

Sensitisation of Student-teachers towards the Direct Teaching of Thinking

NALINI PATIL* AND PALLAVI DALVI**

Abstract

This study attempted to sensitise student-teachers towards the direct teaching of thinking based on Edward De Bono's CoRT thinking tools. The sample consisted of student-teachers of B.Ed. programme. The student-teachers were introduced with the first module of CoRT thinking programme. Five of the student-teachers voluntarily participated further into facilitation of the Direct Teaching of Thinking (DTT) Programme designed to bring in life skills changes for 8th standard students. The paper discusses content understanding of the student-teachers who participated in the sensitisation programme. The data collected in the form of reflections from the student-teachers, is analysed through, the thematic analysis. The analysis revealed that the DTT programme improves communication and interpersonal relations of the student-teachers with their students. The student-teachers felt more confident to use the tools in their subject lesson after the exposure. The thinking programme based on CoRT is relevant not only to be taught in schools but also in teacher education programmes for improvement of teachers' skills.

INTRODUCTION

In the era of advanced technologies, there is an unparalleled wealth of information streaming through the digital devices of every human being, which may lead to stress and a state of confusion for many. A critical

ability to identify the appropriate applications of this information can only bring in enhancement of the real-life situations.

The purpose of education is to prepare students for a life beyond school. Education system plays a

* Project Director, ICSSR funded Major Research Project, Principal, SNDT College of Education, Pune Maharashtra.

** Assistant Professor, SNDT College of Education, Pune, Maharashtra.

vital role in the learning environment for learning of an individual. As stated by Dr. S. Radhakrishnan, “The end-product of education should be a free creative man, who can battle against historical circumstances and adversities of nature” (Kalaiselvi R., 2016). To prepare the students for effective thinking, teachers themselves need to be effective thinkers. This ability can be acquired through the practice of various complex order skills of thinking such as critical thinking or problem solving. Developers and researchers of many effective programmes on teaching thinking skills claim teacher training to be a key element in the success of such programmes (Cotton, 1991). This minor research study was taken up while conducting a training programme for the facilitators of a ‘Direct Teaching of Thinking’ (DTT) programme developed for 8th grade students. The DTT programme was based on the ten CoRT thinking tools given by Edward de Bono for the first time in 1973, at the Cambridge University. The focus of DTT programme was on enhancement of life skills as listed by World Health Organization (WHO). This research aim towards studying the changes that are subsequently observed during and after the facilitator’s training programme, amongst the student-teachers of B.Ed.

The reviewed literatures, shows application of CoRT programme in the branches of Social Studies such as Geography, National and Civil Education, and History. Also, their effects studied in developing

critical thinking (Al-Edwan, 2011; Rabbo, 2019). CoRT Programme was found to be appropriate to stimulate the originality, fluency and flexibility which develops better critical thinking, creative thinking, comprehension skills as well as communication skills. (Al-Faoury and Khwaileh, 2014; Alshurman, 2017; Rabbo; 2019). Rabbo (2019) even suggested developing the teacher competencies through the training on CoRT programme.

The Department of Mental Health, WHO (1999) identifies life skills across different cultures into five categories:

- Decision making and problem solving
- Creative and critical thinking
- Communication and interpersonal skills
- Self-awareness and empathy
- Coping with emotions and coping with stress

Literature also cites that acquired skills such as communication ability, awareness of self-capacities or interests, further aid to transform the imbibed values into appropriate attitude. Thus, life skill changes can be brought through training programmes for the student-teachers. (Kalaiselvi, R., 2016; Helaiya, S., 2010). Such life skill changes can develop psychosocial skills that are required to deal with the demands and challenges of everyday life (WHO, 1999).

Therefore, the present research studies sensitisation of the B.Ed. student-teachers towards the

methodologies of Direct Teaching of Thinking (DTT) programme.

METHODOLOGY

The current research study was taken up as a part of major study involving development and effective implementation of DTT programme based on the CoRT1 module of Edward de Bono. CoRT1 as cited encompasses the 'Breadth' of thinking, which can help broaden ones perception. Also, the 'width' of thinking is considered to be as fundamental as 'vocabulary' is to reading. The B.Ed. programme aims towards acquisition of many professional skills by the student-teachers while, completing the coursework (Helaiya S., 2010). Hence, the sensitisation towards the methodologies of the thinking programme was done at the introductory level of the teacher education programme.

OBJECTIVES

- To sensitise the student-teachers towards methodologies of Direct Teaching of Thinking (DTT) programme.
- To analyse experiences of the student teachers after implementation of DTT programme based on CoRT.

EXPLANATION OF TERMS

Sensitisation: It indicates a condition of responding to a certain stimulus in a sensitive manner. In this study, the purpose of implementing the

programme for the student-teachers was to demonstrate the methodologies of facilitation process within the thinking programme. Also, the student-teachers would respond in varied ways through their practice.

B.Ed. Student-teachers: The population under consideration was the student-teachers who have enrolled and are undergoing B.Ed. course through teacher education. The sample included 26 student-teachers of the first year B.Ed. programme.

Direct Teaching of Thinking Programme: The thinking tools available through the CoRT1 programme of Edward de Bono were contextually used for the student-teachers' training programme.

RESEARCH DESIGN

The major study was conducted using 'Mixed Methods' Research. The Mixed Methods research can be defined as research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a programme of inquiry (Tashakkori and Creswell, 2007). This paper discusses the qualitative data collected from the student-teachers and uses it to enhance the findings of the accompanying quantitative study.

The purposive sampling (Best and Kahn, 2006) was used to select student-teachers enrolled for the

B.Ed. course at SNDT Women's University, Pune, Maharashtra.

The sensitisation through the training on thinking tools based on CoRT1 module comprising of 'breadth in thinking', was conducted for 26 student-teachers. Further, five volunteer student-teachers participated in facilitation of the Direct Teaching of Thinking (DTT) programme with 8th standard students. The reflective reports of the student-teachers, subjective content test on the understanding of the CoRT, thinking programme, and field observations of these student teachers during the participation of this programme at the school level were the qualitative data strands analysed for the current study.

FINDINGS AND DATA ANALYSIS

Content Understanding

The 26 student-teachers subjectively reported on the understanding of the breadth of the thinking and importance of CoRT thinking tools for a teacher. The comprehension level about the usefulness of the tools was found to be of varied degree in accordance with individual communication skills and experiences. The subjective inputs were screened for similarities within the responses. The student-teachers regarded these tools to be a means of "better communication" with their students. Specifically, tools like "AGO (Aims, Goals and Objectives) and Planning" were accounted to be of most utility value for a teacher during

classroom transactions. Further, the tools such as, "OPV (Other People's Views) and CAF (Consider All Factors), were considered to take learners' perspective". These inputs of the student-teachers were analysed and can be summed up to enhance the following skills/competencies through the use of the tools:

- To be improving the higher order thinking capacity.
- Aid to bring in clarity in decisions.
- Support to improve interpersonal relationship between teachers and students.
- Impart or improve problem-solving tools.

HIGHLIGHTS OF THE REFLECTIONS

The five student-teachers who volunteered to be part of the facilitation team for the 'Direct Teaching of Thinking' programme for the eight grade students noted their reflections. These data strands were qualitatively analysed for the minute changes reported within the behavioral manifestations of the individual thinking. The reflections indicated perspective of the student-teachers towards the thinking programme. They could bring out the differences within the 'instructional classroom transactions' and 'facilitative approach' of learning.

The student-teachers noted unique responses given by the students, such as a commonly reported one, stating, "an individual student had considered the presence

of blind students while using the thinking tool of PMI (Plus, Minus, Interesting)". These post session reflections also brought out a strong support in favor of 'focused discussions' as a strategy to be used in classroom transaction for effective methodologies. Two of the student-teachers reported enhancement of their students' 'analytical abilities' during the thinking programme. All the five student-teachers reported that, "the 'DTT programme' is more engaging and allowed strengthening of the creativity and logical thinking of their students". Further, the student-teachers reported inculcation of "independent thinking ability" within their students which, could subsequently allow the "students to lead" the focused discussion sessions in the classroom. These reflective observations were indicators of systematic development of observation skills amongst the student-teachers.

The reflections also highlighted the changes reported by these student-teachers within their own thinking that could be applied in their real-life situations. The repetitive, evaluative phrases used by the student-teachers, brought out a few more themes summed up as under:

- Self-confidence
- Goal setting
- Organised thinking
- Improved independent thinking ability
- Evaluative perspective
- Creative approach

- Preparedness towards problem solving
- Student-centric methodologies

The student-teachers revealed to have improved "self-confidence" during the programme and have "better communication" with their students during the classroom transactions showing improved 'interpersonal relationships'. Most of them expressed to "gain clarity in thinking" and "setting own goals". One of them also expressed to acquire improved "preparedness for problem-solving" in real-life situations. While, other student-teacher stated, "to gain confidence to overcome challenges through organised planning". These five student-teachers also, claimed to use these thinking tools to "strengthen their teaching skills" by building better "student-teacher relationship" and "understanding their students' point of view".

FIELD OBSERVATIONS

The student-teachers were observed through the thinking programme and the changes were noted with respect to self-exploration, understanding of the thinking skills and implications in the professional planning during the practice teaching sessions of B.Ed. coursework. The volunteer student-teachers showed a better understanding of the thinking tools and identified its significance with much clarity. Though the application of these tools in planning and implementing through their

own subject was attempted by only one of the student-teachers, each one reported to acquire clarity in understanding the finer “difference between aims and objectives” of their subject methodologies. Two of the student-teachers reported of applying an “organised approach before making a decision”. The student-teachers also stated the CoRT tools of thinking to be “easy to teach”, and “easy to learn”.

The student-teachers actively participated in the focused discussions undertaken during the ‘Direct Teaching of Thinking’ at the school. They showed a varied level of confidence during the facilitation sessions. Most of them made an effort to confidently transact with their students during the workshop as well as during their internship programme subsequently, through their B.Ed. coursework. The student-teachers also exhibited enhanced critical analysis of the sessions and expressed their thoughts in post-session discussions. The student-teachers attempted to bring in changes during their lesson planning and identifying the objectives of their lessons. They also showed a creative attempt in planning of their lessons and bring in variety of classroom strategies.

DISCUSSION

Most of teachers felt that the programme helped broaden their perspective and all of them reported the programme help them in setting own

goals. Many reported that they could apply the thinking tools creatively to add meaningful experiences in their planning of methodologies. A few others felt that this programme was insightful and enabled them to consider different perspectives. The student-teachers could recognise the strengthened decision-making capacities and coping abilities with their own emotions after using the tools of thinking. Thus, the thinking process of the student-teachers indicated changes encompassing the life skills frame given by the WHO.

The qualitative analysis was primarily based on the reflections and observations of the volunteer student-teachers. Hence, the findings could not be generalised to the other subjects of the population. But the qualitative strand analysis distinctively showed improvement in ‘communication’ of these participants with their students, bring clarity in ‘decision making’ outside the specified context, preparedness in ‘problem solving’ and ‘setting own goals’ as discussed previously. The qualitative analysis also indicated that teaching of the DTT programme improved comprehension of the thinking tools to a deeper level for the volunteer student-teachers than the other participants. The facilitation of thinking programme by student-teachers, brought out other aspects of a teachers’ skills like observation skills, interpersonal relationships with students, facilitative approach of teaching-learning, organisation

and planning of effective classroom transaction. The thinking programme not only helped student-teachers in effective classroom transaction, but also in improving their approach towards decision making and problem solving in daily life.

CONCLUSION

The research study was aimed at sensitisation of the B.Ed. student-teachers towards the DTT programme. The qualitative data instruments could bring out some common themes, which were indicative of enhanced life skills of these student-teachers. The self-reporting by student-teachers, on the improved levels of confidence, clarity to express own thoughts on evaluative views about the thinking programme and reporting on their

students' point of view, shows better levels of 'self-awareness', 'critical thinking' and 'empathy'. This also brings out the process of sensitisation towards the student-centric teaching-learning focused through the Direct Teaching of Thinking. The student-teachers could acquire 'effective communication' and 'interpersonal skills.' Further their report on confronting the challenges and problems in organised manner were indicators of 'better coping skills.' A few efforts of innovative practices in transactional strategies exhibit improved creativity. Thus, the qualitative inputs within the research could bring out the degree to which, the student-teachers showed the effect of thinking programme and could eventually sustain skillfully making the day-to-day decisions.

REFERENCES

- AL-EDWAN, Z. S. M. 2011. The Effectiveness of a Training Programme Based on Cognitive Research Trust Strategies to Develop Seventh Grade Students' Critical Thinking in History Course. *Journal of Social Sciences*. Vol. 7, No. 3. pp. 436–442. <https://doi.org/10.3844/jssp.2011.436.442>
- AL-FAOURY, O. H. AND F. KHWALEH. 2014. The Effect of Teaching Cort Programme No. (4) Entitled "Creativity" on the Gifted Learners' Writings in Ein El-Basha Center for Gifted Students. *Theory and Practice in Language Studies*. Vol. 4, No. 11. pp. 2249–2257. <https://doi.org/10.4304/tpls.4.11.2249-2257>
- ALSHURMAN, W. M. 2017. The Effects of The First Part of The Cort Programme For Teaching Thinking (BREADTH) on the Development of Communication Skills Among Sample of Students From Al al-Bayt University in Jordan. *Educational Research and Reviews*. Vol.12, No.2. pp.73–82. <https://doi.org/10.5897/ERR2016.3069>
- BEST, J.W. AND J.V. KAHN. 2006. *Research In Education* (10th ed.). Pearson Education Inc.
- COTTON, K. 1991. *Close-Up # 11: Teaching Thinking Skills*. Northwest Regional Educational Laboratory's School Improvement Research Series. <https://educationnorthwest.org/sites/default/files/TeachingThinkingSkills.pdf>

- CRESWELL, J. W. AND V. L. PLANO CLARK. 2011. *Designing and Conducting Mixed Method Research* (2nd ed.). Sage Publications, Inc.
- DEBONO, E. 2015. *Teach Your Child How to Think*. Penguin Books Ltd. ISBN 978-0-241-33688-5
- EDWARD DE BONO FOUNDATION. N.D. Creative Thinking Techniques. <http://www.edwarddebonofoundation.com/Creative-Thinking-Techniques/CoRT-Tools.html>
- . 2014. *The CoRT tools: Overview of the CoRT training and lessons*. <http://www.edwarddebonofoundation.com/Creative-Thinking-Techniques/CoRT-Tools.html>
- HELAIYA, S. 2010. *Development and Implementation of Life Skills Programmeme for Student-teachers*. [Doctoral Thesis, Maharaja Sayajirao University of Baroda]. Shodhganga. <http://hdl.handle.net/10603/59007>
- KALAISELVI, R. 2016. *Effectiveness of Selected Strategies in Enhancing Life Skills Reflected In Thirukkural Among B.Ed. Trainees* [Doctoral Thesis, Alagappa University, Tamil Nadu]. Shodhganga. <http://hdl.handle.net/10603/170830>
- MINCEMOYER, C. C. AND D. F. PERKINS. 2005. Measuring the Impact of Youth Development Programmes: A National Online Youth Life Skills Evaluation System. *The Forum Journal*. Vol. 10, No. 2. pp. 1–9. <https://www.theforumjournal.org/2005/10/03/measuring-the-impact-of-youth-development-programmes-a-national-on-line-youth-life-skills-evaluation-system/>
- PERKINS, D. F. AND C.C. MINCEMOYER. 2003. Adult—Skills for Everyday Living. https://cyfar.org/sites/default/files/InstrumentFiles/LifeSkills_Adult_0.pdf
- RABBO J. A. 2019. The Impact of Using the First and Third Parts of the CoRT Programme on the Development of Critical Thinking for Talented Students in Tafila Governorate. *Journal of Studies in Education*. Vol. 9, No. 3. pp.72–91. <https://doi.org/10.5296/jse.v9i3.15020>
- SCHOONENBOOM, J. AND R.B. JOHNSON. 2017. How to Construct a Mixed Methods Research Design? *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie*. Vol. 69, pp.107–131. <https://doi.org/10.1007/s11577-017-0454-1>
- TASHAKKORI, A. AND J. W. CRESWELL. 2007. Editorial: The New Era of Mixed Methods. *Journal of Mixed Methods Research*. Vol. 1, No. 1. pp. 3–7. <https://doi.org/10.1177/2345678906293042>
- WORLD HEALTH ORGANIZATION.1999. *Partners in Life Skills Education: Conclusions From a United Nations Inter-Agency Meeting*. Geneva. Department of Mental Health.https://www.who.int/mental_health/media/en/30.pdf?ua=1