



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Effective Teaching, Learning and Assessment

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March 26, 2018

(M6X02269)

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Introduction

This document has been constructed to provide a systematic reflection of a teaching exercise that was undertaken on the 14th February 2018. As part of the reflection, a critical evaluation of the processes and practices used throughout has been included. The evaluation will specifically focus upon the use of contemporary pedagogies in the delivery of teaching, leading on to an analysis of said practices and their impact upon the outcome of the learning process. The specific contemporary pedagogies utilised for this session being an amalgamation of demonstration and group activity.

In addition, there will also be a focus upon the cross cutting themes utilised throughout including the use of numeracy and teamwork. This document will culminate in the conclusion of the effectiveness of the mentioned practices and the path of progression for future work.

Lesson Plan

LESSON PLAN

TOPIC: Electronics		CLASS: PGCE (PCET)	
DATE: 12 March 2018	LENGTH OF LESSON: 45 minutes	NO IN CLASS: 5	
ABILITY/SPECIAL EDUCATIONAL NEEDS:			
AIM OF LESSON			
To understand voltage and current by demonstration and practical example			
LEARNING OBJECTIVES - The Students Should Be Able To:			
• Describe both voltage and current • Complete a circuit using practical skill and calculate independently forward current			
PREVIOUS KNOWLEDGE:			
Ability to read material at level 4 of the academic scale			
ANTICIPATED DIFFICULTIES:			
Achieving Objectives			
RESOURCES/EQUIPMENT REQUIRED:			
Smart Board, circuit boards			
HEALTH & SAFETY:			
Institution adheres to current regulatory codes			

HEA PROFESSIONAL STANDARDS

Please note WHEN and HOW any relevant professional standards occur and are met:

(Include detail of standard, not just a reference number)

(A1) Design and plan learning activities and/or programmes of study

The lesson itself makes use of several methods of learning and assessment:

- Practical equipment
- 'chalk and talk'
- Student practical activity
- Chorus questioning

The session itself also offers students the chance to utilise practical skills when using equipment as well as numeracy skills in undertaking calculations

(A2) teach and / or support learning

The content within the material as well as the designed activities carefully progress the student input and engagement within the session. Students will be invited to answer a chorus question and communications with each other as well as directly use practical skills imparted within the lesson.

(A3) Assess and give feedback to learners

The tasks within the session itself assess practical skills and current level of on the spot learning. There is a question and answer session at the end of the lesson itself in order to gauge understanding of correlation between voltage current and resistance

(A4) Develop effective learning environments and approaches to student support and guidance

Students will be encouraged to engage with the material and the lecturer throughout. Care will be taken to ensure that each student has the opportunity to contribute to the session, the activity, or the question and answer at the end

(A5) Engage in continuing professional development in subjects / disciplines and their pedagogy, incorporating research scholarship and the evaluation of professional practice

(K1) The subject material

Through the chalk and talk and activities included students will be able gain basic knowledge of the subject material and add it to their already existing knowledge base using equipment, practical skill and ongoing learning

(K2) Appropriate methods for teaching and learning in the subject area and the level of the programme

The lesson aims to build new knowledges in order to enhance student application and analysis of information in physical and mathematical fields. The session is pitched at level 6 education as this is the level of the audience.

(K3) How students learn, both generally and within their subject / discipline areas

The session builds upon prior learning skills of the audience (who all have degrees in their subject disciplines).

(K4) The use and value of appropriate learning technologies

Smartboard and the opportunity to use circuit boards – all equipment will be provided within the session

(K5) Methods for evaluating the effectiveness of teaching

The question and answer aspects of the session offer a chance to identify student input, analysis, accuracy in selecting information and synthesis of material within the session.

(V1) Respect individual learners and diverse learning communities

As there are two ESOL students in the class, care has been taken to introduce the presentation and objectives with clarity. The slides are also written with concise information and clarity in terminology. There will be a chance for students to ask questions at the end also

(V2) Promote participation in higher education and equality of opportunity for learners

Care will be taken to ensure that every audience member has the opportunity to speak or offer input

(V3) Use evidence informed approaches and the outcomes from research, scholarship and continuing professional development

The session itself focuses upon communication skills and the sharing and analysis of both higher ordering thinking and scientifically presented data in more than one discipline. This will not only enhance the student's current working knowledge but enable them to develop skills which will aid them in working, researching and teaching in higher education

ESSENTIAL SKILLS

Please note WHEN and HOW Essential Skills occur and are met:

- Communication

Communication will occur between the teacher and student through questions posed during the teaching session. In addition, questions will be provided in a "Question and answer" format following group discussion related to critical thinking and communication

- Application of Number

Students will be asked to calculate voltage and flex their numeracy skills

- Digital Literacy

Students asked to utilise circuit board

- Critical Thinking and Problem Solving

Analysis and construction of relevant communication and learning skills

- Planning and Organisation

Organisation of information in an attempt to utilise practical skills imparted within the session.

- Creativity and Innovation

Student interaction with practical tasks, formulation of conclusions based upon information given.

- Personal Effectiveness

Students will have an enhanced numerical and practical skills base

STAGE	FOCUS	STRATEGY	TIME
Introduction		Teacher	5 minutes
1	Obj1	Chalk and talk – Explanation of what is to be covered.	10 minutes
2		Teacher to relay practical information	15 minutes
3	Obj1	Practical Activity – Student engagement	10 Minutes
4		Conclusion and Questions	5 Minutes

ASSESSMENT STRATEGIES USED (When and How):

- Questionnaires
- Student led activities
- Chorus questioning

The session itself also offers students the chance to repeat the session activity in order to highlight any improvements in knowledge and application of learned material.

LESSON EVALUATION:

To be completed following the assessment

Reflection of Teaching Approach

Reflective Models

In provision of a complete and accurate reflection of the process undertaken, a number of different aspects will be outlined in the following text. The structure for this work will resemble the reflective model as proposed by [1] to aid in the inclusion of appropriately weighted reflective elements. Gibbs' model was deemed to be the most appropriate model of reflection in this instance because of the level of granularity to which it lends itself. Gibbs' model of reflection is depicted in **Figure 1**.

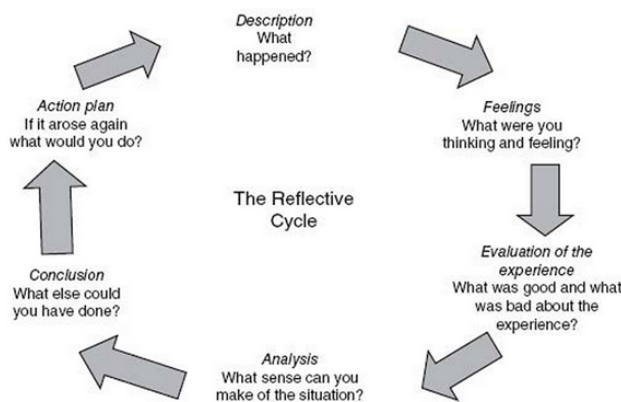


Figure 1: Gibbs' Reflective Cycle [2]

Description

After having entered the room in which the micro-teaching session was to take place, a prompt check of the machine that would be utilised for the presentation of learning materials was conducted to ensure that the facilities provided the necessary resources. Following this check, the teaching materials were loaded and the first slide provided for view by the class.

Whilst the first slide of the lecture notes remained in view, an introduction was provided for both the teaching lead and the materials that would be covered. This introduction included the outline of the topical area that would be covered and progressed shortly into the conveyance of the learning objectives for the session.

After the outline of the learning objectives, the lecture was commenced introducing the topic of electricity and some of the core concepts including electric current and voltage. Following the description of the underlying principles, this was progressed further by elaboration of the many components used in modern electronic devices and their purpose and scope of usage.

The imparted knowledge from this section of the lecture was followed immediately by a demonstration of the principles explained utilising the hardware and materials as outlined in **Appendix B**. Progressing from the demonstration by the tutor, the students within the class were organised into groups of two, each being given the same resources to re-create the example shown within the demonstrations. The purpose of the task being to identify the components outlined in the delivered information. After provision of sufficient time for the students to construct the platform using the apparatus provided, the class were asked to discuss the observations made on the apparatus. The features observed by the group unanimously noted the differentiation between the use of different values for the components.

The activity was concluded by group questioning to ascertain the salient points of those observations, the purpose being to understand the relationship between current, energy, resistance and voltage. In an attempt to progress the class in their analysis of the problem, examples of current-voltage relations were given along with an equation that explicitly made clear their interactivity. The elaboration of this equation was then utilised to calculate the current output for each of the sections of the apparatus to make clear why such phenomena occurred.

Experiential Feelings

In preparation for the session, a number of differing emotions were felt including anxiety, optimism and confidence. The source of the feelings of anxiety resulted from attempts to ensure that relevant information was included for the intended level. Compounding the anxiety felt during this preparatory stage was the panic that materials needed for the teaching resources would not arrive in time. The panic was later abated by the arrival of said components the morning of the teaching session.

After having produced the prototype demonstration hardware, the feelings of anxiety transitioned into optimism and anticipation at providing the lecture. Following the preparation stage and being confident that all necessary preconditions had been met this feeling of confidence provided an appropriate platform for the delivery of the material. Upon entry to the room in which the session was delivered, there was debate as to ordering in which the speakers would be organised. The discussion concluded with lecture on electronics occurring first. This invoked feelings of apprehension primarily, however, this quickly subsided and slowly proceeded into confidence.

During the delivery of the material, there were a number of students who appeared as though they had not understood the topic of the session or the principles outlined within. This perceived confusion fostered feelings of uncertainty in material itself or the level at which the material was pitched. This also induced panic and reduced the self-assuredness with which explanations of the

material was provided. The progression through the slides related to the dissemination of knowledge on capacitors and the concepts of voltage and current helped to manage the feelings of anxiety here.

Upon the receipt of feedback following the session, much of negative feelings relating to the delivery of the session were negated by the positive comments from the participants. It was noted by one of the participants that the time limit was not strictly adhered to, which was accepted as a valid point.

Teaching Evaluation

The microteach session included a number of positive and negative points relating to the use of included contemporary pedagogies and cross-cutting themes. Each of these points have discussed in this section, highlighting the impact of the factors on the learning experience for the participants.

Positive Aspects

The material utilised within the delivery of knowledge materials appeared appropriate for use as no student involved noted that the content was difficult to understand. This indicates that the materials delivered were appropriate for the participants in attendance. The use of materials appropriate for the student level and learning style follows the approaches and ideas as proposed by Kolb and Cuevas [3], [4] eliciting the fact that if material is under or over pitched then a student is less likely to listen to the information being provided and as a direct result less likely to retain this information.

The introduction of the topic area and the concepts prior to the activity, provided for a solid platform upon which to base the deductions for the group activity later in the session. The deliverance of such material at this point follows the principles noted within the cognitive domain of blooms taxonomy [5], allowing students to accept and absorb knowledge in the first instance prior to its application within the same setting.

The demonstration element used within the teaching provided for a beneficial visual illustration of the concepts being discussed within the teaching materials. Furthermore, the physical manifestation of the concepts helped to convey the principles to those students that learn visually as outlined in the key learning styles proposed in Kolb, Coffield and Felder's theories respectively [3], [6], [7].

One of the cross-cutting themes introduced was the use of teamwork within the session. The teamwork element was facilitated by the discussion between students in an attempt to complete a circuit similar to that shown in the demonstration provided by the teaching lead. The participants were placed into groups consisting of two members fostering critical thinking and peer discussion throughout. The use of peer-discussion promotes self learning and provides for the opportunity for students to learn from the ideas of others as outlined by Fuchs et al [8] and Smith et al [9]. The use of teamwork within this session provided the opportunity for each student to support their partner in fulfilling the requirements of the task with some students showing greater understanding than others.

The purpose of the group work in the session was to provide the necessary observations for the continuation into the second cross-cutting theme of the session; numeracy. The students were forewarned of the presence of numeracy within the lesson from the outset and were perceived to be a little apprehensive of undertaking the task, however, after having engaged with the observation exercise the tension dissipated.

After a brief explanation and outline of the power equation **Figure 2**, and from the knowledge delivered, the students were able to calculate the current being consumed by each of the lights on the apparatus. Further to this, the students, having calculated the current consumption of each component, were able to make deductions based on the level of current output for other applications. This process is reflective of the synthesis and application of knowledge stages described within the primary domain of blooms taxonomy [5].

$$V = IR = I \left(\frac{L}{\sigma A} \right) = I \left(\frac{\rho L}{A} \right) \quad (1)$$

Figure 2: Ohm's Law

Negative Aspects

The planning stages of the teaching session, in contrast to the delivery itself, deviated from the scheduled progression route on several occasions. One of the main factors that delayed the preparatory stages was the postage of components for the demonstration and team work apparatus. This delay in postage of the components directly impacted upon the time expended on lesson preparation, resulting in the completion of the boards merely an hour before use. This meanders away from the fore-planning ideas proposed by Echavaria [10].

The nature of the topic was challenging and as such proved to be somewhat difficult for the students to understand at first. The anticipated difficulty of the topic area was mitigated by the

inclusion of the most fundamental of concepts to ensure that all learners were at the same level prior to challenging such knowledge. This lack of prior knowledge however, proved limiting to the topics that could have been covered to illustrate the concepts conveyed. Prior knowledge of a given subject, whilst not always necessary, is beneficial when dealing with advanced topics in an attempt to further understanding [11].

The inclusion of the peer-assisted learning, whilst largely positive, posed some issues for the students. The most notable issue arising from the explanation of the task provided by the tutor. This limited explanation in addition to the lack of instructional reference depictions resulted in the students being confused as to how to assemble the apparatus provided for the observation task. This took several minutes to explain in a manner that was understandable by all students and as such did not reflect those principles of clear and concise explanation as outlined by Roscoe [12].

The final element of the session was the application of the knowledge imparted, manifest in the form of group or chorus questioning. The issues with preparation reduced the amount of proof-reading that occurred for the teaching materials, as such the presentation included the answers to the intended questions upon the slide rather than hidden. The fact that the answers were visible meant that further questions had to be improvised. This was one of the greater impacts of the issues faced within the planning and preparation stages. This links to Chin's theory as outlined by the use of questioning in formative assessment [13].

Following the session one of the students in participation noted that the session had not filled the allotted time and the pace of the lesson could have been reduced to accommodate this. It was also mentioned that some of the components and their features and subtle nuances could have been discussed further thus making far more beneficial use of the time allowed.

Teaching Analysis

The elements of the Higher Education Academy's (HEA) Teaching Excellence Framework (TEF) were noted throughout the preparation and delivery of all of the materials [14]. Care was taken to ensure that all materials utilised and the approaches fell within their guidelines showing best practice for teaching within a higher education setting. Those areas to which the TEF relate have been noted within the text.

The introduction of the topic area allowed students to familiarise themselves with the possible participation requirements. In addition to this, the introduction created a provision for contextual situation of the material that was to be delivered. No prior knowledge was assumed relating

to the topic, resulting in an adjustment period through the first items in the delivery of knowledge. This approach is elaborated by Knowles et al [15] in giving the students a view as to what is expected of them and the reasons for which they are being taught specific subject matter. This clarity was well received and prepared the students for the level of work that ensued. This relates to elements **K1,K2,K3,A1,A2,V1,V2** of the TEF.

One of the major focuses of the session was the use of contemporary pedagogies and their impact upon the learning experience for the students. The specific pedagogy used utilised within this session followed the principles outlined within andragogy [15] and further to this the use of demonstration and fostering of peer-assisted learning. In accordance with the purpose of andragogy the students were permitted to have autonomy in their own learning in this instance.

The students worked well within their groups having organised themselves with whom they would work best. Little interference was required by the teacher here as by chance those that were stronger with the subjects situated themselves with those that were less versed within the topic area. Throughout the session, consistent use was made of questioning to effectively facilitate the learning experience. This included the use of group questioning throughout the knowledge delivery to force students into thinking about the topic and directed questions during the peer-assisted session to encourage communication between the members of the group.

The final section related to the summary of the information and the activity made use of both to ensure that the students had understood and were able to apply the principles learned. This exhibits the questioning methods discussed by Black et al [16] and their effective use within a classroom. This effectively evidences the use of formative assessment continuously checking the understanding of the concepts delivered and their application through formative assessment. This relates to elements **K1,K2,K3,K4,K5,A1,A2,A3,V1,V2** of the TEF.

The use of numeracy as the cross-cutting theme within the session initially made the students apprehensive, however, any anxiety felt as a result of this was quickly removed upon explanation of the work required. The application of number following the observations made this practice far easier for the students to follow with each student being able to demonstrate their ability to apply the concepts learned. This was evidenced by the ability to answer improvised questions despite the error in planning. In many cases the use of peer working and visual aids made this a more impactful lesson for visual and kinaesthetic learners than auditory. This relates to elements **A2,A4,K2,K3,V1,V2** of the TEF.

Conclusion

The teaching experience as a whole worked well with the inclusion of both the contemporary pedagogy and cross-cutting theme. The pedagogy appeared to carry more of an influence on the lesson structure and the outcome of the learning experience. The peer-assisted learning ensured that every student was included within the lesson and that each had tangible elements upon which to base any further assumptions and deductions. The use of physical aspects also provided for a far more engaging experience because of the unusual appearance and use of materials included.

The use of numeracy within the session also aided in the inclusion of students effectively forcing their involvement following the mention of impending maths questions. This not only proved to be beneficial to the students engagement but understanding of the principles of Ohm's law [17] and curiosity of the subject matter and its elements by some. This evidences the use of cognitive activation within the learning session [18].

The student feedback following the session had many positive elements commending efforts to ensure the clear and concise explanation of the concepts and components used within fundamental electronics. The noted negative feedback with regards to the timing of the lesson was valid and reflected the rushed planning and preparation for the session.

Recommendations

Upon the conclusion of the teaching session, it is clear that the pedagogies chosen suited the material and the delivery appropriately, engaging all students from all abilities. In addition the inclusion of numeracy as the cross-cutting theme aided in this endeavour.

For future attempts at this lesson it may be beneficial to include the use of other pedagogies for the delivery of materials, particularly those that lend themselves to the subject matter being discussed. Such practices as experimental learning and virtual learning may be ideal practices here [19]. Further to this, apparatus provisioned to each student for individual experimentation would enhance the experience in the ability to try ideas unique to the respective learner.

To complement the changes within the practical delivery, the preparation stages require a more rigid schedule for their undertaking providing sufficient time for the gathering and creation of materials for the teaching exercise. This will have a positive impact on the demonstration materials provided to the students and ensure that the allocated time may be used far more efficiently.

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Appendix A :
Micro-Teach Presentation Resource

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Electronics

What exactly is Current and Voltage

Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives

In 45 minutes you will be able to.....

- Define what voltage is
- Define what current is
- Identify the relationship between them
- Construct a small circuit

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Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives

Electricity

- Energy harnessed from the excitation of particles (electrons, protons)
- How do we measure it ?
 - Volts – Voltage
 - Amps – Amperage / Current
- Common Types ? (old-school music)
 - AC – Alternating Current
 - DC – Direct Current

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Transforming Education; Transforming Lives

Voltage



- What is voltage ?
 - Electrical Potential Difference
- How is it measured ?
 - Measured using a voltmeter
- Units?
 - Volts (V)
- No voltage = No Current = No electricity

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Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives

Current



- What is Current ?
 - The flow of electrons
- How is it measured ?
 - Measured using a Ammeter
- Units ?
 - Amperes/Amps (A)
- No Current = No Voltage = No electricity

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Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives

Components

- Resistor –Every component is a variation upon this
- Capacitor
- Transistor – Modern technology
- IC – Integrated Circuit chip

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Resistors

- Are for resisting (limiting) current in a circuit.
- Most common component
- Range of different values and tolerances
- Value indicated by colour bands
- Measured in Ohms



Capacitors

- Used for Temporarily storing electrical charge
- Can be polarised
- Range of different values and tolerances
- Range of differing packages
- Measured in Farads



Exercise

- 1) Take one of each resistor value
- 2) Place one of them between shown sockets.
- 3) Repeat for each resistor.

Results

- Which appeared the brightest ?
– 100Ω
- Why ?

Maths ☹



$$V = I \times R$$

Voltage = Current x
Resistance

Current Output

- $3V = I \times 100\Omega$
– 0.03A
- $3V = I \times 1000\Omega$
– 0.003A
- $3V = I \times 10000\Omega$
– 0.0003A

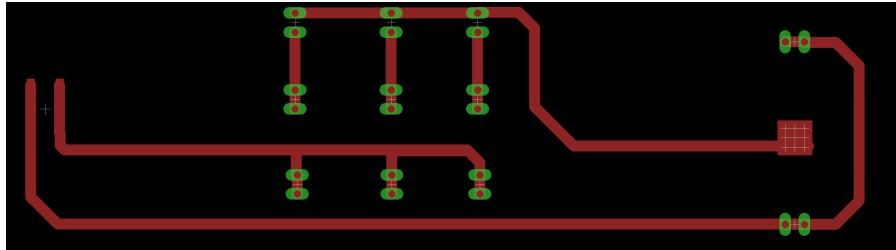
Conclusion

- More current, greater power, brighter lights
 - More dangerous- No touchy
- Voltage is the potential of a charge to move around a circuit
- Current is the charge being moved

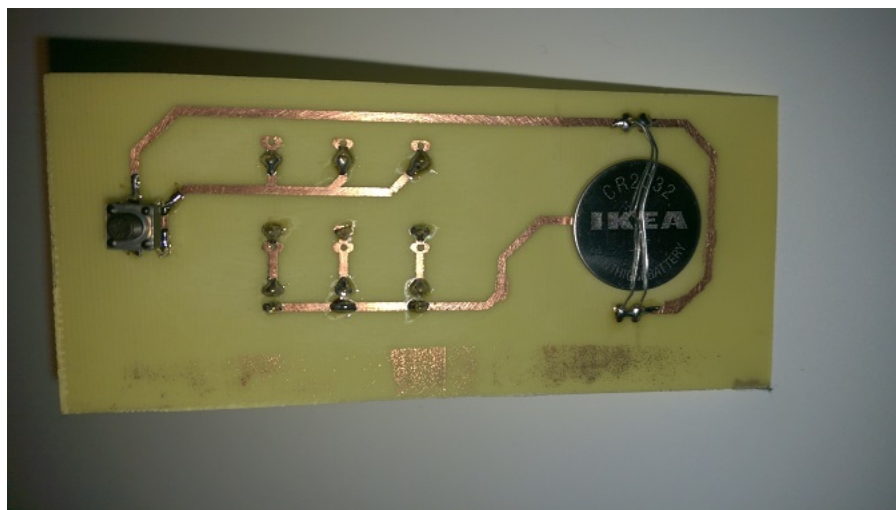
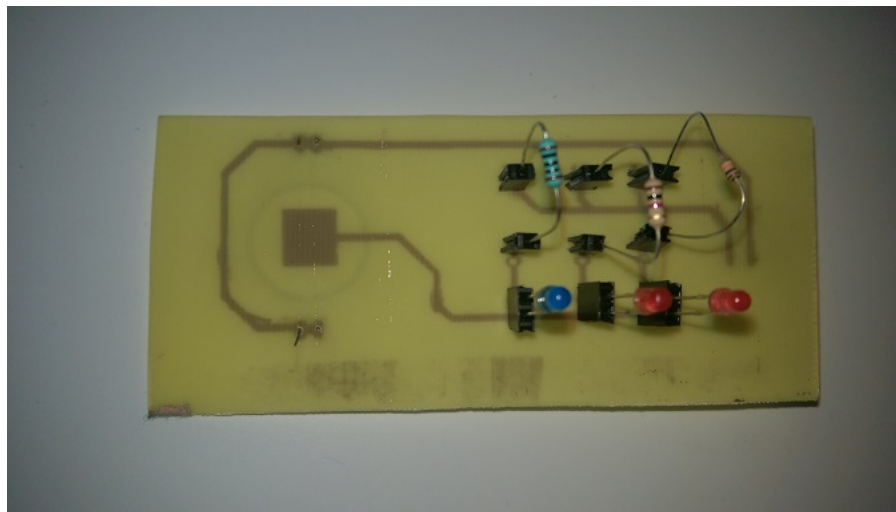
Questions ?

Appendix B :
Micro-Teach Hardware Resources

Demonstration Board Layout



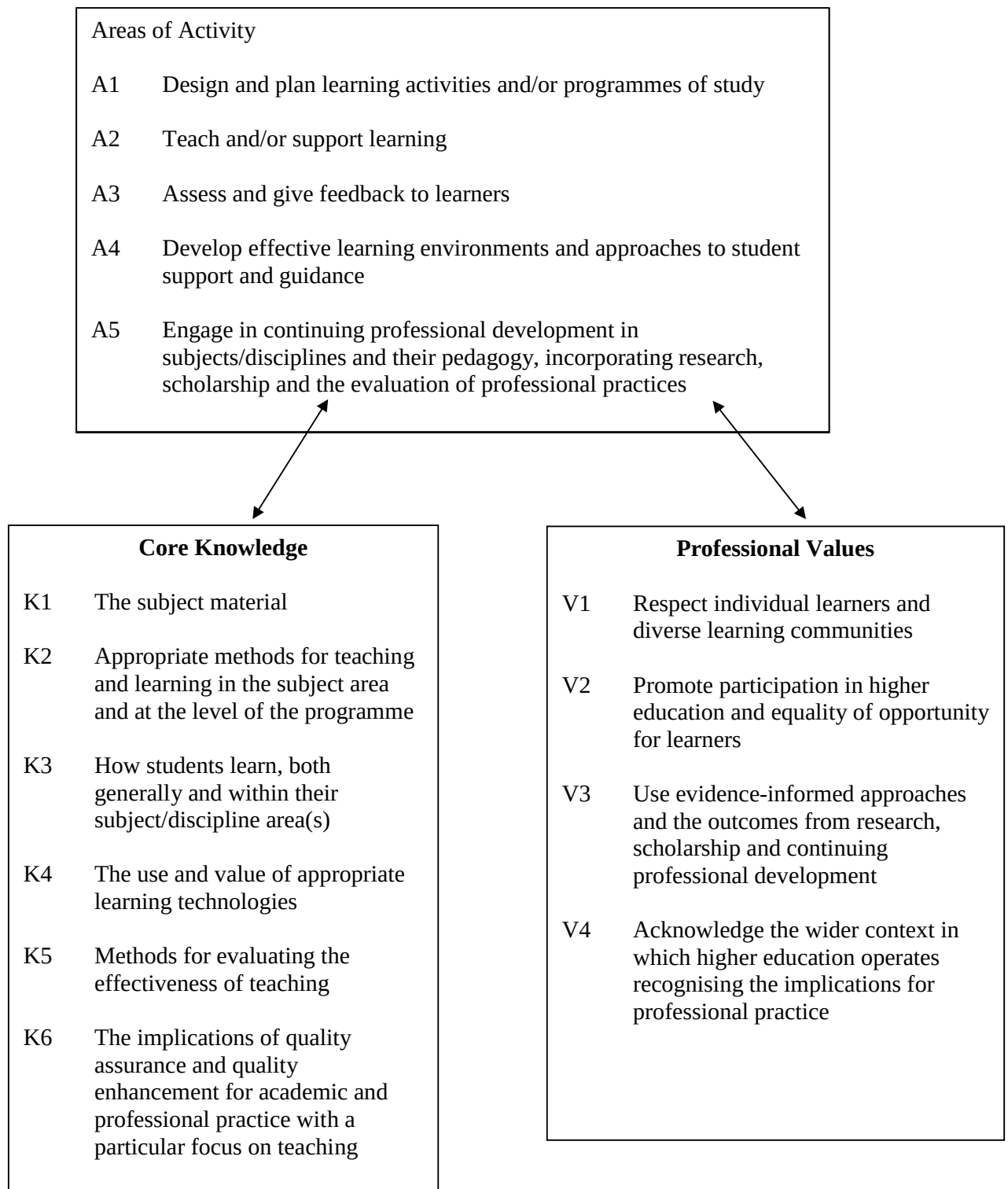
Demonstration Board



Appendix C :
Higher Education Academy -
Teaching Excellence Framework

THE UK PROFESSIONAL STANDARDS FRAMEWORK (HEA)

Dimensions of the Framework



Appendix D :
Micro-Teach Observation Transcript

PGCE/PCE (PCET) LESSON ASSESSMENT FORM



15:15

Student Teacher Name: Jaymie Phillips

Establishment: WUSD: Minto Trust

Date: 12th Nov 2016

GRADE DESCRIPTIONS : (When compared with an experienced teacher)						Context of observation (e.g. class, ability, number of students; topic; main activities and organisation; other features)
VG – Excellent awareness, understanding and application of different approaches to the planning and delivery of effective teaching and training. G – Comprehensive awareness, understanding and application of different approaches to the planning and delivery of effective teaching and training. S – Awareness, understanding and application of different approaches to the planning and delivery of effective teaching and training. U – Needs attention through further development and improvement						
A SUBJECT KNOWLEDGE		VG	G	S	U	General Notes and Comments: Planning and Preparation Jaymie presented a lesson plan with a lot of detail for the lesson. She had a good structure to the plan. - well done. She had a good introduction to the lesson. The lesson overview (PPT). Reassured the good for the lesson. Then she assessed the teaching, good questioning. Confident delivery and highly engaging delivery. Teachers Plenary / Conclusion Excellent questioning for formative and summative assessment. Very effective teaching TARGETS FOR IMPROVEMENT 1) you may want to add a little more detail on the lesson plan for the activities - a little more elaboration. 2) Reflect upon what went well and why. etc
1 accuracy of knowledge of subject matter						
2 understanding of context e.g. scheme of work, programme of study						
B LESSON PLANNING AND PREPARATION		VG	G	S	U	
1 detail and structure of plan						
2 clarity and suitability of learning objectives						
3 consideration of SpLDs, anticipated difficulties, health and safety, etc.						
4 resources selected, prepared, organised						
5 use of emergent technologies						
6 consideration of professional standards						
7 consideration of essential employability skills						
C TEACHING		VG	G	S	U	
1 lesson start, e.g. outlining content, aims and objectives						
2 presentation: instructing, explaining, demonstrating						
3 effective questioning						
4 choice and variety of tasks/activities						
5 variety and suitability of teaching strategies/methods/approaches						
6 use made of board/OHP, AV aids, ICT, other resources						
7 pace of lesson, use of time						
8 lesson ending, e.g. summarising, recapping key points, etc.						
D CLASS MANAGEMENT AND CONTROL		VG	G	S	U	
1 presence and voice projection						
2 transitions – smooth						
3 awareness, vigilance and intervention						
4 use of praise and encouragement						
5 management of tasks/learners/work groups						
E MONITORING AND ASSESSING STUDENTS' PROGRESS		VG	G	S	U	
1 monitoring understanding and progress during lesson						
2 suitability of assessment strategies/methods/approaches						
3 assessing achievement of learning objectives						
4 giving feedback and setting targets for progress						
F EFFECTIVENESS		VG	G	S	U	
1 in setting high expectations for work						
2 in conveying enthusiasm and challenging students						
3 of students' learning in this lesson						

Appendix E :
Micro-Teach Self Evaluation Transcript

LESSON SELF-EVALUATION FORM

Name: Jaymie Phillips

Class:

Date: 14th Feb

Topic / Content:

Target/s for this lesson:

HOW SATISFIED AM I:	VS	S	NVS	DS
1. that I effectively revisited work from the last lesson?				/
2. that I had a good introduction?		/		
3. that I shared learning objectives?	/			
4. that the lesson was well planned & prepared?			/	
5. that I made good use of incidental Welsh?				/
6. that I appropriately referenced the Essential Skills Framework?		/		
7. that the lesson was well resourced?	/			
8. with my knowledge of the subject?	/			
9. with my communication skills: voice quality, explaining, questioning?	/			
10. with my timing and pace?		/		
11. that I monitored pupils' understanding & progress?		/		
12. with my control & behaviour management?		/		
13. with the quality of learners' question/answers?		/		
14. with the quality of learners' learning?		/		
15. with my enthusiasm and response to learners?		/		
16. that I matched/stretched all learners' capabilities?		/		
17. that I had an effective ending/plenary?		/		
18. that learning outcomes were achieved?		/		
19. with the assessment/evaluation strategies?		/		
20. that I aligned my teaching effectively with the UKPSF?		/		
VS = very satisfied S = satisfied NVS = not very satisfied DS = dissatisfied				

What aspects of the lesson were particularly good or need to be developed? Why?

The session started with an introduction of myself and that of the topic outlining the key learning objectives of the session. The provision of such learning objectives outlined above made it clear to the learners what was expected of them as was noted by the feedback given following the session.

The learning style of all learners in the class were considered when constructing the material. the applicability of the material to the group was evidenced through the assessment tasks and the feedback. To facilitate this a combination of images and text were utilised. In addition, the use of emergent technologies helped with the engagement in this aspect of the lesson.

Key targets for the next lesson (linked to Mentor / Tutor) comments and mapped to the UKPSF:

- Plan question activities to reiterate covered concepts (A1)
- Assess using planned questions and provide feedback upon completion (A3)
- Re-arrange class for lecture and tutorial, selecting different structures for the type of learning that occurs. Provide further conceptual and practical example material for students to follow (A4)
- Ensure material is being pitched at level 5 for the student level (K2)
- Tailoring of information so that it is understandable for each student in module (K3,V1)
- Include graphical representations in the form of images and videos to convey concepts (K4)
- Include questions within materials to determine knowledge of students throughout (K5)
- Engage students in the learning process by providing differing forms of feedback to questions (V2)