



Development and Delivery of Blended School Leadership Professional Development in Africa

A practice brief

**Development and Delivery of Blended School Leadership Professional
Development (PDs) in Africa**

A Practice Brief

Developed by:

The African Centre for School Leadership (ACSL)

September 2024

Authors

This practice brief was written by VVOB in Rwanda as part of the African Centre for School Leadership (ACSL) initiative in partnership with the Mastercard Foundation.

Acknowledgements

This publication was produced by VVOB as part of the African Centre for School Leadership (ACSL) initiative in partnership with the Mastercard Foundation. The authors benefited from the review and edits from the staff of VVOB (Fay Hodza, Jef Peeraer, Chantal Kabanda Dusabe, Jocelyne Cyiza Kirezi, Lieve Leroy, Loran Pieck and Etienne Ntawigira), VVOB in Kenya (Louisa Kadzo), Kenya Education Management Institute (Martin Kisilu) and Institute for Educational Planning and Administration (Michael Boakye-Yiadom). Furthermore, this practice was validated by other key partners of ACSL such the Association for the Development of Education in Africa (ADEA), Education Sub Saharan Africa (ESSA), University of Rwanda College of Education (UR-CE), Rwanda Basic Education Board (REB), Forum for Women Educationalists (FAWE), and Ministry of Education of Rwanda and Kenya, during a consultative workshop that took place in Naivasha, Kenya in February 2024.

Suggested citation:

VVOB – education for development (2024). *“Development and Delivery of Blended School Leadership Professional Development (PDs) in Africa: A Policy Brief”*. August 2024. VVOB – education for development.

Disclaimer

This work is a product of staff of VVOB under the African Centre for School Leadership initiative. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of VVOB, its Board of Directors, or the funding donors. VVOB does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of VVOB concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

This publication contains references to other publications and websites. VVOB cannot be held responsible for current or future content of these publications and websites, nor for the content of external publications and websites that refer to this publication of VVOB.

This publication was produced in partnership with the Mastercard Foundation, Kenya Education Management Institute (KEMI) and the Institute for Educational Management and Planning (IEPA). Its contents are the sole responsibility of VVOB and do not necessarily reflect the views of these actors. The Mastercard Foundation cannot be held responsible for the content of this publication.

About VVOB and the African Centre for School Leadership

[The African Centre for School Leadership \(ACSL\)](#) is a coalition of partners in Africa committed to the promotion of effective school leadership by bringing together organisations that offer professional development services, research, and policy advice on effective school leadership. The ACSL coordinated by VVOB – *education for development*, the Association for Development of Education in Africa (ADEA), and Education Sub-Saharan Africa (ESSA).

[VVOB – education for development](#) is an international non-profit organisation with over 40 years of experience in quality education. Through capacity development, VVOB provides support to ministries of education in Africa, Asia and South America to improve (initial) professional development of teachers and school leaders in early childhood, primary, general secondary, and technical and vocational education.

Table of Contents

About this practice brief	8
Introduction and baAckground	9
What is a blended and/or remote PD?	9
What is the ADDIE Instructional design model?	10
Why the ADDIE model?.....	11
Phases of the ADDIE model	12
Phase One: Analysing the context and identifying the PD needs and expected outcomes	12
Phase Two: Designing and developing the blended PD trajectories.	14
Phase Three: Implementing the chosen PD trajectory.	15
Phase Four: Evaluating the blended PD trajectory.	17
Conclusion.....	18
Recommended Readings	20

Table of figures and tables

<i>Figure 1: Generic ADDIE process.</i>	<i>10</i>
<i>Figure 2: Overview of the design and development process of blended PD</i>	<i>12</i>

About this practice brief

Purpose: To provide a guide to support providers of school leadership professional development (PD) services with research-based information on how to develop and implement blended and remote PD.

Audience: Providers of PD services for school leaders in Africa.

When to Use: When a PD provider is initiating a new PD offering(s) for school leaders or reviewing an existing one(s).

Main messages

- Professional development (PD) for school leaders is a crucial ingredient for the creation and empowerment of better performing school leaders, who in turn create an improved culture of teaching and learning in schools.
- The practice brief provides research-based guidance for designing and implementing blended and remote professional development (PD) programmes for school leaders in Africa.
- The ADDIE instructional design framework is recommended for its iterative approach, enabling the refinement and scaling of successful PD programmes.
- Case studies from Ghana, Kenya, and Rwanda demonstrate the effective application of the ADDIE framework in developing and delivering blended PD programmes.
- Collaboration between governments and PD providers is essential for achieving transformative outcomes.
- Addressing gender, equity, inclusion, cost-effectiveness, scalability, and sustainability is crucial in the design, development and delivery of school leadership PD.

Introduction and background

Professional development (PD) for school leaders is a crucial ingredient for the creation and empowerment of better performing school leaders, who in turn create an improved culture of teaching and learning in schools (Bush et al., 2022; Gurmu, 2020; Paterson, 2002). Although there is no debate on the importance of providing professional development services and support to school leaders, many governments and PD providers often struggle with identifying, developing, and implementing the most effective and sustainable PD modalities and trajectories (Morrison, 2010; Paterson, 2002). Yet, there have been some recent developments in the field that show that remote and blended PD modalities combining practice and theory does help to reach a bigger number of school leaders. Blended/remote modalities also lead to sustainable changes in school leaders' knowledge, skills, attitudes, leading to changes in leadership practices, which results in improved learning outcomes for teachers and learners (Peterson, 2002; Uworwabayeho et al., 2020). Hence, this practice brief is designed to provide a short and concise guide to support PD providers to develop and deliver effective school leadership blended PDs through the tried and tested ADDIE (Analyse, Design, Develop, Implement and Evaluate) framework (Molenda, 2003), considering all the critical factors for success.

The need for this practice brief is built on the insights from research, workshops, and reports that were conducted on school leadership in Africa (Kabanda -Dusabe, 2022; Bush et al., 2022 & Kirezi & Peeraer, 2023). These articles and reports highlight the importance of school leadership development for school leaders, particularly through blended and remote modalities.

What is a blended and/or remote PD?

A blended PD trajectory combines in person and remote modalities. Remote can mean online or offline (e.g. SMS based learning, phone calls, paper worksheets). Blended learning is often described as the best of the two worlds – maximising the advantages of in-person and remote modalities. It allows the learners to gain knowledge remotely and practice the skills and competencies learnt in-person or vice versa (Anderson, 2021; McKenna et al., 2020). It also enables low-cost professional development at scale (Cilliers et al., 2021). While the advantages for blended learning are well known, PD providers for school leaders must also guard against potential pitfalls such as increasing

digital inequities based on gender, age, and geography. Other pitfalls that must be managed and avoided are reduced motivation, engagement, and effectiveness due to technophobia, and poor facilitation skills of the facilitators (Cilliers et al., 2021).

To get the best out of blended and remote PDs for school leaders, a systematic, co-creative and inclusive instructional design process (Uworwabayeho et al., 2020; VVOB - education for development, 2023) will be required. Although there are various other instructional design models (Gupta, 2023), the ADDIE model is recommended for reasons that will be discussed in the section below.

What is the ADDIE Instructional design model?

The ADDIE model is a systematic approach to instructional development and is synonymous with instructional systems development (ISD) (Molenda, 2003). The model seems not to have a single author, but rather it evolved informally through oral tradition. What the majority of authors agree on is that ADDIE refers to the major processes that comprise the generic ISD process: Analysis, Design, Development, Implementation and Evaluation (Molenda 2003; Basu, 2018; Williams, 2014 & Gupta, 2023). There is also a widely shared understanding that although these processes are presented in a sequential and linear way in many publications, in practice they are iterative as depicted in the Figure 1 below:

Figure 1: Generic ADDIE process.

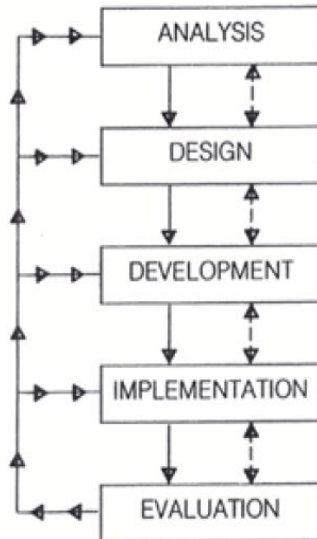


Figure 1. An ISD Model featuring the ADDIE processes

Source: Grafinger, Deborah J. 1988. *Basics of Instructional Systems Development*. INFO-LINE Issue 8803. Alexandria, VA: American Society for Training and Development.

Why the ADDIE model?

While the ADDIE model has been criticised by many for not incorporating learner input, lack of collaborative design, and limited manageability (Vejvodová, 2009; Allen, 2012 & Sites, 2012), the model is authentic, learner centric, and transformative (Basu, 2018). In fact, the ADDIE set of criteria does have an inherent flexibility that may be applied to create a successful, efficient, and manageable process if used in a creative manner (Riecker 2012). The model is simple, effective, and easy to use (Molenda, 2003). Hence, the ADDIE model is recommended an appropriate model for developing and implementing blended PDs for school leaders in Africa.

The model relies on each stage being done in the ADDIE order but with a focus on reflection and iteration (Riecker, 2012. Basu, 2018). It gives PD service providers a streamlined and focused approach that provides feedback for continuous improvement. Furthermore, the work by Almomen et al. (2016) shows that the ADDIE model provides an established and useful structure for creating effective professional development programmes and ensures that appropriate learning needs of participants in PD programmes (e.g. in health and education) are met effectively. In their conclusion, Almomen et al (2016) noted that the evaluation phase of the ADDIE process provided feedback that

could lead to improvement in the PD programme's future iterations. Thus, this model is recommended because it has an in-built capacity to generate practical lessons to self-correct and create opportunities to amplify or scale positive transformative change. The following section delves deeper into the phases of the ADDIE model in a way that it can be applied in the development and delivery of blended school leadership professional development in Africa.

Phases of the ADDIE model

A guide on how to blend in-person and remote learning for the professional development of educators that was developed by VVOB - *education for development* and its partners - Aga Khan Foundation, BRAC IED, Plan International, Pratham, Right to Play, STiR Education, and VSO, identifies four phases of the ADDIE process (VVOB- education for development et al., 2023). These four phases are "Analyse and Identify", "Design and Develop", "Implement" and "Evaluate". These phases are similar to the five processes identified by Molenda (2003) and represented in Fig. 1 earlier in this document. The following section explains what each phase entails and zooms in on the design and development and implementation phases of blended PDs.

The design and development and the implementation phases are key for thinking through combining in-person and remote aspects of a professional development trajectory in blended modality. Illustrative examples from the Institute for Educational Planning and Administration (IEPA) in Ghana, Kenya Education Management Institute (KEMI) in Kenya, and the University of Rwanda- College of Education (UR-CE) in Rwanda are presented in short case studies to illustrate best cases, insights, and challenges in each of the selected ADDIE phases. We specifically draw lessons of developing and delivering blended school leadership PDs from the school leadership country mapping exercises that were conducted in Ghana, Kenya, and Rwanda. From the mapping exercise, best practices and gaps in school leadership were identified.

Phase One: Analysing the context and identifying the PD needs and expected outcomes

The 'Analyse and Identify phase' is the foundation of any blended PD process. The purpose of this stage is to get a clear understanding of the context, the participants, and their learning needs. In this phase, the following steps should be followed: know your target group, analyse the context, and identify learning outcomes. These processes enable the provider to determine the competencies

required from participants and facilitators, factors that may hinder or enable an effective blended PD trajectory, explore the factors that can motivate participants and facilitators, and decide on the explicit learner experiences required to generate meaningful development and growth of the participants. Furthermore, through this process, the PD provider can determine if the PD is a priority for the government, other PDs already in place, available resources, laws, policies, standards, and strategies that can aid the effective design and implementation of PDs. The case of the Institute for Educational Planning and Administration (IEPA) in Ghana presented in Box 1 below demonstrates how the institution effectively undertakes the “analyse and identify” phase of ADDIE when setting up a blended PD initiative.

Box 1

The Institute for Educational Planning and Administration (IEPA) was established through a joint agreement between the Government of Ghana and UNESCO/UNDP. Its initial mandate was to enhance capacity in educational planning and administration for both experts and non-experts, as well as to provide research to inform educational policy formulation and implementation. The professional development programmes offered by IEPA were developed based on recommendations from the government and needs assessments conducted by IEPA, which allowed for a tailored approach to identify and address gaps in the education sector.

IEPA has professional development programmes for school leaders, educational planners, and administrators. To determine the form and shape of the professional development programmes, the Institute conducted a national participatory assessment that involved focus group discussions with school leaders, teachers, and government education agencies such as the Ghana Education Services (GES), the National Council for Curriculum and Assessment (NaCCA), the National Schools Inspectorate Authority (NaSIA). This study recommended various methods for delivering blended professional development offerings to the targeted groups in the form of workshops, conferences, short courses, and seminars to provide a frame within which the knowledge, skills, and attitudes acquired by educational leaders are reinforced through the integration of theoretical knowledge and artistry.

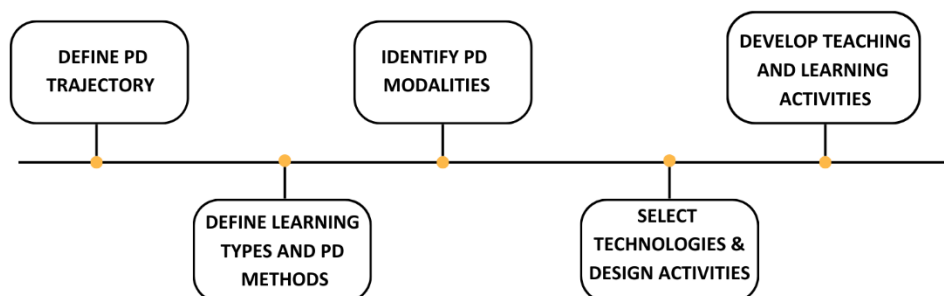
The study also showed that these PDs would focus on improving the skills of practitioners in addressing problems of practice through a blended mode of delivery. These programmes would

also aim to enhance participants' skills and efficiency in their roles. As a result, all programmes have now been developed and are delivered in ways that enable participants to develop competencies relevant to their specific needs, as the programmes could be both demand and supply driven. It was also established that effective delivery of PDs could be hindered by factors such as mismatched participant needs, perceived imposition, lack of timely information, and conflicts with work schedules. Conversely, motivation arises when training objectives align with participant needs, such as fulfilling requirements for career advancement or licensure renewal. Therefore, all IEPA programmes have been designed in a way that addresses the PD participants practical needs and experiences, and the same time align with government priorities in the broader educational landscape, for example, strengthening leadership for the development and delivery of early childhood education (ECE).

Phase Two: Designing and developing the blended PD trajectories.

During this phase of formulating a PD trajectory, the provider must do the following: define the PD trajectory, decide on the learning types and methods, decide on PD modalities, and select supporting technologies and design activities as shown in Figure 2 below. This phase is important because it sets the foundation for achieving an optimal interaction between in-person and remote learning with bridging activities.

Figure 2: Overview of the design and development process of blended PD.



When the above steps are properly designed and developed, there will be coherence, variation and all learning outcomes will be addressed. Box 2 below provides a reflection of the process of designing and developing the blended diploma and certificate PD trajectory for school leaders in Rwanda.

Box 2

Rwanda embraced online learning in response to COVID-19, transforming in-person professional development programmes into a blended approach. The University of Rwanda – College of Education, Rwanda Basic Education Board, and VVOB redesigned two accredited PD courses on Effective School Leadership and Educational Mentorship and Coaching.

The blended model is based on the flipped classroom approach and combines interactive online self-study courses with practice-based in-person sessions. This shift to blended learning maximises the benefits of both modes, creating a scaffolded learning experience for participants. The redesigned approach also aims at cost-effectiveness, aligning with Rwanda's Ministry of Education's digital transformation agenda.

For the online component, a Moodle platform was selected as the technology to host and design the online courses, as this is the main platform used by the government and can be accessed both on a desktop or a mobile phone (through the Moodle app). The following principles were used to design engaging online courses: the online learning experience had to be motivating, authentic, active, accessible, memorable, and social. These quality statements informed the design process guiding further technology choices such as the use of forum discussions, interactive learning objects, and the development of captions and transcripts for all interactives, graphics, and videos. For the in-person sessions, facilitation plans were developed which unpack activating exercises school leaders can undertake to practice with their peers what they learnt in the online course. Bridging activities connect the online component with the in-person sessions by introducing short exercises which school leaders have to try out in their own school and which they further discuss with their peers during the in-person session to deepen their learning.

Phase Three: Implementing the chosen PD trajectory.

The implementation phase starts when the design team has finalised the design and development of the PD trajectory and is ready to pilot and implement it. The preparation of facilitators and

participants and the organisation of the learning environment is also crucial at this stage. It is also recommended to do a dry run and run a pilot before a full-fledged operation. Box 3 below highlights the key implementation success factors for a school leadership PD in Kenya.

Box 3

The INCREASE (Implementing National Curriculum Reforms through App-based Learning for school leaders in Secondary Education) programme has been implemented successfully in Kenya. In this project VVOB is partnering with and working through the Kenyan Ministry of Education and the Kenya Education Management Institute (KEMI) to strengthen their technical capacities to develop and implement a blended learning capacity development trajectory – involving in-person and online training – for school leaders. Key success factors in the implementation included:

1. Preparation:

- **Facilitator Training:** Facilitators were trained to manage three key components: moderating self-paced online learning, leading in-person sessions, and conducting live online sessions. They were prepared to foster engagement, encourage collaboration, and handle technical aspects like managing breakout rooms and providing feedback.
- **ICT Support Preparation:** ICT teams were essential for the programme's online components. They managed the Learning Management System (LMS), provided technical support for tools like Zoom, and organized mock sessions to familiarize participants with online tools. Standard Operating Procedures (SOPs) were also created to ensure consistent online session delivery.

2. Onboarding Process:

- **Participant Onboarding:** Participants were provided with Information, Education, and Communication (IEC) materials to guide them through the technical aspects of the course. They received training on LMS navigation, course progression, and assessment criteria. Clear instructions helped participants understand deadlines, assessments, and certification requirements.

3. Learning Environment Organization:

- **Blended Learning Design:** The learning environment was designed to integrate both in-person and online modalities. WhatsApp groups were used for communication, fostering community, and sharing resources. Additionally, online platforms provided spaces for

learners to collaborate and access essential learning materials, ensuring an engaging experience across all stages.

The INCREASE programme successfully empowered school leaders through a blended learning approach, with strong facilitator preparation, effective participant onboarding, and well-organized, supportive learning environments.

Phase Four: Evaluating the blended PD trajectory.

The analysis, design, development, and implementation of blended PD trajectories require significant time and resources. It is therefore crucial to monitor and evaluate the relevance, effectiveness, impact and sustainability of the PD solution or intervention that is being or was implemented (Haelermans et al., 2022). The results of the monitoring and evaluation exercises will help the PD provider to determine whether the results and outcomes of the PD warrant further investment to continue, scale or expand, or whether it is advisable to discontinue efforts and try a new approach. At this point, it is also possible to establish if the intervention addressed other cross-cutting issues of gender, equity, social inclusion, and other relevant considerations such as localisation and contextualisation of school leadership, including the decolonisation and Africanisation efforts. As highlighted earlier, failure to address these issues can negatively impact the blended PD programmes and ultimately make them ineffective.

Box 4 below provides an example of how the University of Rwanda- College of Education (UR-CE) and the Rwanda Basic Education Board (REB) make use of monitoring and evaluation data to generate lessons that have now led to sustainability conversations that are crucial for project institutionalisation and scaling.

Box 4

The implementation of the PD programme for school leaders (diploma and certificate courses) in Rwanda involves REB for PD oversight and UR-CE for training facilitation. Their collaboration aims to provide technical support to enhance the school leaders' capacity, and most importantly to ensure the quality and sustainability of the PDs. These agencies are engaged in PD evaluation

exercises through a series of activities such as the development of M&E tools, collection of data, analysing, and using evaluation data for PD improvement.

To support REB and UR-CE with these evaluation tasks, a digital data ecosystem was developed, built on the framework developed by Kirkpatrick & Kirkpatrick (2015), which states that an evaluation of a training programme (e.g., PD programme) should focus on four levels:

- Level 1 - Reaction: the degree to which school leaders react favourably to the PD.
- Level 2 - Learning: understanding whether the PD has increased the knowledge and competences of school leaders.
- Level 3 - Behaviour: the degree to which school leaders apply what they have learnt.
- Level 4 - Results: impact of the CPD on the overall (school) environment.

In addition to these four levels, an extra level has been added: Level 0 - Participation. This level studies the level of participation in the blended PD programme.

An example of how evaluation findings drive PD improvements is the variation observed in the index scores on Level 3 (Behaviour) and Level 4 (Results) across different participant groups. As trainers are linked to specific groups during the delivery of the PD programme, it was decided to strengthen the fidelity of implementation of the PD programme across groups by enhancing trainers' capacity to facilitate the blended PD programme and by rotating trainers over the various groups after each module of the PD programme, ensuring a more uniform delivery of the PD programme.

Conclusion

This practice brief provides a short and concise guide for government and their agencies to develop and deliver relevant, efficient, effective, impactful, and sustainable school leadership professional development at both country and regional levels. The brief strongly recommends government ministries and their agencies responsible for school leadership development to adopt the ADDIE framework in their quest to design, develop, implement, monitor, evaluate, and scale school

leadership PDs. Examples from Ghana, Kenya and Rwanda were used to demonstrate how the ADDIE model has been applied to create and deliver impactful blended PDs for school leaders in these countries. The lessons can be adopted by other African countries that wish to strengthen their school leadership development systems in a cost-effective, learner-centric, and sustainable manner.

Recommended Readings

Allen, M.W. & Sites, R. (2012). *Leaving ADDIE for SAM: An agile model for developing the best learning experiences*. Danvers, MA. American Society for Training and Development.

Anderson, A.B & Skrzypchak, A. (2021). Blended Learning: The Best of Two Worlds. Available at: <https://dkfoundation.org/assets/files/2010-Blended-Learning-Best-of-Both-Worlds.pdf>.

Almomen, R.K., Kaufman, D., Alotaibi, H., Al-Rowais, N.A., Albeik, M. and Albattal, S.M. (2016). Applying the ADDIE—Analysis, Design, Development, Implementation and Evaluation—Instructional Design Model to Continuing Professional Development for Primary Care Physicians in Saudi Arabia. *International Journal of Clinical Medicine*, 7, 538-546. <http://dx.doi.org/10.4236/ijcm.2016.78059>

Basu, R. (2018). Instructional design models: Benefits and Challenges. Sambodhi UGC Approved Journal, 4(1). Available at: https://www.researchgate.net/publication/352771683_Instructional_Design_Models_Benefits_and_Challenges.

Branch, R. M. (2009). *Instructional design: The ADDIE approach* (1st.;1st; ed.). Boston, MA: Springer-Verlag US. doi:10.1007/978-0-387-09506-6.

Bush, T. et al. (2022). School Leadership in Africa A Review of Empirical Research. Working Paper. African Centre for School Leadership. Available at: [acsl_working_paper_v0.0_20220327.pdf \(vvob.org\)](https://www.vvob.org/working-paper/v0.0-20220327.pdf).

Cilliers et al. (2021). Can Virtual Replace In-person Coaching? Experimental Evidence on Teacher Professional Development and Student Learning. RISE Working Paper Series. 20/050. https://doi.org/10.35489/BSG-RISE-WP_2020/050.

Garrison, D.R. & Kanuka, H. (2004). Blended Learning: Uncovering Its Transformative Potential in Higher Education. *Internet and Higher Education*, 7(2), 95-105, p. 96.

Grafinger, D.J. (1988). *Basics of instructional systems development*. INFO-LINE Issue 8803. Alexandria: American Society for Training and Development.

Gupta, D. (2023). 8 effective instructional design models in 2024. Available at: <https://whatfix.com/blog/instructional-design-models/>.

Gurmu, T. G. (2020). Primary school principals in Ethiopia: Selection and preparation. *Educational Management Administration & Leadership*, 48(4), 651681. <https://doi.org/10.1177/1741143219836673>.

Haelermans, C., Aarts, B., Smeets, C., Kirezi, J. C., & Cabus, S. J. (2022). The effectiveness of Peer-led and Trainer-led e-Learning Leadership Training for School Leaders: A Randomized Experiment in Rwanda. *International Journal of Educational Management and Development Studies*, 18–26. <https://doi.org/10.53378/352901>

Development and delivery of blended school leadership professional development (PDs) in Africa: A practice brief

Kabanda - Dusabe, C. (2022). Effective school leadership: A path towards institutionalisation. In WISE (2022). *Education Reimagined: Leadership for a New Era*. p. 38-39. Available at: <https://www.wise-qatar.org/app/uploads/2022/03/cse-wise-education-reimagined-leadership-for-a-new-era-final.pdf>.

Kabanda - Dusabe, C., Paeraer, J., & Hodza, F. (2022). *School Leadership in Africa: A Framework for Policy Development*. (Unpublished).

Kirezi, C.J., & Peeraer, J. (2023). Building a Consensus on School Leadership for Quality Education in Africa. Available at: <https://www.vvob.org/en/downloads/building-consensus-school-leadership-quality-education-africa>.

Larson, M. B. (2014). *Streamlined ID: A practical guide to instructional design*. New York: Routledge.

Leithwood, K & Jantzi, J. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration*. 38. 112-129. doi:10.1108/09578230010320064.

McKenna, K., Gupta, K., Kaiser, L., Lopes, T., & Zarestky, J. (2020). Blended learning: balancing the best of both worlds for adult learners. *Adult Learning*, 31(4), 139-149.

Merrill, M. D., Drake, L., Lacy, M. J., & Pratt, J. (1966). Reclaiming Instructional Design. *Educational Technology*, 36 (5), 5–7. Available at: <https://mdavidmerrill.files.wordpress.com/2019/04/reclaiming.pdf>.

Molenda, M. (2015). In search of the elusive ADDIE model: Performance improvement. *Performance Improvement*, 54(2), 40-42. doi:10.1002/pfi.21461.

Morrison, G.R. (2010). *Designing Effective Instruction*. 6th Edition, John Wiley & Sons, Hoboken, New Jersey.

Paterson, K. (2002) The Professional Development of Principals: *Innovations and Opportunities*. *Educational Administration Quarterly*, 38, 213-232. <http://dx.doi.org/10.1177/0013161X02382006>

Pieck, L. & Leroy, L. (2022). How education systems can take the digital innovations spurred by COVID to heart: A case from Rwanda. Available at: [How education systems can take the digital innovations spurred by COVID to heart: a case from Rwanda - The Education and Development Forum \(UKFIET\)](https://www.ukfi.org.uk/education-development-forum/2022/04/how-education-systems-can-take-the-digital-innovations-spurred-by-covid-to-heart-a-case-from-rwanda).

Piper, B., Ralaingita, W., Mejia, J., Dubeck, M., DeStefano, J., Stern, J., Jordan, R., & Sitabkhan, Y. (N.D). *Science of teaching and Foundational Learning*. Available at: https://scienceofteaching.site/wp-content/uploads/2022/10/SP_Introduction.pdf.

Riecker, T. (2012). The Death of ADDIE? Available at: <https://timothyriecker.com/2012/11/23/the-death-of-addie/>.

Sites, R. (2012). It's an ICE time to leave ADDIE behind. Available at: <https://blog.alleninteractions.com/bid/86482/It-s-an-ICE-Time-to-Leave-ADDIE-Behind>.

Uworwabayeho, A., Flink, I., Nyirahabimana, A., Peeraer, J., Muhire, I., & Gasozi, AN. (2020). Developing the capacity of education local leaders for sustaining professional learning communities in Rwanda. *Social Sciences & Humanities Open*, <https://doi.org/10.1016/j.ssaho.2020.100092>

Vejvodová, J. (2009). The ADDIE model: Dead or alive? Available at: https://kipdf.com/the-addie-model-dead-or-alive_5aff85a98ead0ed55f8b4632.html.

VVOB- education for development et al., (2023). A guide on how to blend in-person and remote learning for professional development of educators. Available at: https://blend-on.org/wp-content/uploads/2023/06/VVOB_blendon_guide_web_15062023.pdf



PROUD PARTNER OF



**African Centre
for School Leadership**

VVOB – education for development
Julien Dillensplein 1 bus 2A
1060 Brussels
Belgium

T • +32 (0)2 209 07 99
E • info@vvoob.org

in VVOB

 @VVOBvzw

 VVOBvzw

www.vvoob.org



Belgium
partner in development



Flanders
State of the Art

Leaders in Teaching