



Excellence in the  
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# Collaborative Practice Model of CPD

A Case study  
Kingswood School,  
Bath



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# Aims

- What makes an effective teacher of mathematics?
- An introduction to the Collaborative Practice model of CPD
- Our Experiences at Kingswood
  - HoD's perspective
  - Classroom Teacher's perspective
- Being a part of a cycle of CPD at Kingswood



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## Effective Mathematics Teaching

- Teacher's subject knowledge is above that necessary for the level of teaching.
- Teacher has high expectations of what his or her pupils can achieve.
- An integrated approach to mathematics is used, stressing connections and relationships among topics and concepts.
- Teacher aims to construct a solid foundation in mathematics, building on what has gone before and preparing for what is to come.
- The ethos in the classroom is friendly, collaborative and supportive, rather than confrontational.
- Teacher makes the lesson fun yet challenging, using humour whenever possible.
- Lessons are well planned and managed, with all required resources prepared and close at hand, and set at an appropriate level.



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## Effective Mathematics Teaching cont...

- Whole class interactive teaching predominates, with all pupils involved.
- Teacher is aware of what every pupil is doing throughout the lesson.
- Teacher gives clear, precise descriptions, explanations and instructions.
- Teacher emphasises logic and rigour in all spoken and written mathematics and uses correct mathematical language and notation, acting as a model for pupils to follow.
- Pupils are encouraged to explain their thinking and show their methods of solution to the whole class.
- There is an appropriate amount of individual practice and independent work, which is monitored closely and reviewed interactively with the whole class, using common errors as teaching points.



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## Effective Mathematics Teaching cont...

- Where appropriate, the teacher makes effective use of ICT, real-life applications and relates concepts to pupils' own experiences.
- Praise is given when deserved and, when not, encouragement to do better.
- Creative thought and critical evaluation of alternative methods of solution are encouraged and praised.
- Pupils and teacher are left looking forward to their next mathematics lesson.



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# Collaborative Practice Model for Teacher Development

- Develops an awareness of what good teaching is.
- Develops reflective, critical analysis of teachers' own teaching and that of others.
- Raises teachers' awareness of different pedagogical strategies and develops their ability to evaluate these methods in a constructive way.
- Encourages all teachers in a department/school/college to collaborate in supporting and learning from each other, and to regard problems as difficulties to be overcome, not as barriers to development
- Develops personal skills in being able to give and take constructive criticisms without causing or taking offence, rather seeing it as a means to professional learning.



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## Collaborative Practice Model for Teacher Development cont...

- Encourages creativity, a willingness to take risks, try out new ideas and to share these experiences with colleagues.
- Quickly exposes to the whole department (or staff in a primary school) where further support or specific training is needed (e.g. planning, mathematics subject knowledge, classroom management, pedagogy, use of ICT, etc.) and places the responsibility for providing that support with the department (school). There might also be agreement that external expertise is needed to train the whole department (school).
- Allows teachers to become aware of what is being taught in earlier and later years and in what way, so that they understand the importance of their own role in their pupils' mathematical development.
- Encourages consistency of approach and standards across all years.



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## Collaborative Practice Model for Teacher Development cont...

- Allows teachers to get to know pupils/students who are not in their own class and to become aware of their talents or problems.
- It is regular and ongoing, so that small improvements made in the quality of teaching and learning are embedded and built on.
- Creates a test bed and forum for trialling and evaluating new ideas, resources, teaching methods, equipment, etc.
- Involves teachers in their own professional development for the benefit of the whole school/colleges.
- Provides the opportunity for collaboration with other subject departments and schools/colleges as teachers can participate in other collaborative practice sessions beyond their own group of colleagues.

# CPD Case study

## The Collaborative Practice Model

A HoD's perspective



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# The Challenge

- Each school must be recognised as being individual, with its own idiosyncrasies.
- Each mathematics department contains a unique blend of teachers all of whom have differing levels of experience and areas of expertise.
- The challenge is **how does a HoD create a system of professional development tailored to each individual's needs based on the aspirations of the staff and the HoD's vision for the department?**



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# The Solution

- Flexibility
- Utilising experience within departments
- Collaborative Practice Model of CPD promotes;
- Closely knit team
- Each member gains an appreciation of each others strengths
- Recognition of areas of development within others
- Fosters a supportive sympathetic ethos that is openly discussed



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# The preferred model at Kingswood

- We introduced the model in three phases within the department.
- 1) Beginning in September I worked alongside a team of three staff, focussing solely on year 9 classes, then once the routine was established;
- 2) after Christmas working with a team of two, focussing on sixth form teaching, and then;
- 3) after Easter focussing on year 7 teaching with two teachers of mathematics who are also other subject specialists.



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# the three phases of the model

- A) collaboratively planning;
- B) delivering and;
- C) observing a lesson,
  
- Reflecting



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- As a HoD I was interested to read that NASUWT have recently conducted a survey into lesson observations. Key findings were;
- Only 10% of teachers reported observations carried out by teacher peers.
- 36% of teachers observed experienced observations where no formal objectives had been discussed beforehand.
- Over 35% stated that the principle purpose of lesson observation in their schools is to monitor the standard of their teaching, or the work of teachers.
- Less than 25% of teachers stated that lesson observations were directly linked to their personal professional development
- 25% stated that feedback was variable after each observation, sometimes receiving no written feedback at all.
- There are a number of other outcomes all of which can be found in the article which is in your collection of supporting material.



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# Collaborative Practice Model of CPD

- Peer Observation
- Negotiated themes for the observation phase
- Lesson observations viewed as integral to each person's own professional development.
- Adopting a standardised lesson feedback sheet.
  
- To conclude
- This is a classroom based model of CPD delivery



# Our experiences at Kingswood

- The model is viewed as being intrinsically useful to individual teachers
- Each individual has a part to play and contribution to make within each CPD cycle
- An ongoing self evaluative process.
- professional development is grounded within our school context
- Removal of threat during observation



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# Outcomes

- Impact in the classroom.
- Staff more cohesive.
- Staff more open to discuss personal areas for development
- The flexibility of the system.
- Pleasing Implications for SMT



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# CPD

## A Teacher's Perspective



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## General points

- Each group has a weekly meeting.
- Each cycle lasts three working weeks.
  - 1 Planning
  - 2 Delivering the lesson
  - 3 Review of the lesson
- The members have groups that span the ability range.
- Sessions took place during teachers' free periods, which coincide.



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# Planning

- Decide focus, topic and class.
- Discuss possible exercises and activities that the members consider will work well.
- Compose a rough lesson plan that will be delivered by one of the group members.



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# Lesson Phase

- Lessons were 35 minute periods.
- Encourages teachers to try new ideas/equipment.
- Good for teacher to watch the video!



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# Lesson Problems

- Pupils found the atmosphere false.
- Hard to guarantee the position in the syllabus by Week 2.
- Even with high quality video camera, hard to get full impression of lesson.
  - ∴ Still need an observer.



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# Review

- The lesson is evaluated during Week 3.
- Observers use a lesson observation sheet.
- Both strengths and areas for development are highlighted.



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# Positive aspects of review phase

- Teachers are able to see which ideas work...and which don't.
- Encourages reflection in teaching practice.



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# Problems with Review phase

- The review loses value if it is delayed.
- Some teachers may struggle with feedback they perceive as criticism.



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# Issues arising from experience of CPD Model

- Strongly encourages teamwork.
- Provides the dept. to have an opportunity to share good practice more formally.
- Whilst this is good “in-house” INSET, it should be in addition to external INSET.



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# Issues arising from experience of CPD Model

- Teachers can miss lessons with groups once every three weeks.
- Teachers use their own time; ideally it would be better if the three stages were undertaken in protected free periods.