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Student teachers,
Katherine Bagshaw,
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their ideas on how
to bridge the gap
between statutory
and non-statutory
guidelines for food
and nutrition with
8- to 10-year-olds

n recent years, the health of our children has become a focal point of concern for both parents and education practitioners. We have moved away from the dichotomy of 'healthy' and 'unhealthy' diets and towards thinking about food and nutrition in terms of a 'healthier' diet. There is a new generation of terminology, as we refer to 'balanced' (gaining adequate nutrition from the main five food groups and understanding moderation) and 'unbalanced' (an inadequate level of nutrition or an imbalance in the consumption of the main five food groups) diets in food education.

Alongside the statutory

requirements of the English National Curriculum (DfEE, 1999), the Department of Health has suggested guidelines for trainee primary school teachers to assist them in teaching about food and nutrition, covering classifying food groups, healthy and balanced diets to give us energy, and food manufacturing (DoH and MAFF, 1998).

Bridging the gap

While these guidelines cover many of the areas the children in our teaching placement school wanted to learn about, they did not include all of the questions they had raised during our elicitation session, for example the sugar content of drinks (Box 1).

Box 1 What the children wanted to know

Questions we identified from the first session's elicitation:

- Why do we need water?
- Why do we need vitamins and minerals?
- How is bad food good for you?
- What's in junk food?
- What makes fruit and vegetables healthy?
- How many cans of coke would it take to make someone unhealthy?
- What types of drinks are good for you?
- How do you know if someone is healthy?

Therefore we wanted to plan a series of lessons to bridge the gap between what we are required to teach and what the children wanted to learn. We felt that the most effective way of doing this was to use carousel activities in class as well as homework tasks. This would allow us to utilise our limited teaching time effectively, which in turn would permit us to answer more of the children's questions.

Confident teaching

Confidence in your subject knowledge is an important factor affecting the quality of teaching and learning, and in the area of food and nutrition there is scientific uncertainty and controversy. Nestle (2007) recognises that this may be because nutrition science is 'reductive': it attributes the health effects to the consumption of one nutrient or food. However, it is the overall dietary pattern that really matters. Children asking questions such as 'What are the differences between different vitamins?' can test a teacher's own understanding to the limit. We know the importance of children asking questions, but are commonly worried about the gaps in our own subject knowledge and being able to answer the children's questions correctly (Harlen and Qualter, 2009). Therefore we had to do our own homework in order to feel more confident and be more effective teachers.

The activities

Throughout our time in the school, we used a variety of teaching approaches to incorporate the various learning styles in the classroom, such as the (possibly controversial) use of first names for all, hoping to create a more relaxed

environment for sharing ideas. We also chose not to share explicit knowledge-based learning objectives, wanting our teaching to be fuelled by the children's own learning rather than them feeling it was dictated by the teacher, thus limiting unintended learning and prohibiting discussions. We acted as facilitators, taking a step back and allowing the discussions to follow the course the children set, opening opportunities for the children to lead their own learning and take responsibility, thus promoting intrinsic motivation.

Box 2 shows the carousel activities



to bridge the gap between the children's questions and what we needed to teach. We found that the children were fully engaged with their learning, which reduced behavioural issues. However, as with many lessons, time constraints meant that we were unable to go into as much detail as we would have liked. In future, we would plan for more time so that the learning becomes deeper, with particular focus on the plenary, as we understand its importance in regrouping the children, clarifying their learning and identifying next steps for us to plan for further sessions.

Misconceptions and learning

Some issues arose from the language we introduced. Many children were unfamiliar with the terms 'balanced' and 'unbalanced', simply labelling food as 'good' or 'bad'. This could be a by-product of prior learning, previous misconceptions or conflicting messages received from the media. As trainee teachers, we found it imperative

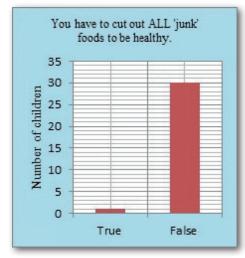
Box 2 Carousel activities on food groups

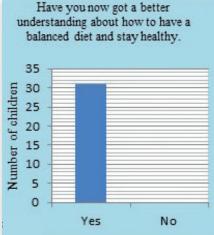
- Fruit and vegetables: Matching games, matching the fruit or vegetable to the vitamin or mineral, followed by a discussion, initially teacher led, on where different vitamins and minerals come from.
- **Dairy:** With a range of different pictures of dairy products, children discussed which ones are good for us and why we need them in our diets.
- Carbohydrates: A teacher-led discussion around what carbohydrates do in the body followed by children discussing which carbohydrates are good and what might happen if we eat too many of them.
- Fats and sugars: Children looked at a bag of fat and a bag of sugar. Discussions took place about how much fat and sugar was in certain foods and how many bags or fractions of bags certain foods contain. Children discussed the importance of only having small amounts of sugars and fat in their diets.
- **Protein**: Children engaged in a sorting activity of lots of different pictures of different foods into either protein or non-protein. The teacher with this group then moved certain foods to the correct column and discussions ensued on the misconception that all protein is meat.
- Consolidation activity: Sandwich making The children were given the brief that they had to make a sandwich that was healthy from a range of different available sandwich fillings and explain their choices.



Figure 2 The 'washing line' balanced food continuum

Figures 3 Our end-of-session questioning indicated that we had successfully challenged some of the children's misconceptions about diet





to be sensitive when referring to food groups and individual diets; we always referred to ourselves as the subject to illustrate points of view.

During the first session, when we had asked children to place various foods on a 'washing line' from the most healthy to the least healthy (Figure 2), we found that the use of 'healthy' and 'unhealthy' led to conflicts in the children's ideas, hence our adoption of the terms 'balanced' and 'unbalanced'. We then went on to discuss how too many unhealthy foods led to a poor diet. This in turn led to some of

the children
believing
that too
many
healthy
foods were
also bad
for you,
without
grasping
the
concept

of a 'balanced diet'. This occurred because of the freedom of discussion we allowed the children to engage in, our use of inexplicit language and the fact that we did not reiterate the need for a 'balanced diet'. Subsequently, we planned a starter activity in the next session to clarify the importance of a balanced diet and

to make sure that the children fully understood the concept of moderation before moving on to progress their knowledge.

Throughout the sessions it became clear that the children had one very central and common misconception in terms of food and nutrition education: 'All fats are bad for you' (Allen, 2010). Many children justified their ideas with 'It said so on the TV'. Further conversation showed that this misconception had been generated as a result of the labels on food packaging, with advertisements emphasising 'no added fat' and the negative impact that fat has on the body. Allen (2010) suggests that this is a 'public health view'. We therefore devoted time to discussing the role 'fat' plays in diets, our bodies and resultant health and created a good unintended learning opportunity.

A second misconception we encountered was the idea that 'eating only healthy food is the healthiest way to live'. This was identified during the washing line activity. Our second session was used to develop the children's understanding of the importance of all food groups and the importance of a balanced diet through the use of the carousel activities described above. As shown in Figure 3, this was successful in challenging these misconceptions.

The impact of our teaching

The time taken to bridge the gap between what children want to know and what needs to be taught has undeniable benefits for both children and teachers. There is increased engagement from the children when they use their own ideas, creating ownership and opportunities for us as teachers to

gain insight into the children's misconceptions. By being flexible in our approach, and adapting our planning to respond to the children's wants and questions, we achieved our intended learning, but there was the bonus of unintended learning, which enriched and challenged both our and the children's understanding. So there were benefits all round when we were 'vegecating' our class!

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