

Emerging Professional Knowledge

Volume 3



Action Research within a British Schools
Overseas Context

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Authentic professional learning for educators in the 21st century is a complex and contentious topic within the field of education. Year-upon-year, new initiatives, new technologies and new bench-marking standards are imposed on schools which consequently steer teachers down prescribed routes of development.

Schools are extremely complex institutions charged with enabling young people to be dynamic individuals beyond their being. Teachers create micro-professional knowledge for their specific purposes that may share similarities to other teachers in other schools, but may also be in conflict with many other factors.

This portfolio contains a range of reports detailing the action research projects completed by dedicated and engaged practitioners. Action research might not have the same zest as other 'on the agenda' approaches; however, it does provide teachers with a sustainable, in-depth approach to their learning that can be built upon over time in school regardless of the context.

Shaun Robison

SSAT Middle East

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Kate Greenlees Dubai College

Student-Friendly Assessment Criteria in ICT

Context

My action research project was completed at Dubai College. This is a mixed gender, 11-18 British Curriculum school which is academically selective. Students who attend Dubai College are expatriates from over 50 different countries worldwide, with only 3 students holding Emirati national status. Although not all students have English as their first language, all students speak and write English fluently. They all come from privileged socio-economic backgrounds and there are very few students who have learning difficulties; those that do, tend to be medical based.

The class that participated in my research is a Year 9 ICT class, with mixed ability in the subject. Within the class, there are two students who are on the Gifted and Talented register and one student on the SEN register. They are studying towards their first GCSE ICT unit (controlled assessment) and expected grades range from A* through to B. They are a lively class with excellent verbal skills and were chosen, mainly for this reason

Rationale

When I joined Dubai College five years ago, ICT was not a priority within the school curriculum. There was a culture of ICT being a necessity to be timetabled and it was not seen to be a 'serious' subject, with few students choosing it as either a GCSE or A Level option. After a long battle with the previous Headmaster and the welcome introduction of a new Senior Leadership Team, it was agreed that ICT would become a compulsory GCSE subject for all students, starting in Year 9 and this was implemented in September 2012. However, the compromise in order to offer this to students was that the teaching time would be limited to the existing 1 lesson per week (55 minutes), with ICT teachers offering lunchtime 'Coursework Clinics'.

Although a challenge for myself and the rest of my department, this is something that I have felt strongly about since starting my employment at the school and I have been involved in introducing similar initiatives in my previous schools in the UK. As Subject Leader for ICT and being passionate for my subject area, the challenge has never been considered to be unrealistic and the underlying motive was that our students achieved a good grade in GCSE ICT, learning extensive ICT skills and most importantly enjoying the subject!

The students I have been working with have thoroughly embraced the new GCSE course since starting it in September and although there have been some teething problems, on the whole, the experience for both students and staff has been positive. The biggest issue, as expected, has been time management and some students have had to give up a great deal of their extra curricular time in order to complete the individual tasks.

Findings

The research was conducted over a period of 3 cycles, each one taking approximately one to two weeks. The students who participated kindly gave up a lunchtime session in order to work on the project. Students were asked to re-write the criteria for two of the eight sections and they were then asked to present their new criteria to the rest of the class and myself. Feedback was given and then the students were asked to apply this and attempt to improve the student friendly criteria. By the end of the three cycles, students had completed the two designated sections and then asked to continue the process for a third one in their own time as they had found the process so enjoyable and beneficial to them.



At the end of each cycle, students worked on completing that section of work and I assessed and marked each individual's tasks. It has been blatantly obvious that those students following the student devised criteria have been able to complete far more work within the set time than those using the examination board criteria. They have understood the tasks with ease and needed less teacher support than the other half of the class. Not only has the student's work been completed more quickly but the quality of their work has also improved, with increased confidence and a noticeable difference in independent working.

The controlled assessment is split in to eight sections and within each section, there can be anything from six to twelve individual tasks, each accounting for one mark. Before the research project, students completing a six task section were taking on average five to six lessons, but after the assessment criteria was changed, this was reduced to approximately three to four lessons. This was a far greater difference than I anticipated and as a result has allowed me an 'extra' lesson to help students improve their work and hence, the overall grade they can achieve for each section. If this continues, I expect 100% of my students to achieve their target grade and over 50% to actually exceed their target grade, with an average achieved grade of A*.

The difference in work has clearly been noticeable and by simply looking at the annotation of work completed by the class before and after the research project you can see that there is a significant difference in quality. However, this does not always indicate a full understanding of the work that they have done and therefore I also conducted a short survey with the class. The results from this survey confirmed their improved understanding of their work and moreover the increased motivation that this had given them. They preferred having a more visual assessment sheet to work from and enjoyed using this as a way of tracking their progress, pushing themselves to achieve each individual point and therefore seeing the overall marks achieved increasing. It has been used as a competitive tool between the students as they can compare each other's achievements and strive towards 'beating them'.

Discussion

Due to the nature of the action research project and having to decide upon the grouping of my students beforehand, there was little scope for changing my initial idea. It would not have been relevant to change the students around once they had started and indeed this may have had a negative impact on the findings. There were two major limitations during the project: time and student co-operation. I had to ask the small group of students to give up their time away from lessons which was not entirely fair on them, despite their enthusiasm for doing so. I also found that because I had started the research well in to the GCSE course, some students were reluctant to use a new assessment criteria and had become accustomed to the original one. If I was to undertake a similar research project again, I would attempt to start it at the beginning of an academic year, or if this is not possible, at least at the start of a new academic term or topic. I would also like to attempt to do the same research with more than one class to compare results for a larger number of students. Communication could also have been improved and perhaps if I were to complete this task again, I would ensure that all students were fully aware of my intentions and I would justify the reasoning behind the research project in more detail.

I feel that this type of research; using more student focused assessment criteria could easily be transferred to other areas of my subject as well as other areas of the curriculum. It would also be interesting to do it on a more individual basis and get each student to write their own assessment criteria that they can personally work towards as opposed to working as a group, therefore utilizing their individual target grades and academic action plans.

I feel that the 3 most important findings from my research project are as follows:

- Using student friendly assessment criteria has a major impact on individual student progress.
- Challenging students to think 'outside the box' is a difficult and time consuming concept but once achieved, can lead to greater individual progress.
- Action research would be most effective at the start of a new topic or academic term.

There has been a significant overall impact of this research; both on myself and my students. It has demonstrated that reflecting on my own teaching practice, whilst both difficult and time consuming, is an extremely important part of developing my classroom practice and one that must be considered in the everyday middle management of my department. It has enabled me to see that small changes in my teaching, make a relatively big difference for the progress of my students. Undertaking the research has not only facilitated time for my own development but allowed for the students to be thinking about the subject in a more comprehensive manner, challenging them every step of the way and undoubtedly improving the quality of the work that they produce.

Developing a User-Friendly AfL Grid in ICT & Media Studies

Context

This research study was conducted at an international secondary school based in the Middle East, which follows the English National Curriculum across all Key Stages and offers a wide range of subject choices in both Key Stage 3, 4 and 5. There are approximately 848 mixed gender students in the secondary school, 218 of which are currently attending the Sixth Form. Upon entry to the school, English language tests are given to non-British students in order to provide an overview of their individual learning needs.

The school is not selective according to academic criteria, however it does maintain high academic standards and places strong emphasis on student development via a holistic approach to learning, encouraging learners to engage with a wide range of extra-curricular activities and providing a 'community' feel to the school environment. The school has a strong ethos, high expectations of its students and is well resourced, enjoying the support of affluent middle-class parents who value the importance of education. Classes at Key stage 3 and 4 in ICT are 22 students and average groups at A Level are 18 students.

For the purpose of our research the study within ICT KS3 and KS4 will be targeted which are of mixed ability, gender and class sizes of 22.

Rationale

The original rationale is taken from feedback from Ofsted who suggests that "strengths and weaknesses of a piece of work should be summarised precisely using a marking policy". The benefits of this kind of concise feedback allow students to have aspirational and clear guidelines on how to improve their work for future assignments. Feedback is an important component of the formative assessment process. Formative assessment gives information to teachers and students about how students are doing relative to classroom learning goals.

The objective was to design a feedback grid, stating strengths, weaknesses and future targets linked to the success criteria and our expected outcome was to raise attainment within ICT and Media at KS4. At the point of summative and formative assessment students will be provided with a student friendly feedback grid to help them understand their successes, areas of development/improvement and future targets. The guide will be designed using student friendly language and concise development points to help improve attainment in both subject areas. Achievement feedback will describe or affirm for a student what was done well and why. Improvement feedback will describe for a student what more might be done and what strategies might lead to improvement of the work. Future targets will allow students to consider areas of improvement when given the opportunity in future units of work.

Rationale

Printed publications produced by students often do not allow adequate space for written feedback so we also propose to create a symbol system to identify student success, areas of development/improvement and future targets. These symbols can be placed on students work and then referred back to on the feedback summary.

Both departments have a high student numbers at Key Stage Four. It is essential that feedback is given before the next lesson and time restraints have been identified as an issue in achieving this. The feedback grid can be prepared and shared with students before commencement of the task and subsequently feedback from the teacher will be generated in a shorter time period.

The needs of the students was to:

- Provide feedback as often as is practical, for all major assignments.
- Choose points that relate to major learning goals.
- When possible, describe both the work and the process—and their relationship.
- Use criterion-referenced feedback for giving information about the work itself.
- Use positive comments that describe what is well done.
- Use vocabulary and concepts the student will understand.
- Tailor the amount and content of feedback to the student's developmental level.
- Make feedback specific enough so that students know what to do but not so specific that it's done for them.
- Identify errors or types of errors, but avoid correcting every one (e.g. copyediting or supplying right answers), which doesn't leave students anything to do.
- Choose words that communicate respect for the student and the work.

Findings

Achieving initial aims:

Measuring if we achieved our initial aims, when focusing on the needs of the students we have made a measurable impact. Good feedback gives students information they need so they can understand where they are in their learning and what to do next, the cognitive factor. Once they feel they understand what to do and why, most students develop a feeling that they have control over their own learning, the motivational factor. The impact on the groups across KS3 was substantial and motivation in lessons increased dramatically. Within KS4 there were also positive gains through using the feedback grid and comprehension and helped students learn how to formulate new goals for themselves and action plans that will lead to achievement of those goals. At KS4 however students were less receptive and preferred the old methods of feedback.



Unexpected effects:

The unexpected results were the different level of response for different key stages. When analysing reasons for this it was apparent there were two main contributing factors. First being the style of work being undertaken – at KS3 and to a certain extent at KS4 the majority of tasks undertaken would result in a visual representation of the topic for example a website, desk top publishing or a graphic. These styles of formative assessment tasks allowed the mark grid to give precise feedback to the students and they were able to comprehend the feedback with minimal teacher input. However at KS5 when students work is predominately coursework consisting of large word processed documents it wasn't immediately apparent to the student where the feedback was precisely referring to within their document.

The second reason was related to the change between previous and new methods of feedback. At KS3 the majority of feedback was verbal so therefore students enjoyed the addition of a structured written feedback that followed a consistent theme throughout units and they were able to refer back to. KS5 however the feedback grid involved a far greater level of student input and understanding. Previously students would have detailed written comments throughout the whole document, however now a symbol was placed in the relevant section of the document and students would need to refer back to the marking sheet. It was at this point we were aware that previous marking methods at KS5 were not prescriptive enough and the new method using the mark scheme identify errors or types of errors, but avoid correcting every one (e.g., copyediting or supplying right answers), which doesn't leave students anything to do which was one of our objectives.

Benefits to teaching and the students:

Together using the marking grid and verbal feedback it assisted students with self-regulation: deciding on their next learning goals, devising tactics and strategies to reach them, and provided opportunity to make progression.

Discussion

Originally the feedback grids were to be used as summative assessment but as a result of the popularity throughout of KS3/KS4 and at the request of students the feedback grid was developed at formative assessment stages.

There were several limitations to the project. Time scale to develop a working prototype and gather a wide breadth of feedback from a trial across several Key stages has been difficult. Given the opportunity again a narrower target audience would be easier to monitor and make judgments; however the popularity of the feedback grid was the driving force behind the expansion of the key stages targeted. Results from KS3 indicated that levels had improved over the year as students had worked through units in comparison to previous years. Considerations such as cohort ability and previous ICT teaching needs to be taken into account to have a clear understanding of the impact of the feedback grid. The feedback grid is also an evolving document that will need to be adjusted numerous times before a final product is produced. To roll out the new method of feedback grids across all key stages, all groups and units of work will involve a vast amount of planning and forward thinking. Making this research task work on a larger scale would require careful planning but once in place minimal refinements would be needed.

On a larger scale the feedback grid has been shared within the ICT department and across a range of departments within the school which has had a positive impact. A limitation to rolling this research project out on a larger scale would be a reluctance for staff to trial a new method within their departments. A method to overcome this issue is the findings and examples of feedback grids have been shared on notice boards in the school staff rooms, show and tell after school sessions have been held to share findings of this project and the impact it has had on students and teachers work load and a presentation to Senior Management Team. As a result of presenting my findings and inviting colleagues to replicate the mark grid style Design technology, Art, Maths and English departments have adapted a version of the mark grid and have fed back successful responses from their students.

To improve the method of research I would reduce the test groups that I could focus on the outcomes in more detail. The time scale to collect data to measure the impact would be extended – for example analyse a singular Year 9 group throughout the academic year and track their progress in comparison to a year 9 group of similar ability who did not have access to the new feedback grid.

The most important findings from my action research project were that the classroom culture valued tasks set in lesson on a high level as a result of using the feedback grid. Students were able to achieve higher levels/grades than in previous years as they made progression through the units of work as a result of linked targets on the feedback sheet. Students clearly understood the different components of feedback grid and were able to identify next step in progressions. Quick quality feedback was achievable with reduced teacher workload.

Jonathan Tate Dubai College

Fostering Independent Learning in Art

Context

The research I have conducted has involved a class of year 11 students. These students are studying in a British school within an international setting. They are highly academic, but are of a relatively mixed ability in art: There are twelve students in the class, six of which I expect to gain A* at GCSE, three of which I expect to achieve an A and three a B. The students are aged either fifteen or sixteen and they are all British expatriates, although two of them also hold Indian passports, one a Korean passport and one a Saudi passport. Due to a timetabling mix up, I gained this class at the beginning of year 11, rather than continuing with the class I had been teaching during year 10. This was highly disruptive and quite difficult both for the students and for me. This is a pleasant group of students who are very quiet, and lacking a little motivation in art. If they are given a highly specific task in class time, it will be done. If they are given a task to do for homework, the majority will not complete it in its entirety. If they are asked to devise their own task, or develop their own ideas, they will freeze up completely and find any number of procrastination tasks (doing a title, colouring something in, using the computer for 'research' etc), and it is this that I would like to change. The starting point of this research project is also the starting point of the students GCSE examination unit – the title of which is 'Force' – and fitting my research within this unit in a purposeful and non-disruptive way will be essential.

Rationale

The assessment criteria for Art at GCSE (and indeed throughout the school) can be summed up by four key areas: technical skills, experimentation with media, development of ideas and how all this is informed by artist research. While these students have effective technical skills, the choices they make themselves will allow them to develop ideas, select media and seek out the influences that inspire them. More than this, they will only be able to become fully engaged artists in their own right if they can analyse what is important to them in artistic terms, and this requires independent thought and practise.

The class require me to support them and help them get started down the road to developing their own ideas, but at a certain point in any art project, it is essential that the teacher steps back and allows students to pursue those ideas, processes and influences that are important to them. My role is to support each individual and try to effectively run 12 individual lessons at this point, but this will only be possible if the students are armed with enough initial experimentation to kick start their own ideas, if they have reached a level of engagement with some aspect of the subject that allows them to pursue it further and if they have the confidence to do so.

This research centres on how to help these students become more independent by giving them a physical support framework and providing a number of strategies to help them become more independent and more confident – gently easing them out of their comfort zone and getting them used to approaching art in a variety of different ways.

Findings

From looking at students work up to this point it is clear that they have become more independent, and indeed confident. The main focus of the research project was the way students produced a brainstorm of their ideas; it was this that I helped them to gain inspiration and ideas for during the research project. I have documented the various strategies we used with photographs, and observations by a colleague from outside the department. One can also see the benefits of the research project clearly through making visual comparisons between students' previous work and that achieved with these new strategies.



I had expected this to be easier than it was, if I am honest, but it was actually very hard work for me and at certain points, the students. The road to independent thinking for them is a difficult one – they are intelligent, but very grade oriented, so the question they ask most frequently is 'can you tell me what I need to do to get an A*', and breaking this mindset is an ongoing battle. The students were most successful when they had a very clear framework of tasks that could nevertheless be interpreted with a certain amount of independence – for example a series of cards with a single word printed on them were useful for some students, but left others rifling through the whole pack and not being able to select, whereas cards with a specific task (for example, 'Sew into a page in your journal') gave all students enough information to give them the confidence to get started and see where this process took them. Each student's work from these experiments shares a certain overlap, but is entirely individual. The class is definitely more confident now (and better at meeting deadlines since I began using email to remind them of their deadlines and the consequences of missing these), but that is not to say that they are now a group of twelve fully independent and engaged artists. Some of them never will be; their interests and priorities are spread over a raft of subjects and many are fully aware that they will not have to do art any more in a few months time, and it is a relief to them. However, for the time being they are able to devise and develop their own ideas and when it comes to asking for my support they are now more likely to say 'I was thinking of doing x' rather than 'what do I do?'

Discussion

As the project developed I refined a number of elements. It began with a fairly scattergun approach that employed a series of related, but individual tasks to get the class moving and thinking, initially by small degrees. These obviously had to be closely related to the examination topic (Force). Once I had surveyed students about what they felt were the most successful strategies, I was then able to modify my approach to include more tasks of this nature. This, and some coaching sessions with a colleague, helped me to think about how I would assess the success of what I had done and what my real success criteria were. At this point, I began putting together a 'support' pack for each student that was individualised to the processes and experiments that they had favoured and asked students to perform more tasks that were 'mini bursts of independence' that could be stock piled for use when it came to producing the brainstorm. This was then refined further when guidelines for the brainstorm were also provided to students.

The main limitation on the project has been time. When encouraging students to think independently, one can't expect things to change dramatically overnight, as we are expecting them to rewrite learned behaviours and modify a mindset that they are accustomed to. The approaches that I have used with this class would ideally be exported to the whole school, and used from year 7 upwards. There are a number of strategies that could be employed with all year groups and many that could be employed in any subject area. This whole school approach would ensure that by the time students reached their crucial exam years they would be able to think independently and acknowledge that becoming a fully engaged learner is the way to achieve one's target grade, rather than chasing the grade itself.

The key thing that I believe would have improved this project is a greater level of transparency about my aims and intentions with the students involved from the very start. Initially I felt that taking them by surprise with some of these tasks would add a little mystique that would encourage a bit of excitement about the processes of making art. But as things developed it became abundantly clear that the more the students knew about my intentions and the more involved in the process they were, the more engaged they became. I have found that these students goal orientation is not an easy thing to address, but that shifting the goal a little at a time can slowly modify set behaviors.

Lorraine Logue The British School Al Khubairat

Application Skills within the Science Classroom

Context

Action research to determine whether or not the inclusion of regular activities that require students to apply their knowledge would increase their ability to answer application questions in assessment tasks was conducted with a group of twenty two Year Eight students. At the outset of this investigation, the majority of these students were working at a level 5a-6c, with some students achieving a level 6b.

The group consist of 12 boys and 10 girls, three of which are dyslexic and require additional time to complete tasks. Fifty per cent of the group speak English as their second language, but this rarely causes a problem. The majority of the group are hard-working, motivated and driven to achieve level 7 in their work. A closer look at their formative and assessment tasks highlighted that the single greatest factor limiting their progress was their ability to answer application questions; mainly their ability to analyse unseen material and plan a valid investigation. (I will probably attach a sample of an end of topic test in which a pupil failed to analyse data here).

The ability of students to analyse empirical data and apply their knowledge to unknown situations are fundamental skills in science that permeate the curriculum all the way from KS 3 – KS5. As a result, I felt that this class were a suitable target group to investigate the merits of gradually introducing these skills.

Rationale

As these students are particularly keen, it was decided that they should be gradually introduced to the key terminology often used at KS4 which is associated with this topic (types of variables, reliable, repeatable, reproducible, valid etc). To do so, students were given cardsorts, dominoes and 'match the key terms with the definitions' to expose them to the scientific language that could be used in exam questions at a later stage. They were initially supported to describe and explain any trends they collected during their investigations using these terms and once they had become accustomed with the terminology, they were expected to describe and explain the trends found in 'unseen material'. At all stages, students were asked to identify the Independent, dependent and control variables of investigations and comment on how and why the latter should be controlled.

Students have also been supplied with a number of tasks designed to enable embed what they have been learning in reality by considering wider situations. These included a kinaesthetic task in which students were provided with the genotype of two individuals and expected to randomly select alleles from these in an attempt to model inheritance and the genetic variation that results from sexual reproduction. The students were then expected to interpret the genetic code in the 'fertilised egg cell' and build a model of the resulting offspring.

Findings

Positive outcomes identified which can be directly attributed to the inclusion of these tasks

- The students have quickly become accustomed with the terminology used. Currently, only a small number of students ask for clarification on the more difficult terminology. Given that a number of KS 4 students continue to seek clarification on these terms, this is encouraging progress for the pupils.
- All students in the group are able to identify suitable Independent, dependent and control variables for investigations when supplied with a title, and they are able to describe how these variables should be changed, measured or controlled. (Sample of students work to be included in the appendix).
- Most students are able to comment on the reliability of their data and information that they are supplied with.
- Some students are able to comment on the validity of pre-prepared methods which have been designed to investigate a hypothesis.

Additional findings/Limitations

- The results of all students increased over the course of the year. The results of the group currently range from a level 6b – 7a. (Extract from mark book entry as evidence?) Whilst it has been noted (through personal communication with pupil and the completion of summative assessment tasks) that students confidence and ability to complete application questions has improved, there is no directly attributing these observations solely to the inclusion of tasks as a result of this project. Many other factors such as the inclusion of other teaching methods, increased confidence of pupils and peer assessment of tasks completed in lessons will also have contributed to the increase in the ability of students to complete these tasks and thereby improve their grades.
- Despite being able to discuss the validity and reliability of the methodology or results that they have been provided with, most of the students are unable to plan investigations in sufficient detail to ensure that their methods will produce valid, reliable data.
- It is very difficult to find suitable pre-prepared tasks that aim to develop these skills for KS3 students and designing varied tasks has proved difficult and time consuming.

Discussion

The students of this group have made good progress since the inclusion of these tasks. As discussed above, it is impossible to attribute their improved grades solely to the inclusion of these tasks. I firmly believe that they are the reason that students are now able to interpret data and comment on its validity and reliability.



The next point of focus will be to provide support to enable these students to design valid investigations. I have recently begun to provide a writing frame for students to do so, but they are currently very dependent on it. This indicated that either the students do not fully appreciate all the facets of a valid investigation or they are currently unable to apply their knowledge at this level. As this is a higher order thinking skill, some of these students may struggle when less support (withdrawal of the writing frame) is provided for such a task. I plan to investigate this further in the forthcoming term.

The difficulties experienced by these pupils also highlight a greater concern. I currently have reservations about how a lower ability group would cope with many of the tasks used here. I suspect that they would find much of the terminology used with this group daunting and it may prove to be a huge barrier to completing the tasks set. Additional opportunities to become accustomed to the terminology would need to be designed for such a group. Furthermore, many of the tasks used during this project were written tasks. Whilst a kinaesthetic element was introduced where possible (e.g. Bingo or splat starters to recap key terms and a circus activity when considering several investigations completed by the Simpson's), I suspect that these tasks lack in the variety that may be needed to retain the interest of a less motivated group.

A number of these tasks have been shared with others in the department to try with students of varying abilities (Include email from Nicola here re: Reebops as evidence ... and some others if possible).

Mark Barrington Dubai College

Maximising Physical Activity in P.E

Context

Dubai College is an academically selective 11 – 18 co-curricular secondary school that follows the British national curriculum. Students are expatriates from a variety of nationalities; three of the students are nationals of the United Arab Emirates. Students come from a privileged socio-economic background with no students on free school meals, statemented students or students with EAL. All students who leave the 6th form go onto further studies at University, the majority taking up their studies in the UK.

The classes that were involved in this particular action research were one year 8 and one year 9 boys PE class. Numbers in the class were 22 and 25 respectively from across two forms in each year group. The classes are of a mixed range of abilities with students being assessed at both the top and bottom end of the schools assessment spectrum within the Physical Education curriculum. Personal student targets range from simplistic acquisition and development of skills up to developing their evaluative capabilities of their peers.

Rationale Whilst in my last position as Head of Physical Education at a Grammar school in the UK I was involved with many students from the local University coming in and conducting their educational research. One student was looking at the amount of time students were actually engaged in physical activity within PE lessons. It was interesting to see that the findings of this study, which was taken across a number of schools in a variety of local authorities, showed that the average amount of time spent physically active in a 60 minute lesson was 18 minutes. At the time this made me consciously aware that I would need to reflect on my own practice, however I cannot say that I embedded any meaningful change into my practice.

In my current role the same thoughts came into my mindset, sparked by this opportunity to conduct some action research. My initial spark came from a year 9 lesson whereby the main body of the lesson did not start until close to 20 minutes into the lesson for a variety of reasons. I decided that I needed to try and readdress this balance whilst still looking at including the school policies of assessment, target setting etc. A concern was that students were losing touch with Physical Education from a motivational perspective and were not sure of the main purposes behind the curriculum aims and objectives of the subject.

My biggest improvement in my teaching practice this year has been my increased use of information technology in and outside of lessons. This has been across both mobile devices and web 2.0 innovations, I wanted to embrace this and use this to engage students away from lesson time. I have not used the time away from the classroom with KS3 PE classes before and saw as this being a key area to free up time in lessons for physical activity, along with getting the students to think about a subject away from school that they do not ordinarily. A second area to try and focus on was the use of the changing room. Classes can comfortably use 10 minutes of a 55 minute lesson getting changed at the beginning and end of the lesson, coupled with the travel time to the area the lesson is taking place and the setting up of equipment the time can be eaten away very quickly. Using the time in the changing rooms more effectively to set out LO's and explain equipment set up was an area to be focused on which could provide a quick win for the research findings.

Findings

My simplistic initial aim was to increase the amount of time spent taking part in physical activity in lessons; this was not given a specific aim of increasing it by a set percentage or amount of time. As a consequence of actions taken through the action research period the initial aim has been achieved, I am pleased that a specific target was not set as the nature of the subject and the different activities taught would have made that difficult.



This improved lesson dynamic can be shown through both qualitative and quantitative evidence. At the beginning and the end of the first research cycle, which focused on improved use of the changing room and travel time, informal observations were made focusing on activity time. This was taken in the same activity but not the same discipline; there was an increase of 5 minutes of activity time in the second observed lesson. This could be put down solely to the use of the whiteboard in the changing rooms, use of the travel time to the changing rooms as thinking time and the plenary taking place back in the changing rooms. However, I believe there would have also been subconscious alterations made to my teaching practice to enhance time spent with students physically active. On reflection I certainly moved towards more small group interventions and mini plenaries as oppose to whole class strategies.

I see myself as an open professional who is very keen to consider and embrace change as and when it is put forward, this action research looked at me to make that change to my teaching practice for predominately intrinsic reasons in the first instance. I found this change, albeit relatively small, to my teaching practice to be a difficulty. I had to force myself into the change of presenting my LO's in the changing room, use of the travel time for think time and the continual promotion and reinforcement of the web 2.0 programme I used to facilitate student reflection away from the lesson. As a middle leader I understand that change is difficult for individuals to sometimes implement into their practice, forcing myself into this personal change gives me more empathy and understanding as to how any innovations that are implemented across a wider network need to take time.

The use of web 2.0 programmes, specifically Edmodo, has improved the student's opportunities to reflect on their learning experience away from the classroom. Edmodo has been taken on enthusiastically by the students; the sticking point is that this was not embedded from the beginning of the year. I have found that this being a midyear change has provided issues with the implementation as the students have not been in the practice of accessing this resource from the beginning of the year. I will continue to persevere with Edmodo and there have been more successes with this than failures. The screenshot below in figure 1 shows how students have used it to complete their targets, a task that had eaten into physical activity time.

Discussion

The action research process developed as an organic process led by the students responses to anything being implemented, the first research cycle took a little longer than initially anticipated due to my initial lack of consistency in using the changing rooms effectively. The main mechanics of the process and not trying to focus on anything too grandiose did not alter as the process developed, keeping it simple certainly assisted in my efforts to alter my teaching practice.

I have been involved in some other action research projects during my teaching career, the characteristics of these projects have been that I have worked within a network to be able to distribute and segment the structure of the project. This enabled the continued growth and allowed a professional sounding board. As this was subject specific research with nobody else from the department involved in the first two cycles before dissemination I felt this would have created its limitations on how much it developed.

To this end I would look to try to engage and involve a small number of colleagues, if not the whole department, from the beginning to assist in the ownership of the research and any subsequent implementation. As I show my findings to the department I need to ensure I structure the feedback in as constructive a way as possible to ensure it engages individuals and is not a top down information feed. If this was to go across departments utilising a segmental method is certainly how I would employ the research I have conducted. This would enable ownership and personalisation to the specific departments.

Although the research has been conducted in the medium of a physical education department I believe there is some lessons and transferability to other subject areas. Many aspects of the research point to the flipped classroom approach, whereby students learn the core fundamentals away from the classroom before the teacher guides the students through the application and extension of this theoretic content. The web 2.0 tool of Edmodo is an ideal platform for this to be achieved and can be shown and implemented by all other subject areas. This could be across key stages and a variety of topic areas, the key would be for the departments to personalise it to their needs.

On reflection, I feel that the following are the three most important findings from this research, in no particular order.

- Effective use of the changing rooms improves time spent taking part in physical activity.
- Tasks away from lessons gives students more reflection time and gives more weight to what you are asking them to consider.
- For complete implementation from both a teacher and student perspective the action research needs to be part of a culture change at the beginning of the academic year, or at the very least the beginning of a major topic area.

The impact of this research on myself is that it has shown me that learning and changing is difficult and I need to consider this in my everyday middle management of the department I am involved with. It has enabled me to see that small changes make a relatively big difference and not all changes need to be on a large scale to have impact. I believe that the impact on the students is more on the subconscious level; this research has facilitated time for the students to be thinking about the subject away from lessons and spend more quality time on their reflective process. Most importantly is that it enables students to be involved in more physical activity, a simple concept but which is fundamental in Physical Education.

Alex Wells The British School Al Khubairat

Improving Learner Inter-dependence in Maths

Context

The research was carried out with two classes. One year 8 and the other year 9. The classes are mixed with an 60/40 split of boys to girls. Year 8 is a set 2 class and year 9 is a set 3 both out of 6. Both classes are friendly and hard working. They enjoy being challenged and have no specific students with problems in numeracy.

Rationale

The object of the research was to try to investigate ways and environments in which pupils could learn off each other with minimal teacher interaction. Why should a teacher tell a pupil how to do something if they can and would benefit from learning or finding it out for themselves? It is very easy to spoon feed pupils in Mathematics but then they are missing key skills which they rely on in A level and in later life. The chalk and talk method of teaching has many flaws such as being uninteresting, builds up large amounts of marking, pupils do not interact, they do not learn investigational skills; so why use it?

As a teacher I try to find ways that pupils will enjoy lessons and use activities that a pupil relates to their learning and hence improve the chance of remembering a subject. For example if you taught a simultaneous equations lesson whilst dressed as a cowboy, it is more than likely to be remembered a pupil will associate simultaneous equations with you looking stupid, stimulating their minds whilst learning is an extremely effective tool.

I started my project by thinking about why pupils switch off in lessons whilst a teacher is speaking. One reason is that they either understand a topic already or have no idea and cannot follow you. In either circumstance due to a range of learning capabilities or current knowledge, you will at some point be speaking to a pupil that knows what to do already so why does he or she have to wait for everyone else before starting work or on the opposite side why does a pupil have to wait twenty minutes or so before they understand what is going on.

The first part of my research was then to start splitting classes into groups of those who understand tasks well, need a little reminder and those that have no idea. That way I need not waste pupil's time if they know what to do and concentrate on teaching the less able. If pupils need a little reminder, why not let them work in a group and communicate their understanding to see if that is enough to help them remember.

Findings

The limitations of this was that I could not spend as much time with those who knew what to do or those who were working in a group. How do I therefore assess them? How do I advance the better pupils? How do I know they are all learning?

In the next session I therefore to split the groups like last time but this time combine the pupils. Make groups of different abilities. This way I get the pupils to teach and interact with one another. To extend the higher ability pupils, why not get the pupils who knew what they were doing to teach those that do not and at the same time this will give the help to those that need a little reminder.

The idea proved very successful and after a few more lessons like the above I asked the pupils to fill in a survey on their thoughts of the new style of lessons. Combined with a surprisingly higher average test scores, the survey also showed that the pupils were fonder of this particular lesson and that some of them said how they concentrate more.

See appendix two

Improvements made

I still wanted to continue to try and improve the lesson so I asked the pupils to do another survey that was designed to find out how the pupils would structure a lesson. From the answers we built a lesson around what they wanted. See appendix one

From observations from staff and discussions with peers

Have lesson objectives constantly on display, so that pupils do not stray off task. Have what they are supposed to achieve always visible and refer to it.

Assessment Instead of answering questions, a great measure to see if a group understand s what it is they are doing, have them write questions, with answers. If the question follows the same idea as the lesson, you know that the pupils have gauged what the learning is.



The next step

Having had the head of department observe briefly and discussions with him. He is keen to have this style of teaching across the department. This type of lesson will only work with some topics. The next step is to identify what areas we can teach in such a way and alter the scheme of work to include these lessons (lesson plans and instructions and observations will be organised). With everything in place we would encourage the other teachers in the department to try out the idea.

A department meeting was arranged so that we could discuss what I have been doing and which areas we will be trying to implement the style of lesson to. By using an example of angles in shapes and explaining that they could have a lesson without any prior or prep work from them and how beneficial these lessons were did create some interest. By highlighting what areas we could use this with, with the explanations written on a scheme of work should mean that they would not have to plan anything.

Limitations

As yet I have not tried this method of teaching with a low ability set. I do not know if it would be as effective. I do have assistants in the class so one method to try is have the assistants leading each group. Not necessarily teaching but supervising.

Three most important factors

- Ensure that the groups know what is expected of them. Give them a clear objective and outcome.
- Have a clear idea on assessment and what you want from each pupil/group. That way you will be clear which direction the lesson should go.
- Ensure that everyone takes part in the discussion or activity (one way that works very well, is to get the less abled pupil in the group to explain the theory to the class. If they know they have to do this they will pay attention and not let the others do the work).

Natalie Lifook Dubai College

Facilitating Independent Learning Through Group Work

Context

This research project was undertaken at Dubai College, an independent British curriculum mixed secondary school in Dubai, UAE up to the age of 18. This school is selective with an entrance examination. Students come from lots of different countries around the world, but all students have English as a first or second language.

Classes participating in this action research project are as follows:

Top set Single science Year 11 (4 girls and 8 boys).

- One student has mild Asperger's syndrome.
- One student has mild attention and focus issues.

Mixed ability Year 12 (6 girls and 6 boys).

- One student has mild attention, focus and organisation issues.
- One student lacks motivation and organisation.

Mixed ability Year 12 (2 girls and 8 boys).

- One student has mild dyslexia and has difficulties with confidence and some verbal reasoning.

Mixed ability Year 13 (5 girls, 2 boys).

All classes used are from the upper school, and are all examination classes. The general consensus is that students need to become more independent learners; a fundamental skill transferrable to other subjects and a huge range of career paths. It is a skill and learning ability that will be key to academic achievement.

Rationale

At present, independent learning may not always be a big part of lessons, and the idea behind the action research project is to change the way students learn, helping them to achieve better and more. It could also help extend their understanding and learning beyond the required specifications.

The research has been based around students becoming more independent and learning from each other in a new, creative way. The work/tasks involved have also been used to assist in extending the high-attaining students, and also aid group work, written work, and oral and visual presentation.

The action research project

Students in each class were sorted into working group of three or four students (because the year 13 class was only six at the time, they tried the group work individually in the first cycle).

Each working group was given a small topic to research and present. They were to become the experts. All students had to participate, and I as class teacher would assist them where needed. They had to decide how to present the information. Students, however, were given guidance in places to extend their knowledge beyond the specification and learn more in depth. The students were given enough time to research and present their work on paper. The groups were then separated. At least one expert had to stay on their own table, whereas the other students would move round to the next expert table in a clockwise direction. Each expert would teach their topic in as much detail as possible. And the new students to the table would listen, learn and ask questions and add knowledge to the displays if capable. The new students would then become the experts and stay on that table to teach the next students, who moved to that table, whereas the old expert would move tables, learn something new and become an expert of the next topic. This would continue until all students were experts in all topics. They would have to listen and explain all topics.

Findings

My aim was to facilitate learning using group work and independent work. I believe I have been able to achieve this, and it is shown through student work done after the activity, and through test marks achieved after the task.



The benefits to the students were that they were able to work with lots of different students, were able to teach and learn from each other. This seemed to be a good exercise for the less vocal students who were able to voice their confidence and intelligence to other students. It gave them social interaction and class participation. I had the benefit of being able to walk round the different groups, ensuring they were on the right track, and assisting with ideas. I was also able to guide the less able and give them more structure on their task. This class activity was therefore very beneficial and myself and the students.

Students were receptive of the task, however after the first cycle some students were more willing to state their opinions.

The negative points:

- Some students stated that they would rather learn more passively.
- Some seemed quite against the task and would have rather I taught them in the standard way of the teacher tells them what they need to know and do for their exams.
- Others felt that errors would be learnt and passed around the students as they taught each other, and that information would be lost along the way, or that they would not learn that particular topic in enough detail.

The Positive points:

- They felt a positive forced pressure on them as they needed to learn the topic.
- It was interactive.
- Some weren't sure the task would work but realised it did help them learn.

After a few cycles I started to see some patterns. This task was harder where you had a bigger mixture of abilities. Pairing a more able student with a weaker student does help for the planning, research and learning stage, but when each pupil has to be the expert and learner, this seemed to impose a slight disadvantage sometimes. Odd numbers and students being missing was also a problem occasionally when some students had been round each group as the learner and expert. However as the students got used to the task they were quicker and understood the task at hand better.

Discussion

As the project developed, the task didn't change, but certain things were added. This was done through discussion with some students. A handout was added, and more incentive such as a prize or some sort of acknowledgement for their hard work.

The limitations were mainly time. As all classes are examination classes, there is always a certain pressure to move through the course at a certain speed to get through the whole specification and this therefore disadvantaged the project as this task took longer to complete in some cases.

If I was to extend this project I would start the project earlier on in the year, and also use classes lower down in the school to see the differences. Younger students may have become more use to independent learning tasks also due to the nature of difference teaching styles being introduced at different times. This task is also very transferable to other topics and subjects and could be used widely throughout the school.

I think the most important findings of the project was that it enabled less confident or less able students to show their intellect and gain more confidence, it aided group work and most importantly gave students the ability to independently learn and take in information quickly. This will be extremely useful to them in a wide variety of roles. It is also a task which can stretch the more able and help them impart their knowledge and enthusiasm to others.

I think the overall impact has been very positive and more development and time of the project in different settings would be very accessible.

James McBlane The British School Al Khubairat

‘Will an explicit thinking skills approach embedded in teaching lead to an improvement in academic performance’

Context

The study took place between, November and March (just over one full school term). Every A lesson had embedded within it thinking skills activities and approaches. Bs were taught as normal. I already had a lot of data on their academic performance up until this point so had a clear starting point. The same exam assessments were given to both groups, I hoped that this would give me a clear basis for comparison. In addition, I also gave a collaborative, and very difficult thinking skills to both the A and B groups as I was interested in how their ‘thinking skills’ may have developed beyond their academic performance in History.

Rationale

I wanted to investigate the idea mentioned by Fisher (2005) in her report that developing thinking skills can lead to ‘improved’ academic performance. Therefore my question is

‘Will an explicit thinking skills approach embedded in teaching lead to an improvement in academic performance’.

The principles and theory of developing thinking skills and how they could be applied: This was a long process of research and then turning the ideas into something that I could practically use. It would take an awful long time to describe and explain the entire process, so what follows is a very brief summary. Firstly, through research I identified and then I took a number of key ideas on developing ‘thinking skills’ and ‘creative thinking’ from the work of Fisher, Lipman, Polya, and Gardner as well as Land and Jarman. I then looked at the schemes of work in History and looked at how I could take these approaches and make them ‘part and parcel’ of ‘everyday’ lessons.

To be able to make an assessment on the ‘impact’ of implementing a ‘thinking skills’ approach to teaching I decided to use four classes in my research; two Year 11 classes and two Year 12 classes. With one of the Year 11 and one of the Year 12 classes I took the ‘thinking skills approach’ the other two classes I taught in my ‘normal’ way – without any explicit or overt focus on thinking skills. Both classes in each pair had a very similar profile. In the Year 11 classes of 18/19, one in each class had some SEN support and 2/4 were identified by the school as ‘Gifted and Talented’. In the Year 12 classes of 14/16, again one student in each class had some SEN provision and 2/4 were designated as G/T. The average GCSE grade for History was an A for the Year 12 classes. All four classes I would describe as ‘excellent’ they are on the whole very keen to learn and very keen to ‘do well’. Overall, the classes are fairly well balanced and I believe that they would all be receptive to a new approach. I flipped a coin to select which group would ‘experience’ the thinking skills approach. I will call this class 11A and 12A and those who did not have the overt thinking skills approach 11B and 12B.

Findings

To summarise; the outcome appears to be inconclusive. It appears that there are some positive indicators but there is no clear evidence arising from the outcomes of this study. In essence, both the timescale of this study sample and the scale of the study being limited to History and 3 lessons per week. My 'hunch' still holds that 'thinking skills' can have a positive impact on academic performance but I am left with the view that this must be developed across a longer period of time and that it cannot be developed in 'small pockets' but rather to be effective should be more widely embedded in the teaching approach of an institution.



The results: The average grade improvement in Year 11 was 0.72 across the A group (3/4 of a grade on average) while the B group was 0.68. The difference really is too small to be of any real value. The Year 12 was 1.12 for A and 1.21 for B again, negligible and the opposite result of the Year 11. As such, the results of academic assessments did not reveal a clear impact in any measured way.

The thinking skills assessment did however show a marked difference in performance with both As significantly outscoring the Bs on these tests. In fact the B in both groups failed to answer over half of the questions, in comparison only one group of As did not at least attempt an answer to all of the questions.

Then there is my own anecdotal evidence, I found the students more willing to take risks with their answers, I found the As better able to think through questions and I also found the A students asked a lot more questions. In fact, in February, I started to count, how many uninvited questions per lesson, the results were quite striking on average I had 1 or 2 questions per week (3 lessons per week) from the Bs; from the As I had between 6-14 in a week. A marked difference! I began to feel that the 'culture' of my classroom had changed and I began to enjoy the A lessons more.

At the end of the study I told students about the study and what I was doing and invited their feedback, I also held two informal sessions with a number of the students to discuss their views. One of the comments from one of the Year 12 Bs was I always wondered why talking to other students their lessons seemed like more fun. There were a number of other positive comments, particularly interesting was a Y11 A student who felt he had started to 'think better' and was finding Economics easier as he was using some of the logical thinking approaches (taken from Polya). Equally, and honestly there was also a number of students who felt that it has not really affected them and they had not noticed any impact.

Discussion

What am I taking away from all of the above? Firstly, if it will lead to an improvement in academic performance it cannot be achieved in isolation or it appears a short period of time. I do however, remain convinced that it could have a real impact if developed more fully across the whole curriculum and throughout a student's education. I have noticed enough of a change in the engagement and 'culture' in the classes I have taken this approach with to lead me to continue with this beyond this study.

I think the limitations of this study are clear. The effect remains inconclusive, there is however a body of academic research which does indicate that it can, if more widely engaged and developed for longer bring about a measurable improvement. Therefore, I acknowledge the timescale and the discrete nature of my study mean that there is no real 'hard' measurable data.

This could work on a larger scale, my research and anecdotal evidence leave me convinced that it will bring measurable benefits over time but that it is not a 'quick fix' solution. I believe that a 'thinking skills' approach is universal and could be applied to any subject or aspect of the curriculum. I would like to see other departments work aspect of this into their schemes of work and their day to day teaching in the classroom.

I would certainly encourage others to look at this and decide for themselves if it has anything to offer you and your students. Overall, the impact, I believe is as yet not measurable. However, I feel it has changed the 'culture' in my classroom. It has moved me and my students away from teaching and learning that was at times a little too set and didactic. It appears to have brought about a measurable level of increased engagement from able students that I believed were already engaged. I find the lessons more testing and also more enjoyable. To conclude, it has changed the way I teach and the way my students will learn in my classroom, it has given me a range of new techniques which I will need to refine but it has started the process. I have shared my research with my own department and also with other colleges in different parts of the school. Through the SSAT I also hope to share this work with teachers in other schools in the UAE and across the virtual network.

Rob Ashby Dubai College

Developing Reflective Learners in Maths

Context

The research I am conducting involves 7 pupils in a lower ability year 13 Mechanics class (17-18 year olds). The school is a British curriculum school and as such the pupils have taken GCSE examinations in year 11. The class consists completely of British pupils and although the school is selective and the students all obtained an A grade at GCSE, the pupils targets grades range from a A-D grade at A-Level.

When our pupils are selecting their A-Levels choices there are generally 3 reasons for continuing with mathematics:

- Genuine ability and interest in the subject
- Parental pressure
- They believe it is more respected than other A-Levels and because they did well at GCSE it is worth pursuing (believing that it will not be any more difficult)

My group falls into category 2 and 3.

The problems start early on into the course as pupils start to realise the jump from GCSE to A-Level is much bigger than they first thought. They tend to just bury their heads in the sand and hope that it will be alright in the end, which in turn causes them not achieve as highly as they would like/need to. Some of the pupils, because of point 3 above, have unrealistic expectations of what they can obtain in the first place and some become disinterested because what they thought would be relatively easy has turned out to be very difficult – the lack of passion for mathematics is therefore unable to keep them motivated – I therefore need to help them overcome their difficulties and help them to make the complex ideas more accessible but this needs to be student lead.

I believe that, after working with these students over the last 4 years, that the main issue is an inability to reflect on and learn from the work often results in superficial, rather than deep learning. For example, a student may submit a piece of homework that has been completed to a very good standard, but when questioned on its content and the processes involved, it becomes evident that they in fact understand very little of what they have done. Alternatively, a student may submit incomplete homework, admitting that they struggled, but having made no effort to seek help in order to break down and solve their problems. In short, many students exhibit one of two strategies when they face difficulties in Maths: they either copy someone else's work or avoid the situation altogether and just hope that they will eventually understand the work.

I have therefore decided to undertake research in the area of reflection with my lower ability A-Level classes with the intention of encouraging students to engage with their learning on a deeper and more conscious level; this will involve them identifying, reflecting upon and addressing areas of their learning that they find challenging. In turn I hope that this will increase their communication with me in regard to current understanding and attainment, as well as identifying clear and manageable targets in order to improve. Students will also develop skills of independence and self-management as they learn the importance of reflecting on their learning.

Findings

At the beginning of the first cycle I collated 3 different resources together and handed them to the pupils. One was a list of success criteria created by Edexcel and the others were sheets that I designed in order to help the students reflect on their understanding by filling in problems that they encountered and what steps they were taking to improve.



The pupils responded well to the sheets at first and the feedback was positive; they allowed the pupils to focus their learning which aided them in taking positive steps to improve. It was interesting that just having what were essentially 3 sheets of paper with some headings could actually help the pupils to feel more comfortable in taking responsibility for their own development. The amount of pupils seeking help outside of lessons increased and this also helped me to monitor them more closely by questioning them about what they had written down.

However, when questioning many pupils I found that they often still had a superficial understanding and thus the use of the resources quickly deteriorated. Even though they were seeking help more often the improvements were still mainly teacher led and not led by themselves. At this point I asked the pupils to coach each other and it came to light just how hard they find it to actually pin point what it is that they do not understand; the pupils found it really hard to discuss and communicate their problems without my guidance and help.

After another coaching session and lesson observation I created an instruction guide on how to get the most out of the sheets which helped the students to be concise and clearly communicate how they were trying to improve, although some pupils still struggled to do this effectively. I also had an open discussion with the class and their comments were very valuable. Firstly they did not think that a list of success criteria in mathematics was actually that useful (this was interesting as I thought success criteria would be the foundation of my research), they felt that each question had its own different angle and so it would be too large and after all they have a mark scheme which clearly shows when they understand a specific question. They thought it would be more useful to develop a way of being able to start and access each question – a set way which questions from different topics should always be approached. This could work quite well as although no two questions are the same they often require the same approach at the beginning and the pupils identified that their main problem is often an inability to initially access a question; they will often ask for help before attempting it for themselves and then find that minimal guidance allows them to get quite far. We are developing this as a class at the moment and will review it in a few weeks. They secondly wanted to simplify the original sheets and thus redesigned it and removed the information they felt was irrelevant. They finally admitted that using these sheets along with regular peer coaching was essential to ensuring a non-superficial understanding of questions. However, this is something the pupils felt would need a lot of work to develop.

Discussion

As my research has progressed I am pleased with the current outcomes. The students are taking an increasing amount of responsibility and the coaching aspect is an avenue I had not previously considered - I am looking forward to exploring it further. I am interested to see how effective peer coaching can be and this has massive scope for use in the whole school. It eventually could be good for mixing high and lower achievers, different year groups and even subject areas (it has actually just been introduced this year at the school in English).

The time I have had with the students has limited what I would have liked to achieve (many lessons have been taken up by having to help teach another section of the course) however, the students have benefited from what we have achieved as seen by their increased confidence and communication (verbally and written). Ultimately comparing examination results and targets grades in relation to previous years will also be key to the success of what I am trying to achieve.

As well as for the pupils, completing this project has had an impact on myself and my own teaching. The research, although far from completed, has helped me to really think about key areas in which I can help the students develop and shown me the true value of effective and well thought-out research. I have very much enjoyed involving other members of staff and the students themselves in the development of my teaching strategies. In the future I will actually engage the pupils in the research at a much earlier stage as I found that when they are truly on board with what you are trying to achieve things develop at a much faster rate.

Catherine Willis The British School Al Khubairat

Action Research Cycle 1 (Year 9 Fashion Show)

Context

This research was carried out with one Year 9 mid set class. Fairly even split between boys and girls. All pupils are friendly and hard working. They enjoy being challenged and have no specific students with problems in literacy.

Rationale

Improving levels of motivation and increasing creativity in Spanish in Year 9 will have a positive impact on the level of uptake at GCSE. (According to research, motivation is a key factor to the success of learning a language) I expect that increased motivation and alertness will encourage pupils' ownership of their own learning and Improve teacher/pupil relationships. All of which lead to improved attainment in the subject. When pupils feel that they can achieve highly and enjoy a subject they will choose it for more advanced study. My intended outcome is approved attainment and higher uptake of Spanish in Year 10.

Findings

I feel that my findings have achieved my initial aims to a point. I feel that there was an increase in motivation and enthusiasm in Spanish in the short term. Students, although slightly embarrassed at first, were proud to show the fashion show to other classes and other classes requested their teacher that they do the same type of thing or something similar in their lesson. However with regards to increasing pupil uptake at GCSE, I think that it is too difficult to ascertain after this one project. I do think however that this project has provided a basis and will encourage other teachers in my department and other departments to try more creative teaching activities to increase enthusiasm after witnessing the positive results we have seen on enthusiasm towards Spanish in Year 9.

The evidence I have to support my claims is mainly Teacher and pupil feedback.

The unexpected outcome of this project was that my colleagues in the French and Spanish department have added a fashion show to the SoW for year 9 languages next year.

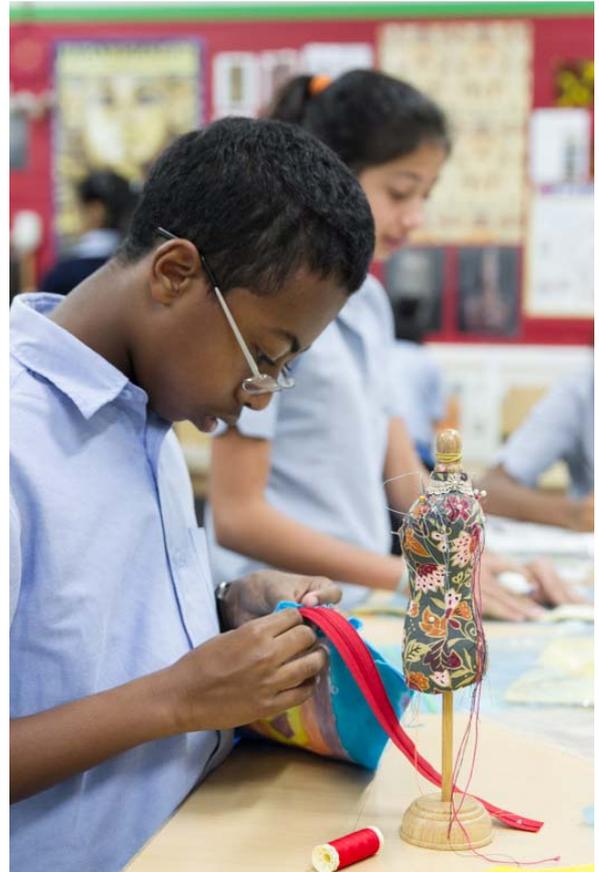
There were many benefits to both student and teacher. A change of environment and routine rejuvenated both pupils and the teacher. It was fun to do something different and then critique the result. The self and peer assessment opportunities were capitalised upon and were of benefit to all.

Pupils reacted very enthusiastically to the fashion show and the presentation of the clothes on video. They made extra effort with pronunciation as they knew they would be recording it and that other classes in their year group would be watching them. A really positive learning experience.

Discussion

As the project developed there were some logistical problems such as not being able to use the theatre or the auditorium to practise during the day and recording the commentary and video separately to not test our media skills too much. Students were also allowed to use prompt cards to help them, but some did not need them, so this adaptation was made.

I don't think this project would be feasible on a larger scale with regards to the fashion show, but more classes could get involved by producing brochures or posters or even setting up a Spanish café for refreshments. It could also be adapted to be included in the school's Spanish Cultural Evening. The recording of it could also be used as a classroom learning resource for the future.



Catherine Willis The British School Al Khubairat

Action Research Cycle 2 Implementation of Audacity in Lessons

Context

This research was carried out with one Year 11 Fast track class. (Post GCSE) who are following a cultural course designed to explore the literature, cinema and geographical facets of Spain, Latin America and Spanish language, amongst other areas. Pupils also follow the AS grammar content and prepare for the DELE exam, an internationally recognised coalification run by the Spanish Embassy. The class is made up of 8 boys and 4 girls. Pupils are gifted and talented in languages, all having achieved an A grade or above at the end of Year 10. They enjoy being challenged and have no specific students with problems in literacy.

Rationale

Improving levels of motivation and increasing creativity in Spanish in Year 9 will have a positive impact on the level of uptake at GCSE. (According to research, motivation is a key factor to the success of learning a language) I expect that increased motivation and alertness will encourage pupils' ownership of their own learning and Improve teacher/pupil relationships. All of which lead to improved attainment in the subject. When pupils feel that they can achieve highly and enjoy a subject they will choose it for more advanced study. My intended outcome is approved attainment and higher uptake of Spanish in Year 10.

Findings

My initial aims were to increase confidence and, in turn, enthusiasm in Spanish and I feel that these have been achieved. With regards to evidence, students were surveyed for ways in which they thought their confidence in Spanish could be improved and amongst other suggestions many students mentioned Audacity as a programme that they are aware of in other subjects. (Was suggested to me after a coaching session with Gemma) Pupils were enthused that their recommendations were taken on board for my LP project as well as having a compilation of the lesson plan ideas implemented.

Unexpectedly, after I shared this research with other members of my department, they have also gone on to implement audacity as a means to give pupils ownership of their own learning through self and peer assessment. This will also have the knock on effect that pupils further down the school will be accustomed to audacity and it will not be something new to them when their complete their controlled speaking assessments.

The main benefits to me were an increased enthusiasm in lessons and, after a few sessions, in speaking Spanish. The students enjoyed working more independently with less teacher talk and more action. I also found using ICT (laptops) also garnered more interest. Students seemed to approve of my innovations.

Discussion

I changed a couple of things as the project developed? I extended the project to include peer assessment as well as self-assessment. Students were very supportive of their peers and gave constructive advice and criticism.

The limitations of the project were that due to the time constraints of the course already in place we could only spend a couple of sessions using audacity and correcting and reflecting on its success. However, increasing confidence in speaking a language is going to take more time and is a long term aim, rather than a short term outcome. However, if imbedded into the courses lower down the school and used to a greater extent generally in Spanish but also in French and Arabic, we could see a significant improvement in speaking confidence.

Audacity could be used on a larger scale with laptops and microphones and it would encourage independence as well as improve enthusiasm.



Ricahrd Dennis Dubai College

Exploring the Flipped Classroom in History

Context

Dubai College is a Co-educational, selective secondary school, with approximately 750 students on roll. Although it is a multi-cultural community, comprising over 40 nationalities, all students have to demonstrate a high level of spoken and written English in order to enter the school, where the English national Curriculum is followed. Exam results are typically very impressive, and the school benefits from having supportive parents and a positive work ethic, as well as strong staff-student relations.

The main focus of this project was a Year 12 History class, 4 male and 6 female students. Although a mixed ability class, where there are some relatively weak students, and some potential Oxbridge candidates, they are all well motivated, keen to learn and anxious about doing well in the exams. They are all predicted Grade A or B for their end of year examinations in AS History.

Rationale

I had been teaching this class, since September for 2 lessons per week, covering a Unit on Britain and the Experience of Warfare. My Colleague had been teaching them for 3 lessons per week, covering the Unit on China and USA in the Korean and Vietnam Wars.

This colleague began a maternity leave in December, and I agreed to teach her lessons. Given that I was new to the topic (the Korean and Vietnam wars) and a lot of their teaching time had already been taken up teaching China, there was considerable pressure on me to accelerate the pace of the course, in order to complete it in time. I wanted to move the emphasis away from me, the teacher, being the source of knowledge, and place the onus on the students to arrive at the lessons with the knowledge, ready to explain this to their fellow students.

Also, I was concerned that students lacked some basic essay skills, and their essay grades were being held back by a lack of structure in their writing. This needed some attention in class, and less time, therefore, could be devoted to imparting the facts.

I had also recently attended an INSET course on developing thinking skills by encouraging more collaborative learning and greater ownership of the learning process. I therefore saw this research project as an opportunity to promote more independent thinking and therefore a greater depth of understanding.

Rationale

My Primary purpose was to improve the quality of learning and teaching. Secondly I hoped to bring about a change in the students' attitude to lessons – where they would eventually accept greater responsibility for the learning process and would become less reliant on the teacher as the provider of knowledge. A longer-term aim, perhaps, would be to demonstrate the value of action research to colleagues.

The immediate aims, I hoped, would accelerate my pace of teaching, improve the student's understanding of how to write A-Grade essays, and promote more analysis and depth of thought in class. I hoped that these objectives could be measured by looking at their progress in the essay skills, by observations of their approach to class discussions, as well as by comparing their pace of work compared to a parallel, similarly mixed ability class that was being taught in a different style by a colleague. (Notes on discussions with colleague are attached).

I initially adopted a fairly simple approach. Homework time would be devoted to the students working collaboratively (in 2's or 3's) to LEARN the key content of the course, and the lesson time would consist of them explaining/presenting this knowledge to each other. (Examples of the kinds of homework tasks and the student responses have been attached). I would then be able to organise discussions and debates in the lessons, in order to consolidate their knowledge and prepare them to use this to plan and write essays.

Students generally preferred to use Powerpoint Presentations (Samples attached) to explain their knowledge to each other, as well as printed handouts to accompany their presentations.

Findings

Anecdotally, so far it appears to be succeeding, the students seem to be happy to be given the responsibility of digesting information and then explaining this to their peers. Overall, they have become much more active in their approach to learning and most are more confident to take part in discussions that develop in class. As I teach this class two different units I decided to employ similar techniques with the other unit.

In terms of their essay skills, there has been a marked improvement in the students' understanding of how to plan and write in a more analytical style. I have regularly asked students to reflect on their work, and record their grades, strengths and targets. The students' self-assessments help to support my view that they are gaining greater confidence academically, but are also showing more insightful awareness of their own progress.



Within a couple of weeks of the students preparing presentations and delivering key information to each other in class, I noticed that students had made a noticeable shift in attitude in lessons. When planning an essay in class, for example, I was impressed to see that they were beginning to ask EACH OTHER questions, and were no longer relying on ME to provide all the answers.

After a few weeks I decided to extend the experiment to try to also get them work collaboratively on essay planning skills. For this I used the History Forum (screen shots attached) and students were able to devise and plan essays for homework, and study, expand on and comment on each other's work.

As this experiment seemed to be going so well, I decided to use it as the focus for a couple of coaching sessions between me and two colleagues (History and Science teachers). This was a good opportunity for us to compare the different approaches that we were using at A-Level. In this way I was also able to reflect on my research project, and this helped me to refine what I was doing. For example, these discussions helped me to gauge how quickly my class was moving through the material compared to my colleague, but it also reminded me of some of the more difficult concepts and essay skills that his class needed extra time to grasp. (Emails between myself and my colleagues, as well as sharing of my ideas with teachers At BSAK are also attached)

Discussion

As the project developed I did, upon reflection, modify my plans in a couple of ways. After the first session where students were presenting their findings to each other, I realised that the "audience" could end up being too passive, so I insisted that they all had to write notes ask questions at the end of each presentation, and the presenters also had to finish each presentation with a short quiz. I also decided to get them to work in pairs on each homework project, to promote more co-constructivism, but also to minimise the impact on the rest of the class if one student was absent – as their partner could still carry out the presentation.

The limitations that I became more aware of as the project developed were: The students (and I) were anxious to finish the course before the end of term, so there was not a lot of time to experiment with risky ideas. Also, the success criteria are difficult to quantify, and my observations of the student's progress, as well as their own views of how they are doing is very subjective. If I was to carry out this research again I would choose a lower age group, where exam success is less imperative, and where there is greater room to make mistakes! I also will try to choose two similar classes in the same year group (eg – 2 year 9 classes) where it would be easier to compare the different progress that the classes made.

If I was to transfer my ideas onto a wider scale, it would be fairly simple to adopt the same approach, so long as I modified the expectations to fit the different age groups. The concept of minimising teacher-talk, reducing the time spent on lengthy explanations, and getting students to learn key knowledge before arriving in class is a fairly simple idea, and has probably been tried by many teachers already. Applying these ideas to most contexts should be relatively straight-forward, so long as clear aims and strategies are identified beforehand. The prevailing research appears to strongly suggest that a successful outcome is more likely if the projects are carried out collaboratively.

For me, in my history context, I would say that the 3 most important findings are:

- Students seemed to enjoy the new approach, and were willing to put considerable time and thought into preparing for their lessons.
- Students' attitudes to learning did seem to significantly change. It took just a few weeks for me to notice them adopting a greater sense of ownership and less reliance on the teacher.
- Students HAVE significantly improved their essay grades and I DID succeed in accelerating the pace of the course, in comparison to a parallel teacher's lessons, as compared to the lessons from previous years.

Overall impact: Despite taking the "risk" of trying something new with an exam class, the perceived successes that I've outlined above have given me confidence to try out this approach increasingly with other year groups. I have recently employed similar techniques with Year 11 and 10, and aim to try out these methods with year 9 during the next couple of weeks.

Nichola Cooper The British School Al Khubairat

Engaging Students in the Learning Process

Introduction and Aims

My research began with a learning questionnaire. Students highlighted their original beliefs on how successful learning took place by placing a selection of learning activities in rank order. The results were then cross referenced to how I felt I taught on a regular basis. The raw data and analysis of results of this can be found in Appendix 1 -3. I used Appendix 3 to highlight the key aims of my research;

- Decrease the proportion of teacher led question and answer and increase the proportion of free flowing discussion
- Increase the number of practical's
- Increase the number of times modelling, role play and student projects were used as a teaching activity.

Due to restrictions within the AS Edexcel specification I chose to focus on points 1 and 3. Increasing the number of practical's was not possible as we follow a set scheme of experiments within an already tight time framework.

My Actions

- Membrane Structure Models
- Mitosis Role Play and Beads
- Group Projects
- Risks of Cardiovascular Disease
- Stem Cells
- Small "buzz topic" starters

Because I teach 2 Year 12 groups I devised two ways to carry out my research.

For action points 1, 3 and 5 I used one group in the first action research cycle and after reflection attempted to improve each activity for the second group.

For action point 2 I used one group as a control – the control group followed the original scheme of work using my initial teaching strategies outlined in appendix 2. The other group followed a more creative scheme involving role play and modelling that was devised after looking at the results of Appendix 1 .

Membrane Structure

Modelling has proved successful in teaching concepts to my younger groups and I wanted to attempt to adapt this for my older years. As detailed in Appendix 4 it was a particularly good visual activity and students got a clear idea of the bilayer. This was particularly helpful as the majority of exam style questions supply students with an image to annotate and explain. On reflection of this activity I found even more success by giving students in 12E a selection of key words to use within their peer discussions. This helped the students who were shy and less able – a weakness first identified in the initial action research cycle with 12D .

When comparing the groups both achieved well on exam questions that involved labelling. However 12E performed better on longer describing questions. Their use of key terminology was also to a higher degree shown by the glossaries both groups compiled.

Mitosis Role Play and Beads

I separated the 2 groups as a control (12E) and experimental group (12D). Details of the scheme of work used with 12D can be found in appendices 5-7.

Both activities, mitosis role play and mitosis beads, were designed to get students working as a unit and applying their knowledge to a more versatile concept. The students of 12D were engaged and the mitosis beads were particularly successful in getting students to demonstrate the cyclic nature of the cell cycle.

Both the activities took more time than the control scheme and in a comparison between the two groups 12D showed no further understanding of the topic. This judgement is made on the basis that both groups obtained grades A-C, and within their expected working level, on the Mitosis Test that was sat separate to the rest of the topic.

Originally the students had highlighted role plays as being one of the most efficient learning methods and this prompted me to question, “do students have the correct view on what learning is? Are they actually able to decipher how they learn best?”

Student Projects

The initial project I designed using specification references to try and steer students research whilst still allowing for ownership, independence and individuality within the framework (appendix 8). My own, and student observations highlighted that although it was good at developing teaching skills, presentation skills and confidence each student only knew their own area well enough to be examined on, relying on the other students for the rest (appendix 9). Whilst I saw this as a particularly large weakness I was impressed at the progress that my students made in their ability to summarise, highlight key issues, focus on the specification and identify their own gaps in understanding.

Impressed by the students' progress and keen to improve the methodology I designed the second research task. I changed very little except that students were expected to research all areas but only prepare to present for one unknown specification reference out of the given 4. This ensured that students researched all areas and allowed them to continue to progress with all the skills that had been highlighted in the previous project. Within this second project students began to question each other and for the first time I saw free flowing discussion open up without my prompts.

Each individual group showed progress within the skill set identified in the first project but further to that they began to question each other during the presentation which often led to a free flowing discussion. This confidence for discussion seemed to stem from the understanding they had obtained from their research and something that had been impossible in the original project.

Buzz Ideas - Starters

The evidence in appendix 12 highlights the improvements my students have shown in their communication skills through the development of more creative and actively engaged teaching strategies. Students are listening to each other, working together and questioning each other's ideas.

A further example to this activity is that of Stepping Stones. Students visualise processes by using literal stepping stones made out of pieces of paper across the lab floor. In light of my evaluation of the second action research cycle of the mitosis scheme I would be interested to see how this "stepping stones" activity would benefit the students understanding of this topic.

Concluding Remarks and Further Questions

The initial questionnaire, along with the students' assessments of each activity showed that they were not always accurate at identifying which learning activity was the most beneficial. I hypothesise that their original ideas were based more on the "fun factor" that I previously identified as an issue in my research summary.

Assessment of their results in the mitosis test indicates little correlation between achievement and role playing. However I would still argue that the active engagement shown by the group following the more "creative" scheme was heightened and furthered their skill set when it came to communication, team work, and application .

The biggest success however is one that I had not first envisaged – by incorporating my students as researchers they have continually engaged with the process of reflection and taken on ownership of their own learning. They have developed their own more personalised learning styles and begun to appreciate the act of learning itself as something just as important as the content we teach .

Through discussions with my students it has become clear that education seems to steer them to believing that success is as simple as learning material to pass an exam and I feel this can account for a lot of the misinterpretations they have about successful learning styles.

Elizabeth Howard & Raj Johal Deira International School

Embedding the Use of Success Criteria with Primary Students

Context

The action research has been carried out collaboratively between four Year 2 teachers and a faculty member of Zayed University. The research involved 95 children aged between 6 and 7. The children are from a variety of international backgrounds and the school holds over 89 nationalities. The cohort is of mixed academic ability with some children requiring specialist support. The majority of children have English as an additional language or are English language learners.

The main targets of the project are to;

- raise standards in writing among Year 2 children
- Improve our formative assessment feedback so that it is relevant to the age group, transparent, accessible, purposeful, time effective and beneficial for children
- Improve children's awareness of their own achievements through critical reflective practice
- Track performance using child-friendly methods that correlate with National Curriculum levels in England and Wales
- Evaluate the successes and challenges of the project (outcomes and processes)
- Identify recommendations for next steps

One of the most noticeable achievements to date has been that children have become increasingly aware of own targets, and are able to implement these in their writing .

Rationale

We believed that our action research enabled us to show how we were able to significantly inform students and teachers of the learning that is happening we were able to use data to shape further instruction and learning such as children and parent feedback. The AFL provided the learner with effective information which enables them to reflect upon their learning and targets in a more child-friendly manner. It allows the teacher and the learner to measure against success criteria and action next steps in learning by using the stamps in a clear and accessible way.

Findings

We felt that there was a universal acceptance and understanding emphasizing new found excitement, confidence and motivation. This was most evident through shared common language with peers and self-assessment opportunities whereby the children were able to discuss and edit their work with purpose and a deeper understanding. They appeared to be using the stamps in similar manner to their teachers and showed motivation in regards to their learning ladder. We felt that we gained support from senior administration for the project. A significant finding was the ease in which we were able to see transferability and adoption of the idea by other departments, such as the Arabic department. The department was able to adapt our stamps and the language used to enhance the learning and teaching in Arabic lessons.

Discussion

There were some concerns regarding our Action Research these stemmed from management over developing a 'stamp happy' culture. It was felt that the stamps may overthrow the benefits of written comments. In the beginning of the research we toyed with how best to initially present the symbols to the children amongst the classroom setting and how to show the stamps making them easily accessible to children independently.

Questions arose regarding whether parents would find the stamps as transferrable as we had anticipated and how would they perceive the new way of marking, but as the project developed we found that the parents were able to discuss their progress with the children being able to articulate exactly what they had achieved. This dialogue between parent and child was new founded in our experience, again proving how well the children were able to openly and confidently discuss their own targets and achievements.

One point we became aware of early on in the project was the transferability of the stamps from Key Stage 1 into Key Stage 2 and beyond. We recognised as we developed the stamps to meet the needs of Year 1 and 2 children that writing criteria in KS2 and beyond could be adapted into symbolic form.

For the future we wish to continue to develop the assessment system to enhance learning and raise standards in writing and in curriculum areas e.g. to consider alternative metaphors for presenting the writing targets e.g. target board or building blocks, continuum. We also hope to translate the writing statements which are presented alongside the stamps into different languages e.g. Arabic. We also wish to further share the findings within our teaching communities' e.g. beyond our team, other schools and other educational establishments as well as moving from individual to collective; from personal mastery to systems thinking (Senge, 1999).

In conclusion we have felt that the overall impact has an improvement in children's perceptions of own learning and next steps in learning. The proactive and positive manner in which they now address their achievements and targets has been evident and motivating for all. We feel that as a result of our intervention children have, a heightened awareness of their achievements and targets in writing. In turn we hope that this awareness will achieve our initial aims to raise standards in children's writing.

Amani Mourad The British School Al Khubairat

Developing Reading Skills and Reading Comprehension in Arabic Class

Context

Learning a new language can be hard and frustrating. There is always confusion of grammatical rules between the person's native language and the language that he or she is trying to learn. Common errors that students make in Arabic language contextual learning can bring down the quality of the students' work. It can also make it difficult for them to understand what the writer is trying to say.

I currently teach at the British School of Al Khubairat in Abu Dhabi, United Arab Emirates. I am head of department of Islamic Studies Education for non-native speakers. I also teach Arabic as a second language for non-native speakers for grades 9 and 10, teach Arabic as a first language for native speakers for grade 8, as well as teach Islamic studies for non-native speakers through the medium of English for grades 7 through 12.

My 10th grade students, who are the main focus of this research, are of different nationalities and genders. This class is a mixture of students with low intermediate to intermediate level of Arabic reading abilities. They are 6 students in total; four boys and 2 girls. The girls are of Arabic descent while the boys are of different ethnic backgrounds. These students shared a simplistic view about reading, and their ability to assess how they solved reading challenges was limited. I implement my action plan twice a week for an hour. Most of students have limited vocabulary, they have difficulty in identifying the key ideas from the text, and they encounter difficulty in working at the level of inferring, predicting, questioning, and reflecting. I have one student who scores better than other students but they all need to improve their reading comprehension. I prepare these students for the Arabic GCSE exam. They must have the minimum of the four skills of the Arabic language which are, listening, speaking, reading, and writing.

Rationale

As the students' reading ability and skills is limited, they are struggling with reading, and I planned an action research project to investigate:

- How can I help improve reading comprehension levels of year 10 students in my class?
- What can I learn about teaching reading strategies to struggling readers?
- How can I motivate the students' attitudes towards reading?
- How can I incorporate what I learn into my daily practice?

These questions originated from a desire to better understand what students think about while they read and how different kinds of readers comprehend what they read. It is important to teach students good reading strategies in order to help them to develop a better understanding of different kinds of texts. Because of the lower achievement of the students and their need to understand complex academic readings in Arabic language and to express themselves in writing, I decided to use successful techniques to motivate them to read authentic texts in Arabic and how to use it. I started my project in last February, and in order to collect data about reading comprehension models used in classroom, I observed some Arabic and Spanish classes, and I observed various aspects of teaching and learning. I also observed an ideal Arabic class outside our school, using new methods of teachings for non- native speakers.

Findings & Discussion

Findings from my research highlight several notable trends. It's an attempt to improve reading comprehension for non-native speakers using many reading strategies and methods. By using the strategy of "Think Alouds" students started gradually to communicate with me and with one another, and also helped me diagnose the students' strength and weakness through using observation as an assessment technique. After following the reading strategies in my classroom the students were developing the think-alouds in their reading activities. Now they are aware of the most strategic way in reading comprehension and when and how to use them. They interact with texts; they connect between what they read and their previous knowledge. They practice the language with responsibility. They can predict, ask questions, and summarize the texts (Ruetzel & Cooter, 2008). To be honest, I can see an effective but slow improvement in my Arabic class. Some students achieved excellent results and some had lower results. I think that implementing comprehension strategy instructions for one term may help learners to adopt some degree of strategic reading behaviour, but it takes long term to efforts and practices for Arabic learners to fully develop their strategic reading abilities. All students need to be motivated enough and to be engaged in interesting and challenging learning activities. Students should be able to define their own learning goals and evaluate their own achievement. Being engaged in collaborative learning methods will help them in valuing and having skills to work with others.

Limitation

These are the difficulties I met while implementing my project and make it slow. First, it is time-limited. There is not enough time given to students to make reading comprehension activities. The class time generally combines speaking, listening, writing and grammar exercises. The duration of the lesson is also limited. Second, the text may not be one that students would normally choose to read outside the classroom and the material is always more difficult to understand if it is outside their personal taste, experience and interest. Third, students are not only expected to read the text but they are required to show their understanding of it by doing a number of activities.

Working with other Contexts

PERSONAL REFLECTION

I'm very interested as a teacher learner to search and investigate how to help my students to become effective readers and to increase their achievement in comprehending Arabic readings. According to (Cori Program) which is an instructional program that merges reading strategy instruction, conceptual knowledge in science, and support for student motivation. I believe reading comprehension is important in every subject like: science, social studies, math, history, and all language arts are built from foundations of reading and reading comprehension. For example, reading comprehension strategies and historical thinking can be connected together. It's clear that students need to understand and comprehend what they read. In reading historical stories, biographies, autobiographies, and narratives with comprehension, students develop the ability to read imaginatively. As history is retained, recorded, and transmitted through the use of language, it requires knowledge and accurate use of language. Reading comprehension strategies can also be connected with science. To ask this question:

What Do Scientists Do?

80% of their time is devoted to Reading and Writing.

What is literacy?

It is the level of reading, writing, and speaking skills necessary to read, comprehend, and respond to appropriate instructional materials in a given subject area.

What is scientific literacy?

It's the knowledge and understanding of scientific concepts and processes required for personal decision making. It means that a person has the ability to describe, explain, and predict natural phenomena. Scientific literacy entails being able to read with understanding articles about science in the popular press and to engage in social conversation about the validity of the conclusions.

This comparison between science and reading we find these interesting results

Science	Reading
Observing	Note detail
Predicting	Predicting
Inferring	Inferring
Comparing and contrasting	Comparing and contrasting
Communicating	Communicating
Classifying	Sequencing
Collecting data	Summarizing
Interpreting data	Recognizing main idea
Linking cause and effect	Recognizing cause and effect
Formulating conclusion	Drawing conclusion

Future Plans

Due to the benefits that were seen, I plan to continue the use of the think-aloud method in my classroom and improve upon my implementation. In future years I would like to spend more time researching new and advanced reading strategies to try and further improve reading comprehension for students. There should be cooperation within the school's grades to prevent reading difficulties in young children. Provides teachers with reading strategies programs based on how to teach reading comprehension strategies and how to deal with all learners in particular learners of second language. Also, the creative reading journal proved to be a very effective, time efficient and successful method. Once I am confident that students are able to independently engage and focus on think- aloud strategy, I would then introduce it to the whole school. In addition, I plan to continue to expand my classroom library to include a variety of book titles from a wide range of genres. Having a support system will help me develop as an educator and get me closer to the ultimate goal of having every student succeed in reading and understanding. I believe that students should have an allocated time for them at the library especially for reading comprehension in order to overcome the time barriers they may face during class.

Conclusion

The success of reading comprehension depends on wide varieties of methods and reading strategies. Given knowledge about what good readers do when they read researchers and educators have addressed the following question: Can we teach students to engage in these productive behaviors? The answer is a resounding yes. A large volume of work indicates that we can help students acquire the strategies and processes used by good readers and this improves their overall comprehension of text, both the texts used to teach the strategies and texts they read on their own in the future.

To prevent problems and difficulties in reading comprehension we should as educators:

- Make language development, both oral and written central to education at all levels.
- To develop students' oral language competencies.
- To develop students' knowledge of written language.
- To develop solid word recognition, decoding and fluency.
- To develop strategic readers.
- To inspire reading engagement.

