



UNIVERSITY OF WALES TRINITY SAINT DAVID CONTINUING PROFESSIONAL DEVELOPMENT SCHEME

APPLICATION FOR FELLOW

SECTION ONE:

NAME	Shahid Mehmood
INSTITUTE/CENTRE/UNIT	University of Wales, Trinity Saint David, Wales Institute of Science and Arts, Water Front, IQ Campus, SA1 8EW
POSITION (E.g. Lecturer/Senior Lecturer/Principal Lecturer/Director of Discipline/Other (please specify))	Lecturer – Materials Engineering
ROLE (E.g. Lecturer/Programme Director/Admissions Tutor/Module Leader/Other (please specify))	Lecturer – Materials Engineering
Referees Please could you tick the box if you have sent in your referee's statement? (Please be aware if we do not receive your referee's statement at the time of the submission or a maximum of 2 days after the panel submission date then your application will be passed to the next Panel meeting). If your supporting statements are not included with your application, you must ensure your referees send their supporting statements to the Academic Office by the deadline. The Academic Office will not chase referees.	Yes ☒ No ☐
Date of Training	March – June 2023 (24 th March with Errietta Bissa; 31 st March, 28 th April, 2 nd June with Mentor, Martin Bush)
Mentor	Martin Bush

APPLICATION FOR FELLOW

In your application for recognition as a Fellow of the Higher Education Academy (HEA), you are required to demonstrate fully how your continuing professional development allows you to meet the requirements for **Descriptor 2**, Fellow status, as outlined in the *Guidance Handbook*, relating to the Dimensions of the UK Professional Standards Framework (UKPSF), that is, **Areas of Activity**, **Core Knowledge** and **Professional Values**.



You should aim to include examples of your use of/commitment to relevant elements of the Professional Values and Core Knowledge throughout your account. Make clear how you **apply** appropriate Core Knowledge and how you **demonstrate** your commitment to appropriate Professional Values set out in the Framework.

General Principles to consider in preparing your application

- You will need to incorporate relevant **subject and pedagogic research and/or scholarship** in your approaches. How you evidence this will be dependent on the context in which you are working and the nature of the subject, discipline or profession in which you teach.
- Ensure you **provide reasons for the choice of activities you describe** and demonstrate that you reflect on your teaching practice and the students' learning experience.
- Ensure that you explicitly incorporate how you have successfully engaged, where appropriate, in **continuing professional development** activity related to teaching, learning and assessment responsibilities.
- The Assessment Panel recognises that there will be considerable variation in applications, reflecting differences in individuals' experience, their job roles and contexts. **The quality of your reflection is far more important than quantity.**
- This application is a **personal account** so you should focus throughout on your own professional practice and decision-making.
- **By applying to become a Fellow you will have the opportunity to:**
 - Think deeply about and thereby enhance the quality and effectiveness of your work in the area of teaching and supporting learning in HE.
 - Gain national recognition for your role as a teacher and/or supporter of learning within the HE context



SECTION TWO:

CONTEXT STATEMENT

Context Statement

Briefly introduce yourself and outline your role(s) and responsibilities in teaching and/or supporting learning in higher education (**300 Words**)

Write your evidence here

Being a Chartered Engineer and a Fellow of The Institute of Materials, Minerals, and Mining, I have enjoyed working as a Metallurgist & a Materials Scientist. Currently, I am working as a Lecturer – Materials Engineering within “The Wales Institute of Science and Art” (WISA) at University of Wales Trinity St David (UWTSD) in Swansea. Prior to this (2005 – 2023) I had been involved to undertake materials related research projects of commercial nature during my employments at various National and International Universities and Laboratories such as Risø DTU National Laboratory for Sustainable Energy, Denmark; Swansea University, UK; Exova Materials Testing Lab, UK; Ulster University, UK; Pembrokeshire College and Mughal Materials Engineering, UK. During this tenure, I worked closely with undergraduate, postgraduate and doctorate level students and helped them in designing their experiments, analysing the experimental data and report writing.

In 2019, I completed my PGCE Secondary – Physics from Cardiff Metropolitan University. Applying various Pedagogical Principles learnt from my teacher training to my current Lecturer role has been instrumental to improve the learning experience of my learners. Within my Lecturer role, I am teaching two modules online via Teams: “Integrated Project” and “Measurement and Quality Systems” to adult learners at level 4 pursuing one-year full-time “CertHE” program at UWTSD. I am also teaching on campus a module, titled, “Structure and Properties of Materials” to Level 5 learners. Additionally, I am creating learning resources for Level 4–6 learners from BEng Materials Engineering Program starting in September 2023. Some modules are Characterisation of Materials, Heat Treatment, Physical Metallurgy, Ceramic Materials, and Polymer Composites.



SECTION THREE: Your reflective account of your Continuing Professional Development

The boxes below should be used to present your critically reflective (**not descriptive**) account of how your Continuing Professional Development (CPD) has enabled you to meet the UK Professional Standards Framework **Areas of Activity**.

For each of the Areas of Activity you should demonstrate **why** you chose to undertake the approach, activity or technique and show how they relate to developing learner understanding. Whilst directly addressing the **Areas of Activity**, you should **demonstrate** how you meet all aspects of the **Core Knowledge** and all aspects of the **Professional Values** and map these as appropriate.

Your application should show successful engagement in appropriate teaching practices related to the Areas of Activity, successful incorporation of subject and pedagogic research as part of an integrated approach to academic practice, and successful engagement in professional development in relation to teaching, learning, assessment, scholarship and, as appropriate, related academic or professional practices. **The form will expand as you enter your information.**

Your application for Fellowship consists of a 3,000 word reflective account shared across all five Areas of Activity plus citations (overall maximum of 3,500 word)

Citations should be included in an overall list at the end of section 3 of the document.

A1: Designing and planning learning activities and/or programmes of study (600 words)

Identify how you contribute to the design and planning of effective, valuable learning experiences

Engagement in a variety of learning activities, at a variety of levels e.g.

- Micro: individual/one-to-one or small groups
- Meso: module sessions, course or programme level
- Macro: policy, HEI, professional body level

Evidence might include:

- Development and enhancement of session plans
- Identifying and planning different kinds of interaction with learners in various contexts
- Design or redesign curricula, modules or programmes
- Involvement in validation panels
- Use of individual's learning materials by others (e.g. within/beyond own institution)
- Contribution to the creation of learning resource packs and computer-based or open learning materials or the development of virtual learning environments

Write your evidence here

In second semester of 2022–2023 academic calendar, “Measurement and Quality Systems” was one of the modules I taught (**A2**) online using Teams (**K4**) as a part of one-year full-time “CertHE” program. My class comprised of fifteen adult learners coming from diverse cultural background (**V1**). English was not their first language (**V4**) and majority of them had little or no prior experience being in a School or College to receive formal education (**V1**, **V4**). Before I started teaching, I had the opportunity to be in the online classroom with the learners as a guest helping the main lecturer with class management tasks (**A4**). During this time, I closely observed the learners especially those who were not engaged. My observation and an article by **Chipchase et al (2017)** on students’ disengagement really helped me to write a list of the main indicators of learners’



disengagement, such as poor attendance, passive learning, does not complete the assessment tasks, does not submit assessment, does not interact with other students and staff **(K2)**.

“Passive learning” was one of the disengagement indicators which I considered in re-designing the learning resources **(A1)** for the subsequent lectures remained to be taught. There were two main reasons for this. Firstly, the existing resources were designed considering passive learning approach **(K2, K3)** which are less engaging, and learners can get bored after continuously listening to the lecturer. Secondly, learning science and engineering is an active learning process **(Ješková et al, 2022) (V3)** and requires suitable resources to reinforce active learning. Hence, I chose active learning methods **(A4, K2)** to base my teaching. Consequently, I designed my own learning **(A1)** and assessment **(A3)** resources to suit the needs of my learners.

The topic of my first lesson was, “Statistical Process Control – A Tool to improve the quality in manufacturing”. Considering the topic, it required some background knowledge about Statistics, Mathematics and Manufacturing **(K1)**. I was not expecting my learners to know everything while I was designing my resources. There were three main steps followed in my entire lesson: Firstly, I explained the key-concepts **(K1)** using a very simple language and animations **(K4)**. Secondly, I demonstrated the concept using real life examples. Thirdly, I explained the key-concept in the context of an industrial case brought in from research articles **(V3)** and my prior industrial experience. The learners were able to understand and appreciate the learning objectives and were excited. The number of engaging learners increased from two to seven in a class of fifteen **(K5)** as I encouraged every learner to send me their response to the questions in the chat box function **(V2)**.

Designing for active learning inspired me to bring in assessment and feedback as well **(A3)**. After every a few slides, there was a list of tasks for the learners to accomplish and marks were associated with every task. The number of marks were related to the nature of the task, more complex task carries more marks and vice versa. I made use of animation tool **(K4)** available in Microsoft PowerPoint before I revealed the answer **(K5)**. This was very effective way to ask questions to my learners without revealing the answer **(A4)**. Learners were encouraged to write their response to my questions in Teams Chat box. Everyone could assess their performance instantly **(K2, K5)**. I was very pleased with how the lesson went. To correlate my teaching with literature I found a study by **Freeman et al (2014)** which reports on comparison of active learning vs passive learning in STEM undergraduate degree courses. According to them Students’ performance improves, and failure rate falls under active learning.



A2: Teaching and/or supporting learning (600 words)

Identify how you engage with learners, whether in groups or individually. These encounters may be in a wide range of environments such as classrooms, seminar rooms, lecture theatres, labs, learning support centres, offices, etc.

Engagement in appropriate teaching and learning strategies including:

- Use of a range of teaching approaches and modes of delivery
- Use of relevant assessment approaches with a variety of groups
- Selection based on educational evidence and values

Evidence might include:

- Lecturing, tutorial or seminar work
- Studio, clinical, laboratory or work-based teaching
- Distance learning
- Peer assessment of teaching and or teaching observations
- Student feedback/evaluations
- Reflective diary/blog
- Learning outcomes-related indicators (e.g. relevant session plans/module materials)
- Material from online training
- Learning activities supported through the VLE (Moodle)

Write your evidence here

In one of the modules on “Structure and Properties of Materials” I was tasked to explain **(A2)** “the relationship between Structure and Properties of Materials” to Level 5 learners. I had to cover three different materials: Metals, Ceramics, and Polymers. Due to having mixed ability individuals in my class, I employed a range of suitable teaching methods to consolidate learning of my students which I will talk about as follows.

Firstly, I wanted to check their prior understanding **(A3)** about the subject matter. The importance of which stems back from **Ashwin et al (2022)** who explain that the effective teaching always incorporates the prior experience of learners **(V3)**. I did not know anything about my learners; therefore, I started by providing them with a few Multiple–Choice Questions on the topic **(A1, A2, K2)** assuming they do not know anything about the topic. This was very helpful to encourage the engagement of less able learners as selecting an option did not require the use of complex vocabulary and keywords **(K1)** and they were able to engage even if they were shy and did not like to speak **(K3)**. Secondly, I explained them the key–concepts about three different materials using various animations, diagrams, and small videos **(K4)**. The video acted for me as a seed for debating different aspects of structures and properties of materials **(K1)**. The learners were able to contribute towards the lesson as they were provided support **(K5)**. I elaborated the key–concepts further by showing them a few real product materials **(K4)** to explain them the structure and properties. A plastic carrier bag was used to describe the high extension in the plastics/polymers due to chain like structure in the plastics **(A4)**. Copper wires were used to explain the electrical conductivity inherited to the metals due to the free electrons in them **(A4)**. Teacup a typical ceramic was used to show the brittle nature of these materials due to their brittle ionic bond in the **(A4)**.



Following on to this, I divided my learners into two groups and presented a couple of case studies to my learners followed by a series of activities to assess their numeracy, data analyses and reading comprehension skills **(A3)**. To promote their confidence level and enhance communication skills, I asked them to present their findings to the rest of the class **(K3)**. I strongly encouraged my learners to ask questions even if it is a very basic question **(A2, K3)**.

To reinforce the learning, I exposed my learners to the same information repeatedly but in different formats; providing them clues, help and guidance to a level where no support was available **(K2, K3)**. “Repeated retrieval of information is the key to long-term retention” **(Karpicke & Roediger III, 2007) (V3)**.

Importance of scientific ideas into action in real life is very vital to strengthen the learning so I am in a process of arranging a visit to a material testing lab where the cases for useful structures and properties of materials will be showcased to my learners **(A4)**. This will reflect the importance of learning not only for the context of examination but will also highlight how we can study structure and properties of various materials types using lab–equipments and why it is useful in real life to study the structure and properties. This is very much in–line with the finding from a study by **Entwistle (2018)** in which they have established a link between the quality of learning and clarity of goals of learning **(V3)**. More learners are clearer about why they are learning better they will learn **(K5)**.



A3: Assessing and giving feedback to learners (600 words)

Show how your assessment strategies and activities are appropriate to learning experiences; your approaches to marking and moderation and how these approaches ensure that assessment is reliable and robust; and your approaches to feedback and the extent to which students are involved in the feedback process. The assessment may be formative or summative, formal or informal.

Engagement with appropriate assessment strategies including:

- Use of assessments relevant to learning outcomes
- Appropriate assessments for the student profile
- Engagement in formal quality assurance processes relating to assessment
- Selection and use of appropriate feedback mechanisms

Evidence might include:

- Appropriately targeted assessment tasks
- Student evaluations
- Peer reviews
- Observation feedback
- Learning materials
- Moderation documents
- Innovative approaches to assessment and feedback
- Student responses to feedback

Write your evidence here

In second semester of 2022–2023 academic calendar, I taught a module, named “Integrated Project” to a group of thirteen Level 4 learners pursuing one–year CertHE program. The delivery was online **(A2, K2)**, and the module had two assessment components: a formal ten–minute presentation of the project and the final report **(A3, K2)**. During the routine teaching, I provided instant feedback to my learners on their in–class activities and they were able to quickly reflect on their mistakes, and apply the knowledge gained to solve practical problems **(A4)**. Why this approach was effective? According to an article from **edume (2023)**, “instant feedback helps learners deepen their understanding; reinforce knowledge by correcting mistakes, affirming competence, and debunking misconceptions on the topic” **(V3)**. I always linked every class–based activity with marks as it promoted a sense of competitiveness among the learners, and they loved participating and accomplishing the task if it is associated with a reward **(K5)** as “rewards improve motivation and help increase active participation” **(Pleșoianu, 2019) (V3)**.

For the above module, I arranged one–to–one mock–presentation for my learners one week prior to the assessment day **(A4, K5)**. The aim was to prepare them for the final assessment **(A3, K2)**. At the end of the mock presentations, I highlighted very specifically the areas for the improvement **(A3)**. A few of them who implemented the feedback had met the assessment criteria and were awarded good grades **(K5)**.

Recently, I marked **(A3, K2)** a coursework for the module, “ACEA7013–Structural Integrity and Material Evaluation” on the behalf of a colleague who was on the Bereavement leave. Level 7 learners were to write a report for a lab–based experiment. I had not taught the module before; but after having a brief literature dig out **(V3)** about the research question, I was able to understand various theories, concepts, and models and could relate them to the coursework **(A5)**. Following



on this, I made a comprehensive list of assessment criteria and ranked all the coursework against one success criterion at a time to ensure a fair assessment **(K6)**. Analysis of the marks and the feedback revealed that there was a certain aspect of the coursework where majority of the learners could not demonstrate their knowledge and understanding **(V4)**. I believe that the outcome of my assessment has helped me diagnosing students' weaknesses **(K5, V3)** which according to **Ashwin et al (2022)** is one of the objectives of the assessments and has been met. Though it is quite understanding that the value of the feedback diminishes if provided by the time learners know that they have passed the assessment. Even then, to make my feedback more effective **(A4)**, I will call all my learners to attend a thirty-minute tutorial session to deliver the feedback. During this session, I will also inspire learners to ask questions and encourage them self-reflect. On the other hand, if I were to deliver this module again, I will bring some useful exemplary cases to demonstrate the clear understanding of the subject matters which were not understood initially **(K6)**.

In May 2023, I was asked to sit as a panel member in the final year project viva for a couple of part-time learners pursuing their undergraduate mechanical degree courses **(A3, K2)**. Their projects were real life industrial challenges and they had accomplished excellent piece of works. I took this opportunity to remember the various purposes of assessment mentioned by **Ashwin et al (2022) (V3)** and highly appreciated the success of my learners by enlightening them to "You have made excellent progress in your academic career".



A4: Developing effective learning environments and approaches to student support and guidance (600 words)

This Area of Activity is about how you make effective use of both the formal and informal learning environment to facilitate learning. Show how your contribution to the design and development of learning environments has impacted positively on student learning and the practices you undertake to support learners including for example, tutor systems, advising, guidance and involvement in widening participation and inclusive initiatives and activities.

Engagement with:

- Different media and technologies, both physical and virtual
- Different kinds of learners e.g. international, culturally diverse, special educational needs, disabled learners, home-based, full-time, part-time, etc.
- Different modes of learning e.g. distance-based, blended, work/practice-based, etc.
- Personal and academic tutoring
- One-to-one advice
- Counselling

Evidence might include:

- Reflective logs/diaries
- Peer review
- Formal and informal/unsolicited feedback from students and colleagues
- Observations of teaching/learning activities
- Evidence from electronic forms such as blogs and discussion forums

Write your evidence here

Due to online teaching, I have invested some time into learning **(K1)** and employing various Virtual Learning Environments tools **(A5)** into my teaching practice **(K2, K4)**. Firstly, I have learnt Teams and Moodle for sharing resources, online meetings, and coursework submission. Secondly, from the day one I have reinforced the need of being quiet in online space **(A4)**. Noise is one of the factors, “which interfere with students’ ability to listen and accurately understand speech. It disrupts concentration, classroom behaviour, and content consumption” **(Ascione, 2023)**. Consequently, my students were able to focus and learn **(K3)** in a peaceful environment. Additionally, I have uploaded recordings of my sessions **(A2, V2, K4)** onto Teams and those who unable to attend the session can watch the recordings later.

I am in a consistent search of new VLE tools for teaching **(A5)**. Due to my personal interest in Healthcare, I attended a webinar from Cardiff Medical School in 2022. The speaker used an app called “Mentimeter” **(Mentimeter, 2023) (K4)** to collate audiences’ responses to their assessment type quiz. We were all encouraged to engage with speaker through our mobile phones. The app had the interface like gaming platform, and it displayed the names of the participants with top three scores in the quiz. I experimented with this app, particularly after reading an article by **(Mohin et al, 2022)** in which they explained Mentimeter having a positive impact on students’ attitude and performance, learning environment and technical aspects. All my learners love using this app as it encourages a healthy competition among learners **(A4)**. The app creates a relaxing environment, breaks the barriers, and promotes bonding in the cohort including myself. The outcome from this app is a score **(A3)** which I use for reflecting on my teaching **(K5)**. A quiz score



below a minimum threshold for a certain topic meant to me that topic is not completely understood **(V3)** by the learners and needs re-visiting next time before the start of the new topic.

In April 2023, after attending an online CPD event by Erietta Bissa here at UWTSd, I have come to know of another app called “Vevox” **(K4)** which promotes active engagement among group sessions **(Vevox, 2023)**. Because of such a nice engaging experience during the CPD session, I implemented this tool in my lessons and witnessed my classes more energetic, more involving, and more democratic **(A4)**.

I meet my learners for a twenty-minutes one-to-one tutor session fortnightly **(A1)**. Learners open-up with me regarding their everyday challenges such as illness, and financial difficulties. I am more aware of learners’ individual needs than ever before, e.g. mental-health illness, ADHD, and dyslexia. Not only, I have directed them to get support from the University but also modified my teaching practice to support them **(V1)**. The learners in my class come from a diverse cultural/religious background, e.g., Christian, Hindu and Muslim etc. In April 2023, Muslims were celebrating their annual Eid that is very similar to Christmas in Christianity. I wished EID MUBARAK to my Muslim learners who were celebrating and made them feel inclusive, valued, supportive and respected **(V1)**.

Most of the Learners in CertHE program are adults who have no working knowledge of Teams, Moodle, and My TSD **(V4)**. They find it hard to track the deadlines for course submission and the dates for exam re-sits. In March 2023, I emailed them on regular basis of approaching deadlines. The purpose was to encourage them to have better time management. This resulted in the submission of coursework by those who otherwise would have not known the deadlines and failed the module **(V3)**.



A5: Engaging in continuing professional development, research and the evaluation of teaching and learning related professional development (600 words)

Show how your continuing professional development in your discipline and pedagogy, incorporation of research and scholarly activity, and evaluation of your professional practices supports and enhances learning. You should demonstrate explicitly connections between your research and/or scholarly activity and your professional practice, as well as how you evaluate the effectiveness of that practice.

Engagement in:

- Self-reflective practice
- Proactive planning
- Participation in a range of activities to extend professional learning
- Successful involvement in/completion of relevant teaching-related qualification(s)
- Presenting or participating in conferences on teaching and learning (often discipline specific)
- Attending workshops or training events
- Engaging in peer observation or peer review of teaching
- Regular departmental meetings where the discussion is about learning and teaching issues
- 'corridor' discussions about teaching
- Bidding for, and involvement in, projects or research on teaching and learning
- Implementing new approaches
- Subject and other network activities
- Reading
- Visits to other institutions/organisations

Evidence might include:

- Portfolios related to academic/professional development
- Reflective logs
- CPD records
- Exemplars of proactive changes in teaching/supporting learning based on own learning and research/scholarly activity
- Evidence of changes in practice following engagement with initial and/or continuing professional development, including events, conferences, training, learning, workshops, etc.
- Conference papers/presentations/etc.
- Bid and project documentation

Write your evidence here

There are several learning opportunities for my Continuous Professional Development (CPD) which I exploit to help my learners grow professionally and enhance my teaching practice. First one is being a Fellow of the Institute of Materials, Minerals and Mining (IOM3), UK as I routinely read the weekly newsletter and the monthly magazine highlighting the latest trends in the materials research and industry **(A5, K1)**. I also regularly attend the monthly webinars by world renowned scientists/engineers at IOM3 platform. These webinars probe not only into the latest research focussed on resolving Materials Engineering related challenges but also embracing the technological advancements from the other disciplines to derive the innovation in the Materials Science and Engineering **(A5, K1)**. Secondly, on social media platform, such as LinkedIn I get regular updates from the major players such as Renishaw plc., National Composite Centre, The Catapult Network and Zienkiewicz Institute for Modelling etc whom I have been following about their products, materials, and processes related innovations **(A5, K1)**. All this knowledge forms an input to my teaching practice **(A1)**.

In February 2023, I completed nine mandatory training courses, to fulfil the contractual requirements of my employment **(A5)**. I would like to mention two courses: First course named



“Creating Accessible Contents” really transformed the way I design my resources **(A1)** and deliver my lectures **(A2)**. I pay special attention to consider the font size, font style, the text alignment, colour contrast in my slides to make my contents accessible for everyone and to comply with accessibility regulation 2018 **(A4)**. The second training course was on “Equality and Diversity” **(V1)**. Firstly, after attending this course, I am aware of the importance of diversity, inclusion, and equality of opportunities at work. Secondly, I feel very well equipped with how to deal with harassment, and victimisation at workplace. I have consistently shared the knowledge and experience gained from these courses with my learners so that they feel safe at the University and do not miss out opportunities to learn and grow **(A2, K2)**.

The process of preparing my Fellowship application itself has been a very useful addition towards my journey of CPD as it has exposed me to the pivotal theoretical background that unlocks all those factors which encompasses effective teaching and learning **(K5)**.

In April 2023, I attended a full day thought provoking workshop on “AI Generation, Academic Integrity and Assessment” **(A1-A5)** organised by Nexus Learning and Teaching Café” in an online platform at UWTSD. It was very exciting to hear about the futuristic learning opportunities the technology can bring to our learners and staff in higher education sector. Since then, I have been pondering how can I incorporate AI into my teaching. Reflecting on my experience of being a researcher, I always find it extremely time consuming to pull out relevant literature resources from the internet search **(V4)**. However, “ChatGPT can speed up literature search by advising relevant databases, resources, and Journals. **(K2, V3) (Huang & Tan, 2023)**. According to Huang and Tan (2023) a biologist could input “What are the best databases to search for articles on CRISPR-Cas9 gene editing?” and ChatGPT could generate a list of relevant databases and search queries, such as “PubMed”, “CRISPR–Cas9 AND gene editing”, and “CRISPR–Cas9 AND therapeutic applications”. Practicing ChatGPT as per **(Huang & Tan, 2023)** with cautions has saved me considerable amount of time which I use now on analysing the data and writing the reports and articles **(K5)**. Additionally, I also employ ChatGPT to search for useful ideas and brainstorming. I have started sharing **(A2)** these ideas with my learners highlighting the importance of using AI based tools.



Citations (500 words)

Bibliography

Ascione, L., 2023. *e School news*. [Online]

Available at: <https://www.eschoolnews.com/educational-leadership/2023/01/20/classroom-design-promotes-effective-learning/>

[Accessed 1st June 2023].

Ashwin, P. et al., 2022. *Reflective teaching in higher education*. London: Bllomsbury Publishing.

Chipchase, L. et al., 2017. Conceptualising and Measuring Student Disengagement in Higher Education: A Synthesis of the Literature. *International Journal of Higher Education*, 6(2), pp. 31-42.

edume, 2023. *edumae*. [Online]

Available at: <https://www.edume.com/blog/role-of-feedback-in-improving-learning#:~:text=It%20helps%20a%20learner%20deepen,you%20provide%20feedback%2C%20the%20better.>

better.

[Accessed 1st June 2023].

Entwistle, N. J., 2018. *Student Learning and Academic Understanding: A Research Perspective with Implications for Teaching*. Oxford: Elsevier Science.

Freeman, S., Eddy, S. L., McDonough, M. & Wenderoth, M. P., 2014. Active learning increases student performance in science, engineering, and mathematics. *PSYCHOLOGICAL AND COGNITIVE SCIENCES*, 111(23), pp. 8410-8415.

Huang, J. & Tan, M., 2023. The role of ChatGPT in scientific communication: writing better scientific review articles. *Am J Cancer Res.*, 13(4), pp. 1148-1154.

Ješková, Z. et al., 2022. Active Learning in STEM Education with Regard to the Development of Inquiry Skills.. *Educ. Sci.*, p. 686.

Karpicke, J. D. & Roediger III, H. L., 2007. Repeated retrieval during learning is the key to long-term retention. *Journal of Memory and Language*, 57(2), pp. 151-162.

Mentimeter, 2023. [Online]

Available at: <https://www.mentimeter.com/>

[Accessed 26 May 2023].

Mohin, M., Kunzwa, L. & Patel, S., 2022. Using mentimeter to enhance learning and teaching in a large class. *Int. J. Educ. Pol. Res. Rev.*, 9(2), pp. 48-57.

Pleșoianu, A., 2019. *Teachers Perspective On The Effects Of The Reward System On Evaluation Outcomes*. In V. Chis (Ed.), *Education, Reflection, Development – ERD*. s.l., s.n., pp. 649-656.

Vevox, 2023. *Vevox*. [Online]

Available at: <https://www.vevox.com/>

[Accessed 28 May 2023].



SECTION THREE: Referees

Your application must be accompanied by **two supporting statements** from persons who are in a position to comment on your teaching and learning practices and achievements.

The function of your Referees is to provide an informed peer review of your eligibility for Fellow, using their knowledge of your work and the context in which you teach and/or support learning. Referees are expected to **authenticate your application** by commenting directly on the content of your application and to make additional, relevant comments, as they wish.

Referees should be experienced staff and be able to comment knowledgeably, and from first-hand experience, on your current role and any other relevant activities recently undertaken. **At least one of your Referees should either be a Fellow, Senior Fellow or Principal Fellow of the Higher Education Academy (HEA)**, or an appropriate experienced member of staff working for a UK Higher Education Institution (HEI). All Referees need to be familiar with the UKPSF.

Referees should be provided with a copy of the Guidance Notes for Referees – please speak to your mentor regarding this document.

First Referee:	
Name	Dr Gregory Owen
Job Title	Senior Lecturer
Fellowship Status	Senior Fellow of the Higher Education Academy (SFHEA)
Institute/Centre/Unit	University of Wales, Trinity Saint David, Wales Institute of Science and Arts, Water Front, IQ Campus, SA1 8EW
Email address	gregory.owen@uwtsd.ac.uk
In what capacity can this individual comment on your professional practice?	
As a Line Manager since my employment as a Lecturer – Materials Engineering at Wales Institute of Science and Arts in February 2023	

Second Referee:	
Name	Dr Kelvin Lake
Job Title	Senior Lecturer
Fellowship Status	Fellow of the Higher Education Academy (FHEA)
Institute/Centre/Unit	University of Wales, Trinity Saint David, Wales Institute of Science and Arts, Water Front, IQ Campus, SA1 8EW
Email address	kelvin.lake@uwtsd.ac.uk
In what capacity can this individual comment on your professional practice?	
As a colleague since my employment as a Lecturer – Materials Engineering at Wales Institute of Science and Arts in February 2023	



SECTION FOUR: Declaration

Please sign and date in the box below to confirm that the application you are submitting is your own work.

Signature	
Date	2 nd June 2023

GDPR on data sharing with ADVANCE HE

Following the implementation of GDPR you should be aware that following successful recognition at UWTSD, personal data including your name and email address will be supplied to Advance HE. This is in order to trigger your fellowship registration and certificate being recorded on their MyAdvanceHE database.

<https://www.heacademy.ac.uk/my-academy-manage-your-higher-education-academy-experience>

Advance HE will make use of this data in the course of providing their Accreditation Services to UWTSD, and potentially in any reviews they might carry out of our accredited provision.

By submitting your coursework and appendices you are confirming you agree to this data sharing.