team at Kibbutzim College for 7 years. He was the pedagogical founder of *Et Hada'at* (www.timetoknow.co.il) and its chief scientist during 2005–2019. In 2010, Dr. Weiss was declared one of Israel's 50 most influential people in education. In 2012, he received an Honorable Mention from Israel's Prime Minister in the Initiatives and Innovation Award Competition for his pioneering work in Educational Technology.

Guest Writers

Nimrod Aloni is a senior lecturer in Philosophy of Education at Kibbutzim College of Education. He currently holds the UNESCO Chair in Humanistic Education. Prof. Aloni has published several books and articles on humanistic education, ethics in education, and proactive education for ecohumanism and democratic culture. In 2004, the Movement for Quality Government in Israel declared him "Knight of Quality Government." In 2021, he received the Distinguished Alumni Award from the Teachers College—Columbia University.

Punya Mishra (punyamishra.com) is associate dean of Scholarship and Innovation at Mary Lou Fulton Teachers College, Arizona State University, where he leads multiple initiatives, providing a future-forward, equity-driven, collaborative approach to educational research. He is internationally recognized for his work in educational technology, creativity, and the application of design to educational innovation. With over $11 million in grants, 200+ published articles, and 5 books, he is ranked in the top 2% of scientists worldwide and the top 50 scholars (top 10 in psychology) with the biggest influence on educational practice and policy. He is an award-winning instructor, engaging public-speaker and an accomplished visual artist.

Lok-Sze Wong studies system reform policies as attempts to address systemic inequities. Drawing on education, sociocultural, and organization theories and mixed methods, her research unpacks how systems (re)produce inequities and how to humanely reform schools and districts as complex social systems. She focuses on professional learning opportunities that support teachers and administrators as they shift their practices while redesigning the very organizations in which they work. Dr. Wong began her career in education as an elementary school teacher in Los Angeles and has a Ph.D. in Educational Administration and Policy from the University of Michigan.

The Writers

Netta Baryosef-Paz teaches literature and mindfulness at Kibbutzim College of Education. Her research and teaching fields include an ecocritical approach to contemporary American and Hebrew fiction, representations of the environment in art and literature, environmental education, and contemplative pedagogy. She co-edited with Lilach Naishtat–Bornstein the book *Practicing Equanimity: Contemplation and Mindfulness in Israeli Education* (2022, in Hebrew).

Tal Shemer Elkayam is a faculty member at Kibbutzim College of Education. Her main research fields are social emotional earning (SEL), pedagogical

innovation, the effects of parents' divorce, and LGBTQs in the educational system. She leads SEL at Kibbutzim College of Education and coaches schools on matters of social-emotional pedagogy.

Adiv Gal   is dean of the Science Faculty, senior lecturer, and co-founder of the Center of Education for Environmental Sustainability at Kibbutzim College of Education. Dr. Gal teaches varied undergraduate and master's courses on environment and sustainability issues at Kibbutzim College of Education. He has led environmental education programs in Israel for over twenty years and has been teaching in elementary schools since 2004. His current research interests include studies of climate change education, ecohumanism, sustainability, and environmental education (empowerment, self-efficacy, experiential learning, and outdoor learning).

Dafna Gan   is an environmental and sustainability education researcher. She completed her post-doctoral program at the Israeli MOFET Institute. Gan is a lecturer and the head of the Environmental Education Master's program at Kibbutzim College of Education Technology and the Arts. Her research interests include environmental education, multicultural education, transformative learning, leadership in higher education, and non-governmental sustainability organizations. Her academic practices are devoted to sustainability implementation in the college sector and Israel's educational system in general. She is the founder of the "Center for Sustainability Education."

Lily Glasner   teaches literature at Kibbutzim College of Education and at the Department of Comparative Literature at Bar Ilan University. Her research and publications mainly engage with children's literature and comics. She is a member of the Literature Committee of the Israeli National Program, *Sal Tarbut Artzi*.

Dvora Gorev   is a senior lecturer (emerita) in mathematics education, researcher, and supervisor of bachelor's and master's degree students. Her main expertise areas are integrating technology in mathematics teaching, the required overall knowledgebase of mathematics' teachers, and advancing struggling mathematics students. Over the last decade, her research focused on teaching, learning, and assessment in online and hybrid planned and unplanned courses. She co-authored several mathematics books and co-edited the book *Classroom Management*.

Efrat Harel   is a researcher of language development among bilingual children. Her research focuses on the typical linguistic profile of English-Hebrew speakers in preschool years and on the development of linguistic norms for bilingual children. She trains pre-service teachers at Kibbutzim College of Education in handling issues of multiculturalism, aiming to cultivate educators sensitive to diverse linguistic and cultural perceptions. Dr. Harel collaborates with education universities in Germany in exploring cross-cultural awareness among future English teachers in Germany and in Israel.

Efrat Kotzer   is a lecturer in the Department of Special Education at Kibbutzim College of Education, a countrywide instructor in the MOE supervision of elementary Hebrew language studies department, and researcher at the Attention Lab of Tel

Aviv University. She specializes in the diagnosis and treatment of attention and learning disorders, the development of printed and online learning materials, and in the integration of technological tools in teaching and learning as a response to student diversity. Dr. Kotzer holds a bachelor's degree in educational counseling, a master's degree and a teaching certificate in special education, and a PhD in education from Tel Aviv University.

Miki Kritz   is a senior faculty member at Kibbutzim College of Education and the Post Graduate Design Program at the University of Haifa. He has written three books related to the Internet, published by Kineret, Zemora, Bitan publishers. His over a hundred published articles and research papers engage with progressive education and teaching in online and collaborative multicultural environments. He teaches multi-participant online courses on educational technology and digital pedagogy. He is a member and an instructor in the development and management team of the near non-profit organization for cooperation between students of varied cultures in Israel and worldwide.

Adva Margaliot   is a senior lecturer, the head of the Science Department at Achva Academic College and Former Dean of the Science Faculty at the Kibbutzim College of Education. Her areas of expertise are (in research and teaching): creative thinking, pedagogical innovation, and motivation for online learning. She has an extensive experience in academic management in times of crisis. Dr. Margaliot develops STEAM courses and holds seminars in creative thinking and sustainability. She trains teachers for the gifted in Israel and abroad; she implements pedagogical innovation while promoting self-motivation and cultivating self-management skills.

Guy Pinku   is a senior lecturer at Kibbutzim College of Education and at Academic College Levinsky-Wingate Academic College. Pinku's research focuses on care ethics and empathy in education, and moral education. He studies Dewey's educational theory, Nodding's educational theory, and Buber's approach to education and meaning in life. He received his MA in Psychology from Ben Gurion University and a PhD in Philosophy from the University of Haifa.

Tami Seifert   is a senior lecturer at the Kibbutzim College of Education. She specializes in research and implementation of innovative learning environments, educational initiatives, and groundbreaking teaching pedagogies. In 2005, she was a postdoctoral fellow at Tel Aviv University Knowledge Technologies Laboratory. Prof. Seifert also holds an MA in Movement Therapy from Haifa University. Her career highlights in Kibbutzim College of Education are head of the computer teaching applications unit, head of the unit for postgraduate conversion to education, and ICT unit head. Her research interests are educational contexts of social media, implementation of mobile technologies in teaching, self-assessment, and online peer assessment. Currently, she combines movement and technology in her teaching and research.