Effective Learning Platforms

Primary education, personalised learning and social networks

A specification for a NAACE CPD Toolkit
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The focus and aims of the CPD

1. The primary-style approach to learning platforms, and CPD, will, of course, have much in common with that for other phases of education. However, primary education typically would have a number of characteristics that might be less common in secondary schools, which primary learning platforms might well be expected to maintain, and which might usefully inform the nature of CPD in their use at this level. Some of these characteristics include:

   - An emphasis on providing **a rich and stimulating learning environment** where a variety of resources and activities are made available, and where there are at least some occasions when there's some degree of choice in using these;

   - Related to this is the idea that children in primary schools learn best through **experience**, and thus a primary learning platform might focus more on engaging children in meaningful activities than in presenting resources;

   - An expectation that at least some teachers are comfortable with the idea of **producing their own resources** and worksheets, rather than relying on particular text book schemes, particularly away from the core curriculum, and so a primary learning platform would provide the tools for these teachers to make their own digital resources too;

   - **Creativity**, and indeed collaborative creativity, has a vital place in the curriculum, as acknowledged by Excellence and Enjoyment;

   - **Social learning** may be emphasised, for example through practices such as circle time and 'show and tell', with an acknowledgement that all have a voice, that the class can learn from the experience of all, and that informal, independent learning outside school has validity; and

   - A willingness, certainly with the younger pupils, to strive to make learning fun, and closer perhaps to play, and thus a primary learning platform would allow some room for learners **to try things for themselves and experiment**.

2. The current deployment of learning platforms focuses on improving school effectiveness and extending learning opportunities. This in itself is unlikely to transform learning, and furthermore, at present only a few schools are actually achieving improving school effectiveness and extended learning opportunities via learning platforms, and thus there is a very limited evidence base on which to draw. There is a need to develop a toolkit to enable schools to leverage learning platform technology not only to improve their effectiveness but to help transform learning. For this to happen, teachers will need an understanding of what this technology is and of how it can be used to support personalised and collaborative learning. As Seymour Pappert has it:

> "…for those of us who want to change education the hard work is in our own minds, bringing ourselves to enter intellectual domains we never thought existed. The deepest problem for us is not technology, nor teaching, nor school bureaucracies. All these are important but what it is all really about is mobilizing powerful ideas.

3. More practically, engagement in the CPD will enable teachers and school leaders to plan, develop, implement and use an effective learning platform, which meets their school's needs and aims, and will support progress from immediate learning platform applications to the ultimate goal of transformed learning.

4. The key principle underpinning the planned CPD builds on the essentially experiential dimension of much primary education, in that teachers will **learn about** aspects of this innovation directly **through experience of** these aspects. Thus the toolkit will:

   - Be presented through an exemplar **learning platform**, with support for rich media, a range of activities and social engagement; it seems vital that teachers acquire an appreciation of this new educational medium as learners first, before they can reasonably be expected to develop or deliver online content and courses themselves;

   - Allow participants to learn about **social, collaborative learning** in an online environment in which their experiences may be shared, and in which they may learn from one another as well as from online resources;

   - Encourage good practice in **personalised learning**, by providing opportunities for participants to exercise both choice and voice; and

   - Place emphasis on participating in a **community of practice**, rather than working through a sequence of activities.

5. The CPD provided should furthermore aim to contribute to teachers' ongoing development as reflective practitioners, and thus direct, experiential learning needs to be placed within a **broader context**, informed by the wider policy agenda, academic research and practitioner case studies, some of which we would hope would be provided by participants themselves over time.
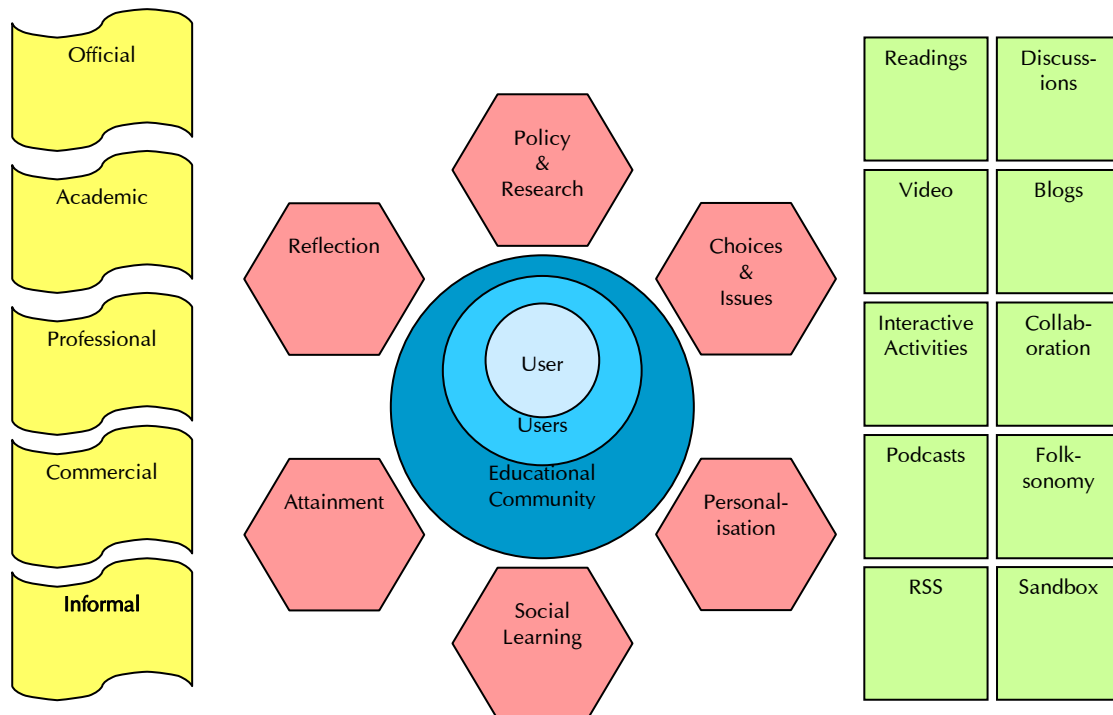
Similarly, for those responsible for choosing and implementing learning platforms within primary schools, and for embedding their use within the school's vision for learning and teaching, CPD should include an opportunity to **explore the issues** here in a reflective way, again as part of the community of practice.

6. The toolkit thus envisaged is somewhat different from the '**learning journey**' notion of a sequence of readings and activities. At the risk of torturing the metaphor, it is perhaps more akin to providing a **learning landscape**, together with a map, so that all travellers may visit the places of greatest relevance to each, exploring in as much detail as they may wish, meeting with one another, and some of the locals, along their individual journeys, perhaps travelling together for a while, and for some at least, settling in and making the place a home and thus contributing something to the environment themselves. Whilst many will be willing and able to explore such a landscape for themselves, others may prefer to receive a set of directions, plotting specific, tailored routes through the landscape with particular destinations in view, and thus a number of alternative paths or journeys will be suggested through the network of resources and activities. Crucially participants should be able to determine how they wish to undertake any new learning experience and thus determine both the route and pace of the journey.

7. The on-line community of practice model envisaged has key benefits for participants, and for NAACE more generally:

    -   Provision of opportunities for on-line real time discussion and a sharing of similar interests;

    -   Opportunities to learn from others' expertise, skills and competence;

    -   A wide range of professional relationships can become established within the learning community; and

    -   Opportunities for a good mixture of experienced and inexperienced people to share their experience

8. Membership of a national community of practice focussed on learning platform use, as well as access to a single location pulling together key resources will be a sufficient incentive for many to participate in the community, especially if participation costs are nil. More extrinsic motivation might be provided through a number of accreditation tracks, with a basic level being offered in return for reflections on a number of key resources, participation in forum discussions and the contribution of example materials. A higher level accreditation, perhaps in association with an HE institution, could be offered for those who contribute more detailed case studies, or write up more formal action research in this area; the virtual community could also facilitate collaboration on projects at this level. Fees for such accreditation would not be inappropriate, and might be set at a level comparable to those charged elsewhere. Some participants might be invited to take on moderation and mentoring roles within the community, providing a further incentive for some to participate.

9. If the day to day moderation and facilitation of the community was taken on by members of the community on a voluntary basis and use made of open source software, then ongoing marginal costs may be reduced to a level such that membership of the community could be offered as a component of NAACE personal or institutional membership, or potentially free for all participants outside of the accreditation scheme. The success of online communities such as this is likely to be dependent on maintaining a 'critical mass' of active participants.

The overall CPD process

10. As a landscape rather than a journey is planned for this CPD, a flow-chart illustrating the steps to be completed would be inappropriate. The following diagram illustrates the key components of the landscape.

Official	Policy & Research	Readings	Discuss-ions
Academic	Reflection	Choices & Issues	Video	Blogs
Professional	User	Interactive Activities	Collab-oration
Commercial	Users	Educational Community	Podcasts	Folk-sonomy
Informal	Attainment	Personal-isation	RSS	Sandbox
	Social Learning		

Participants

11. The user is placed at the centre of the landscape, as it is each user's own context, needs and choices that will determine the modules, resources and activities most appropriate for CPD for that particular participant. Furthermore, the contributions, such as reflections, forum posts, resources and case studies, made by each participant will add to the landscape's content for the shared benefit of other participants, as well as providing a feedback mechanism for the contributor.

12. Each participant becomes part of the online community of toolkit users, understood as a community of practice, which will facilitate social learning, by bringing together people with a common interest in learning platform implementation and use, to share experiences and ideas, find solutions to one another's problems, and collaboratively build resources, activities and perhaps

even online courses together. Whilst there would be no technical obstacles to multiple instances of the CPD community, hosted by individual schools, local authorities or other organizations, the greatest benefit will follow from the broadest membership, and thus a single, NAACE hosted community is likely to form the most effective model. Furthermore, it is envisaged that at least some users will remain within the community after fulfilling their initial CPD needs, perhaps taking on mentoring, moderating and facilitating roles. There is no necessity for participation in the community to be restricted to English or UK teachers, and the interchange of experience and insight between those engaged in different education systems would add much to the community.

13. The user community is situated within a wider educational community and thus there should be mechanisms for the toolkit to draw in expertise from the wider NAACE membership and further a field, perhaps through mentoring or 'hot seat' type roles, but also through inclusion of additional case studies and aggregated blog posts. Openness and inclusion should characterize the community.

Modules

14. Within each module, CPD participants will be pursuing their own professional development as well as making a contribution to that of others through engagement in a collaborative, social context. The learning platform will engage learners in collaborative CPD that will expose them to ideas and connect them with people from schools which may be very different from their own and which they would not ordinarily have encountered. Generally within UK education, CPD is seen as a means to an end – a widening of knowledge applied to specific tasks of teaching and learning, here however the community of practice model sees CPD as an ongoing responsibility, in which professionals seek not only to develop their own skills, knowledge and understanding but also to contribute something to the shared expertise of the profession as a whole. Modules are not completed according to some predetermined time table, since embedded learning occurs over time, and is a process rather than an event. Only through complete processing of information, 'on-the-job' practice opportunities, and feedback, are participants likely to develop individual and collective proficiency. Thus individual CPD activities will recognise that time is needed for transitionary actions to become transforming actions.

15. The proposed CPD model used here will, for the most part, be based on the traditional four stages of development that represent a continuum from passive to active, embedded in participation in the community of practice:

- Initial knowledge or skill acquisition;

- Increased knowledge or skill proficiency;

- Ability to apply knowledge or skill in simple situations; and

- Ability to apply knowledge or skill in complex, real world situations.

16. The following headings are one possible scheme for grouping together the CPD resources, collaborative activities and discussions within the toolkit. Given the personalised approach adopted, it is likely that many participants would make extensive use of only some of these areas, and there is no sense in which participants would be expected to 'complete' a set number of modules, however, in order to form an overview of the field, users might be expected to have some understanding of issues and debates within, and practical experience of, each of these areas.

17. **Policy and research**. The toolkit should draw together key policy documents from DfES and Becta, as well as drawing on the body of academic research into VLE use, despite much of the present literature having been written within a higher education context. Becta's *What the Research Says* leaflet and the more extensive *Research Bibliography* would be useful starting points, although securing IP rights for academic papers may be difficult. Over time, course participants and CPD facilitators may be able to contribute additional material, in the form of focussed literature reviews or school-based case studies. The focus of the CPD should be on familiarising participants with the wider context of learning platform deployment and use, and thus enable assimilation of good practice and critical reflection within their own contexts.

18. **Choices and issues**. A number of choices and issues are raised by learning platform deployment at school and teacher level, and the focus of this module would be to enable school leaders and teachers to think through these for themselves, drawing on a range of resources presented in the module, but also through dialogue with fellow course participants. Such decisions may typically involve approaches to addressing digital divide issues, impact on teacher workload, the degree of autonomy given to teachers and pupils, choice of learning topologies, and the extent to which the introduction of a learning platform may be a force for pedagogic change. It essential that learning platform implementation and use be seen within a school's overarching vision for learning and teaching, and that schools have a real sense of ownership of their particular learning platform. There are clear links here with the leadership and management toolkit being developed alongside this one, and it is hoped that there would be opportunity for collaboration in this area between those using either toolkit.

19. **Social learning**. The social learning focus within the toolkit is met principally through the delivery of the CPD through an online community of practice, with a rich range of social interactions being made possible, through, for example, synchronous video, audio, or text conferencing, asynchronous discussion forums and collaborative work spaces. Participants would be encouraged to reflect on this use and explore ways in which it might be applied to their own school-based work. The module would again contain a number of more formal resources, presented as starting points for discussion and reflection, including a number of key academic papers. It is assumed that the learning platform used by a school or group of schools would provide the organizational framework to enable people to learn through their peers' experiences. This area is discussed in more detail below.

20. **Personalisation**. In part, the personalisation agenda is covered through presenting the toolkit materials in a way which allows participants the choice of which activities and resources will be most relevant to their contexts. Furthermore, by focussing on a community of practice model, in which users contribute content into the learning platform, in the form of forum contributions, shared materials, blogged reflections and more formal case studies, the vital contribution ('voice') of each participant is acknowledged. It is hoped that by modelling personalised learning in such a way, participants will be able to adapt such strategies to their school's use of learning platforms. The toolkit will also present a range of more formal resources within this module. A more detailed discussion of the toolkit approach to personalised learning is included below.

21. **Attainment**. In addition to presenting the relatively sparse academic work on the impact of learning platforms on attainment, this area of the toolkit will provide opportunities for participants to discuss ways of leveraging the technology to impact on measurable outcomes. The area will also present a number of methodologies that teachers might adopt for measuring the effects of introducing this technology, and then act as a repository for analytical case studies of this, developing an important body of evidence in this area.

22. **Reflection**. A key feature of the toolkit will be the inclusion of a practical 'sandbox' area in which participants can try out the tools provided in the platform for themselves to develop online resources and activities, on which they can receive feedback from their fellow participants, prior to export into their school's own learning platforms. Functionality to support collaborative co-creation of resources will also be provided. Participants will be encouraged to reflect critically on activities and resources created in this way, and on their broader experience of learning platform use, both within the toolkit itself and within their own school-based practice. Such reflections shared with the community will allow subsequent participants to benefit from the experience of others. For example, some participants may choose to use the toolkit to set their personal learning goals based on an analysis of their pupils' performance, identify research-based, proven learning strategies to address goals, work collaboratively to develop new instructional practices and bring new learning to the classroom, before finally measuring how well a new strategy helped their students meet the learning goals they had set.

Sources

23. Whilst some resources and most activities in the toolkit will be developed specifically to facilitate this CPD, much of the resource content will be sourced externally, to bring in a range of perspectives and thus both encourage critical reflection and highlight the range of different views within this field. In order for participants to experience a sense of ownership of the community, and of their learning within it, there needs to be an emphasis on discussion, reflection, and users' own contributions, rather than merely the presentation of one particular approach to learning platform use. By empowering schools and teachers to think issues in this area through for themselves, a far greater sense of professional autonomy is likely to follow. Content not developed specifically for the toolkit might be sourced from a number of different

sectors, although obviously a process of selection will be necessary, and some commentary and discussion space alongside such resources is likely to facilitate more reflective reading.

24. **Official**. Links to a range of DfES, Becta, Ofsted, QCA and NCSL webpages and publications will be provided in the toolkit, principally within the 'policy and research' and 'choices and issues' modules, but also in other modules too as appropriate. Local authorities and Regional Broadband Consortia should be invited to submit additional materials for inclusion. Where existing online communities or other interactive facilities have been developed by official bodies, CPD participants would be encouraged to participate.

25. **Academic**. Whilst a number of academic studies are available freely via the Internet, and thus might be linked to from within the toolkit, there may be difficulty in securing access rights to papers from published journals, without impacting on participation costs unduly. Participants working towards an externally accredited m- or d- level qualification might be able to obtain access to such papers via the accrediting institution, and thus additional reading lists could be provided. Academic researchers might be encouraged to post details of projects within the toolkit, and encourage participation of toolkit users in school based studies.

26. **Professional**. A range of resources are available from teachers' professional associations which could be linked to from within the toolkit. In addition to associations focussed on ICT, such as the BCS, MirandaNet and NAACE itself, other subject associations may have a range of resources available within their own field, and links to relevant articles from the TES and other media could be included within the toolkit. Other not-for-profit organizations working in this area such as Futurelab, the E-learning Foundation, and Schoolforge-UK might be invited to submit materials for inclusion in the toolkit. Again, where such bodies have their own forums, toolkit participants could be encouraged to join.

27. **Commercial**. Whilst specific training materials on the use of particular learning platforms would fall beyond the scope of this toolkit, and would be best delivered by suppliers and their agents, commercial firms supplying learning platforms and content, particularly those with whom NAACE has established relationships, could be invited to submit materials for inclusion, although overt commercial promotion would be inappropriate. Commercial and other suppliers might be invited to submit proforma descriptions of their products for inclusion in a database within the 'choices and issues' section, and exemplar learning resources could be included within the toolkit, perhaps forming the seed corn of the 'sand box' area. Links to Curriculum Online and forthcoming learning platform standard conformance information would also be provided.

28. **Informal**. This is a key source for content within the toolkit. Participants are to be encouraged to contribute content into the toolkit, for the benefit of the community, as resources or activities that they would use in schools, through the 'sand box' facility, as reflections, via a blogging tool, or as more structured case studies, for which some form of outline scaffolding and exemplars would

be provided. An additional facility to draw in RSS feeds from other practitioners' and researchers' blogs would widen the range of perspectives presented within the toolkit, and the facility for individual users to select from a number of feeds would provide for greater personalisation.

Tools

29. The learning platform used for delivery of the CPD must provide opportunities for both synchronous and asynchronous discussion, with opportunities for reflection and exploration of issues, shared interests and the latest developments within the field. The platform should provide a rich social environment with opportunities to learn from other's expertise, skills and competence, and thus facilitate the development of a wide range of professional relationships within the learning community. By allowing relatively naïve users to share experience, solve problems and build up a shared knowledge base alongside those approaching expert status within the field, the platform will provide opportunity for some form of 'apprenticeship', legitimate peripheral participation, or learning within the zone of proximal development, which are held to be features of communities of practice. At a social level, the platform must provide opportunities and techniques for establishing group identity and nurturing trust among members as a community, through supporting engagement, imagination, convergence and a feeling of ownership of the CPD from the outset. Crucially, the platform must provide opportunities for collaborative learning in a supportive, social learning environment, which recognizes the autonomy and unique contribution of each participant.

30. In order to facilitate such a rich CPD environment, the learning platform through which it is delivered must provide a number of communication and collaboration tools over and above core functionality for presenting resources and activities. However, given the emphasis on participation within a community of practice rather than completion of a course of study, learner tracking, assessment and curriculum mapping functions are unlikely to be as important as they may be in other contexts. Whilst some form of adaptive learning design with metadata tagged resources and activities would be of value in providing personalised learning journeys for participants, this must not be at the expense of allowing participants to autonomously select their route through the learning landscape, for which some form of visual representation and folksonomy tagging system may be more effective.

31. The range of tools required is likely to include at least: presentation of readings, audio (including podcasts), video and SCORM packages, a number of different types of interactive activities, support for synchronous and asynchronous discussions, RSS feeds and aggregation, a learning journal or blog tool, support for collaboration, such as a number of wikis, and the sandbox facility in which participants can use the platform tools to create, edit and export their own content. These tools are described in more detail in the technical specification section below.

Ethos

32. A far less tangible aspect of the NAACE learning platform CPD community will be the promotion of a positive ethos around learning platform use, which would then form a model for learning platform use within participants' schools. The ethos of the community should be one in which:

- All users feel valued, and part of the community;

- Users respect the values, professionalism, rights and privacy of others;

- Users are willing to share experiences and expertise, and seek to become more familiar with one another through active engagement and collaborative learning, drawing on the rich diversity of users' backgrounds;

- Users expect to be challenged, extended and supported so that they continue to be motivated and committed to CPD;

- Users engage in collaborative learning, and take individual /shared responsibility for the success of every activity in which they participate;

- All user engage with the community to enable its growth into a stimulating, supportive, diverse community; and

- The community is focussed on producing a positive benefit to pupils' education, the teaching profession as a whole, the transformation of learning, and the good of society.

Social learning

33. Social learning forms both a module and a methodology of the CPD toolkit, as determined by the experiential approach derived from primary best practice. By embedding social and collaborative learning within the *modus operandi* of the toolkit, rather than merely presenting resources and activities about it, participants will:

- Gain experience of a range of social learning activities that promote collaborative learning;

- Work together and learn to regard information sharing and mutual support as strengths; and

- Work in collaboration with partners to enhance learning opportunities within a community of practice.

Communities of Practice

34. A community of practice is understood here as,

> "a social entity recognised as such by its members who are bound together in a sense of joint enterprise that emerges from a mutual understanding of a problem, or issue, and a desire and commitment to solve it… Their function or purpose is described as building and exchanging knowledge, and developing the capabilities of the membership." (Peter Bond 2005)

35. Since the beginning of history, human beings have formed communities that accumulate collective learning into social practices. Tribes are an early example, and further instances include the guilds of the Middle Ages, and the learned societies of the Enlightenment. Less obvious cases are a local swimming club; a group of midwives that meet socially and discuss work practice as part of their casual conversation, or a school staffroom. Such communities do not take knowledge in their specialty to be an object; it is a living part of their practice even when they document it. Knowing is an act of participation.

36. The key to understanding how a community forms is to consider the role of the independent learner. People's natural motivation is to ask questions and share knowledge and experiences. This leads to the formation of social relationships within a community of practice. The knowledge and competences of individuals will become more valued as a result of the benefits the community derives from their utilisation. The more an individual learns and the more is shared, the greater the depth of shared learning within the community. The act of conversation, in whatever medium, is particularly significant as it links an individual to a community

37. Through their participation in an education community of practice, individuals gain a sense of shared identity with fellow practitioners focused on their work and interests. This shared identity is distinct from that defined by their school, or other teams or groups. Because communities of practice are groups of people who share a passion for something that they know, or wish to learn, how to do and who interact regularly to learn how to do it better, the very knowledge they create serves as the basis of their continuous reinvention. NAACE is, of course, one such community of practice; those undertaking this CPD have a more narrowly defined focus and, perhaps, greater cause for interaction than the NAACE community as a whole.

Collaborative learning activities

38. Collaborative learning activities are structured tasks that are designed to be tackled by groups of learners. Whilst such groups might be assigned by the community's facilitators or the platform itself, it is closer to the spirit of personalised, autonomous learning for the groups to aggregate around authentic practice based problems on the basis of common interest.

39. The purpose of such activities is to motivate the learners to explore and understand the nature of the subject by encouraging them to think and talk together. Participants will bring their existing knowledge and experiences with

them, and individually and collectively make links with the new knowledge and skills that they are acquiring through participation in the CPD community.

40. Social learning activities require:

- Conversations, seen here as the key to social learning;

- Collaboration, as participants are interdependent and do not learn in isolation;

- Commitment, as all members of the community must be willing to participate in realizing the community's shared purpose;

- Connectivity, via technological infrastructure that enables a virtual learning environment to function; and

- Capabilities, which link strategy to performance and eventual goal fulfilment.

41. When collaborating online, participants should be able to get results (solve problems, create lesson plans, design projects, and so forth) that are better than the results they would have achieved working individually. Too great an emphasis on building a portfolio for accreditation may be problematic, as participants tend to be concerned with the results of their personal assessments, and participants may be willing to provide feedback or help someone else only as long as it doesn't affect their personal performance. It is only when the success of the group is paramount and all individuals contribute to that success, you have true collaboration; no group member can be left behind and everyone within the group will do whatever it takes to reach the common goal. This is a very altruistic form of interaction and strongly supports collaboration as a learning outcome.

42. In the case of a school using the online toolkit together, it should be possible to design learning exercises that move smoothly between a traditional school-based INSET and online CPD, or in more distributed use between synchronous collaboration via audio or video conference and asynchronous discussion. As participants become accustomed to collaborating, both synchronously and asynchronously, they may start to incorporate more collaborative techniques into their daily interactions, and include more opportunities for work of this nature with their classes. Ideally, the participants in such online activities will continue to assist each other long after these initial learning experiences.

Possible resources

43. It is possible to envisage a series of levels, akin to those used in Becta's matrix, to track the position of schools and teachers towards utilizing learning platforms, or IT more generally, for social and collaborative learning and teaching, for example, and from a teacher's perspective:

    1. The teacher accesses a lesson plan available on the learning platform and uses it with a class,

    2. … And asks for general comments from other teachers;

    3. There is a list of teachers who have used the lesson and there is an online forum available for consultation and discussion;

    4. A real-time audio/video conference can be set up to discuss the lesson plan between staff;

    5. The teacher sets up a work group and invites other teachers to work on the project; … the agreed outcomes are made available on the learning platform to professional groups for future reference.

44. Practical exercises to encourage social and collaborative learning, via the learning platform might include:

    - A bank of lesson plans for a teacher to select, with participants searching for particular lessons that meet their requirements, and then reading comments within a discussion forum and completing a report on the success of the lesson when applied and including any variation on the lesson plan;

    - A synchronous audio or video conference to discuss a lesson plan between staff, involving them in a collaborative exercise that support the actual learning goals defined by themselves; these participants benefit immediately from knowledge and experiences of others working in different schools in a range of localities areas through social learning;

    - A teacher sets up a working group within the platform and invites other teachers to work on a project such as designing a new lesson plan, with the agreed outcomes being made available on the platform to other users for them to use and subsequently refine.

45. Other activities worth of exploration within this field might include:

    - Digital storytelling, working towards a NAACE film festival;

    - The exploration and evaluation of access and participation for people with cognitive disabilities in virtual learning environments;

- E-drama tools, such as online improvisations where human actors interact through personalized avatar characters in reality based or imaginary scenarios;

- Discussion forums around topical professional issues such as extended schools or Sure Start;

- Experimentation with game authoring tools and create games and discussion of the use of games as learning tools; and

- A series of more formal on-line conferences facilitated via the CPD platform, again based on issues of particular professional interest, with a cross section of recognised experts and teacher presenters.

Personalised learning

46. Personalised learning is, like social learning, both a module and a methodology within the CPD toolkit, however the term is capable of a greater range of interpretations, and this may provide fertile ground for CPD participants to explore from their own perspective. It seems clear that personalised learning should not be confused with independent, individual study, or the individualised learning systems of the past. An understanding of personalised learning must have at its heart an understanding of personhood, which must include some acknowledgement of the person's consciousness, identity, dignity, rights and intrinsic worth. There is perhaps also a sense in which *personal* is distinct from *professional*, and thus our notion of personalised learning must be extended to include informal, interest-led learning, not necessarily motivated by the narrower confines of school life.

47. The Schools Whitepaper appears to support such a view:

> "Personalisation … means a tailored education for every child and young person ... It means every pupil being able to extend their learning and develop their interests and aptitudes."

Whilst the planned roll-out of learning platforms in 2008 will include provision for the platform to automatically tailor learning sequences to a learner's profile, the functional requirements also provide for the opportunity for "the learner to select their own learning journey". Indeed this emphasis on personalised learning as predicated on learner autonomy is a key theme of Futurelab's Learner's Charter, which, as well as providing for "access to different teaching and learning approaches and resources that meet my needs", acknowledges that a learner can expect:

> "To be considered as an individual with wide-reaching potential irrespective of age, gender, disability, ethnicity or socio-economic status [and] to take joint responsibility for and be seen as an active agent in determining my own learning priorities."

48. Within a vision of personalised learning that focuses on learners working through streams of tailored learning objects at their own pace, it is difficult to see how opportunities for social learning might arise. However, within our broader understanding of personalised learning, there is no conflict between personalised and social learning, since the learners here are far from isolated, in that personhood implies relationships with others, as is acknowledged by priority 3 of the e-strategy "A *collaborative* approach to personalised learning activities" (emphasis added), and by Futurelab, who regard a learner as entitled to

> "Access to people who are able to extend and develop my understanding in my chosen areas."

49. A key feature of the CPD platform is the high level of autonomy given to participants in choosing their particular route through the learning landscape. It is hoped that by giving participants this degree of choice of the activities and resources with which they engage, they will feel a far stronger sense of ownership of their CPD, and thus be far more motivated to learn and to contribute to the community. A number of tools should be provided to support participants in choosing their routes, such as folksonomy and metadata systems, a range of recommended routes for those with particular interests and, ideally, personal mentors. Applying such concepts of learner choice is more problematic within the school context, where there are prescribed curricula, but some degree of autonomy is likely to be of value, and this would be an interesting area of debate for CPD participants to contribute to.

50. In personalising learning within the school, the use of assessment for learning techniques within the learning platform would be of relevance, and teachers seeking to explore this application of the technology would require a range of resources on which to draw. By comparing their experience and understanding with fellow professionals engaged in similar work in different contexts, a deeper and broader understanding of this area would follow, and it would be of interest for teachers to compare automated approaches in which learning resources are presented according to assessment results, with those in which pupils use feedback from online assessment as a way of choosing for themselves the more appropriate resources. Within the context of the CPD platform itself, assessment for learning may perhaps be achieved through an initial questionnaire designed to determine the level of understanding and experience of each participant, as well as the particular CPD needs of the individual and of their school, with the platform then suggesting appropriate starting points and routes through the available resources and activities.

51. Recent work on learning styles would also be worthy of exploration within the CPD platform, with a range of resources presented covering the more popular models within this field. Collaborative projects in which teachers work together on producing a set of online resources for a particular learning objective within the 'sandbox' facility, but focussing each resource on the needs of those with particular learning styles would be an interesting example of social learning, and would provide participants with a set of resources which could be piloted with their own learners. Identification of CPD participants' preferred learning styles might form part of the initial

questionnaire described above, again with the potential for the platform to recommend particular resources or activities, whilst leaving the final choice of learning journey to the participants themselves.

52. These three considerations: assessment for learning, learning styles, and learner choice, will feed into the process of adaptive learning design, which in its present form is likely to be too complex a technical area for most of the participants to engage with to any great degree, although appropriate resources should be made available for those interested, as should at least some authoring tools within the 'sandbox' environment. Nevertheless, the issue of where the responsibility for personalising learning, or adapting learning design, lies is one on which many participants may have views, and it is important that teachers be able to engage in this debate and share their views and experiences with one another. It seems unlikely that there will be sufficient resources to incorporate adaptive learning design to any great extent within the CPD platform, nor would it necessarily be appropriate to do so, given the emphasis here on learner autonomy.

53. A key part of the proposed CPD toolkit is the encouragement of independent study, including practitioner action research, and it will be important for the platform to include a range of resources to support such work, including scaffolding for case studies, and access to a range of academic research. More valuable still will be the provision of mentors to guide individuals engaged in these activities, perhaps in association with accrediting HE institutions, and online seminars in which teacher-researchers may share experiences and develop common, robust methodologies. Furthermore, a body of action-research focussed on learning platform use may provide a valuable resource for further academic research and official evaluations of learning platform rollout. This sort of online experience may provide a model that teachers can then adapt for work with pupils, engaged in independent topic work or when working together as a community of enquiry.

54. Part of the understanding of personalised learning adopted here is that each user's contribution is unique and of value, and thus the platform must provide functionality and opportunity for such insights to be shared. Contributions may include forum posts and responses, informal reflections, detailed case studies and more lengthy pieces of action research as described above. A number of tools will provide opportunity for such learner voice, although an integrated blogging system is likely to be the most important of these. The link between this personal learner voice and the community of practice concept is important, as it is through the latter that participants' writing takes on a purpose beyond their own professional or institutional development, and becomes something from which all may benefit. Again, the model adopted here is one which participants may well be able to adapt to work with their classes, and blogging projects involving a range of different schools might well be facilitated through the NAACE platform, as a way of providing pupils with a wider audience for their writing without raising undue child protection issues.

55. There is research to suggest that some degree of social presence is important for the success of online learning environments, and thus participants might be

encouraged to develop personal profile pages, providing more detail than just their professional involvement, at their discretion. Similarly the provision of a 'café' style discussion forum, and acceptance of blog posts that have nothing to do with school might provide a vitality and colour in what might otherwise be a perhaps too serious online environment, as well as providing opportunity to share more informal learning experiences than might be considered appropriate in narrowly focussed forums. Many of the participants' pupils may already be using online communities for such social purposes, not necessarily with their school's blessing, and again these are issues on which participants should be able to take a considered and informed view.

Technical Specification

56. It is anticipated that the CPD could be delivered via a learning platform that conforms to the full list of Becta's functional specification (i.e. both mandatory and recommended requirements) without any significant modification or customization. However the technical requirements for a platform focussed on CPD, with the emphasis here on personalised and social learning that has grown out of the practice of its primary constituency, may place a different emphasis on the particular tool set offered: thus blogging, RSS aggregation, discussion forums, content creation tools and collaborative workspace become more important, and computer controlled adaptive learning, curriculum mapping and learner tracking relatively less important than in a school based learning platform of the form which Becta appear to expect. It may thus prove necessary for NAACE to work alongside the chosen learning platform supplier, or ensure access to the source code, so that the precise functionality of the toolkit could be tailored to this specific use, perhaps by some of NAACE's more technically literate members rather than suppliers themselves. Specific technical components of the platform are likely to include the following.

57. Despite the growth of multi-modal literacy, much of the content of the CPD community is likely to be in the form of **text** based resources of one form or another, and thus the platform must provide tools for presenting a range of textual material formats, including Word documents, PDFs, PowerPoint slides, text and HTML. A personal or shared note-taking facility alongside presented resources may be of value. Given the focus on participant supplied content there should be the facility to upload content in a similar range of formats, and potentially the opportunity to author at least HTML pages online.

58. The platform should support the delivery of **audio** content in a range of common formats, ideally without requiring additional client side plug-ins. There should also be provision for users to record audio notes and reflections on the platform, or as a minimum to upload their own audio content into the platform. Automatic RSS feed generation of audio content would allow this material to be made available as podcasts. Where practical, transcripts of audio material should be made available to make content more widely accessible.

59. Similarly the inclusion of **video** material, ideally in a compact, cross platform format such as Flash video, should be possible, although bandwidth

considerations may limit the scope of such material, at least initially. Video case studies of classroom practice would be particularly valuable, and there should be some mechanism for participants to contribute their own recordings, either as exemplars or to receive feedback from fellow participants. Some form of transcription or subtitling would be necessary to allow for maximum accessibility.

60. Given its adoption as the standard for reusable learning objects, the ability to present resources in the format of **SCORM** packages is likely to be necessary. Similarly for teachers interested in authoring or adapting content in this format, it would be desirable to provide an online (or as a minimum downloadable) editor for SCORM content.

61. To more readily engage participants with content, there should be the facility to present **interactive activities** in a range of formats, such as Java and Flash. Whilst this functionality is likely to be provided through client browsers, additional tools to author simple interactive activities would be a useful inclusion within the platform, and their should be the facility for participants to upload their own content.

62. A range of communication tools should be integrated within the platform, including tools for **synchronous conferencing** as a minimum via text, but ideally with some support for shared whiteboards, audio conferencing using VoIP and potentially video conferencing. Many users may also wish to have some form of private instant messaging tool.

63. More important, given that the CPD is to be delivered through a semi-permanent community rather than timed cohorts, will be the provision of **asynchronous communication tools**, most obviously through a number of online discussion forums, perhaps with support for separate groups of participants. Such forums should not require participants to log-in in order to remain abreast of postings, and thus integration with RSS and/or email would be of value. As participants are likely to have existing email provision, the platform should provide the option for participants to communicate privately via email if necessary.

64. Over the life of the platform it is likely that many participants will come to rely on personal RSS aggregation as a means of keeping track of a diverse range of online sources relevant to their personal and professional lives, and thus the platform should be capable of generating personalised **RSS** feeds of those forums, collaborative workspaces and journals that an individual may wish to follow. Similarly, the platform should be capable of aggregating a number of distinct RSS feeds, as a 'river of news' from the official, academic, professional, commercial and informal sources described above, ideally in a manner which each user might customize, choosing from a 'menu' of available sources.

65. Central to the approach adopted here of personalised, critical reflection on professional practice will be the incorporation of a learning journal, in which participants may reflect on their ongoing experience of the CPD community and of their use of learning platforms within their own contexts. Such a journal

would share much in common with a **blog**, and thus this form of technology might be readily used for this purpose. Where participants already have an external blog, use of RSS to move appropriately tagged posts between the two locations may be of value.

66. Given the commitment here to presenting learning platforms as tools to facilitate more collaborative, social learning, some form of collaborative workspace must be provided within the platform, probably in the form of a **wiki**, which would also provide tools for rich linkage between and within documents, and a version control system. Given the particular focus of many of the collaborative activities envisaged here, it would be appropriate to develop certain template wiki pages, such as for lesson plans, schemes of work and case studies. Whilst wikis are well suited for working on text collaboratively, adapting this technology to other types of resources would be an interesting and useful area to explore.

67. The community of practice model used for this CPD, as well as the practical, experiential style of learning favoured for much primary practice, means that CPD participants should be given opportunity to explore the set of available learning platform tools for themselves as authors and editors, rather than merely as learners. A parallel '**sand box**' learning platform, or an area within the core provision would allow such experimentation, with the consequent opportunities for the development of materials for public comment, for export into a participant's school's learning platform, and for the upload of exemplar resources and activities. By providing the opportunities for collaborative resource development beyond institutional boundaries, the platform may also help facilitate an ongoing innovation network.

68. To enable participants to plot their own learning journey through the landscape provided here, use might be made of formal metadata tags and adaptive branched content. Perhaps more appropriately, given the socially constructed nature of the community and the notion that autonomy is central to the concept of personalisation, a folksonomy engine, through which users rather than authors tag content, and thus suggest activities and resources to their peers, should be used here.

69. The platform should be accessible to as wide a range of participants as practicable, and thus should conform to relevant web-accessibility guidance. Particular care should be taken that core content provided via audio, video or interactively be available in an alternative format where necessary. Similarly the facility for alternative language or media versions of certain content is likely to broaden the accessibility of the platform. Given that the content of the platform is to be the work of its participants, some users may be willing to act as translators or their equivalent to further extend accessibility.

Concerns

70. Whilst the task of developing such a toolkit might seem a rather daunting one if approached through a traditional top-down CPD delivery model, one of the great strengths of this community of practice approach is that the participants will, given the right tools, over a period of time be able to populate the

landscape with the activities and resources that they themselves, individually and collectively, find most appropriate for their particular CPD needs and professional contexts. However, for this approach to work successfully, a large enough community of users must be involved, and thus whilst accreditation incentives and a core of expert facilitators will be useful to ensure a strong initial cohort, the sustainability of this model will depend on the barriers of entry being low enough that none are unable to participate on grounds of cost or technical competence, and that participation in the ongoing community be seen as of value to even those who have acquired a high level of expertise in the field.

71. As well as the costs and time involved in setting up the toolkit initially, there will be ongoing administration, technical support, facilitation, mentoring and moderation roles, although this latter may be diminished if participants are required to use their own names and are linked back to their schools. In time, much of this work might be taken on by members of the community, but in the early stages it is likely that such work would need to be funded, although some members of NAACE, and the wider educational community, might be willing to undertake a share in these duties on a *pro bono* basis.

72. The scope here is evidently far broader than the set sequence of learning objects that might have been originally envisaged by some, however in order to inspire primary teachers to use learning platforms as tools to transform learning, through adopting more personalised and more social and collaborative approaches, any CPD must, to act as an example and to avoid the charge of hypocrisy, be delivered in a way that its users can personalise and engage with in a social and collaborative way, and thus be itself transformative of participants' professional practice.