OpenSTEM Africa

COACHING YOUR SCIENCE TEACHERS

Acknowledgements

Ministry of Education

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Ghana Education Service, and the expert SHS science teachers, for their expertise in producing materials that are rooted in the Ghanaian school context, accessible and useful to learners and teachers.
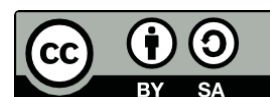
For information on OpenSTEM Africa see:
www.open.ac.uk/ido

OPITO for their generous support, which has made OpenSTEM Africa and the development of the Virtual Laboratory and these materials possible.

Contents

OpenSTEM Africa: Ghana

The overarching aim of OpenSTEM Africa, Ghana, is to make a contribution to Government of Ghana/Ministry of Education policy to the effective teaching of practical science.

Effected by:

1. **Virtual Lab:** onscreen interactive science instruments using real data and with examples of science lessons, to improve the experiential teaching and learning of science in Senior High Schools, helping develop girls' and boys' practical science study skills, and building on the iCampusgh/iBox model developed by CENDLOS.

Underpinned by:

2. **Continuous Professional Development (CPD) for science teachers:** which develops confidence, skills and strategies to enable improved teaching and learning in the sciences, with a particular focus on ICT-based practical sciences, and which supports them in meeting the aspirations of the SHS elective science curriculum (Physics, Chemistry and Biology).

Embedded in Senior High Schools through:

3. **Curriculum Leadership Programme:** for Heads of Department/Heads of Subject, which enables them to effectively implement short- and long-term strategies to improve teaching and learning in the sciences, with a particular focus on ICT based practical science in their school.
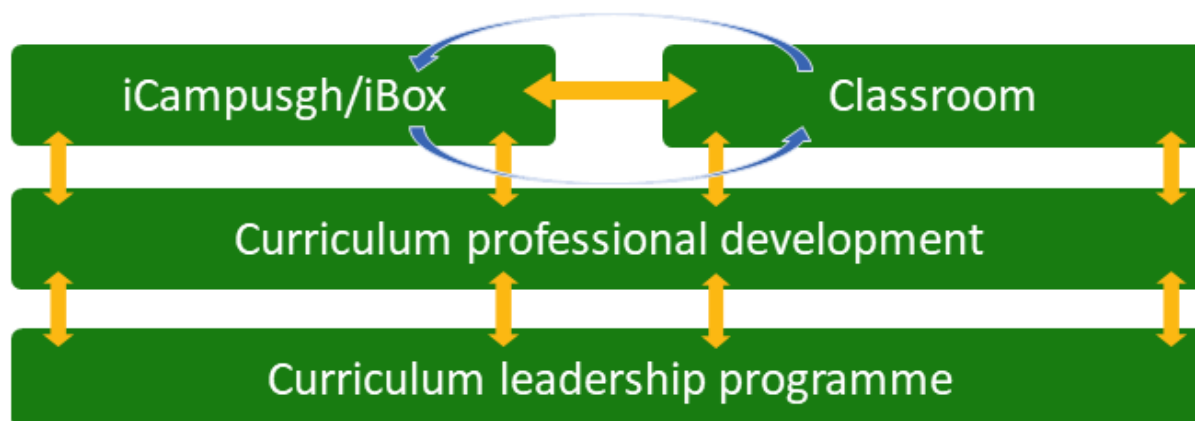
The school-based professional development and leadership programmes will help more teachers use ICT-based science resources more and more effectively, with more learners. The support for school leaders' facilitates the development of a sustainable community of practice in science within the school, led by the Head of Department/Head of Subject and with the support of the Headmaster/Headmistress, in line with National Teaching Council Guidelines.

Curriculum leadership programme

This curriculum leadership programme is designed by experienced Senior High School Heads of Science, and SHS curriculum and Science Resource Centre developers, representing a wide range of Senior High Schools in Ghana. They are working with representatives from the Ministry of Education, from CENDLOS, from GES, from the University of Ghana and from Open University (UK) on OpenSTEM Africa (Ghana).

Improving teaching and learning in the sciences at SHS level is part of the Government of Ghana *Education Strategic Plan (2018–30)* to enable increasing numbers of SHS students to specialise in the sciences at tertiary level and then move into STEM careers. Government of Ghana policy points to the importance of in-service training for teachers for acquiring new skills and keeping abreast of new developments. The National Teacher Standards for Ghana (MoE/NTC) set out the importance of teachers continuing to learn as they teach and the importance of the school as the location of that learning. Ghanaian research suggests that continuous professional development (CPD) taking place within the school is more motivating, more coherent, more sustainable and likely to be more effective in the long term. This is the "growth approach" in which teachers are given the opportunity to try new opinions, gain new perspectives, and extend their professional capabilities in order to understand and find solutions to problems in their individual schools" (Asare et al., 2012).

The role of Head of Department is key to enabling this kind of teacher development to thrive. Heads of Science, or Heads of Physics/Biology/Chemistry already take responsibility for the professional practice of the teachers in the department. This programme is to enable these leaders to organise individual and group support to those teachers, to share their own expertise in the sciences, to lead on the development of skills among their teachers) with a particular focus on ICT-based teaching and learning) and to lead on building a community of practice among science teachers in the school.

Your role as a Head of Department in transforming STEM education

As a Head of Department, you are a middle leader and your role is a combination of leadership, management, administration and teaching. Your leadership role requires you to focus on your own expertise and that of your colleagues, with a commitment to continuing professional development (CPD) for all. You must pay attention to everyone's professional and personal growth, with respect to teaching and learning.

In your classroom

As a subject expert, you are expected to model exemplary practice in your own teaching and learning. In the classroom, you are continuously developing your capacity to make lessons exciting, engaging and ultimately make science interesting for your students. The range of materials created to support the OpenSTEM Africa programme will provide key resources for you and your staff.

In your school

As Head of Department, you have the management responsibility of observing others teach and providing critical and constructive feedback on aspects of their work. This is a great opportunity to influence practice by drawing your colleagues' attention to good practices in STEM teaching and learning. This may be through formally organised professional development sessions for a group of teachers, or through one-to-one interactions with colleagues.

The aim of the OpenSTEM Africa CPD programme is to support the development of a "community of practice". As you will know, the National Teachers' Standards for Ghana place community of practice as within the domain of teachers 'professional values and attitudes' and give the following definition:

"A group of teachers who share a concern or passion for the teaching profession and learn how to do it better as they interact regularly."

(NTC 2017, pp. 51)

The community needs to be a safe space in which science teachers feel supported and enthusiastic about developing their practice, in order to improve learning. In a "community of practice", learning is seen as a joint enterprise of negotiation and reflection, taking place through mutual engagement in practice, with all participants being valued equally (Wenger, 1998). The conditions required for a 'community of practice' are:

- engagement in action (which will come through the activities in the CPD units),
- shared knowledge (which will come through discussion, and reflection on practice),
- interpersonal relations based on mutual respect and support.

Your leadership role is to create the conditions for a community of practice to develop. You will be a facilitator and supporter, rather than inspector and monitor. This programme is designed to develop your skills in this area, with other units including *Designing and implementing CPD programmes*, *Being an effective Head of Department* and *Embedding the use of ICT across your department* (https://www.open.edu/openlearncreate/HOD_units).

Beyond the school

As a "critically reflective practitioner" (NTC 2017 pp. 16) it is important to recognise your science department as more than an administrative unit within a school. Your department should be conceived as community that involve practitioners who can have great influence on teaching and learning in the school and beyond. So, connecting with STEM educators beyond your school boundaries, and with employers and advocacy groups, is a great way to extend opportunities for you staff and students. This could involve school visits to STEM employers, inviting guest teachers from other schools, inviting STEM role models from business and public life into school to talk to students, STEM career days, science fair or STEM project exhibitions etc. Your role here is to make learning and teaching of STEM-based subjects very relevant and practical for your students.

Coaching your science teachers

Introduction

Throughout our teaching careers, most of us have benefited from colleagues who have provided us with expert guidance and advice on aspects of our practice. This support may have been through coaching and/or mentoring arrangements – either formal or informal. In your school, you may have colleagues fulfilling these roles. Whilst coaching and mentoring are both ways of supporting peers, they involve techniques that are significantly different.

In this unit you will learn about coaching and how to develop coaching strategies in your school to support improvement across the teaching staff in your curriculum area. This unit sets out a model for coaching, centred on a process of motivational dialogue.

The unit is divided into six main sections*: (i) differences between coaching and mentoring, (ii) why should coaching be developed in your school? (iii) strategies for developing coaching in your school (iv) An introduction to GROW (v) an introduction to motivational dialogue, (vi) developing a coaching climate in your school and beyond.*

By the end of this unit, you will be able to:

- carry out coaching conversations that lead to changes in behaviours/practice
- demonstrate to others how to successfully develop a coaching programme in the school.

During your work on this unit, you are encouraged to make notes – just for your own use so that you collect together your thoughts and plans in one place. You could do this in a notebook, or on a computer or laptop. You may be working through this unit alone or as a group; either way it is good to discuss your learning with peers to help foreground some of the ideas you will be introduced to. This can be done in an organised way or on a more informal basis, but it is good to model the practice of collaborative learning as it forms part of the OpenSTEM Africa learning strategy.

What is coaching?

The title of this unit is "coaching your science teachers". The terms "coaching" and "mentoring" are sometimes used interchangeably, but there is considerable difference between the two. Therefore, let us start by exploring what is involved in coaching and how it differs from mentoring.

Coaching is a two-way and collaborative process, but fundamentally it is about providing direction to someone who already knows where they are going to. You will be familiar with this terminology in sports, where individuals and teams are known to have coaches. The application of sports coaching techniques to education is sometimes debated, but the process of engaging in professional conversations that are aimed at arriving at a desired result for the person being coached is common in all vocational disciplines. Stober and Grant (2006) define this process as:

"A collaborative solution-focused, results-orientated and systematic process in which the coach facilitates the enhancement of performance, life experience, self-directed learning and personal growth of individuals and organizations"

(Stober and Grant, 2006)

Coaching approaches are known to help improve individual and organisational performance, practitioner skills, wellbeing and self-regulation, as well as work attitudes (Giamellaro and Siegel, 2018; Theeboom, et al., 2014). In the context of your school, the process will involve you providing advice and guidance to a peer who is knowledgeable and possibly a subject expert themselves. Your focus is about results, performance and organisational goals: helping each person get the best out of their situation. Your role will involve supporting people and providing them with the techniques, knowledge and opportunities they need to develop themselves and become more effective in their teaching and/or leadership skills.

What do coaches do?

A coach:

- provides a professional dialogue which focuses on the positives
- provides an atmosphere of trust and confidentiality to the dialogue
- acts as an expert but also as an equal member of the same community of practice
- helps the person being coached to focus on a short-term manageable goal
- encourages new approaches or strategies in the classroom
- does not instruct, rarely suggests and spends most of the time listening
- enables the person being coached to come up with their own ideas and solutions.

With coaching there is a focused approach on very specific goals to be carried out in a set amount of time. This fits with the idea of you as a HoD, working with a teacher in your department over the period of a few weeks or months – or even a school year – to help the individual teacher achieve a particular goal. It is important to note that coaching is an individual approach. Coaching is a relationship of professionals: while you as a curriculum leader can be considered more expert, both you and your science teacher are experienced in your field. For these reasons, coaching is a very positive experience for the person being coached. It is they who want to develop some aspect of their teaching practice, and benefits from your guidance in finding the way to do it. In this sense the coaching must be informal – it is not an accountability mechanism but a situation where experienced professionals help each other to embrace new practices.

How is mentoring different from coaching?

Mentoring is a term generally used to describe a relationship between a less-experienced individual and a more-experienced person (Donaldson et al., 2000). Being a mentor is a general and open-ended role. A typical mentoring situation might be when a new teacher starts at your school. Besides guidance from all those in formal leadership positions, an experienced teacher of the same subject might be assigned as a mentor in a more encompassing role to guide the new teacher in all aspects of their role – the things the new teacher wouldn't know about the particular role they have started in this particular school. Although experienced teachers can be mentored especially when they take on new jobs that require them to learn new practices, the process often focusses on helping new colleagues and with some 'hand holding'.

What do mentors do?

A mentor:

- provides expert guidance
- is more experienced and usually also more senior to the person being mentored
- is used to help the person being mentored transition to a new role (e.g. a newly-qualified teacher, a promoted post in a school)
- may have to report on the progress of the person being mentored.

Activity 1: What are the differences between coaching and mentoring?

Teachers are expected not only to engage in mandatory trainings required for promotion, but also in School-based INSET (SBI), Cluster-based INSET (CBI), District-based INSET (DBI), mentoring/coaching and self-learning (National Teaching Council (NTC) 2017).

Reflect on the differences between coaching and mentoring and identify some benefits of coaching for your school, yourself as someone preparing to coach others, and the colleagues you will be coaching.

Comments

Benefits of coaching:

- helping teachers and other practitioners (e.g. lab assistants) improve their performance, goals and targets
- helping teachers/practitioners involved increase their ability to identify solutions to specific work-related issues
- helping both the coach and the person being coached to develop greater ownership and responsibility for aspects of organisational output
- contributing to the development of self-awareness
- helping the school improve on practices identified as requiring improvement in the school development plan.

Whilst your coaching conversations will mainly involve you and another teacher/educator, it is important to recognise that coaching involves the work and progress of a third person(s) the student, whom you may not be teaching directly yourself. In the next section we explore why you should develop coaching in your school.

Why should coaching be developed in your school?

Your role as a curriculum leader/Head of Science is key to the success of the science teachers in your department, and sciences are key to the success of your Senior High School. The department in a school is sometimes called the "engine room" of change. This is because it is a community of practice, and as the head of that community you combine leadership with detailed subject knowledge of the teaching and learning of the sciences within your department. It is your work with your teachers which will directly benefit teachers and SHS students in their study of the sciences. Therefore, your capacity to coach and develop others is very important for your school. This is reflected in the National Teachers' Standards for Ghana Guidelines (2017), where coaching amongst other skills are deemed critical for Ranks 3–6.

> NTC Competency Requirements (Rank 3, 4, 5, 6)
>
> *Create an environment which encourages peer learning, mentoring and coaching*
>
> *among teachers in the department, school or circuit.*
>
> (NTC, 2017).

Now let us look at the National Teachers' Standards (2016) briefly and how coaching can help you and your team realise your professional development aspirations.

National Teachers' Standards for Ghana guidelines

What philosophy underpins the standards?

These new Standards for Ghana emphasise the applied practical work of a teacher as a valued professional in a community of practice and envisage a warm and friendly teacher who has secure curricular, subject and pedagogical content knowledge, who plans for and uses different interactive instructional strategies and resources and so engages their learners, who achieves higher learning outcomes for all, particularly learners who are more vulnerable, those with disabilities, girls and those who need cognitive challenge, and who uses assessment productively in achieving those outcomes.

Who are the standards for?
For in-service teachers

Specific to in-service teachers, the Pre-tertiary Teachers' Standards for Ghana (PTTSG) are concise statements of what teachers are expected to know, understand and be able to do as teachers to ensure they continually improve their own learning as well as those they teach.

1. The Standards aim at ensuring that as teachers move up from one rank to the other in their career; they are empowered to engender effective learning among those they are expected to teach.

2. At each stage of their journey to become accomplished teachers, the Standards expect teacher to:

- demonstrate good knowledge in the relevant subject(s) and curriculum areas
- have a sound knowledge of learners' different ways of organising their learning
- demonstrate knowledge and understanding of how different learning styles impact on teaching and learning.
- reflect thoroughly on the effectiveness of teaching approaches
- demonstrate good knowledge and understanding of how to use assessment to support learning
- identify their own training needs and take responsibility for addressing them through lifelong learning.

National Teachers' Standards for Ghana

The Standards are divided into three main domains, each with its own sub-divisions:

Professional Values and Attitudes

- Professional Development
- Community of Practice

Professional Knowledge

- Knowledge of Educational Frameworks and Curriculum
- Knowledge of Learners

Professional Practice

- Managing the Learning Environment
- Teaching and Learning
- Assessment

These three domains and aspects encompass what teachers should value, know and do, and intersect with one another… as illustrated in the Venn diagram where the synthesis of the three domains represents a competence or competences.

There are many aspects of this guidance which are specific to developing a coaching programme. Your department is a community of practice in what Wenger et al (2015) would call a "complex landscape of different communities of practice" in a school. Your professional knowledge and many aspects of your professional knowledge are science-specific. As a department you and your teachers are engaged in joint initiatives focused on the practices of science teaching.

Activity 2: Audit the skills in your department

Audit the positive science teacher skills among all your staff – e.g. the range of qualities they possess – and then rank them in importance for your teachers and your department (link back to 2017 NTC frameworks for career progression and promotion).

In the next section we look as some strategies for developing coaching in your school.

Activity 3: Notes on the practicalities of coaching

Make notes on how – in your SHS – the practicalities of organising coaching sessions is going to be addressed. When can coaching take place? With which teachers? Where? How will you ensure that teachers feel safe and positive in a coaching situation?

Your notes will be a good starting point for thinking about how coaching could be deployed effectively in your school. Remember, coaching is a good opportunity to help others improve their practice, but also a good opportunity for you to further develop and enhance your leadership and relationships with staff.

Strategies for developing coaching in your school

Creating a climate for coaching

The rationale for coaching and mentoring is embedded in the National Teaching Council Guidelines, so introducing it or extending it in your SHS would be welcomed by your headmistress/headmaster. However, please do have a conversation and ask for their guidance. Besides this being helpful for your understanding of any ways in which your coaching will need to fit in with other in-service/CPD as well as other activities in the school, it is also important to understand the ways your coaching will be incorporated into, for example, the School Improvement Plan. Your headmistress /headmaster will also be able to advise on – and hopefully be able to help you solve – any challenges which have already occurred to you.

Finding the time and place

The practicalities of organising any CPD in school can be challenging and the practical challenges are often the reasons why good ideas for improvement do not catch on or become established. Teachers' lives – and your own professional life – are hectic and pressured, so it is important to establish how the practicalities of coaching are going to work for you and your teachers. In some SHS there is provision for frequent departmental activities, for example time set aside weekly or fortnightly. Is yours one of those schools? In other SHS there is provision for working with individual teachers – for example, for Heads of Department to carry out lesson observations. Is that a practice in your school?

Establishing trust

It is important that your teachers understand that coaching is about **support** and not about judging performance – even though the aim is to help build confidence and ultimately improve performance. The specific discussions which the individual teacher has with you should be treated as confidential, unless s/he says otherwise. Any teacher in a one-to-one coaching session must feel safe.

Treating your coachee as an individual

Coaching is as individual as the teachers in your department. The individual teacher is being encouraged by you to decide on a goal they want to pursue to improve their specific teaching practice. Good coaching will mean that the goal – and the means of attaining it – become obvious to the individual teacher. Remember, as a coach you spend most of your time listening. Each teacher in your department may well – at least at the beginning – have a completely different goal.

Focusing on the positives

Coaching is about building on the good professional practices already exhibited by the person you are coaching. It is about helping the individual teacher take the next step in improvement.

Establishing a cycle of coaching

What is always difficult in a school – even when there are obvious benefits – is to sustain something which might be seen as additional work for your teachers. All SHS science teachers are under pressure to complete the SHS syllabuses each year and to fulfil the requirements of the WASSCE examinations. It is important for your teachers to feel that the coaching will help them with these pressures.

Activity 4

Go back to your response to the previous activity. Reflect on how – in your SHS – a cycle of coaching could be developed and sustained.

Now draw up a coaching plan for this year and ask to discuss it with the headmaster/headmistress or the assistant headmaster/headmistress, the coaching advocate in your school's senior leadership team.

Some reflective questions could be:

- What would make it easier to embed these practices in your department?
- Do you require buy-in from other senior members of the school? If so, how do you intend to go about this?

A model for coaching – GROW

There are many theories, models and approaches around coaching that you can avail yourself of as a curriculum leader and managers of others. Undoubtedly, one of the most successful coaching models in circulation is the GROW model. Having been pioneered in the 1980s, it has 'grown' to be respected the world over. It works by helping the team member or coachee to focus on their journey towards their Goal (G) from their current Reality (R). To get there, they will explore their Options (O) and establish the Will (W) to take their first steps. Hence the 'GROW' acronym.

Let's look at each stage of the structure in more detail:

Step one: setting the goal

Your first task when leading a coaching session is to get the colleague you are coaching (or "coachee") to agree on a suitable goal to work towards. The goal needs to be SMART (Specific, Measurable, Attainable, Realistic, and Time-bound); your role in this relationship is to ensure that each of these requirements are met by asking **questions**:

For example:

- Why is your goal so important to you?
- How does your goal fit within your wider teaching and/or assessment strategy for the year?
- How will you know that your goal has been achieved?

Step two: examine the current reality

Before they can take steps towards their goal, it's essential that they know where they currently are in their journey. As a coach, your job is to help the coachee understand their current reality more clearly. Useful questions to ask might include:

- What are you happy about in your current situation, and what aren't you happy about? This is always a great way to unpack some of the underlying challenges the colleagues may be facing.
- What are the main issues you are currently encountering in your teaching?
- Are there teaching skills which you want to develop linked to e.g. the 2017 NTC frameworks for career progression and promotion?
- Do you feel (e.g. as a female or a young teacher) that you could share your current expertise with older or more experienced members of the department?
- When are they occurring and what impact are, they having on your performance? Do you have any goals or ambitions that could conflict with your goal?

Whilst some of these are open questions, you should be mindful not to sway into areas of work that are beyond your control. For example, the lack of infrastructure often comes up. Your focus should be on teaching and learning during the coaching conversation and agree another meeting to discuss any miscellaneous issues.

Step three: explore the <u>options</u>

Having marked out the beginning and end of your coachee's journey, you need to help them identify the different options or strategies for getting there. This includes understanding the behaviour and decisions that will lead them along the right path.

Get the person being coached to brainstorm as many options as possible; then narrow these down to the most suitable options.

Useful questions to ask might include:

- What actions are you considering taking to move you further towards your goal?
- What are the potential downsides of that course of action?
- What behaviours are currently blocking you from achieving your goal?
- Are there any interdependencies that may inhibit your success in achieving your goal?

Step four: establish the <u>will</u>

With your coachee now holding a clear road map towards reaching their goal, your role is to help them establish the motivation to take the first steps on their journey:

- What will your first action be?
- How much time will you allow yourself to achieve this?
- How will you review your progress and when?
- What are the potential obstacles that could slow your progress? How will you overcome these?

Because its premise is relatively simple and universal, the GROW Model can be applied in a range of teacher/leader continuous professional development situations.

🔍 Leadership example 1: Mrs Amoo helps transform the practice of Mr Nti

Holy Mountain SHS is a very popular local school that has had tremendous success over the years in the Volta region of Ghana. The teachers in the school are very well respected and considered an integral part of the community. In recent years, Holy Mountain SHS – like many schools – has seen significant changes in school culture and teacher motivation partly due to new government policies and national curriculum reform. The headmistress in her quest to adjust to these changes thought of bringing in a new science expert from outside the school. But she later resolved on relying on one of the seasoned teachers, Mrs Amoo because of her insights into long-standing practices and relationships, as well as demonstrable success in physics results in the WASSCE exams.

At their first meeting the headmistress and Mrs Amoo spent about 3 hours discussing how to revolutionise Physics teaching in the school. Ms Amoo explained:

Physics teaching and learning needs a serious overhaul. Teachers are too keen to complete the syllabus without careful consideration of whether students really understand the subject content and enjoy learning about mechanics, electricity, etc. If I can get teachers excited about Physics, I'm pretty certain such excitement and enthusiasm would be transferred to students. I will start by carry out an audit of positive science teaching and learning approaches being used in our school and then rank them in importance for teachers. This will serve as a starting point for discussions. I will then develop a coaching programme where I work on a one-to-one basis with key staff to help them make the necessary gains in their practice.

The headmistress agreed with Ms Amoo and promised her full support.

Leadership example 2: Mrs Amoo and Mr Nti both learn about coaching

Mrs Amoo organised a team meeting of all science teachers and shared her plans for a coaching programme. She then clearly stated her intentions to use this as a way of transforming science teaching in the school. At this meeting she also shared her audit of *Positive science teaching and learning approaches* and encouraged peer collaboration, under her guidance.

Following the team meeting, Mrs Amoo sent a message to Mr Nti inviting him to a meeting. Mr Nti was unsure of what to expect at this meeting, but he agreed to attend with an open mind. Mrs Amoo started the meeting by exploring with Mr Nti, her findings from the positive teaching and learning audit and asked Mr Nti about aspects of his teaching which he would like to improve and why. Mr Nti was a bit apprehensive in his responses because he was unsure of the consequences if he gave an honest opinion about his feelings and experiences.

Ms Amoo, as Head of Science, saw her role in this coaching meeting as the person ultimately responsible for the transformation the headmistress was looking for, so she was very assertive and led the conversation, continuously providing solutions and new ideas for Mr Nti to try in his lessons. Ms Amoo was very patient but focussed her remarks more on the negative details of what Mr Nti said, and also based her discussion solely on one lesson observation carried out the previous year. Mr Nti, occasionally challenged Ms Amoo because he felt some of the premises of Ms Amoo's suggestions were presumptuous. For example, Mrs Amoo accused Mr Nti of not demonstrating creativity in the teaching of the SHS2 students. This was based an incident that had been reported to her by a student. Mr Nti left the meeting overwhelmed with ideas – some of them good and exciting ones to try – but he felt the meeting was more of a performance appraisal than a coaching session.

Do you agree with Mr Nti? Why?

Do you agree with how Mrs Amoo approached the coaching meeting? What went well? What didn't go well?

What would you have done differently?

Spend some time with another curriculum leader/head of department reflecting on your responses.

Activity 5

Arrange for a coaching session with a member of your department (e.g. Mr Nti) as part of your annual coaching cycle with the aim of applying the GROW technique. Create a coaching log and record your experience and thoughts. For example:

- How did Mr Nti's coaching session go today?
- What is Mr Nti doing well that is worth exploring further and sharing with others?
- What is Mr Nti struggling with that could be helped by expertise from you or others?
- What were the action points agreed?
- When is the next coaching session?

You may use a table like the following:

Name	Date	Topic(s)	Next steps
Reflections			

A model for coaching – motivational dialogue

Another coaching model/technique that is now gradually being adopted by educators is motivational dialogue. The term and the technique underlying motivational dialogue emanates from principles of motivational interviewing (MI) which represents a modern view of motivation. According to Herman et al. (2013).

> *"MI attempts to help people resolve their ambivalence about behaviour change by highlighting discrepancies between their values and their behaviours."*

A basic tenet of this approach is that people are much more likely to do things that they say they will do versus things they are told to do (Miller and Rollnick, 1991). Your role as a coach leading the conversation/motivational interview is more about listening than intervening.

This technique is quite different from the GROW model because it is often adopted in situations where colleagues are, for some reason, struggling to change certain behaviours and practices. For example, some colleagues may seem overwhelmed by the idea of integrating ICT into their lessons and therefore find ways to avoid any discussion about it. Others may be struggling to come to terms with the idea that peer-to-peer learning amongst students in the classroom or laboratory is a good idea and does not lead to cheating.

As a coach you must find the best coaching approach to deal with a range of situations. Below, we explore some principles from Miller and Rollnick (1991) that are relevant to motivational dialogue:

Express empathy through reflective listening, avoiding argument and direct confrontation

Showing empathy (i.e. the ability to understand another person's feeling) during motivational dialogue establishes a safe and open environment that is conducive to examining issues and eliciting personal reasons and methods for change.

It is important to listen carefully during your coaching conversation and express empathy. Have respect for the coachee's views and experiences and treat them professionally. However, you don't have to necessarily approve or agree with everything they say. Find out their views and feelings about any issues/concerns that makes it difficult for them to change their current practices.

Highlight/support any positive behaviours and/or innovative approaches they may have. Whilst your aim is not to provide answers, you may provide information about how others have changed their practices over time.

Develop discrepancy between teacher's/practitioner's goals or values and their current behaviour

As a subject specialist, it is sometimes difficult to get experienced colleagues to change

certain aspects of their teaching practice. They may have used these strategies for a long time and, in their opinion, they have always worked. However, as a coach you may have identified gaps that you believe you could help them fill (or improve on). In your coaching conversation, it is important to separate the coachee's behaviour from the coachee and helpthem explore that important personal and organisational goals which could be undermined by their reluctance to make the necessary adjustments in their practice. Once the coachee begins to understand how the potential consequences of their current behavior conflict with personal and organisational goals, you can amplify and focus on this discordance until they can articulate a consistent concern and commitment to change.

Adjust to teacher's/practitioner's resistance rather than opposing it directly

As argued by Miller and Rollnick (1991) adjusting to resistance is like avoiding an argument, because it offers another chance to express empathy whilst, at the same time, remaining nonjudgmental and respectful. Resistance is a signal to you to change direction or listen more carefully, so to take advantage of the situation without being confrontational.

Support self-efficacy and optimism

Once you have the coachee's commitment to change certain practices, you can then agree an appropriate intervention or follow up support.

Activity 6: Plan a coaching programme

Reflect on the coaching models/approaches discussed and draw a plan for a coaching programme – perhaps for the next month or three months – or even for the whole of this year!

Developing a coaching climate in your school and beyond your team

The dream environment of many organisations is to have a culture where staff can communicate consistently and openly around their personal, professional and organisational performance and development. And there's good reason for that aspiration: research shows it can make a significant difference to an organisation's development and long-term performance.

This might seem like something of a utopian scenario, but with an effective, well-structured coaching programme in place, that level of communication can become embedded within the very fabric of your school.

However, establishing the right coaching climate for that programme to flourish is far from straightforward and requires time, effort and involvement at all levels of the organisation. Here are three steps to help you along the way:

1. Seek top-level commitment

The first step towards a consistent coaching climate is to identify one or more school leaders to be the flag-bearers for your approach. For example, you could engage the assistant headmistress/headmaster to be help champion your cause. As well as being someone others point to as the champion, you should work with them to give the right message about coaching across the organisation. Together, you should spread the word and commit to tackling any barriers or opposition that could arise along the way.

2. Spread the skill

With the right role models in place, the next step is to put measures in place to allow enthusiasm and understanding of coaching to filter through the organisation. This means making CPD opportunities readily available across all levels, whilst actively encouraging employees to engage with your approach. You can engage other heads of department from other department and begin to form a community of practitioners who are responsible for coaching in your school – and beyond. You can also set up development programmes to support others. This would help you hone your coaching skills as well.

3. Stop and take stock

Once you get the buy-in and support to institutionalise coaching in your school, it is important to revisit your coaching programme at regular intervals and to take stock. Like any new initiative or strategy, it requires regular attention to see what's going well and where things could be working better. Think of it as a garden: one that requires regular watering and upkeep for the plants within it to grow and flourish.

Summary

This unit emphasises the importance of coaching and how that can help improve teaching and learning of science in your school. As a curriculum leader/Head of Department, there are many opportunities to have professional conversations with your colleagues, both formally and informally, and this unit has provided some ways in which you can do so with a purpose.

Coaching opens many possibilities for you as a curriculum leader or Head of Department to optimise the potential of your teachers and help transform them into the excellent teachers and leaders that you want for your school. This unit, together with others in this programme, provide a basis for you to start an effective coaching programme in your school.

A full list of the Head of Department units can be found at:
https://www.open.edu/openlearncreate/HOD_units

A full list of the CPD units can be found at:
https://www.open.edu/openlearncreate/CPD_units

Glossary and definitions

CBI	Cluster-based INSET
CPD	Continuous Professional Development
DBI	District-based INSET
HoD	Head of Department
INSET	In-Service Education and Training
NTC	National Teaching Council
SBI	School-based INSET
SHS	Senior High School
PTTSG	Pre-tertiary Teachers' Standards for Ghana
WASSCE	West African Senior School Certificate Examination

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