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Welcome to the ICASE July 2012 Newsletter!

The ICASE Newsletter is a regularly distributed publication containing current information about topics of interest in the field of science education. The table of contents for this issue is located in the right hand column.

The International Council of Associations for Science Education (ICASE) was established in 1973 to extend and improve science education for chldren and young people throughout the world. Today, ICASE is a huge network of science education associations, institutions, foundations and companies, facilitating communication and cooperation at the regional and international level.



International Council of Associations for Science Education

http://www.icaseonline.net

To be included on the listserve for notification of future newsletters please follow the guidelines on www.icaseonline.net/news.html

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For information please visit our web page: http://www.icaseonline.net/

news.html

Read or Submit a Manuscript to the ICASE Journal: Science Education International



For information please visit our Journal web page:

http://www.icaseonline.net/seiweb

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Editorial;

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ICASE News



Jack Holbrook, ICASE Project & Secondary Journal

ICASE involvement in new Teaching Modules

Through its involvement in the European PROFILES project, ICASE is involvement in designing, developing and operating Continuous Professional Development programmes for teachers that are seen as motivational for students and promoting student-involved, inquiry-based science education. These modules have either derived from those in a previous project, PARSEL, some of which are currently on the ICASE website, or are newly created modules now undergoing piloting in the classroom situation.

Below is an example of a new module developed by the University College, Cork and ICASE and designed for use in the transition year between junior and secior secondary education.







Does it really give you Wings?'

This Chemistry module is targeted at a Transition Year group aged 15-17 years. At the discretion of the teacher, it can be divided into separate sections.



The activities in this module allow pupils to work as a team in an investigative setting to examine the use of energy drinks and in sports and exercise. It requires pupils to investigate the current popularity of both legal and illegal performance-enhancing aids in sport. The aim is then to use this information to evaluate energy drinks available and design their own drink based on the information they have gathered. There are three groups arranged with set tasks. All pupils can do these tasks sequentially or the class can be divided into groups at the discretion of the teacher:

Group 1 – average ability pupils Group 2 – more able pupils Group 3 – high ability pupils



Call for Papers

Science Education Research

ASE Annual Conference 2013 @ University of Reading

Wednesday 2nd - Saturday 5th January 2013

Research Seminar Series Promoted by the ASE Research Committee

We welcome papers on science education research topics.

The contributions can include:

- teacher education
- early years education,
- primary education
- secondary education
- curriculum development and evaluation
- pedagogy
- learning and assessment in science

We hope to have contributions from teacher educators, teachers, higher education degree students and from colleagues involved with curriculum development and evaluation.

Submissions

Please submit an abstract of no more than 500 words (in PDF format) to the ASE at f.j.woodhouse@hud.ac.uk setting out your research questions and rationale, background to the study, methods, findings and references (references are not included in the word limit).

All submissions will be peer reviewed and accompanying papers published in an on-line **Conference proceedings** and we welcome work in progress and contributions from across the world.

Format for submissions:

The presentations should be 20 minutes with an additional 10 minutes for questions.

Initial submissions **31**st **July**. A final conference paper (circa 2,500 for research in progress or circa 5,000 for completed research and available for publication) to be submitted by **31**st **October 2012**.

The deadline for abstract submission is July 31st

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The ICASE World Conference Flyer



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SCIENCE AND TECHNOLOGY EDUCATION POST BASIC PROJECT (STEP-B) [FEDERAL MINISTRY OF EDUCATION, ABUJA, NIGERIA]

Professor M. U. Adikwu, FAS, FSTAN National Project Coordinator,

Science and Technology Education Post-Basic (STEP-B) Project, Abuja, Federal Capital Territory, Nigeria

Introduction

In the last STEP-B Project report, it was mentioned that the Nigerian Federal Government entered into agreement with the World Bank to implement this Project "to increase the country's competitiveness in a globalising world and promote improved responsiveness of the post basic institutions to the needs of the labour market."

Component Structure

The STEP-B project is structured to function through three main components, namely:

- a) Component 1 is Quality Enhancement and Innovation.
- b) Component 2 is Support for Emerging Centres of Excellence (CoEx),
- c) Component 3 is Support for Strengthening Strategic Planning, Management and M&E in the post-basic educational institutions.

The sum allocated to each component has changed based on demand, except for Component 2, which although oversubscribed, has remained the same. The Project initially targetted the support for 6-9 institutions to emerge as centres of excellence but is currently supporting 11 ranging from 4 to 6 million dollars.

Due to the oversubscription into the other Components, funds have been reallocated as follows:

Components	Original Allocation (US\$ m)	Revised Allocation (US\$ m)
Component 1: Competitive fund for quality	81.0	81.0
enhancement and innovation		
1A Window A	32.0	40.0
1A Window B	18.0	18.0
1A Window C	4.0	4.0
1B	27.0	19.0
Component 2: Support for emergence of Centers	54.0	54.0
of Excellence		
Component 3: Strengthening strategic planning,	27.0	36.0
management and M&E		
3A	18.0	25.0
3B	9.0	11.0
Unallocated	18.0	9.0
TOTAL	180.0	180.0

It should also be noted that some funds have been recently drawn into Component 3A for the establishment of a Nigerian Research and Education Network (NgREN).

Funds Distribution

The map of Nigeria below shows how the STEP-B fund has been disbursed to the Federal Post-Basic educational institutions (Figs. 1). Due to the multi-ethnic nature of Nigeria, funds were disbursed based on regional consideration alongside other criteria such as quality of proposals. With a focus on post-basic S&T education (senior secondary and tertiary education), the project aims at catalyzing an increased production of more and better quality medium and higher-level skilled workers in Nigeria and strengthening the capacity of post-basic S&T institutions to carry out this task. All the Federal Universities (27), Federal Polytechnics (22), Federal Colleges of Education (21), a few selected monotechnics (3), research institutes (15), Regulatory Agencies (5) and all the Federal Unity Colleges (104) have had funds disbursed to them.

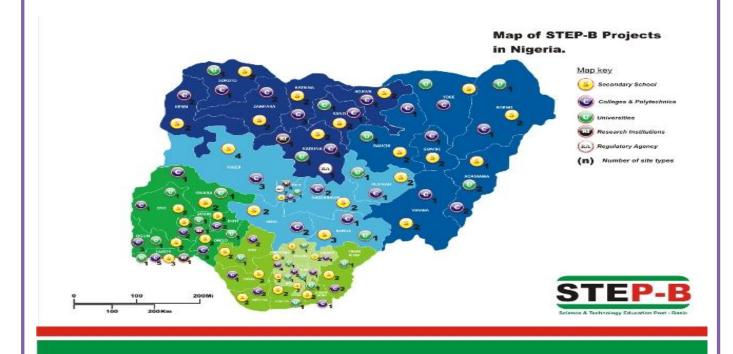


Fig. 1. Map of Nigeria showing project involvement by all post basic educational institutions.

The STEP-B project is one of very few competitive demand-driven funding agencies in Nigeria. The awards are driven by the needs of the beneficiary institutions as conceptualized in the individual proposals; this is highly innovative in the Nigeria education system. Funds are disbursed directly to the institutions and World Bank guidelines are employed in the implementation process.

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Dirtying Up Our Diets

Jeff D. leach

Science and archaeology writer and founder of the Human Food Project.

OVER 7,000 strong and growing, community farmers' markets are being heralded as a panacea for what ails our sick nation. The smell of fresh, earthy goodness is the reason environmentalists approve of them, locavores can't live without them, and the first lady has hitched her vegetable cart crusade to them. As health-giving as those bundles of mouth-watering leafy greens and crates of plump tomatoes are, the greatest social contribution of the farmers' market may be its role as a delivery vehicle for putting dirt back into the American diet and in the process, reacquainting the human immune system with some "old friends."

Increasing evidence suggests that the alarming rise in allergic and autoimmune disorders during the past few decades is at least partly attributable to our lack of exposure to microorganisms that once covered our food and us. As nature's blanket, the potentially pathogenic and benign microorganisms associated with the dirt that once covered every aspect of our preindustrial day guaranteed a time-honoured co-evolutionary process that established "normal" background levels and kept our bodies from overreacting to foreign bodies. This research suggests that reintroducing some of the organisms from the mud and water of our natural world would help avoid an overreaction of an otherwise healthy immune response that results in such chronic diseases as Type 1 diabetes, inflammatory bowel disease, multiple sclerosis and a host of allergic disorders.

In a world of hand sanitizer and wet wipes (not to mention double tall skinny soy vanilla lattes), we can scarcely imagine the preindustrial lifestyle that resulted in the daily intake of trillions of helpful organisms. For nearly all of human history, this began with maternal transmission of beneficial microbes during passage through the birth canal — mother to child. However, the alarming increase in the rate of Caesarean section births means a potential loss of microbiota from one generation to the next. And for most of us in the industrialized world, the microbial cleansing continues throughout life. Nature's dirt floor has been replaced by tile; our once soiled and sooted bodies and clothes are cleaned almost daily; our muddy water is filtered and treated; our rotting and fermenting food has been chilled; and the cowshed has been neatly tucked out of sight. While these improvements in hygiene and sanitation deserve applause, they have inadvertently given rise to a set of truly human-made diseases.

While comforting to the germ-phobic public, the too-shiny produce and triple-washed and bagged leafy greens in our local grocery aisle are hardly recognized by our immune system as food. The immune system is essentially a sensory mechanism for recognizing microbial challenges from the environment. Just as your tongue and nose are used to sense suitability for consumption, your immune system has receptors for sampling the environment, rigorous mechanisms for dealing with friend or foe, and a memory. Your immune system even has the capacity to learn.



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For all of human history, this learning was driven by our near-continuous exposure from birth and throughout life to organisms as diverse as mycobacteria from soil and food; helminth, or worm parasites, from just about everywhere you turned; and daily recognition and challenges from our very own bacteria. Our ability to regulate our allergic and inflammatory responses to these co-evolved companions is further compromised by imbalances in the gut microbiota from overzealous use of antibiotics (especially in early childhood) and modern dietary choices.

The suggestion that we embrace some "old friends" does not immediately imply that we are inviting more food-borne illness — quite the contrary. Setting aside for the moment the fact that we have the safest food supply in human history, the Food and Drug Administration, the Centers for Disease Control and Prevention, and food processing plants and farmers continue to take the blame for the tainted food that makes us ill, while our own all-American sick gut may deserve some blame as well.

While the news media and litigators have our attention focused on farm-to-table food safety and disease surveillance, the biological question of why we got sick is all but ignored. And by asking why an individual's natural defences failed, we insert personal responsibility into our national food safety strategy and draw attention to the much larger public health crisis, of which illness from food-borne pathogens is but a symptom of our minimally challenged and thus over-reactive immune system.

As humans have evolved, so, too, have our diseases. Autoimmune disease affects an estimated 50 million people at an annual cost of more than \$100 billion. And the suffering and monetary costs are sure to grow. Maybe it's time we talk more about human ecology when we speak of the broader environmental and ecological concerns of the day. The destruction of our inner ecosystem surely deserves more attention as global populations run gut-first into the buzz saw of globalization and its microbial scrubbing diet. But more important, we should seriously consider making evolutionary biology a basic science for medicine, or making its core principles compulsory in secondary education. Currently they are not.

As we move deeper into a "postmodern" era of squeaky-clean food and hand sanitizers at every turn, we should probably hug our local farmers' markets a little tighter. They may represent our only connection with some "old friends" we cannot afford to ignore.

Calendar of Events



IV Brazilian National Meeting of Biology Education

II Regional Meeting of Biology Education in Central Brazil

September 18-21st, 2012

Theme: Rethinking experience and new formative contexts to Biology Teaching

Thematic strings:

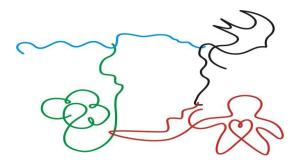
- 1. Teaching-learning processes in Science and Biology Education
- 2. Science and Biology Teacher Education
- 3. Development of strategies to teach biology
- 4. Non-formal education and PBS
- 5. History and Philosophy of Science
- 6. Public policies for Science Education
- 7. Relations among education, science and cultures

The Federal University of Goiás – Samambaia campus Gioania, GO - Brazil

Deadline for papers: June 10, 2012

Info from: Brazilian Association for Biology Education





V International Conference on Biology Education

Theme: knitting the lines of Biology Education in a emancipatory warp

October 11 – 13, 2012

Villa Giardino – Córdoba Argentina

More info on the url:

http://www.congresoadbia2012.com

for foreign information and payment please refer to: tesoreriacongreso2012@gmail.com

June 15th is the deadline to submit an oral presentation



info from: the Association of Biology Teachers of the Argentine

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XV IOSTE INTERNATIONAL SYMPOSIUM



Yasmine Hammamet - Tunisia - 29 October - 3 November, 2012

We are pleased to invite you to participate in the XV IOSTE International Symposium on **Science & Technology Education for Development, Citizenship and Social Justice** to be held at Yasmine Hammamet (29 October – 3 November, 2012).

The conference is organized by EDIPS / ISEFC in cooperation with **UVT**, **DISEMEF**, **FSB**, **CENAFFE**, **ATDSVT**, **ATDM**, and other institutions and associations (see below the meaning of these acronyms).

IOSTE XV is an International Symposium for researchers to present research papers, workshops, posters and explore collaboration with other researchers in the fields of Education and Research. Our aim is to inspire and provoke meaningful discussions and debates.

IOSTE XV will include a diverse and comprehensive program covering a number of areas of science and technology education (teaching, learning, practice, development, innovations, evaluation,..). The program will also include a wide range of activities designed to facilitate the exchange of expertise, experience, and resources amongst researchers, educators and trainers.

The IOSTE XV will be held in **Yasmine Hammamet**, a city in the North-East part of Tunisia. The event will bring together scientists, technologists, teachers, trainers, education inspectors, policy makers and graduate students from across the globe to promote discussion of issues relating to the theme and sub-themes.

Early Registration FeesLate Registration FeesSymposium datesBefore July 31, 2012After July 31, 2012October 29 - November 3, 2012



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SUBMISSION:

You can propose:

A single oral communication (a slot of 30 minutes, including 10 minutes of discussion)

Coordinated interventions during a slot of 90 minutes: mini-symposium or round-table, with authors coming from at least two countries

A poster, which will be visible during all the symposium; it will be orally presented and discussed during the posters' sessions

- Each participant can be first author for only one proposal (one oral communication, or round table / minisymposium, or poster). He / she can be co-author of several other proposals.
- Each first author must present the communication (or the poster).
- For each proposal, you have to choose one of the nine strands, and to submit an abstract and a 3 pages synopsis only, or an abstract plus the full paper.
- Each proposal will be pair-reviewed. The proposal's originality, its relationship to the conference theme and the clarity of its objectives, organization and approach are factors considered in selection.

The form for abstract can be uploaded from http://www.inedp.org/ioste-XV and will be sent by email (iosteXV@gmail.com) or through the online submission system by March 1, 2012. Please note that submissions must be made through the online submission system and by email at the same time. (To facilitate file management, please use the following system to name your file: YourSurname_Country.doc or YourSurname_Country.doc or YourSurname_Country.rtf)

Accepted proposals will be included in the Symposium Proceedings, only after reception of the registration fees of the first author.

The deadline for the full paper submissions is July 1, 2012. It will be peer reviewed. The guideline for the presentation of the full papers is joined below.

For further details on the symposium, please visit our website: http://www.inedp.org/ioste-XV

I, on behalf of **IOSTE / EDIPS / DISEMEF / ISEFC / UVT** and cooperating partners, feel honored to be hosting the conference in Tunisia. We look forward to seeing you at the conference.

IOSTE (International Organization for Science and Technology Education); EDIPS (Research Laboratory of education, didactics and psychology: Laboratoire de recherche en éducation, didactique et psychologie)); ISEFC (Higher Institute of Education and Continuous Training: Institut Supérieur de l'Education et de la Formation Continue); UVT (University Virtual of Tunis: Université Virtuelle de Tunis); DISEMEF (Ecole doctorale "Didactiques, Sciences de l'enseignement, Métiers de l'Education et de la Formation"); FSB (Faculty of Sciences, Bizerte); CENAFFE (Centre National de Formation des Formateurs en Éducation de Tunisie); ATDSVT (Association Tunisienne de Didactique des Sciences de la Vie et de la Terre); ATDM (Association Tunisienne de Didactique des Mathématiques).

Kind regards,

Mondher ABROUGUI,

Contact: abrouguimondher@yahoo.fr

EDIPS - ISEFC - University Virtual of Tunis Chair, Local XV IOSTE Symposium Organizing Committee

Website URL: http://www.inedp.org

Direct URL: http://www.inedp.org/?conference=ioste-XV

Organizing Committee Email: iosteXV@gmail.com

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The THEME: "Science & Technology Education for development, citizenship and social justice" is expressed through 9 Strands (S1 to S9):

S1: Education for Sustainable Development, Human Rights and Health.

Suggested topics

- Education for all. Citizenship education. ESD (Education for Sustainable Development) / Environmental education.
- Health education/ health promotion/Sex education. Ethics in STE

S2: Cultural, social and gender issues in STE

Suggested topics

- Gender issues. Values and Ethics in STE. International comparisons. Student diversity and inclusive education.
- Political issues in STE. Indigenous Knowledge and Intercultural Education. Language problems / linguistic diversity
- Conceptions, science, justice and citizenship Science, Technology and Society.

S3: STE and religion.

Suggested topics

- Nature of science, nature of religion. Science education versus religious education
- Science and religion: strategies for learning and teaching, teachers training, curriculum design.
- Science and Belief: alternative conceptions. Teaching religions or enrolling in a religion? Inside or outside school?

S4: ICT for equity and democracy in STE.

Suggested topics

- Digital divide. ICT and e-learning in teacher development. Smart school and ICT-based education.
- Distance learning and blended learning. ICT learning and instructional design.
- Perspectives and educational programs beyond ICT

S5: Epistemology, History and Philosophy in STE.

Suggested topics

- History and epistemology in mathematics, fundamental and applied sciences
- History and Philosophy of Biomedical and Health Education. Philosophy of Science: Modeling, complexity, prediction **S6: Socio-scientific issues in STE.**

Suggested topics

- Socio-scientific issues and cognitive process in formal and nonformal learning Using Socio-scientific issues for STE
- Education in science centres and museums Positioning arguments and controversies in STE

S7: Teacher training and teaching practices

Suggested topics

- Teachers and trainers in science and technology: Policy, missions, training, roles, values and perspectives. - Teaching STE versus conception and competence - STE: Practices and didactic design

S8: Curricula, textbooks and media in STE

Suggested topics

- Critical analysis of official programs and textbooks. Curriculum design and development in STE.
- Inter/intra / trans-disciplinary topics. Science, Media and Society

S9: Evaluation in STE.

Suggested topics

- Assessment and ranking of schools and universities. Assessment dealing with learning, training and citizenship education
- Competency assessment. Social impact of assessment. Theory and practice of Assessment, Evaluation, Testing and Measurement. Evaluation of Educational Research. Educational Assessment Policies and System Monitoring.
- International comparative evaluations (PISA, TIMMS, ROSE,...)



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ICASE World Conference 2013



Following similar conferences in 2003, 2007 and 2010, the International Council of Associations of Science Education holds the next World Conference on Science and Technology Education

Sunday 29 September - Thursday 3 October, 2013.

in the Borneo Convention Centre, Kuching, Sarawak. See: http://www.icase2013.org/

The theme of the conference, 'Live Science, Love Learning, Create Change', addresses contemporary issues of importance to Science Teacher Associations, Science Centres, science teacher educators as well as both students and teachers as we move into the second decade after the millennium.

"Live Science" – encourages ICASE member Science Teacher Associations and Science and Technology Education Centres to recognize that science is more than just a subject at school, to impact knowledge and skills adopted from yesterday's approaches. The promotion of science education as interdisciplinary learning is a vital step toward promoting students' acquisition of 21st Century skills not only for sustainable and responsibly citizenship but for a career in an increasing science and technology driven world society.

"Love Learning" – focusses on the role of the teacher, and hence considerations for Science Teacher Associations and Science and Technology Education Centres, not only to guide students to want to participate and acquire the knowledge and skills for tomorrow's society, but that students' own self-motivation is a necessary and key factor in embracing science education as a crucial component of learning.

"Create Change" - deals with the role of Science Teacher Associations, Science and Technology Education Centres as well as teachers themselves in using science education at every level as a way of shifting the mindset on meaningful sustainability, from merely 'talking about' best pedagogical practices to 'undertaking' them, creating a generational change in student attitudes and values towards science and school and the role of leanning through science lessons in shaping their future lives.

ICASE Executive Committee 2011-2013

The ICASE Executive Committee is persons who make decisions on behalf of the ICASE Governing Body. The ICASE Governing Body is the ICASE member organisations.



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For more information about ICASE Executive Committee, please visit the ICASE Website www.icaseonline.net