

**RESEARCH PAPER****A Scientific View of the Philosophy of Education: A Study****Gabriel Kabanda**

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Email: [gabrielkabanda@gmail.com](mailto:gabrielkabanda@gmail.com), [profgkabanda@hotmail.com](mailto:profgkabanda@hotmail.com)Received: 3<sup>rd</sup> September 2018, Revised: 13<sup>th</sup> September 2018, Accepted: 20<sup>th</sup> September 2018**ABSTRACT**

*A scientific view means an opinion based on objective analysis and logical reasoning. It is entirely free from any personal bias or prejudice against the subject matter on which the view is expressed. The philosophy of education interrogates the goals, forms, methods and meaning of education and addresses all the related philosophical nature of education. The philosophy of education is, thus, a two-sided coin with one side inward focusing on the parent discipline of philosophy and the other wide outward to educational practice. A networked environment in this context is inclusive of connected nodal networks, blended learning, distance learning, asynchronous / synchronous learning, computer supported collaborative learning, community of learning, teachers and students, interactive learning (between learners, between learners and teachers, between learners and content), co-creative, collaborative, inclusive spaces, participatory learning context and spaces, time on task, feedback mechanism (learner, group, country), learner analytics, and integrated tutoring systems. The degree of interaction between the learner and the technological tools presents the technology affordance worthy of exploration and investment in a learning environment. The modern scientific research-based teaching and learning educational paradigms can be enriched by incorporating Fostering Communities of Learning, Learning by Design, The neo-Piagetian Perspectives, Web-based Inquiry Science Environment (WISE), Cognitive Tutors, Direct Instruction, Higher Order Thinking Skills (HOTS) and Knowledge Building.*

**Key words:** Scientific View, Philosophy, Education

**ANALYTICAL EXPOSITION**

The philosophy of education interrogates the goals, forms, methods and meaning of education and addresses all the related philosophical nature of education. A philosophy of education may be considered to be a statement (or set of statements) that identifies and clarifies the beliefs, values and understandings of an individual or group with respect to education. The philosophy of education is, thus, a two-sided coin with one side inward focusing on the parent discipline of philosophy and the other wide outward to educational practice. This philosophy of education now faces challenges from a modern networked environment driven by the rapid advancements and transformations of information and communication technologies (ICTs). A networked environment in this context is inclusive of connected nodal networks, blended learning, distance learning, asynchronous/ synchronous learning, computer supported collaborative learning, community of learning, teachers and students, interactive learning (between learners, between learners and teachers, between learners and content), co-creative, collaborative, inclusive spaces, participatory learning context and spaces, time on task, feedback mechanism (learner, group, country), learner analytics, and integrated tutoring systems (Kabanda, 2015). The degree of interaction between the learner and the technological tools presents the technology affordance worthy of exploration and investment in a learning environment. An affordance is often taken as a relation between an object, or an environment, and an organism that affords the opportunity for that organism to perform an action (Kabanda, 2014a). Affordances are the interactions between users and tool, i.e., the perceived and actual properties of an object that determine how it could possibly be used. The tool prompts, guides, or constrains the users depending on their previous experiences (Salomon, 1990). Open and distance learning (ODL) is aimed at bridging the time, geographical, economic, social, and educational and communication distance between student and institution, student and academics, student and courseware and student and peers. It focuses on removing barriers to access learning, flexibility of learning provision and student centeredness (<http://www.zou.ac.zw/aboutus/why->

odl). Developments in the distance education space for contact, dual mode and dedicated open and distance learning (ODL) institutions show growth opportunities in enrollments and a huge appetite for e-learning programmes of various shapes and sizes often offered through online, blended form or face-to-face (Kabanda, 2014b). Distance education policy at various institutions is going through an evolutionary process with a desire to introduce and sustain high quality programmes. My model for ODL consists of the following learning/ education paradigms of the ODL delivery mode:

1. Constructivism – generate and learn from own experiences
2. Constructionism - that individual learners construct mental models to understand the world around them
3. Collaborative Learning – students learn from one another
4. Creativity Stimulation – use of creative thinking in challenging situations
5. Protagonist – the main character in a movie or learner never dies
6. Formal and informal spaces are used in ODL
7. Cognitivism –Cognitivist Learning Perspective, Information Processing, Schema, and Mental Models
8. Behaviorism - assumes a learner is essentially passive, and will be shaped through positive or negative reinforcement
9. Experiential learning - Experiential learning is about the learner experiencing things for themselves and learning from them, I.e. learning through experiences
10. Humanism - Humanism is an approach that believes learning is seen as a personal act to fulfill potential.

The philosophy of education is concerned about the aims, Evaluation, Authority of Institutions and teachers, social justice, rights of students and parents, the character of educational ideals such critical thinking, ethics, teaching, learning and curriculum. The curriculum is a function of epistemology and the philosophies of the various curriculum subjects. This influences what subjects or topics are taught, how they are taught, the supporting beliefs and values that are taught, both implicitly and explicitly, within and around the core curriculum.

#### **CRITICAL CONTEXT**

1. The dual nature of philosophy of education works on both sides of the traditional divide between theory and practice. This has implications in epistemology, metaphysics, ethics and political philosophy. There is, therefore, need for clarity and informed valuation. An educational philosophy is a personal statement of a teacher's guiding principles on education-related issues. It is my considered view that the philosophy of education be enriched with the following diverse research-based learning and teaching paradigms:
2. Fostering Communities of Learning (Brown & Campione, 1996; Brown & Campione, 1990) is a constructivist approach in which teachers help students discover important curricular concepts framed by the students' own ideas and questions. Learning routines centre on learning by discovery and prominently feature collaborative learning such as by reciprocal student-student teaching in heterogeneous groups.
3. Learning by Design (Kolodner and Crismond, 2014) is an inquiry-based science learning programme based on case-based reasoning models that describe how learning activities can be organized in such a way that students make experiences from which they can draw during later problem solving.
4. The neo-Piagetian Perspectives (Moria, *et al.*, 2008) describes developmental changes in children's thinking and the kinds of experience that are necessary to progress to more advanced developmental stages in specific cognitive domains, such as sense for numbers and space. Like Piaget, neo-Piagetian theorists take a constructivist approach to cognitive development, are broad in scope, and assume that cognitive development is divided into stages with qualitative differences. Unlike Piaget, however, they define the increasing complexity of the stages in accordance with the child's information processing system, rather than in terms of logical properties.

5. Web-based Inquiry Science Environment (WISE) (Slotta, 2002) is an internet-based adaptive learning environment in which principles of knowledge integration are put into practice during on-line collaborative science inquiries. The Web-based Inquiry Science Environment (WISE) is a free on-line science learning environment for students in grades 4-12. In WISE, students work on exciting inquiry projects on topics such as genetically modified foods, earthquake prediction, and the deformed frogs mystery. Students learn about and respond to contemporary scientific controversies through designing, debating, and critiquing solutions, all via the internet. (<http://wise.berkeley.edu/webapp/index.html;jsessionid=9D944035522DABF35EE7D1BE513ACA87>)
6. Cognitive Tutors (Koedinger & Corbett, 2006) are intelligent adaptive software programmes that provide students with scaffolded teaching, feedback and assistance in response to their performance. Performance is analysed by comparing current student behaviour to ACT-R models (Anderson, Corbett, *et al.*, 1995) of typical learning trajectories, which are formulated in terms of successive sub-goals and production-rules.
7. Direct Instruction (Ewing B., 2011) is intended to improve and accelerate learning by means of clear and concise scripted direct instruction by the teacher and high rates of student success during scaffolded practice aimed at active involvement of all students (e.g., signalled choral responding) and a minimum number of errors.
8. Higher Order Thinking Skills (HOTS) (Pogrow, 1996) is a compensatory programme during which students engage in Socratic dialogues about ideas and strategies to solve game-based problems on the computer. It is designed to provide students with extensive practice in using and verbalizing key general thinking skills such as meta-cognition and inference making. HOTS (Higher Order Thinking Skills) is a creative program (combining the use of computers, drama, Socratic dialog, and a detailed curriculum) to build thinking skills of educationally disadvantaged students in grades four through seven. HOTS learning activities help students realize what thinking and persevering can accomplish. Principals can help by carefully selecting teachers and students.
9. Knowledge Building (Scardamalia & Bereiter 2006) is a constructivist teaching approach which places strong emphasis on the creation of community knowledge as the driving force behind activities. It frequently uses a software environment in which the users can continuously improve, organize and integrate elements of the group knowledge.

The components of the preferred Teaching Philosophy Statement includes the following:

- Educational purpose and learning goals for students ! teaching methods
- Methods for assessing students' learning
- Assessment of teaching
- Courses taught
- Teaching values, beliefs, and goals

The author believes the end goal or purpose of education is:

- content mastery
- engaged citizenry
- individual fulfillment
- critical thinking
- discovery and knowledge generation
- teamwork
- self-directed learning
- experiential learning

### INTEGRATIVE CONCLUSION

The philosophy of education is, thus, a two-sided coin with one side inward focusing on the parent discipline of philosophy and the other wide outward to educational practice. It interrogates the goals, forms, methods and meaning of education and addresses all the related philosophical nature of education. A philosophy of education may be considered to be a statement (or set of

statements) that identifies and clarifies the beliefs, values and understandings of an individual or group with respect to education. The philosophy of education can be enriched with the following learning and teaching paradigms:

- Fostering Communities of Learning
- Learning by Design
- The neo-Piagetian Perspectives
- Web-based Inquiry Science Environment (WISE)
- Cognitive Tutors
- Direct Instruction
- Higher Order Thinking Skills (HOTS)
- Knowledge Building

The components of a recommended Teaching Philosophy Statement may include educational purpose and learning goals for students; teaching methods; methods for assessing students' learning; assessment of teaching and Courses taught.

## REFERENCES

1. Brown A.L. and Campione J.C. (1990): Communities of learning and thinking, or a context by any other name. *Human Development*, 21, 108-125.
2. Brown A.L. and Campione J.C. (1996): Psychological theory and the design of innovative learning environments: on procedures, principles, and systems. In L. Schauble & R. Glaser (Eds.), *Innovations in learning: New environments for education* (pp. 289-325). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
3. Ewing B. (2011): Direct Instruction in Mathematics: Issues For Schools With High Indigenous Enrolments: A Literature Review. *Australian Journal of Teacher Education*, 36(5); <http://dx.doi.org/10.14221/ajte.2011v36n5.5>.
4. Kabanda G. (2014a): Technology affordances and diffusion of Mobile Connectivity and Applications in Zimbabwe. June, *Intl. J. Emerg. Technol. Adv. Eng.* 4(6):13-23, ISSN 2250-2459 (Online). [http://www.ijetae.com/files/Volume4 Issue6/IJETAE\\_0614\\_116.pdf](http://www.ijetae.com/files/Volume4 Issue6/IJETAE_0614_116.pdf).
5. Kabanda G. (2014b): Strategy for a sustained quality delivery mode of ODL programmes for massive enrolments and e-learning: The Case for Zimbabwe Open University. *International Journal of Higher Education*, Volume 3 Number 3, August 2014, pages 154-171, ISSN 1927-6044 (Print) ISSN 1927-6052 (Online), Copyright © Sciedu Press. <http://www.sciedu.ca/journal/index.php/ijhe/article/view/4791/3163>.
6. Kabanda G. (2015): "Pedagogic possibilities of ICTs and Technology Affordances in an increasingly networked environment in support of sustainable development", pages 126-136, *Journal of African Studies and Development*, May 2015, Volume 7, Issue 5, ISSN - 2141 -2189 , ©2015 Academic Journals, DOI: 10.5897/JASD2014.0319, Article Number: 3476BA153049, [http://www.academicjournals.org/article/article1432802742\\_Kabanda.pdf](http://www.academicjournals.org/article/article1432802742_Kabanda.pdf).
7. Koedinger K.R. and Corbett A. (2006): Cognitive Tutors: Technology Bringing Learning Sciences to the Classroom. In R.K. Sawyer (Ed.), *The Cambridge handbook of: The learning sciences* (pp. 61-77). New York, NY, US: Cambridge University Press.
8. Kolodner J.L. and Crismond D. (2014): Learning by Design™: Promoting Deep Science Learning Through A Design Approach. [www.researchgate.net/publication/255574788](http://www.researchgate.net/publication/255574788).
9. Moria S., Marini Z. and Sheese R. (2008): Cognitive Development: Neo-Piagetian Perspectives. <https://www.researchgate.net/publication/264549863>.
10. Pogrow S. (1996): HOTS: Helping Low Achievers in Grades 4-7. *Principal*, v76 n2 p34-35 Nov 1996, ISSN: ISSN-0271-6062, <https://eric.ed.gov/?id=EJ534034>.
11. Salomon G. (1990): The computer lab: A bad idea now sanctified. *Edu. Technol.* 30: 50-52.
12. Scardamalia M. and Bereiter C. (2006): Knowledge building: Theory, pedagogy, and technology. In K. Sawyer (Ed.), *Cambridge Handbook of the Learning Sciences* (pp. 97-118). New York: Cambridge University Press.
13. Slotta J. (2002): Designing the Web-based Inquiry Science Environment (WISE). *Journal of Educational Technology*, Vol. 42, No. 5 (September-October 2002), pp. 15-20, Published by: Educational Technology Publications, Inc.; <https://www.jstor.org/stable/44428775>.

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