CODESRIA

HIGHER EDUCATION SUPPORT PROGRAMME

TITLE: Uses and Practices of ICT in education and training situations for solving complex problems.

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SUMMARY

Over the last few years, Gaston Berger University of Saint-Louis in Senegal has undertaken a dynamic process of diversification of its training offer and improvement of its pedagogical strategies. In this context, a Faculty of Educational Sciences was established to meet the growing need for competent workers in the field of education, training, social intervention in schools, management of education, research on comprehensive assessment of new paradigms in education based on our own experiences and oriented on our own challenges. These challenges generally revolve around various fractures such as exacerbated social, economic and technological divides which "accentuate disparities in development" (Guttman, 2003). How can we handle these challenges?

Therefore, we have thought of an innovative approach to educational technology rooted on the socio-constructivist theories of learning sciences: Knowledge Building (Scardamalia Bereiter & 2003) or Co-development of knowledge. Based on innovative approaches to advanced cooperation, this course seeks to reflect on the ways African students might participate in the overall reflection on the challenges facing our countries by implementing coherent and pragmatic education and training curricula in educational technology which can support the changing dynamics in which our states engage.

In this course, we also seek to re-examine the role of schools and higher education institutions in the way we rethink our challenges in terms of required skills in multifaceted information, and also in complex problem solving and knowledge generation which are essential skills for integration in the society of the future. Therefore, a work of transformations will be initiated among young people for the management and control of complex and multidisciplinary knowledge challenging our societies by using digital devices to collaborate (Knowledge building) to the resolution of complex problems inherent to the mutations of modern societies. In order to achieve this, we are considering a methodological approach based on the competence approach by an application of the principles that govern knowledge building (12 Principles of Knowledge Building) and through an iterative process based on the "Design based-Research "(DBR) (Brown, 1992).