Table of Contents

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Elaboration of Mathematical Content on Social Site: A Pedagogical Approach for Contemporary and Future Learning of Mathematics

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Abstract- *We need present good elaboration of mathematical content in our educational institution and social site (as; Facebook, twitter telegram, edmodo and social blogs etc). We need to reduce fear of mathematics and anxiety of mathematics. Elaboration of mathematical concept on social-site as a better way of learning. Blended approaches of learning are capable for reducing fear of mathematics, and their difficulty. elaboration of mathematics on social sites are enable to reduce their "difficulty", "anxiety" and "math phobia". Good way of elaboration of mathematics, and create learner behaviour "Joy". elaboration of mathematics on social-sites are direct the new way of thinking and constructing and also provide new way of transforming mathematical knowledge. Effective elaboration of mathematics are required good understanding mathematics in respect to content and good understanding of mathematics pedagogy in respect to "what learners know and how learners know". The feedback of the document and researches are "learner need dropping to teaching and educating and apply new approaches of transforming knowledge as facilitating and elaborating. Elaboration of mathematics on social site as educational technological tools are focused on the learner understanding in world-wide context. Elaboration of mathematics on social site are provided a new blended approach of transforming mathematical knowledge. Elaboration of mathematics on social site are provided infinite resource of learning in front of learners (as Students, Teachers, Researchers, Educators, etc). Elaboration of mathematics on social site are provided a philosophical (epistemological) view of mathematics learning. Elaboration of mathematics on social site and its applications are beneficial for the regular and non-regular usergers of social site. In a wold-wide view younger learners are expending more time surfing social site. Therefore elaboration of mathematics on social site is a best way of enriching mathematics knowledge and its understanding.*

In this paper the researcher is Discuss about the elaboration of mathematics on social sites as a new way of transforming of mathematics learning. Because at present and in future blended learning approach is more convenient and more effective for the learner.

Key World: *Elaboration, Content, Social Site, Pedagogy, and Approach etc.*

Introduction

There are many teaching-learning methods of transferring knowledge. Constructivist approach one of the best approach they believe in constructing knowledge of mathematics and other sciences. The constructivist approach one the best approach of constructing knowledge, constructivist approach does not believe in transformation of knowledge by one-to-one and one-many. Constructivist thinkers points out the "knowledge cannot transfer one body(Person) to another body(Person) of knowledge. They believe in knowledge construct as a development of plants. Today we need elaborate mathematical content knowledge in internationalization context, and also need to develop an effective application to improve the conceptual understanding of mathematics. International comparative studies, such as PISA and TIMSS are focus on the elaboration of mathematics in global scenario (Jinfa Cai, 2017). International studies in mathematics are shows the need of contribution, and international studies are also provided a vital body of knowledge about "how learner conceptualized mathematical concept" (Radovic S., Maric M., Passey Don).

In today's mostly younger people are spending more time with scrolling social sites. Therefore, social sites are one of the best ways of enriching exploration of mathematics. Elaboration of mathematical content on social sites (such as Facebook, YouTube, Twitter, Edmodo, Telegram, Instagram, etc.) are the best way of blended mood of learning for exploring the mathematical content. Mathematics one of the subject, they help in developing thinking. Elaboration of mathematics on social sites are given the chance to thinking and decision making ability of learners (social site users which instrated in mathematics learning). Elaboration of mathematical content on social sites are based on four principles. As (1) Elaboration of mathematical items on social sites, (2) Elaboration of mathematical content on social sites from abstract to concrete examples, (3) Organization of elaborating mathematical content moves from general to specific topics, (4) Elaboration started with comprehensive and brief overview of the elements of mathematics content.

Researcher aim in this study to advocate the elaboration of mathematics content on social sites. Elaboration of mathematics content on social sites are from simple to complex concepts and general to specific functions of mathematics.

Aim of the study

This study aims to establish the facts about the elaboration of mathematical content on social sites. And produce the artifacts about effective study of mathematics on social sites. Researcher wants to find the answers some research questions (1) "how can effectively use social site in elaboration of mathematics" (2) "how can effectively use the social site in exploration and enrichment of mathematics". And also discussing benefit of elaborating mathematical content on social site.

Elaboration of Mathematics

"Elaboration" term belongs to cognitive psychology (Mohamed, 2015) and constructivist approach of learning. It is concerned with the thinking process of learners. According to Regolith theory of elaboration are based on the progression from simple to complex, And general to specific. As educators/facilitators we need to consider the best way of increasing learning confidence in respect to mathematical content and its pedagogical knowledge. Elaboration of mathematical content is an effective way: to bring a change in facilitating pedagogical practices and understanding of mathematics.

Elaboration of Mathematical Content on Social Sites

We need elaborate mathematical content on social sites with their flexibility and simplicity. Elaborators are needed to improve their mathematical content and pedagogical practices to explore the mathematics and engage the learners in an effective way of presentation of mathematics content (Jha A.K. 2009 Constructivist Epistemology and Pedagogy). Professional competence and the professional knowledge of mathematics make a vital role of enhancement of mathematics (Sebastian K.2012). Elaboration of mathematics on social sites and its application is importance for the daily life of human beings. Elaboration of mathematical content on social sites is several ways of exploring the mathematics content. As

- Elaboration of mathematics content as test
- Elaboration of mathematics content as Pictorial form
- Elaboration of mathematics content as Game base
- Elaboration of mathematics content as puzzles
- Elaboration of mathematics concepts animation form
- Elaboration of Mathematics Content as Audio-video form
- Elaboration of Mathematics Content as story and historically form

Elaboration of Mathematics on Social sites; As a new way of Transforming and Constructing of Mathematics Understanding

The elaboration of mathematical content on social sites are an educational technological approach with field experiencing (experiencing with web). Elaboration of mathematical content on social sites to enrich the scope of present and future mathematics understanding. following objectives in present and future learning of mathematics.

- To enriching pedagogical practices of mathematics
- To enriching and enhancing the accessibility of mathematics content
- To enriching the awareness of mathematics
- To change unnecessary habit of scrolling social sites and time consumed with learning mathematics concepts
- To use the social sites as learning platform

Outcomes of Elaboration of Mathematical Content On Social Sites

Elaboration of mathematical content on social sites are promoting teaching/educating/ facilitating online and promoting web technology in field of instruction and outcomes of instructions. Researcher has to describe the five common outcomes of elaboration of mathematical content on social sites.

- Self report measures
- Elaboration performance assessment
- Execution of open ended and closed ended questionnaire
- Conducting the interviews of the learners (users)
- Observations in respect to elaboration

Elaboration of Mathematics on Social Sites: In Respect to Present and Future Facilitating-Learning Approach

Present and future elaboration of mathematics must be follows the properties of TPCK (Technology, Pedagogy, Content, and Knowledge of Mathematics) and STEM (Science, Technology, Engineering, Mathematics). They enable the intersection of content aspect involved with technology and pedagogy. Present and future collaborators (as Teachers, Educators, and Facilitators) are needed to understand and describe the intersection and interplay of three core of knowledge as (1) Mathematics Content Knowledge (Theory, Theorems, Formulas, Diagram, Graphes, and Shapes, etc.), (2) Pedagogical Knowledge of mathematics (how to elaborate mathematics knowledge), (3) Technological knowledge of softwares by of them constructing mathematical content (as Matlab, MS-world Mathematics Equation tool, H5P, Goe-Gebra, Olab, etc.). It is the conceptual framework of present and future learning, exploring, and elaborating mathematical content on Social Sites (as Facebook, Twitter, YouTube, Telegram, Instagram, WhatsApp, etc.).

Mathematical Content for Elaboration on Social Sites

All subject matter of mathematics that supporting elaboration on social sites as; mathematics content knowledge, Mathematics pedagogical knowledge, pedagogical style of learning, and from of mathematics content (as Text, Graphics, animations, mathematical games, puzzles, audio-video lectures of mathematics, mathematics history and stories, etc.) (Hill C. Heather, 2008) and also proceeding knowledge of elaboration of mathematical knowledge on social sites. Content for elaboration on social sites are composition of multiple dimensions of exploring mathematics. The content section focused on the elaboration of mathematics richness, and including the presence or absence of errors which observe by learners (the user of social sites.

Discussion

Researcher observation and prediction about the elaboration of mathematical content on social sites (as Facebook, Tweeter, Instagram, Telegram, YouTube, Edmodo, etc.) are developing optimal supported system of mathematics learning. Mathematical knowledge plays a vital role in their elaboration on social sites (Hill C. Heather, 2008). In particular researcher focus on

elaboration of mathematical content on social sites and mathematical knowledge for elaborating on social sites. And elaboration of mathematics on social sites also drop an assessment based on elaborating mathematics content. Researcher hypothetical on elaboration of mathematical content is holistically beneficial for the learner. Learners (users) approach the quality of instruction and interaction on social sites learners (users) get freedom from the accessing the mathematics content with respect to time and scenario. (Carrillo-Yanez Jose, 2018) are focused on the special nature of mathematics and elaboration of mathematical content knowledge. Elaboration of mathematical content on social sites are highly beneficial for the wider range of population in global scenario.

Conclusion

Mathematical content for elaboration are all subject matter of mathematics that supporting elaboration of social sites. As mathematics content knowledge, Mathematics pedagogical knowledge, pedagogical style of learning, and from of mathematics content (as Text, Graphics, animations, mathematical games, puzzles, audio-video lectures of mathematics, mathematics history and stories, etc.) (Hill C. Heather, 2008). Researcher emphasis on the forget traditional approaches of learning and emphasis on the "Learning Digitally". The social sites are most convenient resources for the elaboration of mathematics content. The social sites (as Facebook, Tweeter, YouTube, Telegram, Instagram Edmodo, etc.) are creating a web network in global scenario. The elaboration and exploration of mathematical ideas are gives us wider opportunity to connect us worldwide scenario.

These are all things creating a learning environment on social sites, for today and future learning of mathematics. Elaboration and execution of mathematical content on social sites are gives us well plate-from of learning and shearing concepts of mathematics. Elaboration of mathematical content on social sites are highly beneficial for the wider range of population in global scenario.

References

Carrillo-Yanez Jose, C. N. (2018). The mathematics Teacher's Specialised Knowledge (MTSK) Model. *Journal Research in Mathematics Education, 20*(3), 236-253.

Hill C. Heather, B. L. (2008). Mathematical Knowledge for Teaching and the Mathematical Quality of Instruction: An Exploratory Study. *Journal Cognition and Instruction*, 430-511.

Jinfa Cai, I. A. (2017). International Comparative Studies In Mathematics: Lessons and future Directions for Improving Students' learning. *Proceeding on the 13th International Congress on Mathematics Education*, 79-99.

Mohamed, E. A. (2015). Effectiveness of Using Elaboration Theory in Teaching Mathematics to Develop Academic Achievement and Critical Thinking for Primary Students in Oman. *Educational Research International, 2*(3), 852-855.

Sebastian K.(2012) Pedagogical Content Belief:Global Content Domain-related and Situation-Specific Components. *JOSTER,* Vol.79,273-292.

Jha A. K.(2009) Constructivist Epistemology and Pedagogy

Abramovich S., Grinshpan A., Milligain David L. (2019) Teaching Mathematics Through Concept Motivation and Action Learning, *Educational Research International. Published* on 14 April 2019.

Carrillo-Yanez J., Climeat N., Montes M., etal. (2018) The Mathematics Teacher's Specialised Knowledge (MTSK) Model, *Journal of Research in Mathematics Education. Vol.20(3), 236-253.*

Dunlosky J., Rawson Katherine A., Marsh Elijabath J., Nathan Mitchell J., and Willingham Daniel I., (2013) Improving Students' Learning with Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology, *Association for Psychological Science. Vol.14(1), 4-58.*

Jamieson R., Albion P., Finger G., Covanagh R.., Fitzgerald R. Bond T., and Crimbak P., (2013) Development of the TTF TPACK Survey Instrument, *Journal Australian Educational Computing. Vol.27(3), 26-36.*

Mouza C., Karchmer-klem R., Kumar N. R., Ozden S. Y. and Hu Likun (2014) Investigating the Impact of an Integrated Approach to Development of Preservice Teachers' Technological Pedagogical Content Knowledge (TPACK), *Journal of Computers and Educations. Vol.71,2*06-221.

Effective Strategies under Constructivist Approach of Learning to Reduce Fear and Phobia in Mathematics

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Abstract- *Mathematics is a very important school subject because of its utility in practical life. It is correlated with all the school subjects and is crucial in the career choice, however it is characterized with the fear and phobia among students. Constructivist approach is one of the most effective approach in which learners take self-initiative with positive attitude, are actively engaged in learning and provided opportunity to learn at their own pace. This approach provides flexibility and even welcome of wrong answer in creative perspective because it focuses more on process rather than product. What are the strategies under constructivist approach of learning to reduce fear and phobia in mathematics? What are the exact causes of fear and phobia in mathematics in the opinion of mathematics teachers? This study was conducted to know the answers of the above mentioned questions empirically. A self-constructed interview schedule was administered on a sample of 50 secondary schools mathematics teachers of Aligarh district. The Qualitative analysis of data revealed that emphasizing much on timely test, not valuing the mistakes of students, telling again and again that mathematics is a difficult subject and not realizing the utility of mathematics in practical life are some of the important causes of fear and phobia towards mathematics. Further, teachers opined that focusing on inductive approach, developing confidence in learners, self-construction of knowledge, fun with informative activities, inculcating problem solving ability and focusing on basic skills in mathematics are some of the strategies to reduce fear and phobia in mathematics. Effective strategies under constructivist approach will have the perpetual impact on the attitude of students towards mathematics as it results to learn it at their own ability and interest, thus reducing the fear and phobia in mathematics. The findings of the study, hence, will have much implications for the teachers as well as policy makers.*

Introduction

Education aims at all round development of the body, mind and soul. It is the instrument to mold the students for various professions and vocations. It helps to become aware of oneself and one's environment and also imbibe the moral, cultural, social, ethical and spiritual values**.** Since today's children are citizens of tomorrow, hence, the education not only prepares the students for higher education, but also shapes him/her to be a useful citizen of the society. In this regard real teacher must work for drawing out the best from the child's body, mind and soul. Any nation can