



Mauritius Institute of Education

MIE RESEARCH WEEK 2017

**RESEARCH IN EDUCATION:
ISSUES AND OPPORTUNITIES**

**BOOK OF
ABSTRACTS**

Wednesday **12** - Friday **14 July 2017**
Réduit, Mauritius

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MESSAGE from Chair Research Unit

The 2017 Research Week 'Research in Education: Issues and Opportunities' comes at an opportune moment to give more impetus to educational research at the MIE and at national level, now that the institution has been conferred the degree-awarding status and several changes are taking place in our educational landscape. The Research Unit has been engaged for quite some time in capacity building of colleagues through MIE-funded research projects, as evidenced by 8 on-going research projects and 2 completed projects. Initiatives to engage academics in research projects and to disseminate their research endeavours are aimed at developing and consolidating the required research competencies and skills. At this turning point, the Research Unit envisages to also act as the advisory instance for the identification of impactful research involving engagement of stakeholders from different sectors. The implementation of the nine-year continuous basic education paves the way to various areas of field-research. It is, thus, imperative that academic staff seize this opportunity to engage in applied research and come up with novel ideas for teacher education.

On behalf of the Research Unit, I hope that you will make the most of the Research Week sessions and you will have new research ideas and plans by the time the Research Week is over.

Professor Y. Ramma

MESSAGE from MIE Director

I welcome this initiative of the Research Unit of the MIE. One of the three mandates of MIE is research. We have been so far putting more emphasis on students' research as practitioner research as well as research that our academic staff have carried out mainly as their research work devoted to higher degrees. However, it is becoming increasingly clear that we should now place more emphasis on good research on what the teacher-practitioner and the academic staff as practitioner in the field of teacher-education should do in their own classrooms. MIE is now moving in that direction, slowly and surely.

We also have a major challenge- that of realising a genuinely student centred undergraduate education that helps to re-engineer the teaching-research nexus. I believe that the initiative of the Research Unit at MIE should be centered on this important objective, among others, especially as MIE accedes to a degree awarding status.

I, therefore, commend the Research Unit and all those who are participating in this conference week. I hope that this becomes a regular feature for exchange, debates on research and more important, it should help to put MIE on the track as an institution devoted to research besides teaching.

Dr Oomandra Nath Varma
Director
Mauritius Institute of Education

MIE RESEARCH WEEK 2017

Wednesday 12 - Friday 14 July 2017

PROGRAMME

Theme: **RESEARCH IN EDUCATION:
ISSUES AND OPPORTUNITIES**

Day 1 • Wednesday 12 July 2017			
Venue: Rooms 3 & 4, 2 nd Floor, MIE Tower			
Time	Session		
09:30 - 09:40	Welcome Address by Professor Yashwant Ramma , Chair, Research, MIE		
09:40 - 09:50	Address by Dr Om Nath Varma , Director, MIE		
09:50 - 09:55	Launching of the Research Week "Research In Education: Issues and Opportunities"		
09:55 - 10:40	Keynote Address: RESEARCH: The Personalised Journey to Enrichment by Professor Sid Nair , Executive Director, Tertiary Education Commission		
10:40 - 11:00	Tea Break		
11:00 - 11:30	<table border="1"> <tr> <td>Pedagogical and Technological Integrated Medium (PTIM) Framework: <i>Technology Integration and the Affective Domain</i></td> <td> Professor Yashwant Ramma Dr Ajeevsing Bhloa Professor Mike Watts Dr Pascal Nadal </td> </tr> </table>	Pedagogical and Technological Integrated Medium (PTIM) Framework: <i>Technology Integration and the Affective Domain</i>	Professor Yashwant Ramma Dr Ajeevsing Bhloa Professor Mike Watts Dr Pascal Nadal
Pedagogical and Technological Integrated Medium (PTIM) Framework: <i>Technology Integration and the Affective Domain</i>	Professor Yashwant Ramma Dr Ajeevsing Bhloa Professor Mike Watts Dr Pascal Nadal		
11:30 - 12:00	<table border="1"> <tr> <td> Presentation of Findings - MIE-Funded Research Project <i>Problem-based Learning (PBL) in Teacher Education: An Action Research</i> </td> <td> Dr Shakuntala Payneendy Amrita Mosaheb </td> </tr> </table>	Presentation of Findings - MIE-Funded Research Project <i>Problem-based Learning (PBL) in Teacher Education: An Action Research</i>	Dr Shakuntala Payneendy Amrita Mosaheb
Presentation of Findings - MIE-Funded Research Project <i>Problem-based Learning (PBL) in Teacher Education: An Action Research</i>	Dr Shakuntala Payneendy Amrita Mosaheb		
12:00 - 13:00	Break for Lunch		
13:30 - 15:30	Forum: Rectors' Voice in Education Chairperson: Professor Yashwant Ramma Venue: Rooms 3 and 4, 2 nd Floor, MIE Tower		

Day 2 • Thursday 13 July 2017

Paper Presentations and Presentations of Ongoing MIE-Funded Research Projects

Parallel Session 1 Venue: Conference Room, 3 rd Floor, MIE Tower				Parallel Session 2 Venue: Room 3, 2 nd Floor, MIE Tower			
Chairperson: Dr Ajeevsing Bholoa				Chairperson: Gian Sandhaya			
Time	Session	Members	Strand	Time	Session	Members	Strand
09:30 - 10:00	<i>Vers un modèle éco-complexe des pratiques (socio)langagières dans les écoles pré-primaires à Maurice : pistes, perspectives et implications épistémologico-théoriques, didactiques, pédagogiques et politiques</i>	Dr Shameem Oozeerally H. Hookoomsing K. Peedoly N. Pyeneandee K. Moteea M. Jawaheer Dr P. Nadal S. Purdasseea C. Thondee	Methodological issues in Educational Research	09:30 - 10:00	<i>Addressing under-achievement in Mathematics at Form III level through a community of practice approach</i>	Dr Ajay Ramful Dr A. Bhola S. Thapermall-Ramasawmy A. Salehmohamed	Assessment
Chairperson: Dr Shameem Oozeerally				Chairperson: Helina Hookoomsing			
10:00 - 10:30	<i>Understanding underachievement perspectives from the interrelationship among students, teachers and rector</i>	Dr Ajeevsing Bholoa S. Thapermall-Ramasawmy A. Salehmohamed Dr A. Ramful	Methodological Issues in Educational Research	10:00 - 10:30	<i>Using Clickers for formative assessment in primary school: A case study</i>	Gian Sandhaya W. Udhin	Assessment
10:30 - 11:00 <i>Tea Break</i>				10:30 - 11:00 <i>Tea Break</i>			
Chairperson: Sooryadev Purdasseea				Chairperson: Somrajsingh Dhunnoo			
11:00 - 11:30	<i>Innovative practices in teacher education: Understanding the roles of subject matter experts (SMEs) to enhance online teaching and learning</i>	Dr Fawzia Bibi Narod A. Gungadeen S. Kawol M. Cyparsade J. Ramkurrun	Teaching and Learning	11:00 - 11:30	<i>Exploring the relevance of Social Sciences Teacher Education (PGCE) programme in preparing effective educators</i>	Dr Seema Goburdhun J. Ramsaha	Curriculum Development

Chairperson: Dr Fawzia Bibi Narod				Chairperson: Dr Seema Goburdhun			
Time	Session	Members	Strand	Time	Session	Members	Strand
11:30 - 12:00	<i>Investigating trainee's coping experience during the first year of the Teacher's Diploma Secondary programme</i>	Sooryadev Purdassea Dr R. Nenduradu Dr K. Angateeah S. Thapermall-Ramasawmy D. Ramroop S. Jhugroo C. Jahangeer C. Li Luen Ching	Teaching and Learning	11:30 - 12:00	<i>Holism, globalism, reductionism: epistemological challenges in the conception of a 'holistically-gearred' teacher-education programme</i>	Dr Shameem Oozeerally H. Hookoomsing V. Bizlall	Curriculum Development
Chairperson: Dr Ajay Ramful				Chairperson: Savila Thapermall-Ramasawmy			
12:00 - 12:30	<i>Adopting creativity in curriculum as an innovative tool towards Inclusive Education in Mauritius</i>	Somrajsingh Dhunnoo	Teaching and Learning	12:00 - 12:30	<i>Teachers' voice and subject experts' involvement in curriculum change: A blended approach in the development of Social & Modern Studies curriculum</i>	Dr Seema Goburdhun J. Ramsaha	Curriculum Development

Day 3 • Friday 14 July 2017

Paper Presentations and Presentation of Findings - MIE-Funded Research Project

Parallel Session 1 Venue: Conference Room, 3 rd Floor, MIE Tower				Parallel Session 2 Venue: Room 3, 2 nd Floor, MIE Tower			
Chairperson: Dr Sweta Rout-Hoolash				Chairperson: Sandhya Gunness			
Time	Session	Members	Strand	Time	Session	Members	Strand
09:30 - 10:00	<i>Adapting assessment methodology for Malagasy students at the Université des Mascareignes</i>	Dr Nirmal Kumar Betchoo	Assessment	09:30 - 10:00	<i>Experiencing creative writing in Kreol Morisien: A hybrid perspective</i>	Dr Shameem Oozeerally H. Hookoomsing	Teaching and Learning
Chairperson: Dr Nirmal Kumar Betchoo				Chairperson: Dr Shameem Oozeerally			
10:00 - 10:30	<i>Theorising group work as an assessment tool in Higher Education</i>	Dr Sweta Rout-Hoolash	Assessment	10:00 - 10:30	<i>A case of transformative learning: Driving bullying out of schools in Mauritius through a student-produced e-book</i>	Sandhya Gunness S. Chaverny	Teaching and Learning

Day 3 • Friday 14 July 2017							
Paper Presentations and Presentation of Findings - MIE-Funded Research Project							
Parallel Session 1 Venue: Conference Room, 3 rd Floor, MIE Tower				Parallel Session 2 Venue: Room 3, 2 nd Floor, MIE Tower			
10:30 – 11:00				Tea Break			
Chairperson: Dr Khemduth Singh Angateeah				Chairperson: Nundini Akaloo			
Time	Session	Members	Strand	Time	Session	Members	Strand
11:00 – 11:30	<i>Teaching of Cultural Values for Enhancement of Life-Skills with Special Reference to Music Education</i>	Dr Santosh Kumar Pudaruth	Teaching and Learning	11:00 – 11:30	<i>Revamping practice - Breaking free from the rote culture: An action research</i>	Swalehah Beebeejaun-Roojee N. Congo-Poottaren	Teaching and Learning
Chairperson: Dr Santosh Kumar Pudaruth				Chairperson: Mahboob Sooltan Sohawon			
11:30 – 12:15	Presentation of Findings - MIE-Funded Research Project: <i>Developing ICT resources for the teaching and learning of vectors at 'A' Level</i>	Dr Khemduth Singh Angateeah S. Thapermall-Ramasawmy Dr R. Jawahir	Teaching and Learning	11:30 – 12:00	<i>Ethical perspectives in the leadership practices of a rector: A case study</i>	Nundini Akaloo Prof S. Robinson Prof Y. Ramma	Methodological Issues in Educational Research
				Chairperson: Swalehah Beebeejaun Roojee			
				12:00 – 12:30	<i>Leading Changes in the wake of the Nine-Year Educational Reform - The way forward for Private Secondary Schools in Mauritius</i>	Mahboob Sooltan Sohawon	Curriculum Development
13:00 – 15:30	Workshop: Qualitative Data Analysis using NVivo Software Venue: Multimedia Lab, 1 st Floor, South Block, MIE Facilitator: Dr Ajeevsing Bhloa						

► Day 1

Keynote Address

RESEARCH: The Personalised Journey to Enrichment

Professor S. Nair

Executive Director, Tertiary Education Commission

The phrase I will do my research or have done my research has found itself in the lexicon of all citizens in the ‘new’ global knowledge based economy. Yet if there is acceptance in the general audience that research is part and parcel in ones day to day living, then why is there so much stress that we have to do more research and it should be part of one’s job profile. Is this because there is more thirst for the unknown or is it the powers within academic ivory towers ensuring that they are placed in the forefront to gain market advantage over their competitors in a highly competitive international education market?

My talk today takes a more personal approach to the need for research and charts from a personal perspective as to why research should have a footing in one’s professional career and as well in ones personal life.



Professor Chenicheri Sid Nair, PhD
Executive Director
Tertiary Education Commission (TEC)
Mauritius

Prof. Sid Nair is the Executive Director of the Tertiary Education Commission, Mauritius. As Chief Executive Officer of the Commission he is responsible for the formulation and execution of strategies, policies and procedures in the higher education sector in Mauritius.

Prior to joining TEC, he was Professor of Higher Education Development at the Centre for Education Futures (CEF) in Australia. His research work lies in the areas of quality of teaching and learning, classroom and school environments, and the implementation of improvements from stakeholder feedback. His current role is to build capacity of academics in the digital delivery of their teaching.

His career path also had him as Interim Director and Quality Advisor (Evaluations and Research) at the Centre for Higher Education Quality (CHEQ) at Monash University, Australia. In this role as Quality Advisor he headed the Evaluation Unit at Monash University where he restructured the evaluation framework at the University. The approach to evaluations at Monash University has been noted in the first round of the Australian Universities Quality Agency (AUQA) audits and is part of the good practice database.

Prof. Nair is a Chemical Engineer by training but his interest in helping students succeed in the applied sciences in higher education led him to further specialise in Science and Technology education. This led him to his many works in improving student life in the higher education system.

Recent book publications include Measuring and Evaluating the Student Experience in Higher Education; External Quality Audits: Has it Improved Quality Assurance in Universities; A Global Perspective of Private Higher Education and Book series on Enhancing Learning and Teaching through Student Feedback - in Engineering, Social Sciences; Medical and Health Sciences.

He has extensive lecturing experience in the applied sciences in Canada, Singapore and Australia. He is an international consultant in quality and evaluations in higher education and has been on a number of quality review panels.

Published Research (2017)

<http://doi.org/10.1080/20004508.2017.1343606>

► Pedagogical and Technological Integrated Medium (PTIM) Framework: Technology Integration and the Affective Domain

- Y. Ramma** - Research Unit, MIE
- A. Bholoa** - MIE
- M. Watts** - Brunel University, UK
- P. Nadal** - Le Service Diocésain de l'Éducation Catholique

Even though its importance is underscored in many research pursuits, attention to the affective domain in learning is often neglected at the expense of the cognitive development of students studying science, in particular physics. In this paper we propose a framework, the pedagogical technological integrated medium (PTIM) founded on the TPACK model, that builds on the existing premises of pedagogy, content and technology to make space for the affective domain where these three premises intersect with each other. We operationalize the PTIM framework through a multi-loop model that explores the affective dimension as an overarching space for interaction among learners, teachers and parents through a series of stages encompassing home tasks, as well as classroom and out-of-school activities. Within the qualitative paradigm, we substantiate from two case studies, an exploratory and an evaluative one in two different schools, that a succinct synchronisation of these various interactive elements promotes knowledge construction springing from the affective domain in terms of motivation, interest and values and also from their inter-relationships.

Completed MIE-Funded Research Project – Presentation of Findings

► Problem-based learning (PBL) in Teacher Education: An action research

S. Payneeandy (*Lead Investigator*) - MIE
A.R. Mosaheb - MIE

This research aimed at investigating teaching and learning in higher education, focusing on teacher education. Two teacher educators from the Mauritius Institute of Education (MIE) have tried to explore different ways to ensure that learning is more meaningful for their students through the implementation of problem-based learning (PBL). In the course of an Action Research (AR), PBL was implemented in the running of a module for a cohort of trainee teachers studying for a Teachers' Diploma in Primary Education (TDP). The AR was carried out through two cycles and it was researched by means of a variety of mostly qualitative research tools such as observation of group work, assessment of oral presentation, exit slips, feedback questionnaires, assessment of coursework, group interviews, and class observation. The research has confirmed that PBL is a powerful tool to enable trainee teachers to construct a satisfactory level of understanding of the different pedagogical theories, concepts and constructs and hence meaningful learning by their own construction of knowledge through cooperating with their peers, research work while being supported by their tutors. PBL as an approach not only allowed the trainee teachers to take ownership of their learning but, also, allowed them to develop their problem solving skills, social skills and collaborative skills. The PBL process also contributed to the professional development of the teacher educators who gained insight into the process of teaching and learning in higher education.

Forum: Rectors' Voice in Education

Chairperson: **Professor Y. Ramma**

The 'Rector's Voice' forum will provide the Research Unit with the opportunity of understanding and exploring the challenges that Rectors encounter while fulfilling their administrative duties in secondary schools. In addition, discussions emanating during the forum will help to situate any gaps in the multi-fold interactions among the stakeholders, namely Rector-Teacher-Parent-Student. Establishing a dialogue with Rectors paves the way for the identification of areas for targeted field-research and problem-solving research. This, consequently, opens up avenues for innovation in Teacher Education.

► Day 2

Ongoing MIE-Funded Research Projects' Abstracts

► Vers un modèle éco-complexe des pratiques (socio)langagières dans les écoles pré-primaires à Maurice : pistes, perspectives et implications épistémologico-théoriques, didactiques, pédagogiques et politiques

S. Oozeerally (*Lead Investigator*) - MIE

H. Hookoomsingh - MIE

K. Peedoly - MIE

N. Pyenneeandee - MIE

K. Moteea - MIE

M. Jawaheer - MIE

Dr P. Nadal - Le Service Diocésain de l'Éducation Catholique

S. Purdasseea - MIE

C. Thondee - MIE

Strand: Methodological Issues in Educational Research

En adoptant une approche réflexive, nous proposons, à travers cette contribution, de faire état de notre expérience de recherche au sein du MIE en faisant appel à une architecture narratologique, notamment à travers le recours au schéma actanciel de Greimas. Notre conception de la réflexivité s'aligne sur celle de Robillard (2008b : 148) : « auto-éco-hétéro traduction historicisée de la relation entretenue dans l'action entre soi et le monde, donc l'autre [...] ». En effet, le chercheur demeure historicisé, contextualisé, et

négoce en permanence avec ses identités ainsi que ses fonctions multiples. La première partie se focalisera sur le projet en cours stricto-sensu, en termes de conception, de méthodologie et de démarche. Ce projet s'inscrit dans un mouvement paradigmatique de nature tendanciellement réformiste dans la mesure où il s'appuie sur la complexité, un (a)paradigme qui interroge les fondements épistémiques et méthodologiques des paradigmes dominants. Nous présenterons donc les sentiers ouverts par une telle démarche ainsi que les difficultés qui y sont associées, notamment du fait que cette inscription paradigmatique est profondément reconfiguratrice, tant sur le plan intellectuel que pratique. La deuxième partie de notre présentation se focalisera sur notre expérience, en tant que jeunes chercheurs au MIE.

► Innovative practices in teacher education: Understanding the roles of subject matter experts (SMEs) to enhance online teaching and learning

F. B. Narod (*Lead Investigator*) - MIE

A. Gungadeen - MIE

S. Kawol - MIE

M. Cyparsade - MIE

J. Ramkurrun - MIE

Strand: Teaching and Learning

Higher education institutions are increasingly laying emphasis on online delivery of courses. Nevertheless, academics are often reluctant to teach online, putting forward reasons like fear of change and lack of expertise. Thus, this study investigates the attitudes and perceptions of academics pertaining to online teaching and learning. The study is based on the first phase of a research project being carried out at the Mauritius Institute of Education. The sample included academics in the TEI. Data was collected through a web-based administered questionnaire and a mixed method was used for the research. Statistical analysis was carried out using the software SPSS 11.5. Findings have revealed that the majority of the respondents have a positive attitude towards online teaching and learning, especially in terms of accessibility and time factor, and acknowledged that they would like to blend online teaching with their face-to-face sessions.

► Investigating trainee's coping experience during the first year of the Teacher's Diploma Secondary programme

S.Purdasseea (*Lead Investigator*) - MIE

R. Nenduradu	- MIE
K. Angateeah	- MIE
S. Thapermall-Ramasawmy	- MIE
D. Ramroop	- MIE
S. Jhugroo	- MIE
C. Jahangeer	- MIE
C. Li Luen Ching	- MIE

Strand: Teaching and Learning

The purpose of the study is to explore first year Teacher's Diploma Secondary, (TDS (FT)) trainees' coping experience, academic adjustment and achievement. It can be a very stressful experience for secondary school students to attend universities for the first time. While adjusting to campus life, they are faced with a number of challenges. Many TDS (FT) students are seen to face difficulties coping with the course and underachieve in the end of semester examinations. This study was conducted in two phases. During Phase 1, a quantitative approach was used whereby the Student Adaptation to College Questionnaire (SACQ) was adapted for the local context and administered for data related to the four aspects of adjustment to the programme, namely: academic adjustment, social adjustment, personal-emotional adjustment and institutional attachment. During Phase 2, a grounded theory methodology will be used to analyse focus group discussions. This project will help gain insight into the issues and challenges related to coping with the courses offered at the MIE.

► Addressing underachievement in Mathematics at Form III level through a community of practice approach

A Ramful (*Lead Investigator*) - MIE

A. Bhoola - MIE

S. Thapermal-Ramasawmy - MIE

A. Salehmohamed - MIE

Strand: **Assessment**

In this presentation, we outline empirically-based evidence that we have accumulated to circumscribe the issue of underachievement in Mathematics at Form III level. We explain the challenges that we faced in a short-term intervention involving a cohort of 70 students who were on the verge of failure. The community of practice approach that we attempted to set into action to concert teachers' effort encountered observable obstacles. Getting teachers to leave their comfort zone and work as a team remains a difficult task. At this stage of the study, we posit that curriculum space, students' monitoring mechanisms, and teachers' commitment, as well as their pedagogical content knowledge are central in addressing the problem of underachievement. Despite the challenges, the intervention contributed to raising the pass rate to 25%. Our presentation also shares the products of our research in terms of the resources that we have developed to support students as they learn mathematics. We also illustrate our attempts to theorize our empirical findings. Finally, we bring forward a number of curriculum and policy implications that our study suggests to support low-performing schools, especially at a juncture when the educational reform is underway.

► Using Clickers for formative assessment in Primary School: A case study

G. Sandhaya (*Lead Investigator*) - MIE

W. Udhin - MIE

Strand: **Assessment**

The use of Classroom Response Systems (CSR) or Audience Response Systems (ARS), more commonly known as ‘clickers’, has now generated consequent research about its different uses and at different levels in education for more than a decade. A quick examination of the literature shows that the use of clickers can be traced back as far as the early 2000’s when researchers investigated the use of clickers with Peer Instruction to support learning. Locally, however, such a tool is largely unknown to educators and there is a dearth of research in this field. This research is therefore set to investigate the effectiveness of clickers in ‘formative assessment’ in a primary school context, as viewed from the theoretical framework of ‘e-assessment’. Methodologically, a qualitative case study design is proposed to gather data from classroom teachers and students of 3 selected Primary schools’ as respondents in their natural setting. Observation, Interviews as well as data from the clickers’ software will be used for triangulation. Anticipated challenges in this research pertain to familiarizing the participants with the use of clickers, the high ethical demands for accessing young participants and the different nature of data available.

► Exploring the Relevance of Social Sciences Teacher Education Programme in Preparing Effective Secondary School Educators

S. Goburdhun (*Lead Investigator*) - MIE
J. Ramsaha - MIE

Strand: Teaching and Learning

This paper explores the relevance of the Social Sciences teacher education programme offered by the MIE in preparing secondary school educators to meet the challenges in their practice in the wake of current curricular reforms. Drawing from earlier studies on effective Teacher Education programmes, this qualitative case study uses two components that are critical in teacher preparation, namely teacher's knowledge of the subject and teacher's skill, as a framework to explore the phenomenon. Twenty Social Studies educators across the island formed the sample for the study. Desk analysis of the PGCE Social Sciences handbook were conducted to gain an understanding of objectives of the different Social Sciences didactics modules. The study used focus group discussions as the main tool to gather in-depth views of the participants. Preliminary findings show that, although educators possess skills, lack of mastery in multi-disciplinary knowledge influences their proficiency in classrooms. Analysis of the different modules of the Social Sciences programme also show a gap between the educators' needs and the modules offered.

► Day 2

Paper Presentations

► Understanding underachievement: Perspectives from the inter-relationship among students, teachers, and rector

- A. Bholoa - MIE
- S. Thapermall-Ramasawmy - MIE
- A. Salehmamode - MIE
- A. Ramful - MIE

Strand: **Methodological Issues in Educational Research**

Underachievement in mathematics remains a concern in various countries, including Mauritius. Through an explanatory case study, we unshroud the inter-relationships among the students, teachers and Rector to present a nuanced outlook on underachievement in mathematics. Data was collected through an in-depth interview of the Rector, focus group interviews of mathematics educators, and Grade 9 students who are underachievers. We identified three emergent themes: school leadership, teachers' attitudes and expectations, and students' disengagement. The Rector was convinced that special pedagogical acts were amenable to address underachievement and blamed the teachers for their traditional teaching approaches. Teachers, however, targetted a weak school leadership and a chronic lack of engagement of the students for the poor performance in mathematics. In contrast, the students believed that teachers should be more caring and attentive to their difficulties. This study reveals a strong inter-relationship among students, teachers and Rector is required to understand underachievement.

► Adopting creativity in curriculum as an innovative tool towards inclusive education in Mauritius

S. Dhunnoo - MIE

Strand: Teaching and Learning

This study investigates into the scope of adopting creativity in the curriculum to realize inclusive education in Mauritius. This quest is commenced not merely from a theoretical perspective, but is also inclusive of actual classroom data, which has been gathered through ethnographic research. Careful study and analysis of data reveal that creativity requires a combination of two different approaches and it is not built in a vacuum. Students are most creative when they are allowed to be original, divergent and expressive and the other approach views creativity as borne within a discipline using a constructivist approach for knowledge – based creativity. The findings are that, teaching for creativity requires a composite responsibility of curriculum developers, teachers, administrators and students. In the process, all students will be exposed to learn ongoing skills and specific knowledge related to subject disciplines but the individualized approach to learning is not neglected as each student re-creates knowledge in divergent manners. The findings can also be extended to other teaching approaches including, child-centered learning, discovery learning, problem solving and computing.

► Holism, globalism, reductionism: epistemological challenges in the conception of a 'holistically-gearred' teacher-education programme

S. Oozeerally - MIE
H. Hookoomsing - MIE
V. Bizlall - MIE

Strand: Teaching and learning

In 2017, the Diploma Primary 'Holistic Education Programme' (HEP) has been introduced in the educational sector. With a design and implementation plan of approximately five months, a task entrusted to the MIE, the programme relies on epistemological underpinnings that can be considered as being problematic. Vulgar definitions of holism tend to converge towards the concept of "whole" as the point of articulation, the etymology of holism being "holos" which means 'whole'. This contribution proposes to critically examine the notion of holism and the epistemological difficulties encountered in the process of the conception of the Teacher's Diploma Primary Holistic Education (TDPHE) programme, through a reflexive discussion (as MIE academics involved in the programme with respect to Coordinatorship). One of the issues which will be addressed focuses on the epistemological implications of operating a disjunction between HEP Educators and GP Educators, with HEP Educators expected to teach non-core subjects, albeit with an emphasis on how to invest these elements into the teaching of other subjects. We will also explore an alternative paradigm which provides insights on how to move beyond the sterile reductionist-holistic dichotomy: dialectical ecolinguistics.

► Teachers' voice and subject experts' involvement in curriculum change: A blended approach in the development of Social & Modern Studies curriculum

S. Goburdhun - MIE

J. Ramsaha - MIE

Strand: Curriculum Development

In Mauritius the educational sector is undergoing major changes. Consequently, this calls for a reform in the curriculum that will be implemented in classrooms. This study has a three-fold aim: (i) to document the process in the development of the Social & Modern Studies (SMS) curriculum, where both the 'top-down' and the 'bottom-up' approaches were favoured, (ii) to look into the different 'operative roles' of teachers during the developmental phase of the curriculum and, finally, (iii) to reflect on the challenges and opportunities of adopting such an approach in the curriculum development process. Teachers' engagement in the SMS curriculum development process has been discussed within an adapted version of the 'Operative Roles' framework which is based on the basic requirements in terms of teachers' roles and competencies. During the development phase, consultative meetings, workshops and focus group discussions were carried out with subject experts and Social Studies secondary school educators. An analysis of the process, using Bernstein's model of discourse levels, was also conducted in order to get a deeper insight into teachers' involvement and ownership. However, the implementation and the success of this approach in the development of social and modern studies curriculum is still to be seen.

► Day 3

Completed MIE-Funded Research Project: Presentation of Findings

► Developing ICT resources for the teaching and learning of vectors at 'A' Level

K. Angateeah (*Lead Investigator*) - MIE

S. Thapermall-Ramasawmy - MIE

R. Jawahir - Ministry of Education and Human Resources,
Tertiary Education and Scientific Research

Strand: **Teaching and Learning**

Every year, only around 54 % of the Cambridge A-level candidates manage to get at least a grade C (above 50 % marks) in Mathematics. These figures show that students are encountering difficulties in A-Level Mathematics. This trend is further confirmed from recent observations of TDS trainees, at the MIE, and from previous experience with educators and students, with regard to A-level Vectors. The aim of this research study is to embed ICT in the teaching and learning of A-level Vectors to fulfil good pedagogical principles. The study was conducted in three phases and used a qualitative approach. Initially, students' learning difficulties and misconceptions in A-level Vectors were diagnosed. A questionnaire of seven questions, based on A-level Vectors, were developed and administered to Trainees enrolled on Teacher Diploma Secondary (TDS) and Bachelor in Education (BED) courses. The findings are alarming, with most trainees being unable to work out problems on vectors and many questions left unattempted. During the second phase, concepts in vectors together with interactive tools were developed and integrated on a webpage to enhance the learning of Vectors at A-level. Finally, during the third stage, the teaching

and learning tools developed were exposed to Trainees for feedback and evaluation followed by refinement. The evaluation of the tools was based on the two main parts of the framework 'evaluating ICT-based materials' proposed by Pillay and Clarke (2008). A second questionnaire, based on the framework, was developed and administered to Trainees to evaluate, the first part of the framework, the pedagogical principles that guide the educational soundness of ICT-based tools. It was found that the tool developed meet the following criteria: learner focus, integrity, usability and accessibility of the tools. The second part of the framework focuses on the design, use and impact of the ICT-based tools. Once more, the tool developed was found to meet the three criteria.

► Day 3

Paper Presentations

► **Adapting assessment methodology for Malagasy students at the *Université des Mascareignes***

N. K. Betchoo - Université des Mascareignes

Strand: **Assessment**

With an increase in the intake of foreign students at the Université des Mascareignes (UDM), there are arguments on reviewing the assessment system in force at the university. It might be correct to assume that universities have various forms of assessment but these have to be tailored to the needs of contemporary students. The research is based on the fact that Malagasy and foreign students coming from the African region have different educational backgrounds that differ from the Mauritian one that is embedded in formal examinations. The fact that foreign students are now an integral part of the university makes it a necessity to review the assessment mode of the UDM. In view of this situation, the researcher claims that it might be possible to make assessment more flexible and adaptable to foreign students amid the current examinations system in force at the UDM.

► Theorising Group work as an Assessment tool in Higher Education

S. Rout-Hoolash - Middlesex University, Mauritius

Strand: Assessment

Contemporary higher education study inherently encompasses the concepts of group work or collaborative learning into their curricula. This paper will present group project work within modern-day teaching, learning and assessment theoretical frameworks. By establishing group work as 'troublesome knowledge' for many students, this talk will serve as a reminder to academic staff of the challenges faced by students as they navigate through this new learning environment. The researcher will try to challenge the assumptions we make about our students' understanding and familiarity with these fundamental notions. The presentation will use the student voice as a powerful means of observing student perceptions of small group project work. It will benefit university staff as they prepare students for summative group work. How do you introduce your students to these core concepts? What do you need to help your students engage more successfully with small group project work for more successful assessment results?

► Teaching of Cultural Values for Enhancement of Life-Skills with Special Reference to Music Education

S. K. Pudaruth - Mahatma Gandhi Institute, Moka

Strand: **Teaching and Learning**

No cultural object is self-created or created in a vacuum. When a work of art, be it music or dance, is created, articulated and performed, the creator/performer infuses her/his culture, that is, the sum total of her/his knowledge, skills, beliefs, experiences, attitudes, and traditions, in short, her/his cultural values, into her/his creation/performance, and these cultural values, in turn, characterize the cultural worth of that work of art. Cultural values inherent in music and dance, in all their hues and textures, having universal acquiescence, can be of great use to educate the learners of those art-forms with a view to nurturing and consolidating those qualities, mindsets and behaviours, which could make of them better, saner, more useful and responsible members of the society and human beings. What I am proposing through this presentation is a novel and proactive method based on an interdisciplinary approach of interpreting those universal cultural values in the field of music or dance for consolidating knowledge and skills of the specific art form, and a re-interpretation of same in the field of human values for enhancing those learners' life skills also.

► Experiencing creative writing in Kreol Morisien: A hybrid perspective

S. Oozeerally - MIE

H. Hookoomsing - MIE

Strand: **Teaching and learning**

Since the Saussurean conception of language as being a symbolic system used for human communication, the epistemological foundations of language have evolved to more intersubjective and integrative perspectives aiming to reinstate the human as the fulcrum of multidimensional experiences mediated by language, which is fundamental in the construction of the self, relationships with others, and with languages themselves. As a language activity, creative writing fits in this epistemological conception of language as mediator of the relationships with the self and others. Writing, therefore, is not seen as a neutral activity, but one which involves the writer's multifaceted being, multiple subject positions, social relations with others, and the socio-cultural contexts in which these are constructed (Ivanic, 1998). Others, here, do not exclusively refer to humans but the broader environment in which one is situated and (inter)connected. Our reflection is anchored in the 'alterlinguistique' paradigm which is based on hermeneutics and constructivism, allowing for the seamless integration of literary analysis – as this method is founded on a hermeneutic approach to texts. Combining a literary analysis method with methodological reasoning from case study and auto-ethnography, this research aims to explore the language 'expérimentation' [how would you define your 'self'] with respect to using Kreol Morisien for creative writing. The scope of this research also presents avenues for exploring implications on teacher training with regard to creative writing pedagogy and the use of creative expression in language learning.

► A case of Transformative learning: Driving bullying out of schools in Mauritius through a student-produced e-book

S. Gunness - University of Mauritius

S. Chaverny - Ministry of Education and Human Resources,
Tertiary Education and Scientific Research

Strand: **Teaching and Learning**

Bullying is taking unprecedented proportions in schools around the world and, in Mauritius, a 2009 WHO report indicated that 43% of students took part in physical fights and that 27% students had been attacked by their classmates in the previous year. The aim of this study is to investigate the concept of Bildung as a pedagogical and philosophical framework for the integration of technology-enhanced learning activities in the classroom. The use of video sessions, talks, creation of masks and concept cartoons to include in an e-book provide learner-centred approaches to increase the awareness and engagement of children about the harms of bullying. The e-book creation allowed the learners to themselves provide solutions to counteract bullying in schools. This study provides an instance of where having a more holistic approach through affective, cognitive and psychomotor knowledge domains within a Bildung framework can provide more effective uses for technology enhanced learning.

► Revamping Practice-Breaking free from the rote culture: An Action Research

S. Beebeejaun Roojee - MIE

N. Congo Pootaren - MIE

Strand: **Teaching and Learning**

This presentation highlights how two educators moved outside their comfort zones to revamp their practice. Not happy with the routine which had stealthily crept into their practice, the need for this introspection was felt. Thus a co-operative action research approach was selected as its emphasis is upon practice, collaboration, reflection and interpretation. Data was collected through observation, interviews and memos, and analysed using the four different types of reflection namely descriptive, perceptive, receptive and critical. Constructivist and investigative based teaching and learning strategies were used where students had to locate and manage information, develop reasonable answers and provide justifications. The findings revealed that, in order not to fall into the same torpor and break free from the rote culture, educators should open avenues for students to shoulder the responsibility for their learning as a result of their own thinking, thus making teaching and learning an enjoyable process for both the learner and the teacher.

► Ethical perspectives in the leadership practices of a rector: A case study

- N. Akaloo** - Université des Mascareignes
S. Robinson - Leeds Beckett University
Y. Ramma - MIE

Strand: **Methodological Issues in Educational Research**

Our secondary schools are increasingly operating in a challenging environment where ethical issues form part of the Rectors' daily routine of work. These new sets of ethical demands influence and challenge Rectors in their practice of leadership. This paper focuses on a case study of one secondary school in Mauritius and aims at investigating the ethical perspectives faced by a Rector with a view to identifying how ethics are dealt with using the ethical paradigms proposed by Starratt (2001), Furnam (2003), and Shapiro & Stefkovich (2005) in qualitative research. Data was gathered using ontological questions addressing the nature of the participant's realities during semi-structured face-to-face interviews and transcribed for data mining. The first cycle coding used detailed line-by-line Initial Coding employing In Vivo Coding and Process Coding. This led to the identification of themes necessary for the exploration of interpretive ethical meanings.

► Leading Changes in the wake of the Nine-Year Educational Reform - The way forward for Private Secondary Schools in Mauritius

M. S. Sohawon - MIE

R. S. B. M. A. Jahangeer

M. Etwaroo

S. Bungoraz

N. Hurloll

Y. Juggessur

N. Rhugoo

Strand: Curriculum Development

Mauritius is on its way for a major reform in the field of education, Nine-Year Schooling, and like all reforms, the very foundation is in a perpetual seething stage. In his famous book – Leading in a Culture of Change - , Michael Fullan (2001) talks about Heads of Schools as Leaders of Change. This research paper was carried out by the PGDELM students 2016-2017, who are aspiring Heads of Schools. The research methodology is a survey and the research method used is qualitative, namely interview and each researcher interviewed at least seven Heads of Schools. The responses gathered were treated under these themes – Socio-Emotional, Financial, Administrative, Pedagogical, Infrastructural, Health and Wellness and Continuous professional Development (CPD) and they varied from fear of intake, academies and regional schools, change in the management of schools and school culture, new curriculum amongst others

► Day 3

Workshop: Qualitative Data Analysis using NVivo Software

Facilitator: **Dr Ajeevsing Bholoa**

In this half-day workshop, you will be introduced to the NVivo11 Pro software. This is a hands-on workshop in which you are expected to bring and work on your own test project (e.g. an interview transcript). This workshop is intended for researchers (from all disciplines) who:

- Work with qualitative data (interviews, focus groups, field notes, documents, visual and audio data) and want to use NVivo for managing and coding their data,
- Have no or little experience with NVivo.

The session consists of demonstrations from the trainer's own NVivo project and participant's practice with their own test project. Individual help and guidance will be provided. It is expected that at the end of the workshop, participants will have learned and practiced:

- Setting-up an NVivo project (import, categorize and manage data);
- Basic analysis features of NVivo (e.g. coding to Nodes, memoing, text query);
- Audio-coding as an alternative to text-based coding of transcripts.

Contributors

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