



**The role and value of quality frameworks for
public engagement with research training:
an exploratory case study**

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Introduction

The provision of, and participation in, professional development for researchers is one of the nine key strands of creating a positive culture of public engagement with research (as described in the NCCPE's EDGE Tool). Yet it appears to be under-utilised. The focus of much of the training and professional development is typically covering the basic introduction to public engagement. To date, there has been very little attention to developing high quality public engagement within the academy and what this actually demands from researchers. This should be contrasted to the development of teaching practice, which is often supported by centres for excellence in teaching, external funding and training schemes such as those run by the Higher Education Academy, and benchmarking and assessment devices such as the teaching excellence framework, national student survey. Public engagement training seems to be about reducing barriers to involvement, as opposed to improving quality.

The lack of agreed quality standards emerged as a pressing issue for University of Bath in the first phase of their UKRI-funded ChallengeCPD project and led to a programme of work for phase two of the ChallengeCPD work. There are recurring discussions about developing a quality framework for PER (e.g. Science and Society consultation (2009) and ScoPPES (2017)) that have not been realised. The development of the Research Excellence Framework and the impact dimension in pathways to impact are all mechanisms through which engagement is to some extent assessed, and judgements are made around quality. Yet, assessments are based on what makes for good impact case study, or what makes a successful pathways statement, as opposed to what makes for good engagement. People's experience of our research is seldom reflected in these processes.

More recently, a draft framework of good practice principles has been developed between NCCPE and University of Manchester (launched at Engage 2018). While agreed quality standards should help CPD providers develop and signpost their offer in a broader context, and let individuals understand their own CPD needs, responses to these frameworks from the community range from those strongly in favour for reasons outlined above to those vehemently opposed. In opposition there are fears about adverse effects that such frameworks might bring, such as creating barriers to involvement in public engagement from researchers – if the quality bar were too high to reach; or that such frameworks would give rise to greater bureaucracy creating external custodians of quality. ChallengeCPD recognised an urgent need to get beneath the skin of these responses within our own context and to contribute to the continued development of these frameworks so they are useful for the sector.

We utilised the draft NCCPE framework to inform our CPD offer and how we talk about the skills needed for quality PER. Working with an external consultant to:

- a) Undertake light-touch research into the implications and responses (both positive and negative) of developing and implementing the framework. In particular looking at how it influences the take-up of CPD.
- b) Work with our advisory board to evaluate the potential application of the framework in the development and delivery of our CPD offer, for example in our e-learning tools, with our PEF network, with our co-produced PGR module, and with the successful EPSRC CDTs.

We assume that taking the University of Bath situation as typical of the broader HE sector the experience of using the framework in practice will feed into the work the NCCPE are doing in this area as an in-depth case study. We also committed to feed this learning into a journal article about ChallengeCPD for Research For All.

A summary of what we did

Task	Activities	Key questions
Explore the implications and responses (both positive and negative) of developing and implementing quality frameworks and how it influences the take-up of CPD.	Undertake light-touch desk research	What other comparable professions have quality frameworks? What is known about their impact on the take up of CPD?
Evaluate the use of the framework in the development and delivery of our CPD offer	Feedback from Advisory Board Interviews with external training providers Interviews with Seed Fund applicants Embedded in development of training including PGR module, advanced engineering module and e-learning resources. Workshop at UK Knowledge Mobilisation Forum 2019	How accessible is the framework? Can you see how could apply the framework in your role? What further support/resources might be needed to help apply the principles?

Key Findings

Quality frameworks from other sectors and professions

There are a plethora of quality frameworks across numerous different sectors. These fall into different categories:

- Those related to the provision of CPD in a particular field. See for example: [SEDA Professional Development Framework](#). These are targeted at ensuring quality in professional development and come with a form of accreditation to CPD providers.
- Those related to the CPD of individuals in a particular field. See for example [The Teacher Educator Framework](#), or [Policing Education Framework](#). These focus on individual learning and self-assessment, helping people assess where they are and providing the building blocks for progression.
- Those related to the provision of services. See for example [patient experience improvement framework](#). These focus on organisational culture, leadership and collaboration across multiple agencies and are often used as a tool driving organisational change around a specific service goal.
- Those related to specific activities. For examples the good practice principles for public engagement involving universities, [performance management](#) or [good practice principles in](#)

[humanitarian aid](#). These focus on the act of doing something, and set out what doing something well looks like.

It can be assumed that frameworks that are designed to improve the quality of CPD, may have an impact on take-up (e.g. higher quality equates to higher demand). Likewise, those that drive self-assessment may increase up-take of CPD by helping people identify gaps and training needs in order to progress in their careers. Where these frameworks are linked with formal accreditation and career progression it is again possible to assume that the framework will influence the take up of CPD, as there is an extrinsic as well as intrinsic reward for doing so.

Evidence from the [Kings Fund](#) suggests that quality frameworks that pertain to the provision of services in the health sector can play a significant role in improving the quality of care and outcomes for patients, provided they are applied consistently and systematically across organisations and systems. However, we found no studies linking these frameworks with an increased uptake of CPD, though it's possible that this could happen should the implementation of the framework surface a need for greater CPD in specific areas. We could not see a direct link between good practice principles and training uptake (unless the good practice principles were related to the development of training and therefore raised the quality of that training e.g. [good practice in autism training](#)). In our interviews with training providers they did indicate that good practice principles would inform training focus and content, but not necessarily uptake.

Feedback on the good practice principles for public engagement involving universities

Those consulted included researchers through the challenge CPD advisory board, and those who were awarded the University of Bath public engagement seed fund. We spoke with a wide range of external providers of CPD, HR and public engagement professionals. The first question we asked was around the accessibility of the framework. Was it easy to read? Did it make sense? Could people see the relevance for their work? Was it helpful? Here the feedback was broadly positive. People described it as accessible, they liked the examples given ('in practice this could involve'), and on the whole found it to be jargon free. Some of the researchers we spoke with, particularly those in the natural sciences, suggested it could be put forward in plainer language and that the title of the document could be more engaging/accessible.

"I (honestly) found it more accessible than I expected. My initial thoughts are that possibly the name is a bit off putting - I was definitely expecting tables of information, but this looks to me to be practical and common sense guidance and a good checklist or tool for provoking thoughts".

Researcher

"Fantastic list of principles to have. Some training interventions would see more emphasis in certain areas than others. But on the whole, it is a beautifully broad and complete set of attributes"

Trainer

"I often find documents like this so vague and written in a style that as a scientist I'm not familiar with. Some of this document is written in this way, but it also immediately gives much more concrete explanations of what the phrases mean (RE: In practice, this could mean...)"

Researcher

Our discussions highlighted a small number of developments which we would need to consider either in the context of University of Bath, or could be taken forward by the NCCPE at scale.

These were:

- Complement the framework with illustrative examples to help show what some of the phrases might mean. For example: "I will consider carefully the nature of my participants...". Could there be links to segmentation tools or worked examples. This was a theme running through the feedback. There was an interest in linking the good practice principles with additional resources. Signposting where might someone go next to develop their strengths in this area.
- Develop the principles into competencies so that they could be used to inform CPD. It was noted that levels would be helpful (i.e. what good looks like, what level you might be when you are starting out... etc.).
- There could be an additional/more explicit leadership lens within the principles. What does leadership look like in the context of public engagement. It was suggested that this section would focus on sharing and developing practice, leading across institutional boundaries, and developing others' skills and capacities.
- A couple of people commented independently that there was something missing about compassion or care for others in the principles. It was suggested that there was a level of care that is assumed in the principles but that they could be made more explicit. We were signposted to the work of the [Kings Fund](#).
- Some people reflected that the principles were written mostly for researchers and did not apply to the work of enablers. We think there may be a case for making more explicit how this framework applies to the different audience groups it is intended for.

Some quotes from our discussions illustrate these four points:

"I think some specific examples might help. I realise this is tricky across all disciplines, but maybe there could be a science example, a humanities example etc."

Researcher

"Does it need some graduation? - what good looks like, what it might look like when you are starting out? From starting out, to expert..."

Challenge CPD Advisory Board

"Leadership - and institutional change. Your role motivating others. Some of this is in there in learning for example, but it could be made more explicit"

Challenge CPD Advisory Board

"Is there something missing about the emotional aspect of engagement. How we apply care and kindness to our work? There is a level of care that is assumed, but we need to be explicit that this is important"

Trainer

Applying the framework – University of Bath

The Challenge CPD Advisory Board suggested that in order to inform CPD in a meaningful way, in particular to affect the uptake of CPD, the good practice principles would need to be further developed into a competency framework as a first step. The framework would need to be further developed with levels which could help a user reflect on areas for further development. However, it was noted that the Vitae Researcher Development Framework already had an engagement lens, and this was informing professional development and progression in Universities.

The trainers we spoke with said that the principles were useful as they were, but would more likely to be referenced in training sessions as a resource, most could see how their existing training content aligned with the principles. To implement the framework with internal/external trainers – University of Bath could consider a half day development workshop to unpack the principles in more detail and how this might relate to existing and new CPD.

Developing a competency framework for public engagement based on the good practice principles

We decided to take these suggestions forward and develop the good practice principles further to develop a set of levels, framed around competencies. For each of the principles we asked:

- What would someone need to be able to do to do this principle well?
- What skills or attributes might they need?
- What does good look like? But also... what does not so good look like?

One approach to developing a competency framework would be to observe people and their practice, and to review these into a set of competencies, which could then be tested and further developed. We did not have the resource behind us to try this approach, but it may be something we return to at a later date.

Instead, in response to the suggestions from our Advisory Group we created a set of levels/progression for each principle. To create the levels, we used a framework that is commonly applied in training and development [See for example: Gordon Training International¹]:

- **Unconscious competence:** The skill has become "second nature" and can be performed easily. The individual may be able to teach it to others, but not necessarily.
- **Conscious competence:** The individual understands and knows how to do something. However, using the skill or knowledge requires concentration, there is heavy conscious involvement in executing the skill.
- **Conscious incompetence:** Though the individual does not understand or know how to do something, they recognize the deficit, alongside the value of a new skill in addressing the deficit. The making of mistakes can be integral to the learning process at this stage.
- **Unconscious incompetence:** The individual does not understand or know how to do something and does not necessarily recognize the deficit. They may deny the usefulness of the skill or training to develop the skill. The individual must recognise their own incompetence, and the value of the new skill, in order to take steps to towards next stage.

¹ <https://www.gordontraining.com>

A worked example of principle four is shown below. It proved difficult to do this for each of the principles, and at times we had to revert to colloquial language which may not be the suitable for presentation to a researcher.

Principle 4: Professional Practice

Component	Curiosity: Curious about the context in which my engagement takes place.	Professional development: Ensure I have the capacity, resources and skills	Using evidence: I draw on evidence to underpin my approach.	Adaptive: I am open to doing things differently.
Unconscious incompetence	I have not thought about the context.	I can not see that I might not have the skills and resources to do this.	I think this is the first time this work has been done.	If I recognise that something hasn't worked out well, it's a case of trying the same approach somewhere else.
Conscious incompetence	I'm aware I know very little about the context, and need to learn more.	I'm aware of the different ways in which I am stretched, and am seeking support and/or reassurance.	I'm aware that this must have been done before, but I am seeking who/where to look for insights.	I'm aware that aspects of what I am doing are not working, but I'm not quite sure how to do things differently.
Conscious competence	I have researched the context using methods such as desk research, evaluation and talking with people.	I'm managing my resources effectively and am building on previous experience and training.	I'm building on what people have done before, and actively drawing on a body of evidence.	I reflect on my practice, and am open to trying new approaches.
Unconscious competence	I intrinsically know and am part of the context in which I operate.	Its an integrated part of my research/professional practice you cant separate the two.	Evidence of what works is woven into my approach.	I improvise and respond to my environment.

During this exercise we reflected that different forms of CPD would be needed to reach different groups. For example, the unconscious incompetent group (who are unaware of their incompetence and therefore do not identify a need for further development) may not attend formal training, and therefore compulsory training as part of their professional development as a researcher might be most effective. Whereas we reflected the unconscious competent (who are intrinsically engaged) might benefit from formal training programmes, but would be able to contribute and learn from action learning sets, peer to peer groups.

One of the challenges we had with the principles was that we couldn't see how they might link directly into CPD training packages. For example, training on purpose (principle one) would invariably overlap with at least two of the other principles (people focused, and mutually beneficial). At the same time there were sub themes within each of the principles, e.g. leadership, project management that one might want to focus on developing skills for as a discreet package.

We therefore reviewed the document once again and started to draw out some cross-cutting themes that could help us link the principles more formally to CPD. We kept referencing the Vitae Researcher Development framework to identify areas of overlap, and gaps. The end result was the emergence of four cross-cutting themes, that could help us to link the principles to a CPD programme.

These were:

- **Project management/delivery:** Your overall approach to quality, the techniques you use, and the time you carve out to develop yourself and do engagement well [*partially reflected in D2: RDF (Communication and dissemination)*]
- **Partnership:** Interpersonal skills, working across organisational boundaries and cultures, your curiosity about others [*partially reflected in D1: RDF (working with others)*]

- **Learning, evaluation and reflection:** Your capacity to learn and do things differently, to test and challenge your assumptions, to understand your impact [*Reflected in B1: RDF Personal effectiveness*].
- **Leadership:** The spaces you create for others, how to build bridges with other organisations, your contribution to creating an engaging culture [*predominantly domain D1: RDF (working with others)*].

To some extent the above four domains can also be tiered. We find for example that many people start out in public engagement thinking about specific activity and delivery, they move from this to think about partnership and working with others in a more sophisticated way. This is often coupled with greater learning and reflection, as the different perspectives that partnerships bring often demand this. Finally, after developing a proficiency and level of confidence in public engagement activity, people often start to think more about opening the spaces out for others. This model is not necessarily as linear as it sounds, and there is overlap. There are also levels of graduation within each of the four domains. For example, someone may be quite a mature engager at a Science Festival, but only just beginning to think about where they are in terms of leadership.

Below we show the leadership lens fleshed out a little further. Each of the sub-headings are taken from different sections of the good practice principles.

Leadership:

The spaces you create, how you relate and build bridges with other organisations etc.

Building bridges with others: I will take account of the context within which I will conduct my engagement work, including who else is working in this space.

Inclusive: Build on the knowledge and experience of my audiences, participants and partners. Exploring my own motivations and how these intersect with those of the people I am collaborating with.

Facilitative: Exploring the value that your partners and participants want to realise, and explore how you can work together to realise that value

Enabling learning: Sharing your learning and evaluation of your engagement with others. Supporting learning across the project participants. Helping others to learn from our approach locally and nationally, through relevant networks

Further work is needed to develop different phases/levels for each of these domains that align to the RDF. For example, what leadership abilities might one expect from a researcher just starting out in public engagement. However, it also brought into question for us whether the Vitae Researcher Development Framework was in need of a refresh, and perhaps some further case studies/illustrations of how public engagement aligns with other domains of the RDF that Engagement and Impact. Another challenge, was that proficiently in public engagement, did not necessarily align to career stage. An early career researcher might bring quite high levels of competence in these areas, whilst not necessarily being that far advanced in their careers.

From this process we began to see how we could inform some of our more generic training offer, and our one to one conversations with researchers. For example, we can envisage a CPD programme that focuses on leadership in public engagement, and is informed by the good practice principles, whereas the principles themselves did not lend themselves directly to CPD in its broad/generic sense.

PGR Module

We used the good practice principles to help structure conversations with researchers who had had a lot of experience of public engagement. The aim of these conversations was to elicit their learning journeys, and to use this to inform training for PGRs. Here we found the principles were incredibly helpful as a set of prompts. We sent these prompts to researchers in advance for them to reflect on. During the discussions they reflected to us that the questions had helped them to reflect more on their own journey and the assumptions that they had had when they started about the audiences, and how these had evolved. For example, one researcher spoke of having evangelistic motivations around engagement with science and wanting to make everyone love science. However, as she developed her practice, she started to challenge these assumptions and developed a more nuanced set of motivations for her work. She felt the good practice principles really helped her to articulate this journey. When it came to the development of CPD for PGR students however, we did not find the principles as useful as some of the other frameworks – particularly the Researcher Development Framework. This was again down to the need for graduated levels of competencies.

Applying the framework with external trainers

One of our Advisory Board members developed and ran an Academy Zone using the good practice principles, for participants in “I’m a Scientist”. I’m a Scientist (IAS), is an online event where school students get to meet and interact with scientists. It’s a competition between scientists, where the students are the judges. Students challenge the scientists over intense, fast-paced, online live chats. Then they ask the scientists all the questions they want to, and vote for their favourite scientist to win a prize of £500 to communicate their work with the public. The team behind the programme ran an extra training zone to help give participants a grounding in good practice in public engagement and key concepts like Science Capital. Using peer to peer learning and reflection they wanted to challenge their thinking and reflect on how public engagement could be done.

Every couple of days, researchers were sent a question to help them reflect on and think critically about public engagement while doing IAS. The questions related to the NCCPE Engage Framework and Science Capital.

- Q1: Engage Framework Principle 1 – Purpose
- Q2: Science Capital concept introduction – Is science ‘for me?’
- Q3: Science Capital Teaching Approach and student-led formats
- Q4: Engage Framework Principle 2- People Focused
- Q5: Engage Framework Principle 3 – Mutually Beneficial
- Q6: Engage Framework Principle 5 – Learning

Eleven out of fourteen researchers were active in the programme. The evaluation suggested that the academy had helped develop good practice. For example, researchers clearly valued the chance to step back and thinking about their motivations to take part (principle one: purpose), they also indicated they would be more likely to stay involved in public engagement and seek opportunities for further development. For the course reviewers the good practice principles had also worked as useful prompts to elicit learning from participants and support their CPD².

² <https://about.imascientist.org.uk/2019/reflecting-on-im-a-scientist-participation-academy-zone-pilot/>

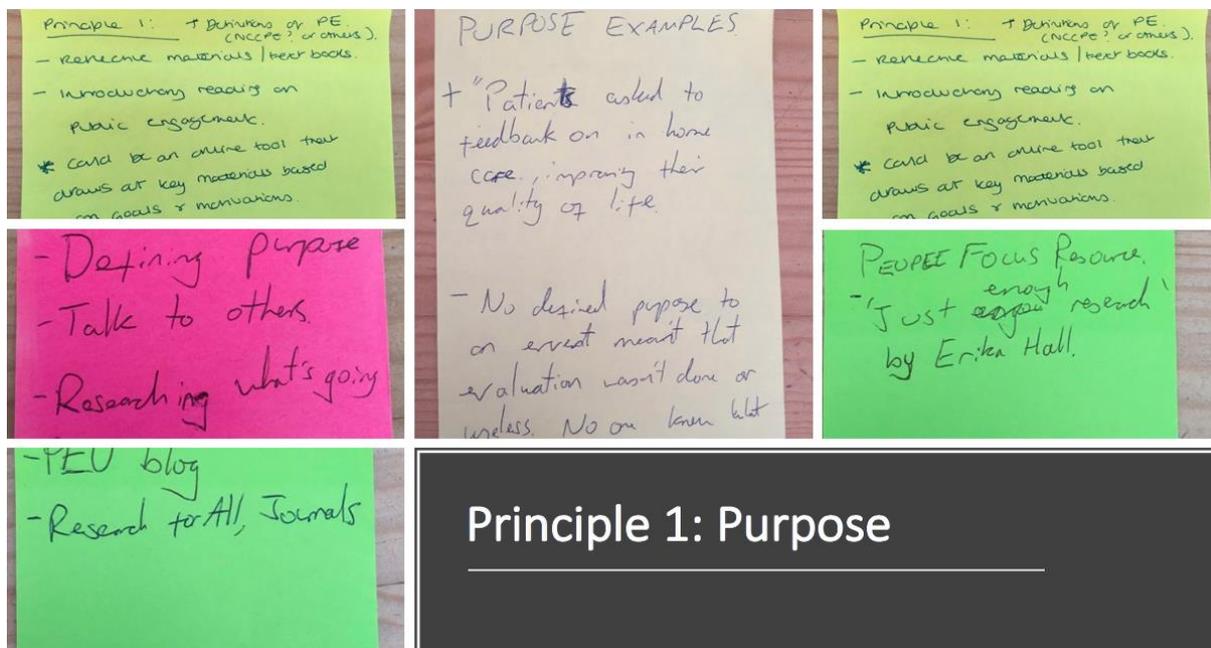
Applying the good practice principles with Engineering students

We presented the good practice principles to Undergraduate students in Engineering and used it to inform the training workshops delivered. Their task as part of a module was to set up and deliver a public engagement activity, which was then accessed partly through their reflective journal.

Although there was no obligation to use the principles in anyway, we looked at a randomly selected sample of five student's journal and three out of five students had adopted the principles to inform their reflective journals. There were different levels of integration. One had simply referenced some of the principles (demonstrating knowledge of them), one had cited the principles and used them to identify gaps in their practice or areas for further learning, and one had woven the principles into their reflections of the engagement activity they had planned. The reflective journals indicated that the principles had in some way influenced their practice, however as an assessor to these journals we found ourselves needing an assessment criterion to assist with marking.

Linking the good practice principles to other training resources

Finally, we took the good practice principles and started to map out where researchers would go to get more support if they wanted to develop or strengthen a particular area of their work. We began by asking our advisory board to signpost case studies, training and further resources. Below we show examples of what we found for principle one, and principle two. We found the individual principles did not necessarily link exclusively to specific areas of CPD, and a more holistic approach was needed. For example, training in ethics contributed to a number of different principles.



② measuring (university) unconscious bias resources.

Skills
- ethics training.

NCCPE

Visitor studies Group + audience researchers working
Research councils / Wellcome, guidance
But → all guidance taken upon v. different
terminology formative work
science wise Market Research Users
pts council

behaviour - talk / listen / empathy
shening skills
risk-taking / being willing to step into the unknown
cultural agility

(HP)

PEOPLE-Focus Examples

+ ...

- "P. do a venue that
it target audience"

PEOPLE FOCUS Resource.
- 'Just ^{enough} research'
by Erika Hall.

Principle 2: People Focused

To address this and implement the good practice principles it was agreed that we would need to create bespoke resources that helped illuminate the principles to researchers from different disciplines, practicing different types of engagement. For example, under the People Focused principle, we could create a blog resource that shows how audience segmentation can be used in engagement, to help reflect on different attitudes and values that people bring. We valued the opportunity to explore these developments within the Advisory Board, however the we have put the task onto our 'to do list' for future as there was not the scope within ChallengeCPD to deliver what would be a significant piece of work. We also reflected that this may be a piece of work that is taken forward at a National level, for example as part of the NCCPE resources and training provision.

Conclusions

The good practice principles were generally accepted by those we consulted as a reasonably robust and useful set of principles. But we couldn't say they have been transformative from a CPD perspective. They are a useful resource, and we have successfully referenced them in our training and work with undergraduate students, however the need for tiering, and for translating into competencies, means there is still work to do for them to be really useful in a CPD setting.

Researchers suggested that the framework could benefit from further illustrations of each of the principles, and what they might mean in practice. External trainers suggested they could align their training with the principles, but they did not necessarily see them having an impact on CPD uptake. HR and other staff responsible for professional development of researchers suggested the framework needed to be graded in order to be useful for CPD and to be complemented with additional learning resource.

We've undertaken some initial work and further scoping to address these points and to apply the framework at University of Bath. However, our ability to fully progress this work has been constrained by time and was beyond the scope of ChallengeCPD. It was evident that the Good Practice Principles for Public Engagement Involving Universities and the Researcher Development Framework provide a helpful framing for quality and progression respectively. However, CPD comes to life when it is located within the professional practices of the discipline itself, and there is more work needed to promote public engagement as valid aspect of engaged research. As we tailor our support for researchers, we are learning to be mindful of the discourse of engagement that exists within the academic discipline. If the principles represent a set of agreed quality standards for PER, there is work needed to embed these principles within the Pathways to Impact processes, REF, and Researcher Development, so that they can inform the development of those disciplines.

Annex A: Quality Frameworks

Teacher educator framework describes the overall competence and the kinds of professional knowledge, understanding and skills associated with the role of a teacher educator. British Council. Schools.

https://englishagenda.britishcouncil.org/sites/default/files/attachments/teacher_educator_framework_final_webv1.pdf

- CPD central to the success of teaching for success approach
- The aim of CPD is to have a transformational impact on teachers and their learners
- CPD helps achieve deep, systemic, and sustainable improvement in performance and outcomes.
- CPD framework provides guidance to help understand CPD needs at different stages, and the right activity to meet these challenges.

SEDA Professional Development Framework: provides recognition for higher education institutions and organisations, accreditation for their professional development programmes and recognition for the individuals who complete those programmes. SEDA. HEIs

<https://www.seda.ac.uk/pdf>

Draft Community Development Performance Management Framework: the framework supports health and social care organisations to:

- Systematically develop community development approaches in all aspects of their business;
- Ensure a realistic development route for community development;
- Measure progress on mainstreaming community development approaches; and
- Incorporate community development into performance management arrangements.

https://www.publichealth.hscni.net/sites/default/files/Community%20Development%20Performance%20Management%20Framework%2009.06.11_0.pdf

Patient experience improvement framework: This framework helps trusts to focus on the key factors (including the underlying factors) that need to be present in a provider focused on the needs of its patients. It brings together the characteristics of organisations that consistently improve patient experience and enables boards to carry out an organisational diagnostic against a set of indicators.

https://improvement.nhs.uk/documents/2885/Patient_experience_improvement_framework_full_publication.pdf

Quality improvement framework: The QIF is an overarching document which draws together all initiatives that are currently underway within the Isle of Wight NHS Trust to improve quality of care.

<https://www.iow.nhs.uk/Downloads/Quality%20Improvement/Quality%20Improvement%20Framework%202015.pdf>

Policing Education Framework: The PEQF (Policing Education Qualifications Framework) is a new, professional framework for the training of police officers and staff. Based upon a new modern curricula aligned with the education levels set in England and Wales, this framework will over time

cover the range of professional training for police officers through the ranks of constable through to chief officer.

<https://www.college.police.uk/What-we-do/Learning/Policing-Education-Qualifications-Framework/Pages/Policing-Education-Qualifications-Framework.aspx>

A Framework to Improve the Quality of Treatment for Depression in Primary Care: In this article, the authors re-view current concepts and theory regarding the quality of treatment for depression. They present a conceptual model of four points in the course of a treatment episode when clinicians could deviate from guide-lines

<https://www.rand.org/pubs/reprints/RP1277.html>

International Development and Humanitarian Training Competency Framework:

<https://www.alnap.org/help-library/international-development-and-humanitarian-training-competency-framework>

Performance Management Good Practice Guide

<https://www2.gov.scot/resource/doc/198252/0053001.pdf>