

### **Information Needed for Upcoming Courses and Workshops**

*The editors of The Thinking Teacher wish to include a regular feature devoted to notices of training/education opportunities (courses, workshops) on cognitive education, cognitive development, and cognitive assessment. Everyone who has knowledge of planned, upcoming, or possible workshops or courses is invited to submit the information to the editors of The Thinking Teacher. Such opportunities might include training in either established or new programs of cognitive education, workshops or university courses on dynamic assessment, professional development days in local authorities (school districts), and online training. Information should be sent by e-mail to Sigal Eden (Sigal.Eden@biu.ac.il)*

### **Nominations Open for President-Elect**

The Nominations and Election Committee has announced open nominations for the office of President-Elect of IACEP.

The office is vacant because the previous president failed to hold elections for association offices, and the then-president-elect declined to take over as president upon expiration of the president's term. The executive committee called

for election of a president and Yuriy Karpov was elected, but the office of president-elect (who will become president when Yuriy Karpov's term expires in July, 2019) remained vacant.

It is important that a president-elect be elected as soon as possible in order to fill out the executive committee and to have that person gain experience in IACEP affairs and procedures. Nominations will be open until June 15, after which a ballot will be constructed and sent to all members of IACEP for voting.

Duties of the president-elect, according to the association's bylaws, are to serve as a voting member of the executive committee, to preside in the absence of the president, to assist the president in the development of a two-year plan for the association, to serve as a member of all committees, and to assume the office of president upon the expiration of the current president's term of office.

Nominations should include the nominee's name and affiliation, the nominator's name, and a statement that the nominee agrees to be a candidate for the office and to serve if elected. Nominations should be e-mailed to           Joanne           Hardman ([Joanne.Hardman@uct.ac.za](mailto:Joanne.Hardman@uct.ac.za)) or           Bee Leng Chua           ([beeleng.chua@nie.edu.sg](mailto:beeleng.chua@nie.edu.sg)) prior to June 15.

## Iveta Kovalčíková - Pioneer of Cognitive Education in Central Europe<sup>1</sup>

By Lenka Krejčová



Iveta Kovalčíková

Did you attend the IACEP conference in Mexico? If so, you probably heard Iveta Kovalčíková's keynote speech. If not, you missed a great opportunity to learn about novel work in our field. It was an admirable fusion of theory, complex and thorough research, and practical educational implications.

In the 1980s, Iveta studied education and Russian language and literature. After this she added another subject - drama education. In the course of her professional career she has always tried to find methods to improve traditional ways of teaching, how to make it more efficient, how to support all students, no matter what needs, deficits, or other individual differences they have. A critical turning point in her career occurred approximately ten years ago when she won a Fulbright fellowship and she spent several months at Yale University's PACE Center (Center for the Psychology of Abilities, Competencies, and Expertise), supervised by Prof. Robert Sternberg

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<sup>1</sup> This is the second in a series of articles highlighting the contributions of our colleagues. The series is under the direction of Joanne Hardman ([joanne.hardman@uct.ac.za](mailto:joanne.hardman@uct.ac.za)).

who was the head of the center at that time. Iveta participated in several research studies that were focused on cognitive assessment and cognitive interventions and further cognitive development of specific target groups. Since then, she has been strongly devoted to a cognitive education approach. She brought the ideas from her fellowship back to her country, the Slovak Republic, and started ground-breaking work in this region.

One of her first tasks was to create a multidisciplinary team of professionals. Iveta formed a team of experts from the fields of neuropsychology, education, assessment, statistics, math didactics, language didactics, and linguistics. The team consists of 12-15 people who have been cooperating since Iveta established the team. Their common feature is their shared interest in thinking and learning processes of students. They decided to elaborate their own approach rather than implementing an approach taken from other professionals abroad. Thus, executive function became their main topic. This concept was rather well known in the field of neuropsychology in relation to adult functioning, but the use of executive function in the area of education was rather rare at that time. Iveta's team got involved in various courses and education. Altogether they have been trained for hundreds of hours. Iveta also invited a lot of well-known professionals from the world (e.g. Robert Sternberg, David Tzuriel, Carol Robinson-Zañartu, Mogens Jensen) to her country. They gave lectures and/or held courses for Iveta's team.

The main activities of Iveta and her team can be divided into two areas: (a) assessment of

executive function, and (b) support and development of executive function. In fact, this means hours and years of intense work. Among others they standardized the Delis-Kaplan Executive Function System assessment battery. In addition to establishing norms for typical Slovak students, they also collected enough data to get norms for children from socially disadvantaged backgrounds and/or for children whose mother tongue is not the Slovak language but who are nevertheless taught in this language.

They are currently involved in the creation of two large and complex intervention programs for elementary school students. Based on the Slovak curriculum, they are focused on math and Slovak language knowledge but primarily on developing executive function. The programs are for students who face various learning difficulties. They may not have any official diagnosis (label) but their school achievements are rather poor. The answer to such school outcomes often lies in the area of executive function. Teachers are not used to thinking about this concept and they hardly ever know how to support their students in this area, especially when it is supposed to be linked to educational process. The programs created by Iveta and her team aim to solve these problems. They are currently being tested, evaluated, and standardized. After they have proved their validity, they will be available to teachers who will be able to work with their students.

The area of the Slovak Republic where Iveta lives and works is largely inhabited by the Roma population. The Roma people in eastern Slovakia often live in slums and have very low socio-economic status with high unemployment rates. Drug and alcohol use are very common among them. Iveta and her team travel to these areas frequently to adapt their assessment and intervention tools to this population. Iveta has

always shown a keen interest in these children and assisting them with their educational trajectory. Many of these children are bright, enthusiastic about anything new, and eager to learn; however, they lag behind other Slovak children in their educational attainment. Frequent school failures and dropouts lead to unemployment and addiction. Iveta and her team try to disrupt this vicious cycle by creating appropriate instruments that would lead to more in-depth education of Roma children and suit them better than standard educational approaches.

Iveta's work has been published in many influential journals and books, and summarized in films. While the team publishes academically, they also make their work accessible to teachers to assist them in their educational practice. They have written several books on executive function and they have even created a film on the topic, which is easily comprehensible to people working with children with various learning difficulties on an everyday basis.

\*Suggestions and nominations for future articles in the series should be addressed by e-mail to Joanne Hardman, together with suggestions of possible authors of the proposed articles.

## **Proposals Sought for Next International Conference**

The IACEP executive committee is seeking proposals for the next biennial international conference.

Because of the disruption in the IACEP conference schedule caused by cancellation of the 2017 conference that had been planned for Geneva, the 2017 conference was actually held in Guadalajara, Mexico, in January 2018. The executive committee has determined that it is desirable to get back on the biennial schedule;

thus, the next international conference will be held in the summer of 2019, as if the 2017 conference had been held on schedule.

Any member may submit a proposal for the 2019 international conference. Proposals should address the following:

1. Proposed dates
2. Location: Country, city, venue (hotel, or university, or school district, for example)
3. Sponsors, co-sponsors, co-organizers, and anticipated contribution(s) from each
4. Cost of housing: guest room cost per day, meeting spaces
5. Availability of audio-visual equipment: Projectors, screens, sound equipment
6. Responsible person(s): Names(s), affiliation(s)
7. Reasons for choosing this location
  - a. Local resources, such as free or inexpensive space
  - b. Nearby cultural/tourist attractions
  - c. Ease of access by air/train/bus/car
  - d. Local activity in cognitive education/assessment

Persons who intend to submit proposals should first send a letter of intent to do so (an e-mail will suffice) to the IACEP secretary, Joanne Hardman ([joanne.hardman@uct.ac.za](mailto:joanne.hardman@uct.ac.za)).

**Complete proposals should be sent to Jo by June 30, 2018.** The executive committee will consider proposals and reach a decision as soon as possible. The committee will probably have questions for the proposers as they consider the proposals.

*Note: The executive committee will look especially favorably on proposals for locations that are in regions that we have not visited in the recent past, that have a good chance of attracting a large number of participants, that offer affordable conditions for travel and housing, and that have professional and cultural advantages. Successful conferences usually are able to count on 50-60% of participants coming from the host region.*

## **A Note on Transfer and Generalization**

H. Carl Haywood

Cognitive education rests heavily on the assumption that concepts, rules, “cognitive functions,” and basic thinking processes can be transferred from the context in which they were acquired to a wide variety of other contexts and thereby generalized to new situations and contexts in everyday life. Thus, when children learn, for example, to *compare* geometric figures according to such dimensions as shape, size, color, and number, it is not sufficient that they become expert at comparing geometric figures. In fact, if that is all that happens, that aspect of cognitive education has failed. Rather, the goal is to help them to compare *spontaneously*, on the basis of similarity and difference, novel objects and events that were not part of the instruction. One wishes that they will develop habits of comparing, without being asked to do so, events in their everyday lives, such as persons, animals, foods, clothing, mathematical problems, plants, social interactions, nations, landscapes, television programs, books, and emotions.

Sometimes—indeed, quite often—such habits do develop in ways that seem spontaneous, independent of active teaching. Unfortunately, that does not always happen. A primary function of cognitive teachers is to promote just such

development of thinking habits, especially transfer and generalization. Good mediational teachers employ two powerful techniques to promote transfer and generalization of basic cognitive processes (functions). These are *generalization activities* and *bridging*. Neither technique is sufficient on its own, without the other.

*Generalization activities* are, as the name suggests, exercises that are similar to those in which the concepts, processes, functions, or rules were learned but with different content. Thus, if a basic lesson on classification (for example) was carried out by having the learners group people according to gender, or age, or height (thus demonstrating the flexibility of classes based on the criteria of classification), a generalizing activity might require grouping modes of transport according to speed, passenger capacity, and ease of access. Airplanes, for example, might go obviously into the “speedy” group and also into the “moderate-to-large capacity” group, but not into the “easy access” group (because one has to get to and from airports in order to use them). One such varied-content activity is usually not sufficient to assure broad generalization of classification principles, so excellent mediational teachers plan and use several such activities, until they are convinced that the learners have begun to classify object and events spontaneously—that is, the learners have developed a *habit* of comparing, grouping according to a similarity criterion, and naming the groups, that they have begun to demonstrate a *need* to do so, without having to be instructed to do it.

Success with generalizing activities demonstrates only that learners are capable of responding to external stimuli, of manipulating—both in space and in their minds, concrete objects and events. Cognitive education, by its very essence, is concerned with helping learners to manipulate

*mental representations* of objects, events, ideas, concepts, rules, and possibilities. An important way of doing that is *bridging*. Introduced by Feuerstein as part of the mediational teaching style, bridging refers to the practice of *eliciting* from learners diverse examples of the application in everyday life (and to different contexts) the concepts, processes, and functions they have been learning. Example: The teacher has been emphasizing the importance of precision and accuracy in information gathering, in mental organization of information, and in communication. She/he then asks the learners, “When are some other times when it is very important to be sure you are taking in accurate and precise information?” If there is no response, the teacher might then “prime the pump” by suggesting a bridge: “How about when you see a speed limit sign while driving down the street through a school zone? If the sign says 25 miles per hour, and, looking at it casually you read it as 35 miles per hour, what might happen?” If necessary, the teacher might suggest one or more additional examples, but always coming back to trying to *elicit* examples from the learners themselves.

“The great importance of bridging as a mediational teaching technique derives from the observation that any learned fact, concept, relationship, technique, or skill becomes more securely installed in the repertoire of the learner to the extent that it is examined, tested, applied, and tried out in a variety of contexts” (Haywood, 1988, p. 4).

Following are some principles of bridging principles:

1. It is cognitive functions that are bridged, not just content or information.
2. Bridging examples should be elicited from the learners whenever possible.
3. Examples should be related to contexts that are familiar to the learners.

4. Teachers may need to “prime the pump” by offering examples to get the learners started in this cognitive habit.
5. Bridging examples should be simple and straightforward
6. Bridging should be done often, throughout the school day and in all classroom activities.

### **Mediated Learning Experience: Questions to Enhance Cognitive Development of Young Children**

[Summarized from *Journal of Cognitive Education and Psychology*, 2017, 16(2), 178-192]

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Rapid proliferation of knowledge and use of technology in the 21st century has influenced the way we learn with knowledge becoming more transitory and greater difficulty to predict what will be useful for the future or what to select to learn (Chua, Tan, & Chng, 2017). Kozulin and Rand (2000) proposed that the ability to cope with change, continuous learning, is the generic capacity needed for the 21st century. Cognitive factors were considered by Feuerstein, Rand, Hoffman, and Miller (1980) as key elements to the individual’s successful adaptation in coping with change, and one of the important factors as demonstrated by extensive research is the quality of adult–child interaction in early cognitive development.

Based on the theoretical underpinnings of Feuerstein’s theories of Mediated Learning Experience and Structural Cognitive Modifiability

(SCM; Feuerstein, Rand, & Hoffman, 1979; Feuerstein et al., 1980), this article argued and elaborated that questions can be used to mediate the prerequisites of the MLE process to enhance cognitive development, particularly during early childhood. Santrock (2013) has defined early childhood as the developmental period that extends from the end of infancy (18–24 months of age) to about 5 or 6 years of age; sometimes known as the preschool years. According to Feuerstein et al. (1980), children learn in two ways, either by direct exposure to random stimuli as described by the stimulus-organism response (S-O-R) model of Piaget or by interaction of the organism with the environment via the human mediator, hence, the S-H-O-H-R model.

Embedded in the theory of SCM is the theory of mediated learning experience (MLE; Feuerstein, Klein, & Tannenbaum, 1991), which proposed that the quality of interaction between the individual and the environment via a human mediator plays a pivotal role in the cognitive development of the individual. The mediator may be a parent, facilitator, teacher, psychologist, or some significant other who plays the intentional role of emphasizing, facilitating, or extending the environment so that the learner builds up a meaningful internal model of the context or the world experienced (Chua, Tan, & Chng, 2017). Thus, an effective intervention or learning experience would depend not only on the design of the instrument or lessons but also, more importantly, on three essential parameters that characterize the learning experience effected by the mediator, which according to Feuerstein are: the mediation of intentionality and reciprocity, the mediation of transcendence, and the mediation of meaning.

#### **Mediation of Intentionality and Reciprocity**

Intentionality and reciprocity is the first

prerequisite for the MLE process and it occurs when the mediator actively works to focus attention on the situation, intentionally isolating and interpreting situational stimuli, while reciprocity occurs when the mediatee responds and indicates that he or she is receptive to and involved in the learning process. According to Chua (2013), some useful conditions to consider for the mediation of this parameter with questions are:

1. The teacher is clear about the aims and intentions behind what he or she seeks to deliver to his or her students.
2. The teacher communicates his or her aims and intentions to the students, and
  - a. Asks “why” and “how” questions rather than “what” questions
  - b. Shows an interest in student learning and encourages them when they make progress
  - c. Listens carefully to students and responds in a nonjudgmental manner
  - d. Is willing to re-explain to the students when work is not understood.

### **Mediation of Meaning**

Mediation of meaning infuses meaning into the mediating experience, and the awareness of meaning constitutes a major component of the motivation system as it relates to the individual's cultural background, value system, aspirations, and needs (Tan, Seng, & Pou, 2003). Thus, mediation of meaning nurtures intrinsic motivation in students to learn, and learn how to learn, think, reason, and ask beyond the content of the topic and becoming independent learners (Chua, Tan, & Chng, 2017). With the use of questions, the teacher can foster mediation of meaning with young children in the classroom by

1. Explaining the importance and value of the

topic/problem.

2. Explaining the reason behind a particular focus.
3. Discussing learning goals with the student in the following ways:
  - a. Encouraging the students to identify applications for what they have learned
  - b. Helping students to transfer their knowledge across different subjects.

### **Mediation of Transcendence**

Transcendence addresses the mediatee's need, first, to understand, reflect, and make connections between his/her current experience with the previous ones, and second, to lead the learner away from the “here and now” of the learning situation, thereby fostering independence and lifelong learning in the children (Rand, 1991, Skuy et al., 1996). To bring transcendence in the classroom with young children, teachers can consider these conditions for the mediation of this parameter with questions:

1. Facilitate the solution of current problem.
2. Facilitate the application of what is taught beyond the scope of the immediate subject matter.
3. Relate the problem to prior learning.
4. Link the problem to other subjects.
5. Explain how the underlying process of solving a problem can be applied to various situations.
6. Pose appropriate questions involving the “whys” and “hows” in addition to the “whos” and “whats.”

To sum up, this article proposed that cognitive functions of young children are enhanced with appropriate use of questions during mediation of

the three parameters as we scaffold through teacher-student interactions under appropriate conditions. Being cognizant of the rapidly changing environment that our children will be exposed to, the apparent need for the development of appropriate questions to guide teachers and practitioners in providing competent and high-quality MLE to young children has become even more critical. Furthermore, early intervention through mediation is vital to enhance children's learning opportunities and development such that they become less dependent on mediation over time and progress to become independent learners and problem solvers, and ultimately achieve successful adaption in the 21<sup>st</sup> century.

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