

P.35 and G6 Evaluating software resources produced as a collaboration between a learning support assistant and a content developer

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Aim – To research the children's responses and outcomes of using resources tailor-made for the maths catch-up group.

This is a follow up report to the development of a tailor-made resource for the catch-up maths group.

Background

I work as a Teaching Assistant at Furze Infants School and was given the opportunity to help develop tailor-made software resources for use within our daily catch-up maths group. These are the resources that were developed after a meeting with Tim Morgan, a member of the Content Room Workshop Team at Barking College: - Ordering No.s to 10

Number line to 10 and to 20

Addition to 10 and to 20.

Progress

The resources were developed within 4 weeks of our meeting and were ready to be tested by the children in the catch-up maths group. We were planning to use these resources on our wireless network computers, giving the children the ability to work on their own or in pairs.

I anticipated that some of the children may have difficulties controlling the movements needed to play the games when using the touchpad on the laptop and that the three lower ability children may find ordering numbers a challenge because of this. I did not however anticipate any problems with the level of the game.

I wondered whether the three higher ability children would find the games adequately challenging or would they find them too easy and lose interest in them?

To evaluate the effects of our collaborative development, I invited Tim to Furze to see his creations being used by the children for the very first session.

The First Session

The children were really excited at the thought of using the laptops and wanted to know what they were going to do. I introduced Tim to the children, asked if they remembered him from his last visit and explained that the games he was making for them were ready and that they were going to try them. After explaining to the children how the games worked and how to use the touchpad and buttons on the laptop, I set them up with the resource they were to try first.

The three lower ability children were given ordering numbers to 10 and the three higher ability children, Addition to 10. Each child also tried out the Number line 0 – 10 or 0 – 20, Ordering numbers to 10, and Addition to 10.

Outcomes

As I anticipated, two of the children had difficulty using the touchpad on the laptop, one because he had not used a laptop before, the other child tried to control movement by using his whole hand on the touchpad, he found it difficult at first to use just a finger, this did not seem to deter him from being engrossed in what he was doing and his concentration was much better than normal.

Of the three lower ability children playing Ordering Numbers to 10, two managed to find and order the numbers without making too many mistakes, the third child managed to control the movement of the numbers with ease. This child, however, made more mistakes in ordering them, making the numbers bounce back and had to try again, but this only made him concentrate more to find the number that he needed next. All three children completed the game and were pleased to be rewarded with a fox coming onto the screen to say "well done" and a tick, each child wanting to play the game again.

Of the three higher ability children playing the Addition to 10 game, one said it was too easy, I moved him onto Addition to 20 and although at first he said that was also too easy, he began to get some wrong, and gradually realised that it was not so easy after all.

After trying out the number line, the children were all agreed that the finger was 'really cool'.

Tim took some photos of the children using the resources:



Feedback from Tim

Tim said that he noticed how engaged the children were with the games they were given, how well they managed to master them, showing that they were not too difficult to understand, saw how the children seemed to enjoy the session very much and were happy to get on with their tasks, how keen they were to continue and did not want to stop when the session ended.

Feedback from the children

Child 1 (S.E.N.) "Yeah, yeah really good, like adding, liked the number line, fingers really great, liked moving numbers, like the fox, great, can we do it again".

Child 2 (higher ability) "I liked the games, liked them being made for us, adding to 10 was too easy for me so was ordering numbers to 10, liked the finger on the number line."

Child 3 (higher ability) "I liked them, all of them, liked the fox saying "well done", they are more fun than doing it like we do it every day."

Child 4 (S.E.N.) "I liked ordering numbers best, liked adding, I liked the finger on the number line it was cool, they were fun."

Child 5 (higher ability) "I liked all of the games, I had so much fun. They were not boring, they were nice, brilliant, good. I want to play them all day if I could."

Child 6 (S.E.N) "Good, liked them, they are fun."

Feedback from Mrs Barbet (Deputy Head / Senco)

She was unable to attend the first session, so another session was organised two days later. The children were happy to find that they were going to play the games again. This session was more structured with each child playing the same game. This time the number line was used for counting on, counting back, before and after and counting on from a given number. The numbers on the number line change colour when the finger is placed below it, making it easier for the children to follow and a big number appears on the bottom of the screen. All the children found control of the touchpad much easier during this session.

The Deputy Head was very impressed with the way the children's attention was held, how much concentration they had and how focused they were on the task they were doing. She said " It's the first time ever we have been able to say what we want rather than getting something from outside and adapting it to our needs".

(The Deputy also said she had been extremely impressed at how good the games were.). Jackie also thought that the resources would be of great benefit to the next catch-up group, who will be able to use them from the beginning of the year.

Progression for the future

The Deputy and I discussed the use of the resources and the children's responses, we agreed that the children's responses were really positive. We also discussed the possibility of improving some of the games and asking Tim to create more resources for this and future catch-up groups. We came up with these ideas

Having a sound on sound off voice option which would say the numbers as they were pointed to for the number line would be good for the children who find number recognition difficult.

A new resource for ordering numbers to 20

On both the addition to 10 and addition to 20 games it may be better to have the children type in their answers, getting a tick or well done if correct, a cross or try again if incorrect

A 100square where numbers could be dragged in and out, or hidden, for recognition of larger numbers and number patterns.

I also had the opportunity to speak with Tim after his visit and asked him if he create a resource for odds and evens and 2D and 3D shapes, explaining exactly what we needed.

I e-mailed Tim with our ideas and within two days we had the voice sound on/off option on our number lines and the new Ordering numbers to 20 game, which the children have tried and are very happy with, they think the voice helps with recognition of the numbers that they do not know. Tim is currently working on the other resources, saying he appreciated all of our ideas.

Conclusion

After trialling all the new games with the children we found them to be an excellent resource and are looking forward to using them on a regular basis. We found that improvements could be made to some of them to make them even better and ideas for new ones for future use. The children found them easy to use and really enjoyed playing them, making it a fun way of doing the activities they have to do every day. If any child has problems with the touchpad on the laptops in the future, a mouse can be attached, thereby eliminating the problem. These developments, and the new resources being created will be a great asset for the maths catch-up group.

Recommendations

The resources have been tailor made for the children in the catch-up group but will be of benefit to any child who is struggling with the basic concepts of maths or those who are lacking strategies or confidence. The resources should be used progressively in order for the children to gain confidence.

These new resources have been placed on the school intranet, making them available to any Teacher / Assistant or child to access from any computer in the school. I envisage them being widely used and thoroughly enjoyed by all who do so.