ONGOING SUPERVISED STAFF TRAINING MODEL : A THEORETICAL PLATFORM FOR HIGH-ORDER THINKING SKILLS COACHING IN A MULTI-DISIPLINARY ENVIRONMENT

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Abstract

This is an ongoing process of staff-training combined with self-study conducted simultaneously by the team of ***Inspire-Academy,*** a privately initiated venture aimed at embedding high order thinking-skills in the functional routine of children and their significant adults. The team comprises of the academic principal and three staff trainers. The venture is an advanced and improved offspring of two initiatives undertaken and researched during institutionalized teacher training anchored in an innovative paradigm – MOST[84] (Nassie, Shani & Bar-on 2008) and Multiple MOST[85]- (Nassie & Shani, 2009). Having witnessed the impact MOST and had on training and teaching of language arts, Multiple MOST has been introduced consecutively into three training disciplines: Literacy, Mathematics and Art. Disciplines were chosen as a platform for meditative procedures using the language of thinking, due to their close link to language and to thinking. Five years of supervised practice in elementary schools called for widening and adjustments to fit early childhood coaching by professionals of ***Inspire-Academy*** to youngsters' significant adults through By-Proxy-Mediation. [86]
The benefits of the extended model as a platform for simultaneously training young children and their care takers is investigated.
ECMMI was used to train two groups of which the writer was the moderator: Group One consisted of instructors of ***Inspire-Academy*** as part of their in-job training. Group Two – comprised of non-professional-adults – parents, grand parents and care givers seeking to maximize their meditative-coaching skills for the benefit of the young children they cater to. Insights gained

[84] Model of Ongoing Supervised Training MOST- An Innovative approach for teacher training of Thinking and Language
[85] Multiple MOST - Merging Theory and Practice in Multiple Disciplinary Contexts
[86] A process in which significant others – co-workers, students or significant adults are being trained to mediate while being mediated to.

through practitioner-reflection resulted in changes in model which is now under intensive investigation.

Keywords: Training, language-of-thinking, parents

Introduction

Context of the study

The conceptual framework of MOST - Model of Ongoing Supervised Training (Nassie, Bar-On and Shani, 2008) - combined pedagogical and disciplinary supervised mentoring replacing two separate field workshops. MOST trainees were exposed to a joint venture using similar pedagogical and disciplinary parameters and a shared jargon for mediating self regulation using the language of thinking in the context of literacy instruction under constant supervision and by modeling the mediators' self regulatory processes.

MOST, was initiated as an innovative training paradigm for teacher training based on the notion of 'multicultural pedagogy' which caters to divergent communities (Hoffman, 1996). Based on philosophies and practice procedures associated with PDS (Professional Development School) and Inclusive Education, it later materialized as a workshop for trainee teachers and in job training for professionals mediating self regulation using the language of thinking primarily in language instruction contexts. It was then broadened to sustain additional disciplines (Mathematics and Art). In its current phase it involves the basic and advanced staff training of ***Inspire Academy*** a venture aimed at embedding self regulation and high order thinking skills in the functional routine of children.

Several years of practice and research, demonstrated the substantial contribution MOST, and Multiple MOST had on teacher and organizational development in the long run. Evidence proved both models effective in:

a. Implementation of corrective and therapeutic self regulated decisions during week-long intervals between sessions and bridging the functional gap between individual therapy and the classroom activities.

b. Trainee exposure and involvement in multi-professional interventions requiring self regulation and introspection.

c. Empowerment of the staff, the children and the surrounding community by generating a common thinking language- Jargon of a Learning Community (Nassie, 2004), that influences expanding circles of learning and self regulatory behavior.

d. Evoking consciousness to parallel communication of staff as a meditative community aimed at pre-planning, self regulation and reflection.

e. Evoking consciousness and understanding of the importance of the cultural basis inner speech in self regulation of communication and language thinking in multi-ethnic and socially stratified communities.

Based on these findings, it seemed appropriate to take it one step further by widening the spectrum and transferring the principals upon which MOST and Multiple MOST were constructed, into earlier child education and pre-school, out of school enrichment. Extensive reading and disciplined enquiry proved parents and other care takers were eager to assume responsibility based on empowerment and professional support. The extended model introduced here Early Childhood Multiple MOST Inspiration was therefore introduced into the variety of services offered by ***Inspire Academy*** thus focusing on a neglected but interested target population and deepening the impact by providing authentic transitive opportunities.

Early **Childhood Multiple MOST Inspiration** was the focus of an in-service and pre-service training program designed for two groups of staff members of ***Inspire Academy*** : *Group One* consisted of licensed teachers seeking alternative challenges. All members of this carefully selected group had been exposed to the rationale and training when first joining ***Inspire Academy.*** *Group Two* was part of a continued educational program for teachers conventional environment seeking to improve their practice. Group two was the focus of research into By Proxy Mediation. This divergent population, in terms of disciplines, interests, skills and points of view, allowed for a widening of the spectrum and provided an in-depth critical aspect.

Synergizing the expertise gained through previous enterprises the moderators- experts in assessment, mediation, pedagogy, curricular planning and disciplinary adjustment widened the scope of their expertise to include group-counseling for non professional participants, mediation to young children and modeling. This allowed for a unique opportunity for professional development and growth of all participants in the ***Inspire Academy*** venture.

Intensive practitioner reflection combined with logs pf the non professional participants and some recorded child generated stories and insights enabled the moderators to introduce the necessary changes into the extended model which is now subject for intensive investigation.

I.
Aims

The purposes of this ongoing study are: (a) Mapping and determining the conceptual parameters which benefit from the change introduced into training and practice. (b) Based on this analysis - to find out whether **Early**

Childhood Multiple MOST Inspiration should be adopted as a platform for ***Inspire Academy*** staff training in Multiple Disciplinary Contexts and ages. (c) Revealing possible transformations this experience engenders in non professional mediators perception.

In order to do so, data was accumulated and analyzed it in light of the 'thinking class' framework. The investigation focused on learning processes which employ the language of thinking during instructive interactions between mentors and their non professional trainees and between these trainees and their respective audiences in what Nassie (2004) called "By proxy mediation".

Theoretical perspectives

The theoretical perspectives upon which we based our model, as well as the investigation, is our conceptual framework regarding the nature of intellectual performance. We maintain that efficient intellectual performance accelerates learning which, in turn serves as the soil for additional intellectual growth (Vygotsky, 1962) . We agree that intelligence is a varied capacity (Gardner, 1983). Learning performance, by nature is language-based and can therefore best be linked to intelligence by using thinking concepts (Tishman, Perkins & Jay, 1995). We also claim that human functioning is modifiable through adequate mediation. We assume the language of thinking constitutes such mediation (Feuerstein, Falik and Feuerstein, 1998) . The language of thinking used within the learning community served as the anchor for all academic interactions with children, trainees and teachers alike (Nassie, 2004). We maintain that the three disciplines chosen for this investigation – written language instruction, mathematics and art instruction - are most suitable for such a project given that all three are in fact languages, each of which represents a different mode of intelligence - logical, verbal and spatial (Gardner, 1983).

Theories regarding the nature of intelligence

Gardner's (1983) Theory of Multiple Intelligences (MI) challenged the traditional view of intelligence as a unitary capacity that can be adequately measured by IQ tests. Instead, Gardner defines intelligence as an ability to solve problems or create products that are valued in at least one culture. Feuerstein and the school of Structural Cognitive Modifiability define intelligence as "the capacity of the individual to use previously acquired experience to adjust to new situations" and also as a "process broad enough to embrace a large variety of phenomena that have in common the dynamics and mechanics of adaptation. The adaptability of the organism is what we refer to as modifiability" (Feuerstein et al., 1998). When addressing modifiability, two situations are in fact addressed – that of the 'normative

achiever' – striving for excellence, as well as that of 'under achievers', for whatever reason, striving for normative performance. The bonding of these two populations is the raison d'etre of Inclusive education, which addresses cognitive development and the cognitive functions at one and the same time.

Cognitive Development –Is the process of mental growth taking place through the interaction between the individual and the environment. Interaction with environment may be described: as a direct learning experience – through direct exposure to stimuli, as in the S—R model; as a mediated learning experience that requires the active presence of a human being to filter, select, interpret and elaborate that which has been experienced (Falik,2000)[4]. MLE expands the classical S → R behaviourist model of conditioned learning and Piaget's S---O---R model in which an organism is added to the equation, and places a Human mediator between the stimulus and the response, filtering stimuli and directing responses --- S— H — O — H — R--. The theory of MLE regards cognitive development as determined, to a great extent, by two major types of interactions: direct learning and mediated learning. The special quality of MLE is viewed as responsible for the flexibility and modifiability of thinking and the enhancement of learning potential (Wang, Haertel, & Walberg, 1990). Through MLE, pupils learn how to learn. Learners who are not exposed to adequate mediated learning experiences tend to manifest undeveloped, impaired or fragile cognitive functioning (Feuerstein et. al.1998). Existing deficiencies do not necessarily emerge as one complete and unified repertoire; rather, the operative cognitive profile is individual and thus dictates intervention in terms of structure and emphasis (Feuerstein et.al 1998). Of the three phases in which deficient cognitive functions can be detected, the elaboration phase is the core of mental processing, whereas the input and output phases can be regarded as peripheral. Interaction analysis between and within phases is highly significant for understanding the extent and expansion of cognitive dysfunction. All three phases are heavily loaded with emotional and motivational factors (Hadas-Lidor 1999).

The Language of Thinking

The link between language and thinking is well established in psychology, education and teaching research. Vygotsky (1986) [15] stresses the importance of dual process (1) when learners master and internalize Language - the symbolic psychological tools of their society, (2) when they create their own symbolic linguistic representations in order to preserve and transcend understanding (Kozulin, 1999). The concept of 'psychological tools' is an innovative contribution of Vygotskian theory. They are defined as 'those symbolic artifacts-signs, symbols, texts, formulae, graphic-symbolic devices that help individuals master their own 'natural'

psychological functions such as perception, memory and attention' (Kozulin, 1998). An example would be the impact of writing things down from memory, of drawing when solving mathematical problems, and of using pictures to demonstrate and strengthen written reasoning.

In light of the above it seemed appropriate to examine research literature which integrates language-related disciplines with the methods and processes of thinking instruction. Tishman, Perkins and Jay (1995) list six dimensions of 'good thinking', one of which is the language of thinking (LOT) defined as the terms and concepts used within a learning community in reference to thinking and the way language is utilized to encourage high level thinking.

The language of thinking fulfils two highly significant roles in our lives: (1) *Communication* – like any language its purpose is to communicate i.e. to transfer information about our own mental processes in different contexts of our lives. Daily thinking does not always use the formal terminology of thinking, but in scientific or academic contexts users technical terms, such as findings, speculations and inferences are beneficial. In the NCTM standards, communication is one of the standards explicitly discussed, especially as a means of enabling students to organize and consolidate their mathematical thinking. It allows students to verbally share their mathematical thinking with others, analyze and evaluate their thinking as well as others' strategies, and to express mathematical ideas precisely. (2) *Guidance and Order* – the language of thinking is useful for regulating, organizing and guiding thinking. Meta-cognition and the language of thinking are closely connected. The language of thinking provides the terms which propel the meta-cognitive process and organize and evaluate thinking (Tishman et.al. 1995). A specific jargon emerges in an environment thus inclined. This jargon is one basic characteristic of a learning community (Nassie, 2004).

The formation of a functional and cognitive jargon by a learning community is advantageous because it necessitates the redefinition of concepts and positions. Costa and Marzano (1991) identify seven components necessary to the construction of such a jargon:

1. Using precise thinking terminology: Expressions often used in learning environments are 'think more' 'think well' or 'think harder' thus stressing quantity and intensity of thinking over quality. The fact that using specific cognitive terminology assembles a thinking-learning lexicon which guides thinking and actions is sometimes overlooked.

2. Posing critical questions: Costa and Marzano (1991) prefer critical questions to instructions. They would replace "You made a mistake because you didn't notice" with: "What do you think you can do to avoid this sort of mistake in the future?" so that the learner may assume responsibility for his

actions and mistakes and of implementing the necessary principles in different contexts.

3. Presenting data rather than solutions: Sometimes, due to a diversity of constraints or inclinations, teaching and learning focus on solutions and results rather than on the overall process, thus denying the opportunity of learners to search and adapt their own solutions in thus assuming responsibility for their own performance. Readers, for example, can be allowed to make mistakes without immediately being corrected. Reaching a stage where rereading and reorganization of data is necessary allows them to detect errors, correct them, and avoid making the mistake in the future. Correction of spelling or Math errors cannot guarantee long-term flawless spelling or calculating.

4. Providing guidance: When guided, learners may be given information that is so well organized that assignments can be completed without the aid of meaningful cognitive activity except memory. Costa and Marzano (1991) suggest guidance through questions. In a variety of disciplinary contexts questions such as: "What does one need to pay attention to when spelling/drawing/solving a problem…?" would be more effective in terms of cognitive coaching than correction.

5. Striving for Precision: In daily speech we tend to make vague statements and erroneous generalizations. It is important to encourage learners by demonstration to define terms in using precise concepts and by striving to use specific and exact characterizations (Laborde, 1984). Costa and Marzano (1991) identify four categories of vague terminology: (1) Generalizing words – always, never, everyone, at all, etc. These words are very easy to resort to and are often misleading. (2) Vague comparisons – better, newer, nicer, easier - words that are often used but do not include explanation or detail. (3) Arbitrary use of pronouns – they, these – do not refer to anyone specifically, and as such, are less effective. (4) Sweeping generalizations – should, forbidden, must, have to – perceived as obvious in meaning and authoritative, without requiring thinking or analysis.

6. Developing meta-cognitive processes: During learning sessions it is useful to encourage learners to describe the thinking processes they use and to demonstrate them. It has been established that consolidated data and plans develop thinking about their thinking. The relevant language in this context includes utterances such as: "Describe the stages of the activity," "What should be done first," "What helps you remember these things?"

7. Analyzing the logic of language- Efficient thinking may be enhanced by implementation of lucid articulation and by the use of precise linguistic terminology related to task and process. When commenting to a learner or a colleague: "Pay attention to your calculation" – the precise meaning of the words does not match the intended meaning, namely to avoid

mistakes in the future or correct ones that exist. A better expression would be "check your work and see if you can correct it please", or "Are you sure of the correct spelling of the word you are about to use?", "how can one make sure?"

Memthodology

1. Accumulating data: The data collected consisted of transcripts of our joint group meetings with our students following their classroom interactions. two groups of which the writer was the moderator: Group One consisted of instructors of ***Inspire Academy*** as part of their in-job training. Group Two – comprised of non professional adults – parents, grand parents and care givers.

2. Research tools: Since all processes and mediation share characteristics of language, it seemed appropriate to use linguistic analysis tools. The tool used in this research was analysis of verbal input. Verbalisation was used in all facets of the process. Mediating thinking skills by way of reasoning is deeply rooted in processes of verbal conceptualisation, problem-solving, self regulation, self talk, all linked to the language of thinking. Together they have constructed our community's specific thinking jargon. All data was verbal in nature.

3. Data analysis: The analysis is restricted to discourse relating to the aims indicated above: (a) mapping and determining conceptual parameters which benefit from the change introduced into training and practice (b) Finding out **whether Early Childhood Multiple Most Inspiration** - should be adopted as a platform for training fir non professional mediators and at a younger age. (c) Revealing possible transformations this experience engenders in he professional perception of ***Inspire Academy*** staff.

Categories of events and all their derivatives were coded. Following Strauss and Corbin's (1990) suggestion, an open coding, uninfluenced by research questions was undertaken. Their procedure entails breaking down and naming sentences or data facets, comparing events in order to apply a shared name to similar events, and grouping names and codes into categories of a higher level of commonality than the words themselves. The conceptual parameters revealed as the core categories for mapping were: Linguistic knowledge, Procedural knowledge and Declarative knowledge. This mapping is the subject for further investigation to be pursued using in depth disciplinary examination, and are therefore beyond the scope of this paper.

Conclusion

It should be stressed that the research is still under process and therefore all findings are relevant to the time they are written alone. The

most interesting result so far was the authentic demand stemming from Group Two to broaden this experience by mentoring to a non professional audience. Furthermore, a feeling of discomfort and doubt was professed regarding the 'correct' style of parenting. For the first time in many years of counseling partnership did fundamental issues emerge in a bottom-up process of enquiry and speculation. The main issues that stood out were: (1) The faults and merits of a challenging environment. (2) How to undertake meaningful handling of learning issues? (3) The balance between support as opposed to independence. (4) The optimal level of mediation for empowering thinking skills. (5) What to expect from professional care takers? (6) How to motivate children for success? (7) How to handle failure?

Regarding the professional staff transformation, three tendencies emerged: (a) Participants' reports indicated this praxis had fostered a holistic approach to training which promoted transferability of skills within content areas and skills. (b) Using **Early Childhood Multiple MOST Inspiration** sustained the ecological approach and enabled staff members to cater to multiple intelligences of a variety of learners. (c) Group One gained insights as to their dual consecutive role as life long learners and mentors, whereas Group Two gained priceless insights as to the need for an ongoing dialogue as part of professional development and personal enrichment.

Synergizing the expertise of **Early Childhood Multiple MOST Inspiration** moderators- experts in assessment, mediation, pedagogy, curricular planning and adjustments, both groups created a unique opportunity for an environmental parallel professional development and growth.

Preliminary findings supported the assumption that the three theoretical legs upon which the conceptual framework stands, namely MLE, LOT and MI all offer a substantial contribution to the praxis offered by **Early Childhood Multiple MOST Inspiration.** Evidence indicating the three can interact and support each other and that professional mediation employing the correct combination, timing, and orchestration initiate change and growth of all parties involved in the interactions.

At this early stage of an ongoing research it can be hoped that **Early Childhood Multiple MOST Inspiration** when fully investigated and documented may lead to a new multidisciplinary synergized theory on training and intervention portraying visual, verbal and logical literacy.

In a nutshell, **Early Childhood Multiple MOST Inspiration** proved to be a powerful and effective tool for training as well as for in-service-training. It was seen that **Early Childhood Multiple MOST Inspiration** can be used in the context of a variety of subjects It was evident that it can be applied as a consecutive process of mediation – as a BY Proxy MEDIATION process in which mediatees mediate to their respective students. **Early**

Childhood Multiple MOST Inspiration is therefore a valuable platform adaptable for developing parental counseling and after school programs . It was evident that the model carries limitations in terms of its applicability without massive supervision. It is still unclear whether **Early Childhood Multiple MOST Inspiration** can be applied in other contexts. The effect on staff burn-out is yet unclear. Given the fact that the after-action research is still in process other consequences as well as contradicting evidence may be added at a later stage.

References:

Costa, A.L., (1991).The school as a home for the mind. Costa, A.L., *Developing minds: A Resource Book for Teaching Thinking,* Alexandria, Va., ASCD Vol. 1 pp. 47-54

Costa, A.L., and Marzano, R., (1991). Teaching the language of thinking. Costa. A.L., (Ed.) *Developing Minds: A Resource book for Teaching Thinking,* Alexandria, VA; ASCD. Vol. 1. Pp. 251-254.

Hadas-Lidor, N., (1999) (Hebrew text) Cognitive Dynamic Intervention and its Implications on Social and Cognitive performance of Schizophrenic Patients. *Occupational Theray Review* (Hebrew)

Hoffman, D.M.,(1996) Cultural and Self in Multicultural Education: Reflections on discourse, text and practice. *AERA J*ournal, 33:545-570

Feuerstein R., Falik, L.H., and Feuerstein R.S., (1998). The Learning Potential Assessment Device: An alternative approach to the assessment of the learning potential. Samurda, R.J., Feuerstein R., Kaufman, A.S., Lewis, J.E., and Sternberg, R.J. (Eds.) *Advances in Cross Cultural Assessment.* Thousand Oaks, CA, Sage.

Gardner, H., (1983) *Frames of Mind; The Theory of multiple Intelligences.* NY, Basic Books.

Hoffman, D.M.,(1996) Culture and self in multicultural education: Reflections on discourse, text, and practice. *American Educational Research Journal*

Kozulin, A., (1998). *Psychological tools: A Socio-cultural Approach to Education*. Cambridge, MA: Harvard University Press

Kozulin, A., (1999). Sociocultural contexts of cognitive theory.*Human Development.* Vol. 42(2):78-82

Laborde, G., (1984) *Influencing With Integrity.* Palo Alto, CA, Syntony Press.

Nassie,I. (2004) A Critical Enquiry into Hebrew Spelling-Thinking Meiation, Anglia Ruskin University Doctoral Thesis

Nassie, I.M., Shani M., and Bar-on, S.; (2008), *MOST – Model of Ongoing Supervised Training for Thinking Language.* Presentation at BERA conference 2008, Scotland

Nassie, I.M. and Shani M., (2009) *MULTIPLE MOST: Using a Model of Ongoing Supervised Training as a Platform for Merging Theory and Practice in Multiple Disciplinary Contexts.* Presentation at ICERI Conference, Madrid, Spain.

Schechter, C., Syeks, I., and Rosenfeld, I. (2004). Learning from Success: A Leverage of Transforming Schools into Learning Communities. *Planning and Changing* , 34(3-4), 154-168.

Tishman, S., Perkins, D., and Jay, E., (1995). *The thinking Classroom: Learning and Teaching in a Culture of Thinking.* Needham, MASS., Allyn and Bacon.

Vygotsky, L.S., (1962), *Thought and Language*, Cambridge, MA, MIT Press.

Wang, M.C., Haertel, G.D., & Walberg, H.J., (1990); What Influences Learning? A Content Analysis of Review Literature. The Journal of Educational Research Volume 84, Issue 1: 30-43