

مولانا آزاد نیشنل اردو یونیورسٹی
MAULANA AZAD NATIONAL URDU UNIVERSITY
(A Central University established by an Act of Parliament in 1998)
(Accredited with Grade "A" by NAAC)

COLLEGE OF TEACHER EDUCATION, Bhopal

کالج آف ٹیچر ایجوکیشن، بھوپال

13/07/2021

In-House Teachers' Professional Development Programme

(Multidisciplinary, Crossdisciplinary and Transdisciplinary Areas of Research in the Light of NEP-2020)



Presenter:

Dr. Talmeez Fatma Naqvi & Dr. Indrajeet Dutta





Circular

All Teaching staff members are hereby informed that an orientation programme on unexplored areas of educational research scheduled to be held on 13.07.2021 at 11.00 in College Library. The objective of the orientation programme is to: discuss and strengthen the field of educational research vis-à-vis interdisciplinary, multidisciplinary, cross disciplinary and transdisciplinary approaches of research so to make it more socially relevant and impactful. The programme will be presented by:

1. Dr. Talmeez Fatmna Naqvi and
2. Dr. Indrajeet Dutta

The presence of all faculties is compulsory.


12.07.2021
(Principal)


Multidisciplinary, Crossdisciplinary and Transdisciplinary Areas of Research in the Light of NEP-2020

Dr Talmeez Fatma Naqvi

Associate Professor

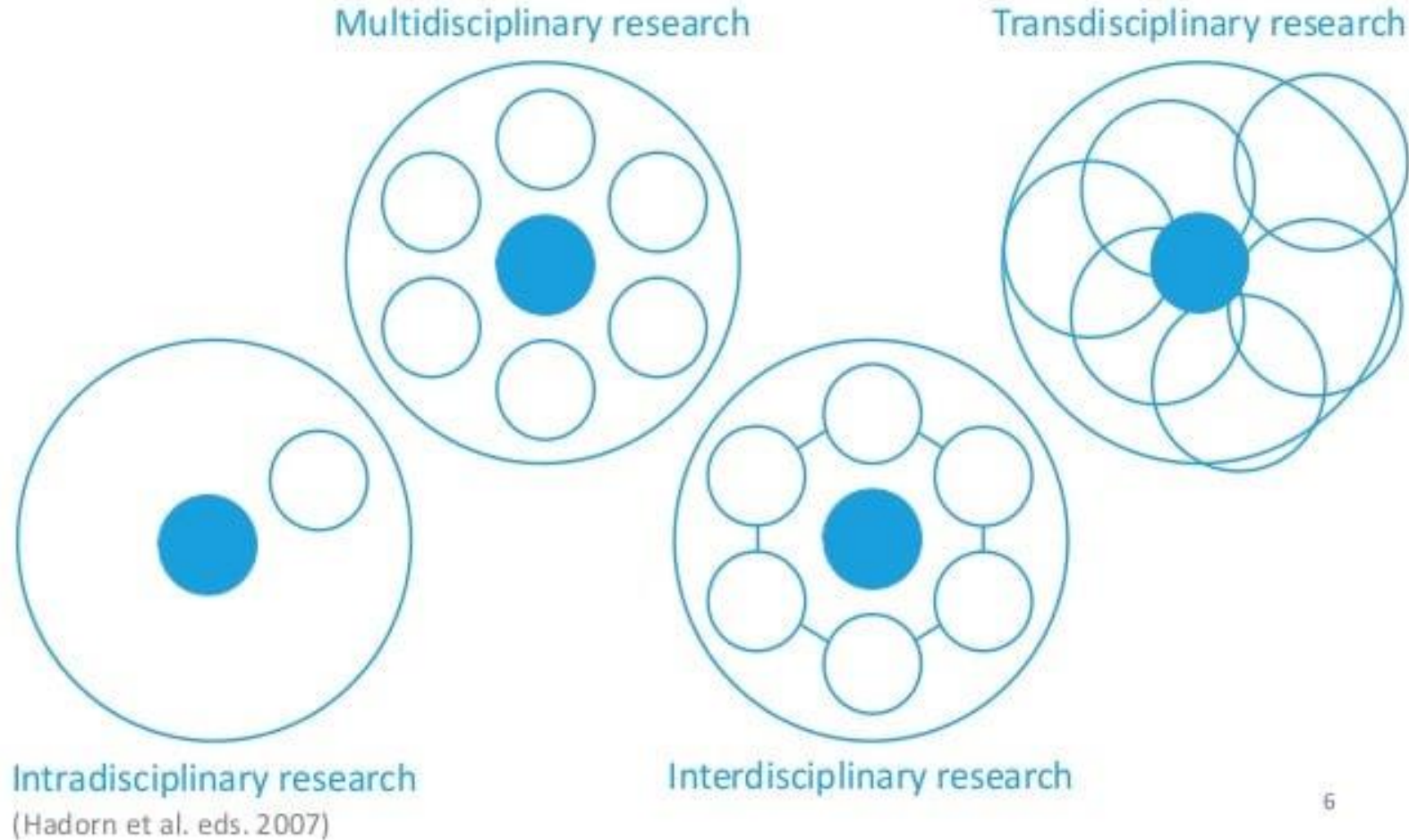
&

Dr Indrajeet Dutta

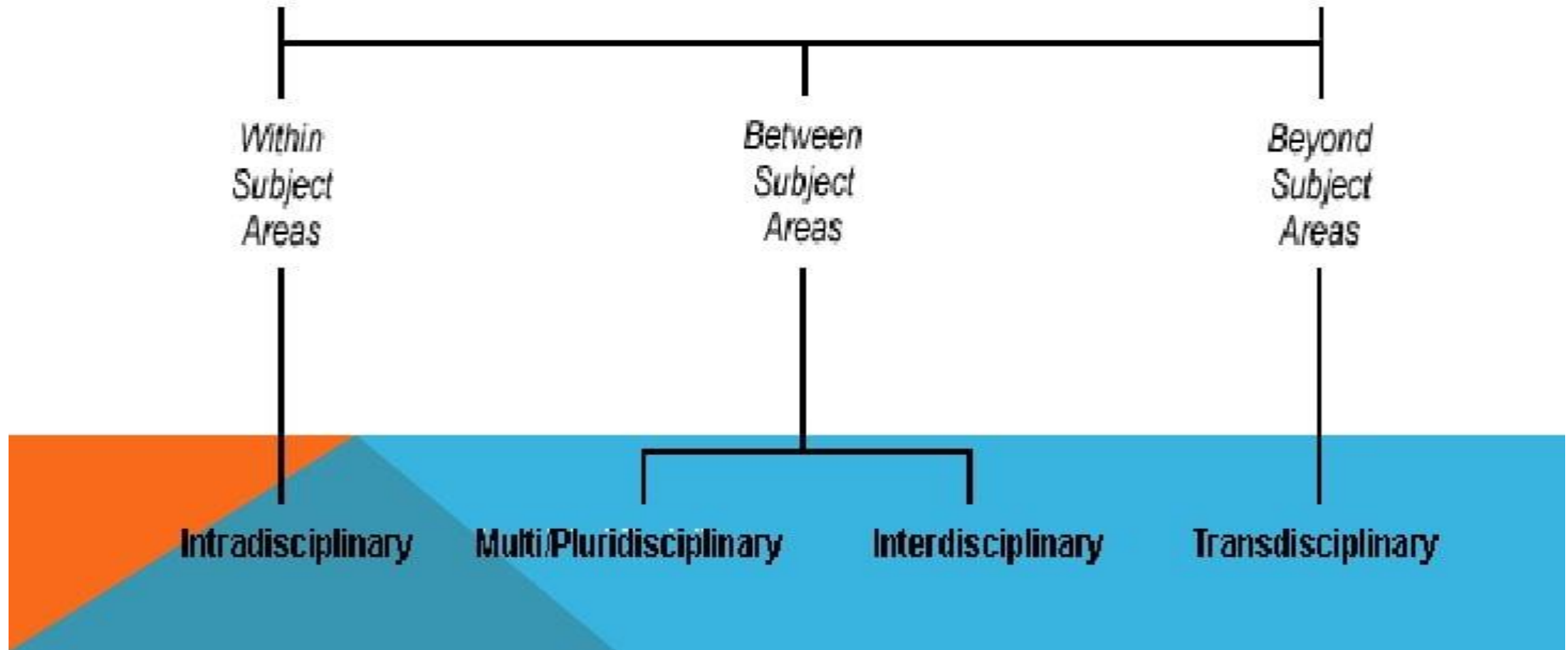
Assistant Professor

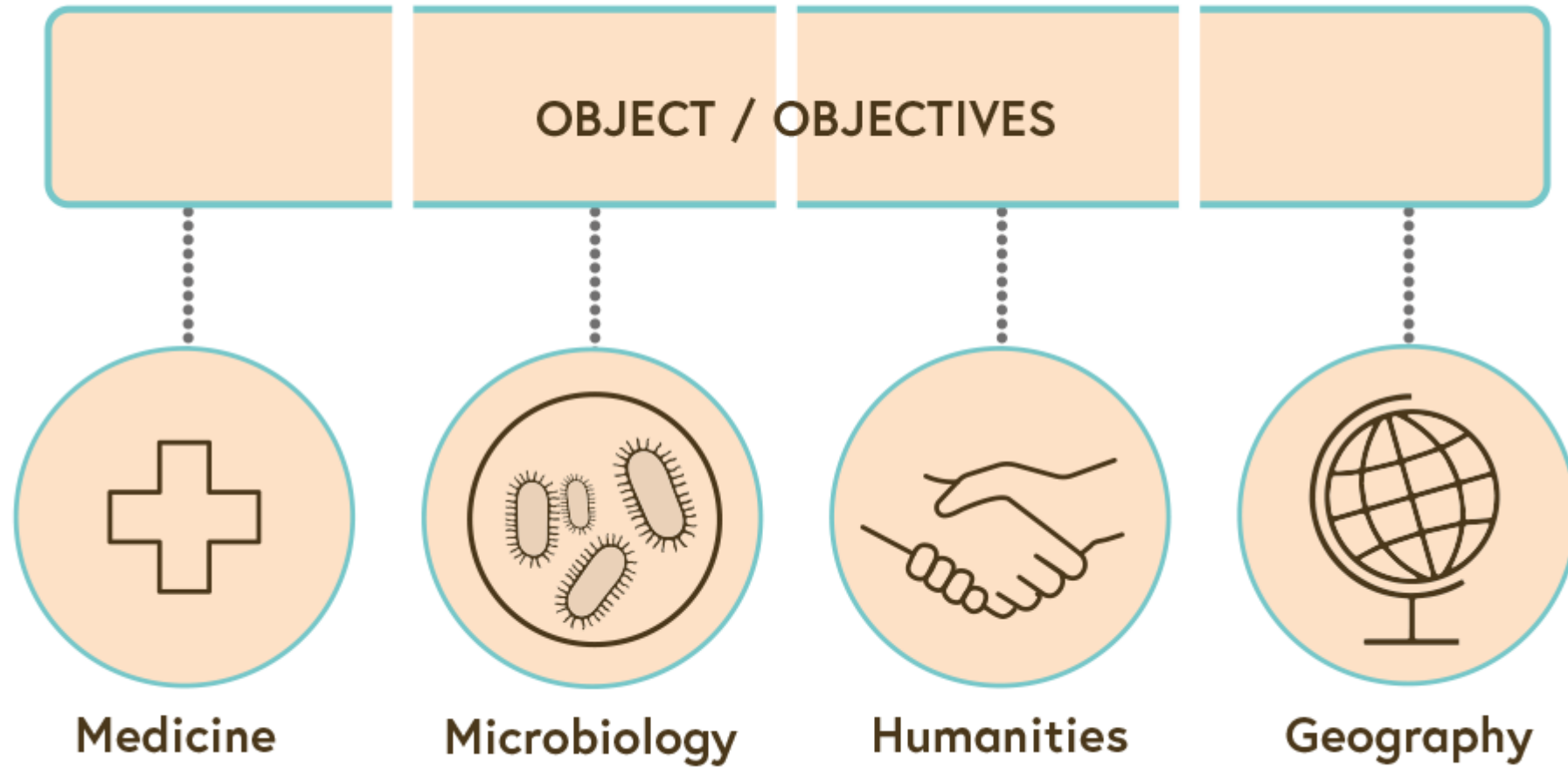
MANUU CTE Bhopal

Typology of research in terms of integration of different disciplines

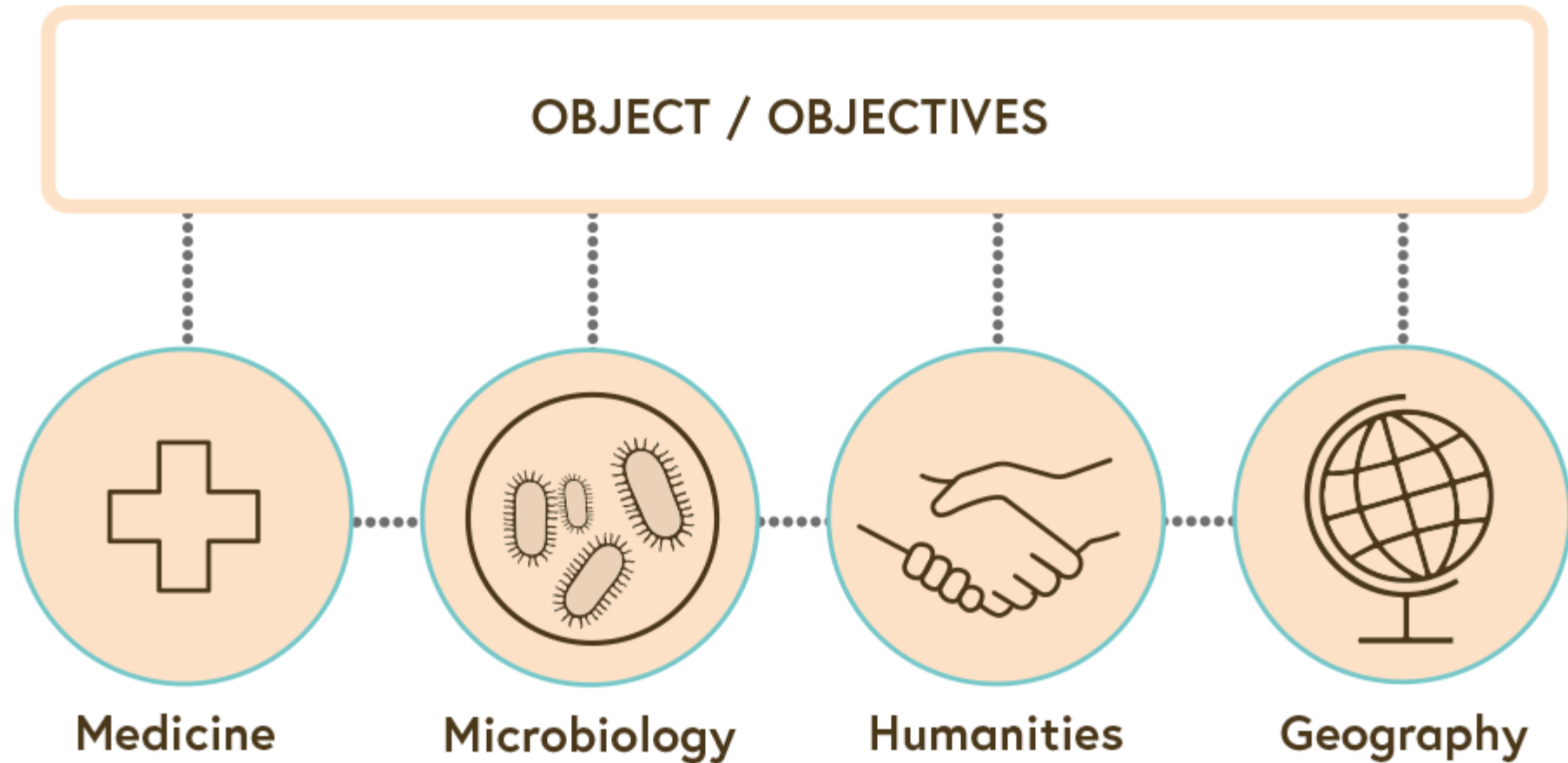


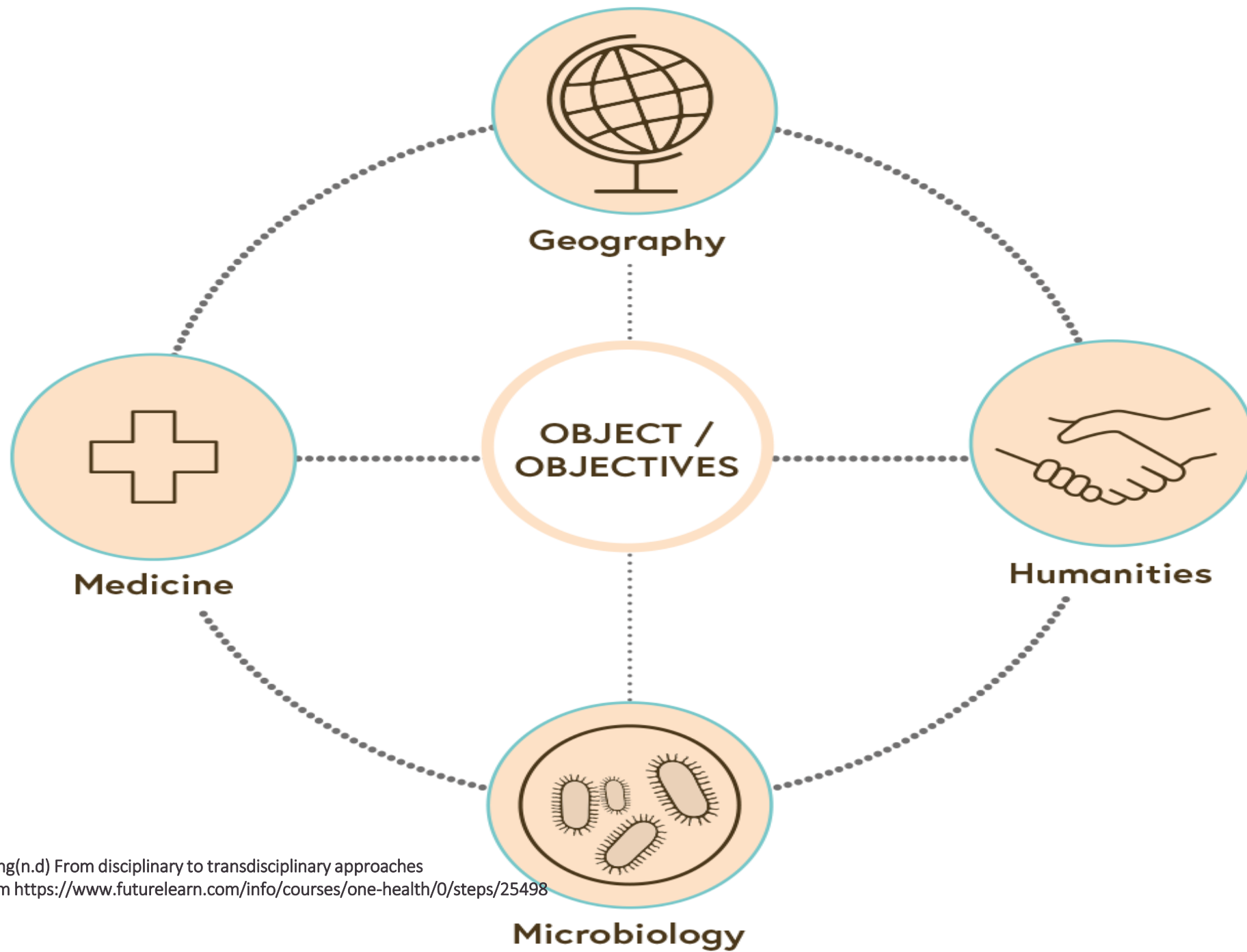
CURRICULAR CONNECTIONS CONTINUUM











Esther Schelling(n.d) From disciplinary to transdisciplinary approaches
retrieved from <https://www.futurelearn.com/info/courses/one-health/0/steps/25498>

Increasing conceptual integration

Transdisciplinarity

Transcends disciplinary approaches through more comprehensive frameworks, including synthetic paradigms. The construct goes beyond interdisciplinary combinations of existing approaches to foster new worldviews or domains. Transdisciplinarity often involves stakeholders from academia, the public and private sectors, and/or non-profit organizations.

Interdisciplinarity

Integrates information, data, methods, tools, concepts, and/or theories from two or more disciplines focused on a complex question, problem, topic, or theme. The key defining concept of interdisciplinarity is integration, a blending of diverse inputs that differs from and is more than the simple sum of the parts.

Multidisciplinarity

Juxtaposes two or more disciplines focused on a question, problem, topic, or theme. The juxtaposition fosters an array of information, knowledge, and methods, but disciplines remain separate. The existing structure of knowledge is not questioned.

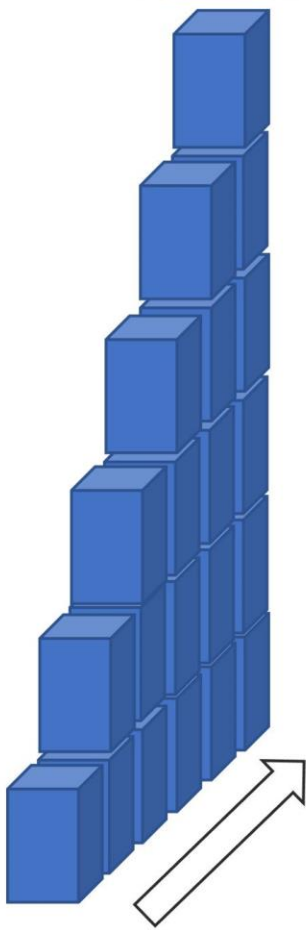
Unidisciplinarity

A process in which researchers from a single discipline, field, or area of established research and education practice work singly or collaboratively to study an object or to address a common question, problem, topic, or theme.

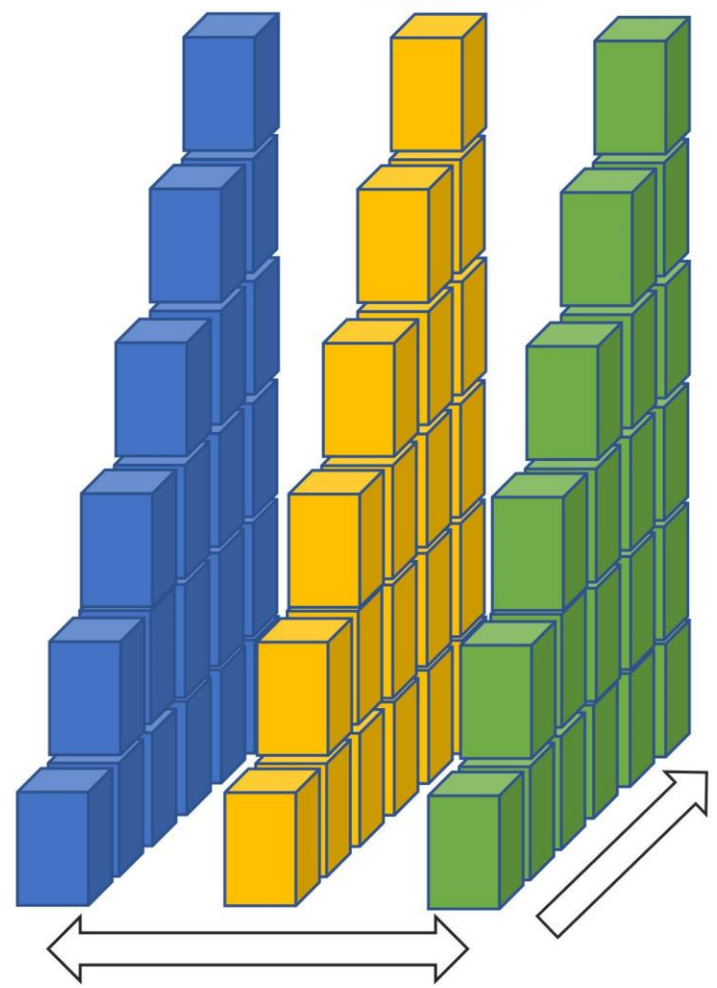
Disciplinarity

Refers to a specific branch of learning or body of knowledge whose defining elements—such as objects and subjects of study, phenomena, assumptions, epistemology, concepts, theories, and methods—distinguish it from other knowledge formations.

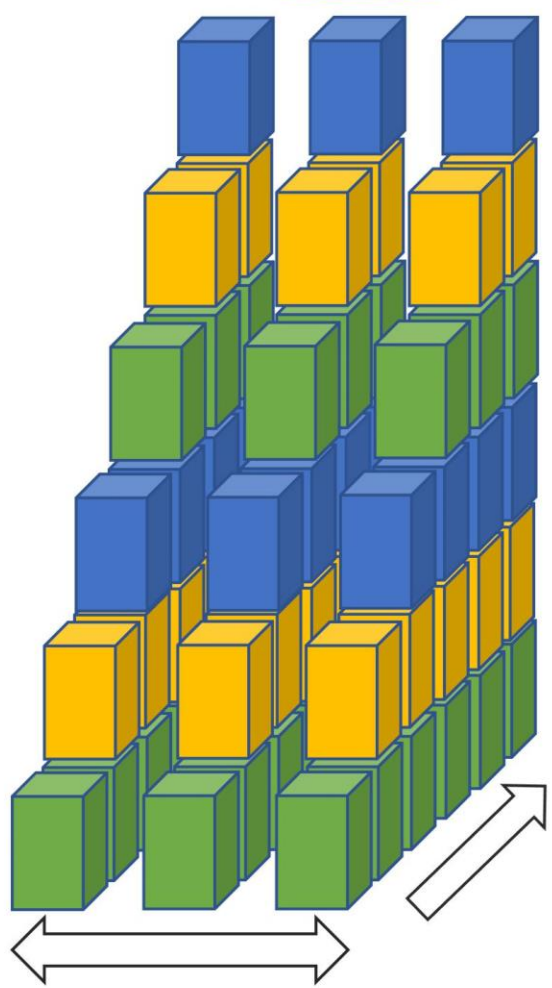
Unidisciplinarity



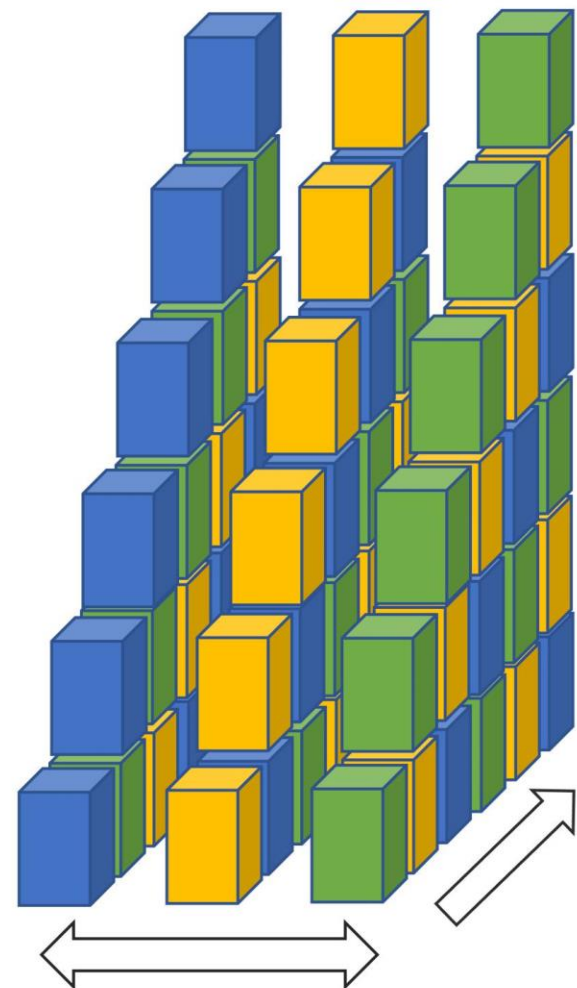
Multidisciplinarity



Interdisciplinarity



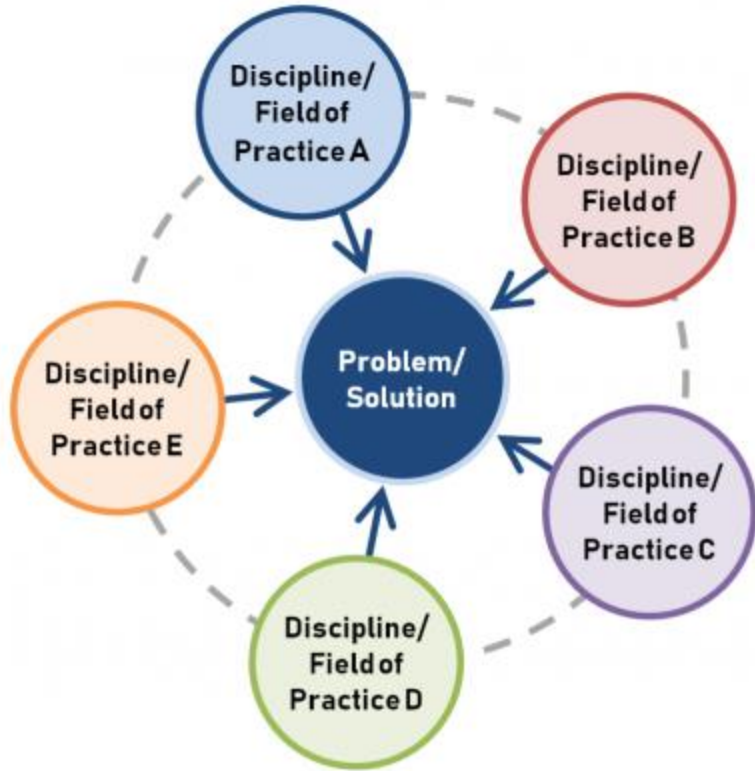
Transdisciplinarity



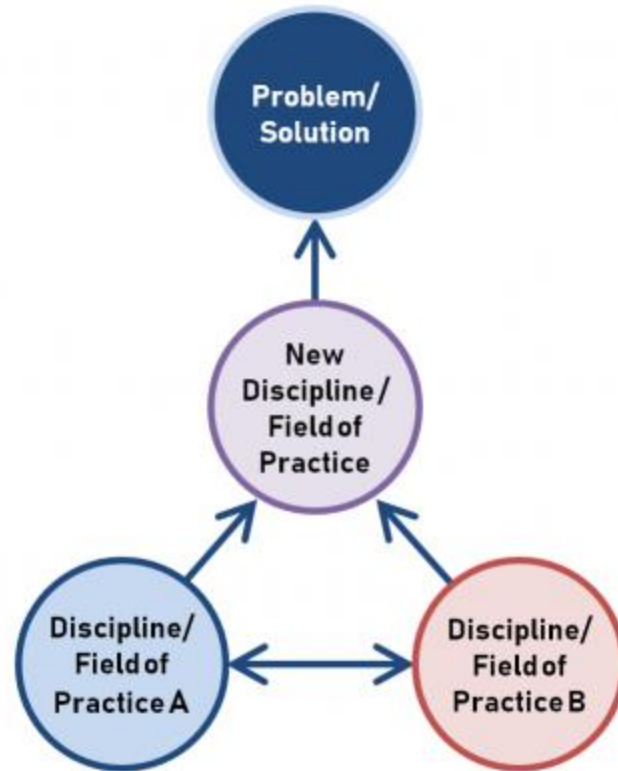
Increasing *depth* of knowledge

Increasing *depth* and *breadth* of knowledge

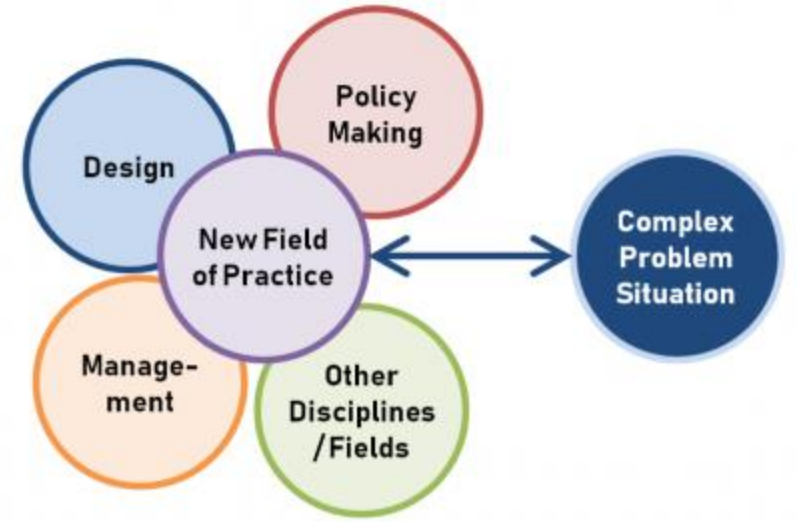
Increasing *depth*, *breadth*, and *integration* of knowledge



Multidisciplinarity



Interdisciplinarity



Transdisciplinarity

Educational Research

- Educational research is always applied field of research wherein researcher tries to seek/find solution of the problems either experienced by the community of researcher or social scientist or even faced by the society at large;
- Educational Research are more or less confined to the fields of disciplinary or multi-disciplinary researches
- Researches carried out at institutional levels either at PG or Doctoral or post doctoral level have little significance because it lacks either social relevance. Therefore, majority of the researches done by the research scholar did not find any takers- policy makers, planners, even industry
- The current trend of social science researches being done at global level are researches that transcends the boundaries of the discipline i.e. interdisciplinary, multidisciplinary or transdisciplinary, which has more relevance than disciplinary researches
- There is no point in re-inventing the wheel again and again ;

Broad Areas of Educational Research

- School Education
- Higher Education
- Vocational Education-
- Professional Education
- Technical Education
- Professional Development of Human Resources
- Technology blended Education
- Teacher Education
- Evaluation Reforms
- Educational governance
- Economics of Education- Cost of education and employability
- Educational Planning, Policy and Finance-School, Higher
- Non-Formal Education
- Inclusive Education
- Minority Education

Priority Areas of Educational Research

- Researches on SDG(Interdisciplinary, Multidisciplinary and Transdisciplinary)
- Researches on Socio-Political and Economics of Society with Education
- Researches on Education, Health and Livelihood
- Researches on Education, Poverty alleviation and Migration
- Education and other Gender (Constitutional Rights, Social Justice and Equity)
- Multicultural Pedagogy
- Researches on Inclusive education especially in context with social and cultural capital
- Evaluative studies on Schemes/programs of govt for welfare of common people
- Case studies on good practices of pedagogy, evaluation, educational governance etc
- Education of Marginalized in Relation with 4C's of 21st Century
- Professional Development of teachers and Leveraging potential of technology
- Quality of In-Service or Pre-Service Teachers vis-à-vis Input process and Output Model
- ECCE and Educational outcomes at later School education Stage
- Education Environment and Livelihood
- Education Vis-à-vis Self-Help Groups and their Empowerment
- Curriculum Studies (comparative, human experiences, competencies etc)

References

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- Hirsch Hadorn, G. et al. (2008). The Emergence of Transdisciplinarity as a Form of Research, in: Hirsch Hadorn, G. et al. (Eds.). Handbook of Transdisciplinary Research. Heidelberg, Springer, 19-39.
- **Lori Peek et al(2020). A Framework for Convergence Research in the Hazards and Disaster Field: The Natural Hazards Engineering Research Infrastructure CONVERGE Facility** Retrieved from https://www.frontiersin.org/files/Articles/551252/fbuil-06-00110-HTML/image_m/fbuil-06-00110-g002.jpg
- [Chris McPhee](#), [Martin Bliemel](#), [Mieke van der Bijl-Brouwer](#)(2018). Editorial: Transdisciplinary Innovation Technology Innovation Management Reviewhttps://timreview.ca/sites/default/files/article_PDF/Editorial_TIMReview_August2018.pdf

***Note:** We sincerely acknowledge all the authors for their work and ideas that has been used in the presentation. The images taken by the presenters from the sources is purely for academic deliberations and to sensitize the learners for different approaches used in conducting researches

Report of the committee

Subject: Report To suggest the emerging fields of knowledge related to M.Ed
Dissertation topics..reg

Reference: MANUU/CTE/BPL/F-20/226

Sir

Apropos the subject cited above the committee held its meeting on 25/6/21 at 3:00 PM in library and brainstormed the issues and subject related to the present report.

As of recent developments in various fields of knowledge, it has been felt time and time again that education and social sciences cannot be effectively addressed through a single disciplinary lens (i.e., monodisciplinary). There area variety of ways that research can be approached pluralistically: a) multidisciplinary; b) interdisciplinary; and c) trans-disciplinary.

The committee also identified a number of areas which may be taken into consideration while allotting M.Ed Dissertation and Ph.D topics.

Concerns related to identification of the Research Problem

The actual research begins with the identification of a broad area and formulation of a research problem which leads to identification of each and every step of the research process: the study design, sampling strategy, and research instrument and research analysis. Our researchers have to be very particular in selecting the broad areas of research. As of late, it-Therefore, there is urgent a need of the hour that our supervisors along with their students may pursue researches based on contemporary problems. The problems which may be identified may be realistic in nature, beneficial to society's future prospects while also giving a retrospective look at our past. The researches must explore the ground realities related to the identified areas, and unfold the truth before the communities, societies, educational institutions, government machinery, which would ideally help the government, society and communities to improve their respective practices. Currently the trend which has been observed at global level is the researches which observe problems holistically and deeply, rather than superficially and through a bird's eye view. So, researches are being done globally and are cutting across the boundaries of disciplinary research. More and more researches are being done which are either multidisciplinary or transdisciplinary. Rather than identifying and categorizing the researches based on methods of research, let's focus on identifying problem based on its social relevance and its impact on society. From there, we can cull out researches of inter-disciplinary, multidisciplinary or transdisciplinary nature, which may be qualitative, quantitative or mixed.

Methodological Concern

It was observed that most research dissertations at the M.Ed level adopted the method of quantitative research. In addition to this already-practiced method, however, we can also adopt a quantitative and mixed method of research. Government-run programs related to education can also be used subject for evaluative studies.

Other than this, some other designs may also be adopted, which are given as follows:

- Qualitative Researches like Ethnography, Phenomenology, Grounded theory may be adopted at Ph.D level etc.
- Historical Researches
- Philosophical Researches
- Case Study
- Action Research
- Experimental

Sample Related Concerns: Most of the research dissertations confined their samples of school students' and teachers', and as such are seldom representative. It is necessary to orient as well as provide practical exposure to students on how to make a sample representative of the population using other methods of probability sampling like cluster, stratified, multistage, and systematic. It is also important to orient the students that non-probability and its various sub-types can equally be used for sampling purpose especially in qualitative studies. As a center of research, CTE Bhopal must not promote only a single type of research i.e., quantitative, because using statistics in researches without any base can do more harm to research than do good. For example, sample of 5-10 teachers of an innovative school is enough to do a small research to document their pedagogies or their best practices.

Research Tools Related Concerns: Tool construction and development is an important area of research and every researcher must learn it. Researchers should not feel the need to use all standardized tools available under the roof to measure every possible variable of this world. Many of the researches are done on the sample for which no tools have been standardized or, in other words, needs sample specific tools. It can be interview schedule, focus group discussion, observation etc. So, it is necessary that every researcher should be given training in construction and development of tools other than standardized ones.

Sources of Problem: We often suggest our students to study journals, thesis, articles and electronic sources to cull out the problem. These are definitely the sources of problem identification, but at the same time, it is equally as important that they should be made aware that problems can be identified in and around themselves (locally), or through their personal experiences or the experiences of others, such as the community, institutions, social, psychological, technological, economic problems in and around them faced by few sections of society or common at large. Problems can be identified from the implementation of government policies, schemes and programmes. Crux of the discussion is that problem must be of socially relevant and it should have effect on society by and large.

- The effect of ecological factors on school engagement/ students' classroom behavior /interaction with peers..
- The Effect of Social and Classroom Ecological Factors on Promoting Self-Determination
- Biology teachers' conceptions about nature and environment - two fundamental concepts of education for sustainable development.

- children' conceptions, constructions and values, in Environmental education for sustainability, good environment and good life
- student's conceptions of environment: A phenomenographic analysis
- A way of visualising children's and young people's thoughts about the environment: A study of drawings
- The Role of Teachers' Backgrounds and Beliefs in Shaping Gender-Equitable Practices
- 'Feminist Teacher Education. Applying Feminist Pedagogies to the Preparation of New Teachers'
- The Learning Portfolio: Reflective practice for improving student learning,
- Temporal Patterns of Co-occurrence between Children's Self-regulatory Behaviour and their Private and Social Speech
- Teachers' Handling of Ethnocentrism in Textbooks and Teaching of History

Transdisciplinary Areas of Research in Social Sciences

1. Deciphering the Science, Culture and Management of Sustainable Development of Santhal Community of West Bengal

- Education-Research with more than one area of discipline cutting across the boundaries
- Psychological
- Sociological
- Anthropological
- Economics
- Linguistics
- Environmental
- Health
- Management
- History
- Geography
- Political Sciences
- Science Technology and Society (STS)
-

Multidisciplinary Educational Research (MER)

- Education
- Sociology
- Philosophy
- Psychology
- Management
- Anthropology
- Language Education
- Science and mathematics Education
- Technological Embedded Education

Inter-Disciplinary Areas of Educational Research

- School Education
- Higher Education
- Vocational Education-
- Professional Education
- Technical Education
- Professional Development of Human Resources
- Technology blended Education
- Teacher Education
- Evaluation Reforms
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- Education Environment and Livelihood
- Education Vis-à-vis Self-Help Groups and their Empowerment
- Curriculum Studies (comparative, human experiences, competencies etc)



Presentation Report

A committee has been constituted to suggest the emerging fields of knowledge related to research for the M.Ed and PhD. Members of the committee brainstormed the issue and submitted the report to the competent authorities. The committee was asked to share the concerns and pitfalls with all faculty members, so that in the future, socially relevant researches may be initiated in the college. Members of the committee shared the possible areas of research through a PPT presentation. ^{on 13/7/2021} The committee emphasized that multidisciplinary, interdisciplinary, and transdisciplinary research is the need of the hour. After providing conceptual clarity, the committee suggested some topics of research which may be undertaken in the future. The presentation was followed by a thoughtful discussion and commitments made for new ventures. Prof. Noushad Husain, Principal CTE Bhopal, appreciated the committee's efforts and encouraged the faculty members in doing innovative research that would become a stepping stone to a brighter future, and would make the college proud as well.

