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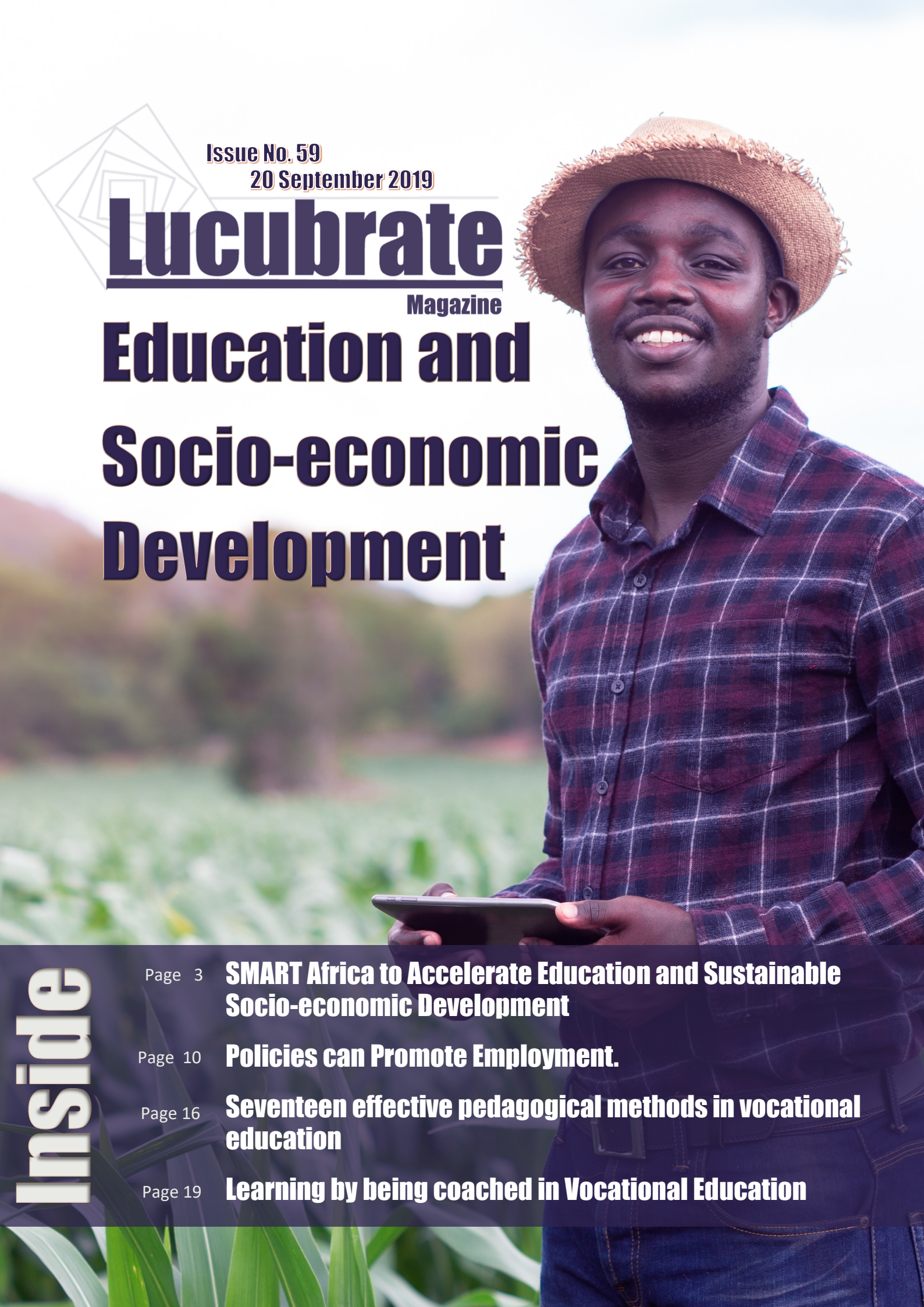
Lucubrate

Magazine

Education and Socio-economic Development



Inside

"I believe that the school must represent present life – life as real and vital to the child as that which he carries on in the home, in the neighborhood, or on the playground." *John Dewey*

LUCUBRATE MAGAZINE

The world is changing all around us. A skilled population is the key to a country's sustainable development and stability. We know that obtaining a quality education is the foundation to improving people's lives and sustainable development. To contribute to skill people over the next ten years and beyond, we must look ahead, understand the trends and forces that will shape our business in the future and move swiftly to prepare for what has to come. We must get ready for tomorrow today. We will make it possible for youth and young adults all over the world to gain skills they can use in the labour marked or to create their own jobs. We will make it possible for every person to have lifelong learning opportunities to acquire the knowledge and skills they need to fulfil their aspirations and contribute to their societies.

The Lucubrate project started in 2017 by NKB. The aim for the project is to become one of the world leader in knowledge transfer independent of the country you live in. The Lucubrate Magazine is a part of the Lucubrate project.

We recognize the creative power that comes from encouraging collaboration and innovation among a team of knowledgeable experts. This unique energy is our greatest competitive advantage in the world marketplace.

- Our purpose is to bring Quality Education and Skills Everywhere.
- Our mission is to support education for building skills to all kind of businesses to create possibilities for jobs and make a lasting difference to people's lives. Globally. 24/7.
- To be the world leader in knowledge transfer across all borders.

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SMART Africa to Accelerate Education and Sustainable Socio-economic Development

By Karl Skaar

SMART Africa is a bold and innovative commitment to accelerate sustainable socio-economic development on the continent, ushering Africa into a knowledge economy through affordable access to broadband and usage of information and communications technologies.

African Farmer stand in the green farm holding a tablet, by arrowsmith2

The Start of the Idea

Paul Kagame, President of the Republic of Rwanda, and Dr Hamadoun Touré, then the Secretary-General of the International Telecommunication Union (ITU) created the idea. They started in 2013 where they organized a summit to develop concrete steps that would move the continent as a whole into

Karl Skaar, Editor

Is a highly successful professional, with a high degree of entrepreneurial flair. Among the many different roles, he is the chief editor of the Lucubrate Magazine.

Paul Kagame, President of the Republic of Rwanda (Photo: The Guardian)

the 21st century of Information Communication Technology (ICT) development.

More than 1200 delegates attended the summit. The delegates represented many states and governments, top executives of major global brands from the private sector, policymakers, academics, and civil society representatives.

The Declaration of Policy and Aims

The Alliance was charged with developing continent-wide goals and best practices for the implementation of Smart Africa. Most importantly, the Smart Africa Manifesto now has been endorsed by all governments of the African Union, extending its reach beyond the seven original signatories to all 53 African countries.

The main idea of the Alliance is stated in the Smart Africa Manifesto. The Manifesto has five principles or guidelines:

1. To put ICT at the centre of our national socio-economic development
2. To improve access to ICT especially Broadband
3. To improve accountability, efficiency and openness through ICT
4. To put the Private Sector First
5. To leverage ICT to promote sustainable development

The objective of this partnership is to promote the SMART Africa agenda through three key interventions:

- Support implementation of the SMART Africa Initiative
- Monitor and Evaluate the implementation of the Smart Africa Initiative
- Promote the SMART Africa agenda

Team of bussines people debating during a work meeting. Photo: JonoErasmus

Private Sector as a Part of SMART Africa

Perhaps the most interesting development was the attention given to the private sector. African leaders agreed to put the private sector first. They reaffirmed the unique ability of the private sector to increase investment, drive job creation, increase productivity, and foster innovation. They also resolved to sustain efforts to turn Africa from being largely a passive consumer to becoming a producer of ICTs, by increasing the number of local innovation hubs. (1)

The Alliance also is helping to raise funds from development partners and the private sector to implement programs in participating countries. Lastly, the Alliance has established a framework to evaluate the progress made in the implementation of the Smart Africa initiative. (1)

Do4Africa is an Example in the SMART Africa Concept

Do4Africa or Digital Observer for Africa is a platform that identifies and lists innovative and digital projects in Africa. Furthermore, the platform collects open datasets relating to the African continent. It is a game-changing platform that facilitates the sharing of high-quality and up-to-date data on the technical and social innovations across Africa. The platform is built on 3 core values(2):

- common interest,
- collaboration,
- open datasets.

Do4Africa is destined to be driven by a growing community of entrepreneurs, innovators, investors, students and developers. The mainstream platform incorporates all types of digital projects, whether they were created by governments, companies, startups, NGOs, etc...

Creating a Digital African Community

By bringing together investors, innovators and project holders, Do4Africa is a platform that promotes innovative projects and therefore helps contribute to economic development.

Do4Africa catalogues projects that have a digital and innovative dimension. Projects are classified in categories such as digital infrastructures, e-government, e-education, smart economy, smart environment, social innovation, e-health and smart city.

The collaboration between Tactis and Smart Africa around the platform aims to help share and spread best practices on the continent, to promote a higher level of open datasets and to accelerate digital transformation in Africa (2).

Girls doing homework on a computer. Photo: Adobe Stock

Education for all Through Information and Communication Technology (ICT)

The International Investor Magazine (3) is pointing out how SMART Africa can make a change in education for African people. The magazine focuses on the impact of using ICT in education like:

- what is learned
- how students learn
- when and where students learn
- who is learning and who is teaching

(The impact of ICT over the last decades has been enormous and the way ICT sectors operate today is vastly different from the ways they operated in the past. The role of ICT in education as we progress into the 21st century is hugely important and will continue to grow. When one looks at education through ICT in Africa, the change has been slower than other sectors have experienced.

Education for all through ICT will have a strong impact on what is learned, how it is learned, when and where learning takes place, who is learning and who is teaching. In the following, we will look into that area and its impact.

The impact of ICT on what is learned

For many years, curricula in schools across Africa have been designed around textbooks. Teachers have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content. Now curricula promote competency and performance, starting to emphasise capabilities and to be concerned more with how the information will be used than with what the information is.

The impact of ICT on how students learn

Just as technology is influencing and supporting what is being learned in schools and universities, so too is it supporting changes to the way students are learning. There are particular forms of learning that are gaining prominence in universities and schools, such as the use of the internet as an information source. Internet users are able to choose the experts from whom they will learn.

The impact of ICT on when and where students learn

ICT applications provide many options and choices and many institutions are now creating a competitive edge for themselves through the variety of choices they are offering students.

The impact of ICT on who is learning and who is teaching

Through the affordances and capabilities of technology, today we have an expanded pool of teachers with varying roles who are able to provide support for learners with a variety of flexible settings. Learners and teachers are free to participate and provide learning/teaching activities when time permits, this freedom has greatly increased the opportunities to schedule people's activities.

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2. Tactis and Smart Africa launch the Do4Africa platform to boost digital transformation projects in Africa, Tactis 14 May 2019 (http://www.tactis.fr/en/)
3. Smart Africa And The Beginning Of A New Era, International Investor Magazine 27th May 2019

Policies can Promote Employment.

The transition to a green economy will inevitably cause job losses in certain sectors as carbon- and resource-intensive industries are scaled-down, but they will be more than offset by new job opportunities.

"Greening with jobs" (1) focuses on changes in the society and changes in jobs the next ten-fifteen years.

Complementary policies can promote employment and mitigate the effects of climate change

The transition to low-carbon, resource-efficient economies will lead to changes in the occupational structure of the economy, with some jobs being destroyed and others created during the transition. Jobs are also likely

Lucubrate Magazine highlights some of the main suggestions from the document "Greening with jobs", World Employment Social Outlook 2018.

to be transformed, requiring a skills transformation.

When seen in this light, it may seem that jobs are passively moulded by the transition. But in practice jobs, and particularly green jobs can act as a catalyst for the transition to a green economy, and can be considered a policy objective in themselves.

Green jobs are defined as follows: they reduce the consumption of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution, protect and restore ecosystems and enable enterprises and communities to adapt to climate change. In addition, green jobs have to be decent (2). They can be found in any economic sector and any enterprise, including the environmental goods and services sector. The rural sector offers many opportunities for the creation of green jobs and particularly green jobs that further the traditional practices of indigenous and tribal peoples, which can advance sustainability. Importantly, green jobs can enhance the transition to a green economy.

Photo: Sun Energy

Although climate change mitigation measures may result in short-term employment losses, their negative impact on GDP growth, employment and inequality can be reduced through appropriate policies. Climate change mitigation could bring down slightly the share of women in total employment unless action is taken to reduce occupational segregation, as employment gains associated with the 2°C scenario are likely to create jobs in currently male-dominated industries (renewables, manufacturing and construction). Coordination between the social partners can reduce inequality and promote efficiency gains, while coordination at the international level is necessary to achieve meaningful cuts in emissions. Certain mitigation policies (such as limiting the increase in temperature, for example by promoting renewable energy) may act as an incentive for enterprises to develop and adopt more efficient technology, thereby boosting employment in key occupations, as well as productivity. Adaptation policies (e.g. converting to climate-resilient agriculture practice) can also create jobs at the local level.

References:

1. Greening with jobs, WORLD EMPLOYMENT SOCIAL OUTLOOK, 2018, International Labour Organization 2018

2. UNEP Background Paper on Green Jobs 2008

Expansive Apprenticeship

In the thinking about workplace learning, Lorna Unwin (6) has helpfully introduced the notion of the 'expansive apprenticeship'. This idea is the development of Yrgö Engeström's (7) ideas regarding the tension between expansive (pro-learning) and restrictive learning environments. A restrictive apprenticeship is found where organisations want to produce profitable workers as quickly and cheaply as possible. Naturally, this does not facilitate the learner to inquire and reflect. To develop real-world problem-solving abilities in learners, they need to be given more 'expansive' experiences in order to be able to contribute to business success and to develop worthwhile careers. Unwin proposes that education providers (and, accordingly, this must be considered when developing vocational pedagogy) take into account the 'dual identity of worker and learner, and commit themselves to a model of apprenticeship that has the pedagogic, social and economic value'.

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Constructivist Approaches to Learning

Real-world problem-solving is at the heart of what is referred to as constructivist approaches to learning. John Savery (8) usefully summarises these to include the creation of authentic tasks which are anchored to the real world, high levels of ownership by learners of the tasks they undertake, learning environments which support and challenge learners' thinking, and opportunities for learners to take responsibility as they develop alternative ideas and strategies.

Picture: Raymond Thill

Real-World Problem-Solving is Core to any Vocational Pedagogy

Real-world problem-solving is core to any vocational pedagogy. But, depending on the nature of the vocational education and on the contexts in which it takes place, it may take many forms. It also requires structured processes for expert feedback and learner reflection.

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Seventeen effective pedagogical methods in vocational education.

There are many ways of learning and training. The list of seventeen methods gives some indication of good pedagogy in vocational education.*

The effectiveness of all education systems depends critically on the quality of teaching and learning in the classrooms, workshops, laboratories and other spaces in which the education takes place. While outstanding teachers (including lecturers, trainers, tutors, and coaches), engaged students, well-designed courses, facilities which are fit for purpose, and a good level of resources are necessary for any kind of educational provision is to be excellent, they alone are not sufficient. The real answers to improving outcomes from vocational education lie in the 'classroom', in understanding the many decisions 'teachers' take as they interact with students.

Photo: Adobe Stock

** We are presenting a list of seventeen methods of good pedagogy in vocational educationIn in this article. We will only elaborate one of the items on the list in this present magazine. However, you can find all items on the list on the article blog for Lucubrate Magazine.*

When vocational education and training systems were initially created, discussions about vocational pedagogy were likely to be derived from the principles of general education. Even today, there is a sense in which vocational pedagogy sits in a no man's land between what is taught, in colleges and by training providers, and what is needed in the workplace. And too often employers complain that the content taught does not connect closely enough with the requirements of a particular occupation.

Photo: Adobe Stock

There are many different approaches to constructing learning in vocational education. The report "How to teach vocational education: A theory of vocational pedagogy" (1) is listing a number of approached for effective pedagogy in vocational education:

1. Learning by watching
2. Learning by imitating
3. Learning by practising ('trial and error')
4. Learning through feedback
5. Learning through conversation
6. Learning by teaching and helping
7. Learning by real-world problem-solving
8. Learning through enquiry
9. Learning by critical thinking
10. Learning by listening, transcribing and remembering
11. Learning by drafting and sketching
12. Learning on the fly
13. Learning by Reflecting Learning by being coached
14. Learning by competing
15. Learning through virtual environments
16. Learning through simulation and role play
17. Learning through games

The list can probably be much longer. There are many ways of learning and training. However, the list gives some indication of good pedagogy in vocational education.

References

(1) Bill Lucas, Ellen Spencer and Guy Claxton: How to teach vocational education: A theory of vocational pedagogy, The City & Guilds Centre for Skills Development (December 2012)

Learning by being coached in Vocational Education *

Coaching is a core element of executive training these days and has a distinguished history in sports. It has a role to play in promoting excellent performance in the workplace, through its usefulness in a variety of vocational learning situations (1).

There is a body of coaching knowledge that relates to 'sports psychology' which is of potential interest in the creation of vocational pedagogy. Given that much vocational education depends on the quality of coaching relationships, literature about disciplines such as sports science have much to offer. Aidan Moran's (2) work on the psychology of sport is one example of, for example, goal-setting, and the relationship with states of mind and the use of mental imagery. The apprenticeship is perhaps the ultimate model of coaching in action.

Photo: Adobe Stock

** The article is from the report "How to teach vocational education: A theory of vocational pedagogy" by Bill Lucas, Ellen Spencer and Guy Claxton, The City & Guilds Centre for Skills Development (December 2012)*

Within the construction workforce, its ageing profile (3) lends an urgency to the incentivisation of mature, experienced, workers to participate in the coaching and mentoring of a younger workforce. Within the body of knowledge on sports coaching, the practise of coaching is recognised as being a complex activity, because of the interaction between people and their dynamic environment (4).

Based on this (4), the following points relate to the functions fulfilled by a coach that helps the learner to learn:

- Planning
- Dictating or facilitating
- Supporting emotionally
- Talking through failures
- Focusing on performance
- Keeping it 'fun'
- Encouraging competition

In the following, we will look into these points.

Planning

Planning in coaching World Champion, and 2012 Olympic diving hopeful for the British team, Tom Daley, coach Andy Banks helped his protégé plan back-wards, thinking through 'this is where he needs to be, this is where we are now, so what are we going to do now to achieve that…'.

Dictating or facilitating

Banks also describes his role through the life of a young athlete, beginning as a 'dictator … because they haven't got a clue about anything' and ultimately becoming the 'advisor' and 'facilitator'. Even within this progression, however, there must be scope for flexibility, with the coach switching between the role of dictator and facilitator as necessary, to get the best out of the learner.

Friendly teens writing short structure plan of lecture.
Picture: Adobe Stock, pressmaster

Supporting emotionally

Supporting emotionally is the ability to control emotions comes with maturity. Young people, in particular, may need help on an emotional learning journey, especially where the journey is high stakes and they are investing all into developing their skills for this one vocational area. Banks described the importance of realising a downward spiral, and the use of 'happy thoughts' and breaks in coaching Daley.

Talking through failures

Banks describes the way he helped Daley understand why and where he had gone wrong, and the importance – from a psychological point of view – of 'focusing on process and totally ignoring everything else that's going on'.

Focusing on performance

Performance can be controlled; the outcome cannot. Being trustworthy: maintaining mutual trust and respect.

Keeping it 'fun'

Ensuring that learners want to be there.

Encouraging competition

Facilitating competitions and fostering the competitive spirit in order that learners might challenge one another and their skills might be refined in a scenario of 'doing it for real'.

Encouraging reflection

Banks suggests that others wanting to follow in his coaching footsteps should learn to coach by gleaning ideas about how to coach from as many sources as possible, believing that all information 'is worth assimilating' whether or not it ends up being disregarded. He suggests this knowledge should be taken from a broad pool of experts, beyond the immediate field.

Coaching is important part of vocational education

Coaching is a critically important part of vocational education and just how it can be combined with other methods is an important question in the creation of vocational pedagogy.

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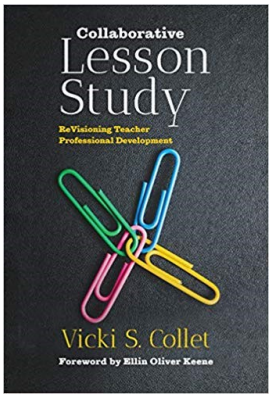
4. Dixon, M., Lee, S. & Ghaye, T. (2012). Coaching for Performance: An interview with Olympic diving coach, Andy Banks. *Reflective Practice: International and multidisciplinary perspectives*, 13(3), 339-354.

Collaborative Lesson Study

By Vicki S. Collet



Collaborative Lesson Study: Revisioning Teacher Professional Development

Discover how Lesson Study benefits both students and teachers. Unlike scripted curricula that strip teachers of professional decisionmaking, Lesson Study values teachers by expecting them to be agents of improvement in their own classrooms. This resource empowers readers to oppose reform efforts that minimize teacher agency by offering an evidence-based approach to teacher-led instructional improvement. The text provides structures for attending to students' interests, knowledge, and values when planning, teaching, reflecting, and revising instruction. It also shows educators how to use Lesson Study to design culturally responsive, differentiated instruction for the K-12 classroom. Use this step-by-step guide to develop professional learning communities; increase teacher motivation, efficacy, and knowledge; and support improvement adapted to local contexts.

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