# **Biography**

**Prof Kobus Maree** is a Professor of Educational Psychology in the Faculty of Education, University of Pretoria and editor of the SA Journal of Psychology. A triple doctorate (DEd (Career Counselling; PhD (Didactics of Mathematics); DPhil (Psychology)), he is internationally recognised for his work in career construction counselling. Author of



more than 70 articles and 30 books/book chapters over the past five years, he was awarded the Stals Prize (SA Academy of Science and Arts) for exceptional research and contributions to psychology in 2009. He was awarded the Chancellor's Award for Teaching and Learning for 2010 and the Exceptional Academic Achiever Award (UP) for a third term (2011-2013). Prof Maree was elected as a member of the South African Academy of Science and Arts (Akad.SA) in 2004 and a member of the Academy of Science of South Africa (ASSAf) in 2006. His research interests include career construction counselling and life designing and emotional intelligence, as well learning facilitation in mathematics. Current projects and plans for the next five years include the standardisation of the Career Adapt-Abilities Questionnaire and the development of a brief, narrative strategy for administering career counselling to all persons.



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# Handling the language issue in the classroom during the Foundation Year

**Author** 

Rughoonundun-Chellapermal Nita

## **Abstract**

The current paper is a reflective piece on the perennial language issue in Mauritius. Every year, the Mauritius Examinations Syndicate reports still point to poor proficiency in English, the medium of instruction as a significant cause of poor achievement in non language subjects as Mathematics and Science. Extant literature in the local context (Raghoonundun, 2006) highlight how the exclusion of L1 as a full-fledged language taught in the curriculum, acts as a strong impediment to children's deep and meaningful learning. I therefore propose to examine how the new curriculum developed for Foundation Year represents an innovation in terms of approach. Drawing for my close involvement in the process and the personal reflections generated from the team's engagement in the shaping and writing of curriculum materials, I offer a descriptive and analytical lens. I showcase how the link can be made between research and curriculum development using the example of the Foundation year curriculum while indicating, at the same time, the contextual limits which have impacted upon the design process.

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# Professional curriculum materials at prevocational level: A view into classroom implementation

#### **Authors**

Veerapen Gowreesunkur Mithila and Adiapen Vimala

#### **Abstract**

This study aims at exploring how prevocational educators are using the newly developed curriculum materials in two subject areas namely Food and Nutrition and Fashion and Fabrics, which are included in the domain of Livelihood and Trade skills. In 2011, the Ministry of Education requested the Mauritius Institute of Education to set up a curriculum panel to formalise the prevocational curriculum structure. However, there was no official piloting of the curriculum materials. The new Prevocational Curriculum Framework has been innovative in the design of its curriculum materials as well as textbooks for Year 1, 2, 3 and 4 which are henceforth structured into domains of learning. These new curriculum materials have been prepared to support the needs of both learners and educators. One of the phases of Wheeler's model of curriculum process emphasises on the need for evaluation. The study has thus been designed to gauge how prevocational educators use the materials in real classroom context in view to meet the needs of the students. This constitutes the backdrop of the study. The curriculum materials aim to empower students with practical skills such as motor skills, manual dexterity and coordination. Research in the new prevocational curriculum implementation is relatively scarce and more so in the follow-up of its use. It is interesting to know how they are translated into practice and the possible challenges that educators can face in using the materials in the classrooms. Data sources for this case study include focus group discussions and questionnaires with a sample of 20 prevocational educators. The findings will help the educators to adapt the curriculum materials to their context. In addition, understanding the curriculum implementation in schools is important in the teacher education of the prevocational educators.

# Moving towards the new curriculum: An overview of anthropocentrism in primary school textbooks in Mauritius.

#### **Authors**

Oozeerally Shameem and Dookhee-Hookoomsing Hélina

### **Abstract**

Textbooks, especially at primary-school level, are essential tools in children's development and in their construction of knowledge. This paper proposes to carry out an analysis of primary school textbooks from Standard 1 to Standard 6 (English, French, Mathematics, Science, History and Geography and Health Education) using the lens of eco-critical discourse analysis. It primarily focuses on anthropocentrism, though aspects like speciesism, euphemisation and elements of 'greenspeak' will not be excluded. The methodological framework is constructed using elements of textbook analysis as discussed by Fetsko (1992) and Pingel (2010). This work is also in line with the Education for Climate Change Education for Sustainable Development (UNESCO) project as it proposes to address formative aspects related to attitudes towards environment. We will also study the implications of such an ideological stance in the development of the Foundation Year Primary curriculum material and the ways in which this issue can be addressed in order to minimise or erase its potentially negative impacts and ecological consequences. Among the preliminary findings, it was noted that the level of anthropocentrism is relatively high in language textbooks, notably through the integration of exogenous and fundamentally anthropocentric and speciecist stories. Another aspect which emerged from this study is that the content of textbooks lies in a continuum between humanism and anthropocentrism. Moreover, we also noted that moderate anthropocentrism, which tends more towards humanism, is not necessarily negative in the sense that it can be linked with theories pertaining to the psychological developmental stages of the child for effective learning; however, its integration in school material must be carefully reflected upon, with respect to the timing and level.



# Research informing the development of curriculum design and implementation at school level: The case of career counselling and mathematics

#### Author

Maree Kobus

## **Abstract**

In this paper, I first focus on the bigger picture vis-à-vis the design and development curriculum, after which I elaborate on the nature of curriculum research. Next, I delineate some dominant research methodological designs/approaches at international level. More specifically, I highlight the importance of determining the extent and nature of existing gaps and needs (which provide the rationale for research), the type of data/information needed, the importance of determining what I want to analyse, the role of underlying theories and conceptual frameworks, as well as the need to bring novel/innovative/new perspectives while making sure that one's research (findings) are intrinsically related to previous experiences and others' perspectives. Lastly, I briefly elaborate on the cases of career counselling and mathematics in South Africa (and internationally). Some guidelines for future research and curriculum design are proposed and discussed.

# From practice to theory: Reconceptualising curriculum research and development for lower primary in Mauritius

#### **Authors**

Naëck Vassen, Natchoo Nicholas and Kee Mew Evelyn

## **Abstract**

As part of government policy in education, the curriculum for public primary schools is being currently revisited. Three principles have guided the process of curriculum review: equity, diversity and fairness. Pedagogically, curriculum writers have also been influenced by the rich literature on child development and learning, seeking ways in which the most recent research findings could concretely inform both the framework and materials developed. Using examples from the Primary Foundation year one curriculum, the paper explores the theoretical framework of early learning and development. It also discusses on the dialectical relationship between the planned and the operational curriculum. Drawing on socio cultural theory as well as a large body of empirical research on effective practices it examines the use of a specific type of scaffolding to promote linguistic and academic development. The model developed conceives scaffolding as both structures and processes weaving together several levels of pedagogical support in the form of sequences and phases. It concludes by proposing a framework for the development of a research-based curriculum for lower primary.

# An overview of the teaching of Psychology at undergraduate level and in teacher education in Mauritius, from the perspective of students

#### **Author**

Rajiah Karuna

## **Abstract**

In Mauritius, Psychology is taught on a large scale in the tertiary sector and in professional courses in Teacher Education programmes. However, available literature on the teaching of this discipline has highlighted some weaknesses in the type of knowledge and skills developed among prospective teachers. This study aims at exploring how Psychology is being taught in Mauritius and whether the teaching of Psychology is meeting its purpose. So far, there has not been any such research that has been carried out to answer these questions. A research has been carried out to answer the following key questions: (1) What approaches are used to teach Psychology at undergraduate level?; (2) Is the teaching of Psychology meeting its purpose?; (3) Can the teaching of Psychology be improved in Mauritius? A questionnaire was administered and a semi-structured interview was conducted with 30 students from the two higher educational institutions. The findings revealed that students at one institution are not introduced to the practical part of the subject and field work at graduate level. They have limited access to recent essential textbooks. The study concluded that students should be exposed to extensive fieldwork and be granted access to essential textbooks in order to bridge the gap between theory and practice to create a harmonious relationship between the taught and applied part of Psychology at undergraduate level. At teacher education level, the module which focuses on Developmental and Educational Psychology should be reviewed regularly so as to teach its essentials. Educators at B.Ed level are already exposed the practical component at work. This research could provide some principles to review programmes where Psychology is being taught.

# Investigating the use of facebook by deaf learners

#### Author

Goodoory Kaviraj

### **Abstract**

This paper describes the experiences of deaf learners, who attend a special school, in using Facebook. Social networking sites have been used by students for various purposes. Some studies report their use as an informal learning environment. These sites provide a platform to deaf learners to stay in touch and discuss with peers who are not deaf and those with hearing impairment. The study was conducted to investigate the technological tools that are used by deaf learners and to explore their use of Facebook. Data for this study was obtained through a questionnaire, interview of 12 deaf learners and 2 teachers as well as content analysis of their Facebook pages. The analysis was done using an online qualitative data analysis tool (http://www.dedoose.com) and network analysis software. The results show that mobile phones and laptops were the main technological tools used by deaf learners. The results also show that while Facebook was used as a means to be in touch and communicate with friends, it also provided a platform for deaf learners to interact among themselves on their learning experiences.

# The potential of SMS Mobile Technology as an innovative pedagogical tool for motivation and achievement: A case study of Distance Education students in Rodrigues

#### **Author**

Gungadeen Anuradha

# **Abstract**

This study explores how Short Messaging System (SMS) can be adapted and used as an innovative and motivating pedagogical tool in a context of distance learning. The pilot project involved 24 Rodriguan learners enrolled on the Diploma in Educational Management Course. Mobile phone, being one of the most appropriate and affordable technological devices, was used in this study. Mobile support introduces technology which promotes flexibility and accessibility beyond the four walls of the traditional classroom. The SMS mobile technology was used to foster motivation among learners who were geographically separate from Mauritius. This paper focuses on the: (1) educational potential of SMS mobile technology as an innovative pedagogical tool and (2) relevance of SMS mobile technology with regards to motivation as well as its impact on achievement. In this research, the ARCS (Attention, Relevance, Confidence, and Satisfaction) model was incorporated into the instructional design to generate effective instruction. As part of the research, at the end of each week a summary of a specific unit was compressed into 160 characters and sent to all learners by SMS. Subsequently, the learners were expected to engage in dialogue and collaborate with the peers in their respective groups by decoding the SMS while keeping the essence of the content. Additionally, team leaders of each group were responsible to share their groups' academic discourse with all. The role of the researcher was to facilitate and monitor the learning progress of the learners. The principal benefit of using SMS mobile technology is in its flexibility and convenience by making learning pervasive and boosting learners' motivation for lifelong learning. Ultimately, the research findings have revealed that motivation remains a key and determining factor in contributing towards successful achievement. Nonetheless, the major challenge was the transaction of the didactic content into meaningful messages consisting of 160 characters.

# Does feedback feed forward? Educators' and Supervisors' reflections on Teaching Practice in teacher education

#### **Authors**

Sandhaya Gian and Goburdhun Seema

# **Abstract**

A crucial component in a teacher education programme is 'teaching practice'. Supervision by tutors and feedback provided during practicum is one of the many ways to support trainee educators to improve classroom practices (Percara, 2013). This study explores the nature and impact of feedback provided to 70 in-service trainee educators of a PGCE cohort during their teaching practice supervision, at a teacher education institute in Mauritius. Recent studies undertaken (Ferguson, 2011; Bailey and Garner, 2010) suggest that the quality of feedback has a great influence on learning and achievement but its impact can also be either positive or negative. However, in the local context, there is a gap in research conducted on the kinds of feedback provided to educators during training and its actual value to shape everyday teaching practices. Using an interpretive approach, data was gathered through questionnaire to explore the phenomenon from the perspectives of both tutors and trainee-educators. Furthermore, to obtain richer data and for triangulation, a focus group discussion involving a sample of 15 trainee educators from the initial group was carried out. The collected data was analyzed using the 'three C's' (Litchman, 2006) descriptive analytical framework. Findings reveal that feedback provided by tutors pertains generally to teachers' classroom management, pedagogy and evaluation skills. The formative nature of feedback is perceived to have a positive impact on teachers' teaching although sustained change in practice is reported to be mediated by a number of contextual variables. Evaluative feedback is preferred by teachers when it relates to both the content and context in which they are teaching but it is also believed to cause 'stress' to teachers and undermine the formative role of the teaching practice exercise.

An exploration of how vignettes promote understanding, critical thinking and transfer among in-service secondary school teachers in a developmental and educational psychology module.

#### **Authors**

Baichoo Vikash and Thaunoo Jyotsna

#### **Abstract**

Evidence from the literature suggests that Educational Psychology courses are too theoretical and do not prepare students for classroom teaching (Poulou, 2005). Explanation from the literature for this view is that the theories and concepts taught in Educational Psychology are taught in a de-contextualized way (Gonzalez-DeHass, 2005). The problemEducational Psychology instructors often face is how best to teach their subject to teachers who often more concerned with practicality and effectiveness in their classrooms than with psychological theory (Poulou, 2005). Research in teacher education has suggested that case studies address the theory-practice gap because they often depict real classroom situations that illustrate psychological concepts, thus helping to deepen teacher's understanding of them(Engle and Faux, 2006). Findings from one study revealed that vignettes (short case-studies) enhance recognition, recall and transfer of course content among pre-service teachers (Jeffries, 2006). The objective of our study was to extend the above finding that vignettes address the theory-practice gap problem by exploring how and to what extent vignettes promote understanding, analysis and transfer of Developmental and Educational psychology theories among in-service PGCE trainee teachers at the MIE.The sample used for the study consisted of two groups of trainees from two subject areas. Methods used to collect data included conversational interviews and analysis of the critical reflection paper they submitted as part of the assignment for the module. Analysis of data from these two sources showed that students were able to relate case studies at classroom level to the different theories covered during the module. The findings showed that teachers understood to some extent the relevance of the theories studied during the module as they could relate them to practice. The implications of these findings will inform teacher educators on the use of vignettes in the teaching of Educational Psychology.

# Distributed leadership and staff's effectiveness in secondary schools of Mauritius: A theoretical framework

#### **Author**

Kong Ting Lun Kenny Clifford

### **Abstract**

In Mauritius, the current model of leadership adopted in secondary schools is a management by rectors. Since leadership is not distributed to staff, demotivation and staff's ineffectiveness occur. This results in an ineffectiveness that schools are currently facing. The discussion in the literature highlights the potential of Distributed Leaderships (DL) in enhancing staff's effectiveness in teaching and learning. The effectiveness of staff comprises also leaders' self-efficacy and personal effectiveness in distributing leadership (rectors and HODs) and teachers' efficacy on teaching and learning. Based on the two previous models of DL by Spillane (2006) and Angelle (2010), the paper builds a theoretical framework to propose future research methods for an innovative model of DL and staff effectiveness in Mauritius. Based on the studies of Khan and Igbal (2013), Scheerens (2009), Harris (2008), Harris and Muiijs (2007) Bandura (1997), Washington Research Center (2007) and Tschannen-Moran and Gareis (2005), the key findings on staff's perceptions showed openness, capability, trust building relationship, effective communication interactions, conflict resolution, willingness to take up DL, collaboration and cooperation as a team in DL. Dependent and independent variables will be discussed for the benefits of DL and how the innovative DL model should be applied in the current Mauritian educational system, without radical change to the system. The intention is to develop an innovative model of DL based on collaboration with effective staff to enhance the teaching and learning process.

# Health and Safety in Secondary Schools.

#### **Authors**

Beebeejaun-Roojee Swaleha, Congo-Poottaren Nathalie and Perrine Phillipe Vincent.

## **Abstract**

Schools, like all buildings and institutions, harbour some risks. Given the time students spend at school and the variety of activities in which they are engaged, the school environment presents many opportunities for unintentional injuries through environmental hazards as well as contribute to the exposure and spread of many communicable infections. Making the school a safe and healthy space for the students is becoming one of the most pressing issues in today's educational system. A research was thus conducted to identify the practices and types of intervention measures relating to health and safety issues in four secondary schools. Data was collected from the teaching, the non-teaching and the managerial perspectives. Both qualitative and quantitative data were collected and analysed using Twigg (2011) conceptual framework for school safety. The parameters used to examine the strengths and weaknesses as well as to identify gaps and opportunities for improvement on the health and safety matters were physical, physiological, emotional, attitudinal and activities linked. Major findings bring to attention the existing gaps in health and safety provisions in secondary schools. It further discusses how the positioning of various stakeholders with respect to how their roles stand in contradiction to each other. This study also lays the foundation to establish a framework for intervention in case of risks. The paper ends with a discussion of how hazards management and training programmes can be re-visited to support health and safety management in secondary schools.

# Alice Steps in Wonderland: The adult researcher walks into the world of childhood

#### **Author**

Mahadeo Doorgakant Yesha

## **Abstract**

This paper draws on my own experiences of conducting linguistic ethnography to understand the development of the linguistic repertoire of three primary school learners aged between 7-8 years within the Mauritian multilingual educational system. This study was conducted in a primary school in an urban area with learners of Standard III. It is said that ethnographic research involves the creation and ongoing negotiation of relationships between the researcher and the researched (Creese in Gardner and Marilyn Martin-Jones; 2012). Extended engagement, within the field, contributes to the complexity as relationships deepen and shift over time and both the researcher and researched accumulate a substantial reservoir of shared experiences. The complexity is twofold when the researched is a child. With this aim, it is important to build a reflexive component into the research as it is ongoing, exploring how the researcher and researched build relationships through interacting with each other and how this, in turn, allows the researcher to produce data when it comes to studying linguistic practices of young children. Thus, this paper puts forth that reflexivity within the field is a crucial ingredient to producing data with young children aged 7-8 years old. Allowing the field to unsettle one, reacting and being proactive to it can actually enable the linguistic ethnographer to constantly negotiate shifting relationships with the participants and, therefore, shapes the different methods employed to produce data.

# Appropriateness of the Two-dimensional Geometry Curriculum at the Upper Primary Level in Mauritius

#### **Author**

Jawahir Ravi

## **Abstract**

Many international research studies have found that space and geometry education have been an inconsistent and a reduced aspect of the curriculum for many years (Battista and Clements, 1991; Clausen-May et al., 2000; Meissner, 2001; van der Sandt, 2001; Hoyles et al., 2002; Demal, 2004; Mullis et al., 2007; Mullis et al. 2008; Wu, 2010). In Mauritius also, the geometry curriculum at the primary level is too restricted. Little time is devoted to its teaching compared to numbers and measures. The properties are rote-learned for the purposes of examinations and the exercises on geometry are only at "drill and practice mode" of learning. This study forms part of a quasi-experimental design with 2 independent variables: language of teaching (English and Creole) and types of teaching strategies (traditional classroom teaching from textbook and inquirybased teaching with manipulatives). It was conducted in four primary schools in Mauritius with 745 upper primary level pupils. A modified, carefully planned and more concrete and dynamic 2D geometry curriculum was proposed for the upper primary pupils (Jawahir, 2013). It emphasized the developing of the pupils' knowledge about 2D shapes using manipulatives and inquiry-based teaching. It did not only target the pupils' factual knowledge of shapes but their understanding, developing and internalizing geometric concepts for longterm retention. A common 2D geometry questionnaire, both as posttest and retention test, was administered to two groups of upper primary level pupils (one with traditional methods used in the Mauritian classroom and the other using the new geometry lessons). It was found that pupils who participated in the new geometry lessons had significantly outperformed their counterparts (Jawahir, 2013). The new geometry lessons involved different ways of teaching the content areas lines, angles, triangles and quadrilaterals as compared from the geometry lessons from traditional textbook. In particular, the use of inquirybased teaching with manipulatives helped the primary level pupils to better understand the interrelationship between the different types of triangles and different types of quadrilaterals and also improved the retention ability of the pupils.

# The promotion of critical thinking skills through Inquiry Based Learning Strategies: An Action research

#### Author

Carpouron Dina

### **Abstract**

For the last decades educational reforms have laid emphasis on the development of critical thinking skills so that students become skilful thinkers. In such a context, contemporary art education programmes stress not only on technical competencies but also seek to enhance students' critical judgement and cultural awareness. However, examiners' reports regularly highlight the fact that many students show low engagement in research and give very little evidence of thinking to evaluate their own artwork. Thus, a study was conducted to find out whether Inquiry Based Learning strategies could boost the critical and analytical faculties of a group of fifteen first year HSC Art students in a co- education confessional school. The study focused on the compulsory school based coursework component for which students' level of critical abilities and engagement are highly required. In order to collect data, a qualitative approach was adopted and an action research was set using as main framework: the inquiry models proposed by Fisher (1998), Wilks (2005) and Barell (2007). Data were collected mainly through observation, reflective journals, transcripts of oral presentations and samples of students' practical work. Analysis of data dealt with art critical reasoning categories (Bartell, 2011) and critical thinking disposition attributes (Lambert, 2007). Results show that the adoption of Inquiry Based Learning Strategies can exercise the mind to high order thinking. It was noted that in-depth inquiry of artworks, meaningful interactions with artists and problem solving tasks can lead to students' higher level of metacognitive skills, self confidence, engagement and maturity. The pedagogical implications of the research findings are discussed to suggest measures to improve the design and implementation of the Inquiry approach towards greater students' empowerment.

# **Enhancing argument presentation in Urdu Literature at HSC level through an action research**

#### **Authors**

Heetun Moohktaseemah, Narod Fawzia Bibi and Williams Sandra

## **Abstract**

Argument presentation in Urdu Literature is an increasingly important skill that HSC students need to develop (UCLES, 2012). However, presenting reasoned arguments in Urdu Literature is persistently reported to be a problem among students (UCLES, 2009). It has also been noticed that students often mistook argument for opinion leading to poor argument presentation. In view of the above, an attempt was made in the present study to enhance argument presentation among HSC students through the use of selected teaching strategies, namely, group work, class discussions and Think-Pair-Share. The sample included four HSC students (aged between 18 to 19 years old) from a state secondary school. The research was qualitative in nature and an interpretive stance was adopted throughout the work. The study was carried out through an action research and data were collected through observations, interviews, feedback questionnaires and students' scripts. Findings from our study have revealed that participants were better able to present reasoned arguments when there is communication and interaction between peers. Most interestingly, we also report here that Think-Pair-Share was more effective than group work in enhancing argument presentation. In conclusion, our findings tend to support those from Mercier and Sperber (2011) and Lom (2012) who emphasised on the importance of reasoning and "think time" for successful argument presentation.

# **Exploring thinking process of prevocational** mathematics teachers in solving word problems

#### **Authors**

Purdasseea Sooryadev, Angateeah Khemduth Singh and Bholoa Ajeevsing

## **Abstract**

Mathematics is a core subject at the pre-vocational level and is essentially meant to enable students to effectively and logically make informed decisions related to their daily lives. In the Mathematics curriculum, reallife experiences often appear as word problems. In a recent study carried in 2013 by the Mathematics education department at the MIE, it was found that a significant number of pre-vocational students faced difficulties in solving word problems. Additionally, based on our teaching experience with Teacher's Diploma Pre-vocational trainees, we observed that even inservice teachers show negative disposition towards solving word problems. Research has shown that teachers own thinking process impact on students' learning. However, no research to date has been undertaken in our local context to understand how teachers go about solving these word problems. In this line, this study examines the thinking processes of two Mathematics teachers in solving word problems. A case study approach is used and data is collected essentially through task-based interviews. Three word problems are considered and Montague's framework (2003) is used to analyse the thinking process of teachers. Both teachers exhibited procedural knowledge but were unable to paraphrase and represent the word problems. Also, it emerges that teachers favour solving word problems algebraically as it is a less demanding approach. However, in the prevocational curriculum, the algebraic approach is not a priority. This finding is in line with other studies demonstrating that teachers do not favour alternative methods. Moreover, our work reveals that continuous professional courses are essential to raise the teaching standards of prevocational mathematics teachers.