

---

---

**THE ROLE OF THE WELSH LANGUAGE IN HIGHER EDUCATION INSTITUTIONS  
IN WALES**

**Irina Mitarcheva**

Medical University-Plovdiv, Bulgaria, [irina\\_mitarcheva@yahoo.co.uk](mailto:irina_mitarcheva@yahoo.co.uk)

**Abstract:** In sociolinguistics, bilingualism is regarded as the coexistence of a majority and a minority language in a given speech community, whose members use the respective languages in various social contexts according to the speech act parameters and the collective norms and values, whereas bilingual education is defined as the use of two languages as media of instruction with the goal of achieving proficiency in both languages. In all minority languages, there are families who use the majority language with their children. If this occurs across successive generations, the language will rapidly decline. If families fail to reproduce such languages in children, second and higher language education has to attempt to make up the shortfall. Welsh and English are the two major linguistic and ethnic traditions in Wales. During the last half century, a revival of interest in the language has been reflected in the growth and development of Welsh-medium education that has provided an opportunity for new generations to become Welsh speakers. Welsh-medium education is available from primary school through to higher education, and the 1998 Education Reform Act ensured that Welsh is taught in almost all Welsh schools either as a first or a second language. The present article focuses on the role of the Welsh language in higher education institutions in Wales. The Welsh Government is committed to giving the Welsh language the same status as English in every aspect of life. Welsh (*Cymraeg*) is a Celtic language spoken in Wales and in the Welsh colony (*yr Wladfa*) in Patagonia, Argentina. There are also Welsh speakers in England, Scotland, Canada, the USA, Australia and New Zealand. The language spoken today is a direct descendant of Early Welsh, which emerged as a distinct tongue around the 6th century AD, and its literary tradition extends to this time when it was the language not only of Wales, but also of large parts of southern Scotland and northern England. Welsh is available as a degree course in various forms at most Welsh universities. In these institutions it is possible to combine the study of Welsh with another language or subject in a joint honours degree. There are increasing opportunities to study through the medium of Welsh for all or part of a degree course. The ability to speak Welsh is becoming increasingly important when looking for employment. So if a person can speak Welsh he or she should seriously consider maintaining his or her language skills and making it a part of learning and career development plan. Employers prefer to recruit people with a good level of Welsh, especially those who have taken courses through the medium of Welsh.

**Keywords:** bilingualism, Welsh language, higher education.

## **INTRODUCTION**

Wales (*Cymru*) is part of the UK and the island of Great Britain. The English words "Wales" and "Welsh" originate from the Germanic root (singular *Walh*, plural *Walha*), which itself originated from the name of the Celtic tribe known to the Romans as *Volcae* and which came to refer to all Celts. The Anglo-Saxons came to use the term *Wælisc* when referring to the Celtic Britons in particular, and *Wēalas* when referring to their lands.

Welsh (*Cymraeg*) is the earliest and best attested of the Celtic languages, its nearest cousins being Cornish and Breton. Since the 11th century, it has been largely confined to the area that corresponds to that of present-day Wales. Up to the 16th century, Welsh was the only language of most people in Wales, and it remained the first language of the majority until the end of the 19th century. This was due to the publication of the Bible in Welsh in 1588, which is considered to be the most important event that saved the Welsh language from extinction.

A lack of family language reproduction is a principal and direct cause of Welsh language shift. A minority language can die within two or three generations unless education can produce language speakers who then find everyday purposes for that language. Language acquisition planning is therefore partly about encouraging parents to raise their children bilingually. Where there is a shortfall in language maintenance in families, education becomes the principal means of producing more language speakers [1].

## **THE HISTORICAL CONTEXT OF BILINGUALISM IN WALES**

Both English and Welsh are considered official languages of Wales, with Welsh further recognised in law as having "official status". English is spoken by almost all people in Wales and is the main language in most of the country. Code-switching is common in all parts of Wales and is known by various terms. Wenglish is the Welsh

Thirteenth International Scientific Conference  
THE TEACHER OF THE FUTURE  
25-28.5.2017, Budva, Montenegro

---

variety of English. It has been influenced significantly by Welsh grammar and includes words derived from Welsh. According to the 2011 UK Census, Wales has almost 3 million residents aged 3 and over. 19% (562,000) were able to speak Welsh, and 77% (431,000) of these (that is, 15% of the total population) were able to speak, read, and write the language. According to the Welsh Language Use Survey 2013-15, the percentage of Welsh speakers is highest amongst the 3 to 15 age group (41 per cent) and at its lowest amongst the 45 to 64 age group (18 per cent). The highest concentrations of fluent Welsh speakers are in west Wales. The Welsh border region, known historically as the Marches (Welsh: *Y Mers*) is characterized by a blend of the Welsh and English cultures. Welsh was still spoken by about half of the population in 1900, but its use thereafter began steadily to decline, and its survival became one of the main cultural and political themes in national life. It is now spoken by about one-fifth of the population, notably in the heartland—the so-called Y Fro Gymraeg (“Welsh-Speaking Region”)—where more than four-fifths of the inhabitants of some localities speak Welsh. The proportion is much diminished in South Wales, falling below one-tenth in the extreme southeast.

There is now the freedom to choose which language to use when using public services as well as the services of many private businesses and voluntary organisations.

The Welsh Language Board was established to promote and facilitate the use of the Welsh language. Its primary goal is to enable the language to secure as a medium of communication in Wales and to set minimum standards for the use of Welsh by public bodies including councils; police, fire, and health authorities; and schools. Some of the duties of the board, upon its dissolution in 2012, were taken up by the newly created position of Welsh Language Commissioner.

In the late 1970's and early 1980's, language activists spotlighted television as a major source of anglicization. With the struggle for a Welsh fourth channel won, activists turned their attention to education. The slogan became "Addysg Gymraeg" (Welsh Education). The struggle launched was for educational institutions in the remainder of the 20th century to support and restore the Welsh language and its attendant culture [2].

#### **THE LEGAL BASIS OF EQUALITY BETWEEN WELSH AND ENGLISH**

The legal basis for equality between Welsh and English in Wales was enshrined in the 1993 Welsh Language Act, which established the principle that, in the conduct of public business and the administration of justice, the Welsh and English languages should be treated on a basis of equality in Wales, and that Welsh should be promoted and facilitated. The Act also made provisions for the preparation and approval of Welsh Language Schemes, which were plans made by public bodies outlining their proposed use of Welsh, and for this the Bwrdd yr Iaith Gymraeg (Welsh Language Board; hereafter: WLB) was established as a statutory body which issued guidelines to public bodies (though not private companies) as to the form and content of their Welsh Language Schemes. In 1998 the Government of Wales Act brought about the establishment of a Cynulliad Cenedlaethol Cymru (National Assembly for Wales). Members of the Assembly may speak in Welsh or English, and all proceedings of the full Assembly are reported in both languages.

The UK Government signed the European Charter for Regional or Minority Languages in March 2000 in respect of Welsh, Gaelic, Irish, and Ulster-Scots. In all, 52 clauses were signed, relating to linguistic rights for Wales and other parts of the UK. The Mesur y Gymraeg (Cymru) 2011 (Welsh Language (Wales) Measure) confirmed the official status of the Welsh language in Wales and modernised the existing legal framework with regard to the delivery of public services. The WLB was replaced by a Welsh Language Commissioner. It should be noted that the legislation which deals with Welsh medium education is separate from that relating directly to the language. From 1890 there was some very limited teaching of Welsh in schools. It was not until the Education Act of 1944 that pupils were given the right to be educated in accordance with the wishes of their parents. This allowed LEAs to consider establishing Welsh-medium schools. Full recognition for Welsh as a subject in the curriculum came in 1988, when the Education Reform Act gave Welsh the status of a Core Subject of the National Curriculum in Wales in Welsh-medium schools, defined in the Act as ‘Welsh-speaking schools’, and the status of a Foundation Subject in the rest of the schools in Wales [9].

#### **WELSH-MEDIUM EDUCATION**

Welsh-medium education is available from primary school through to higher education, and the 1998 Education Reform Act ensured that Welsh is taught in almost all Welsh schools either as a first or a second language. The Welsh language has official status in Wales and is used in business, administration, courts, universities and colleges, playgroups and many other community activities (e.g. eisteddfodau – cultural events in Welsh). Although there are

Thirteenth International Scientific Conference  
THE TEACHER OF THE FUTURE  
25-28.5.2017, Budva, Montenegro

---

no Welsh-language daily newspapers, a publicly-funded radio station (BBC Radio Cymru) and TV channel (S4C) were established in 1977 and 1983 respectively.

The terms ‘Welsh-medium provision’ and ‘bilingual provision’ have specific meanings in Wales. ‘Welsh-speaking’ schools are currently defined for the purposes of the school curriculum in Section 05(7) of the Education Act 2002 which states: “A school is Welsh-speaking if more than one half of the following subjects are taught (wholly or partly) in Welsh: (a) religious education, and (b) the subjects other than English and Welsh which are foundation subjects in relation to pupils at the school.”

The dynamic Welsh-medium school system has done more than any other agency to promote the language and introduce it to hitherto non-Welsh speaking families. There is now a very positive attitude toward bilingual education, based on three convictions: (1) that such education encourages a sense of national pride in the language, literature, history, and geography of Wales; (2) that the high quality of education offered is a distinct advantage over many other forms of state education; and (3) that in an increasingly competitive job market, the additional skill of knowing Welsh has high added value and is therefore prized for reasons of instrumental achievement [6].

The Welsh Government launched its Welsh-medium Education Strategy (WMES) in April 2010. It set out a new policy agreement with local authorities that required them to assess the demand for Welsh-medium education. This was later made a duty in the School Standards and Organisation (Wales) Act 2013. The strategy sets out six strategic aims and a number of objectives within them [8]:

- To improve the planning of Welsh-medium provision in the pre-statutory and statutory phases of education, based on informed parental demand;
- To improve the planning of Welsh-medium provision in the post-14 phases of education and training, taking account of linguistic progression and continuing development of skills;
- To ensure that all learners develop their Welsh language skills to their full potential, and encourage sound linguistic progression from one phase of education and training to the next;
- To ensure a Welsh-medium education workforce that provides sufficient numbers of practitioners for all phases of education and training, with high-quality Welsh language skills and competence in teaching methodologies;
- To improve the central support mechanisms for Welsh-medium education and training;
- To contribute to the acquisition and reinforcement of Welsh language skills in families and in the community.

### **THE ROLE OF THE WELSH LANGUAGE IN HIGHER EDUCATION INSTITUTIONS IN WALES**

Opportunities to study through the Welsh language are distinctive and important part of higher education in Wales. Following the 1998 Government of Wales Act, education became a matter for the National Assembly for Wales, which was then empowered to make changes to the education system in Wales. The Welsh Government is responsible for the administration and regulation of education in Wales, and policy and developments are by now somewhat different from those in England.

Higher education institutions (HEIs) are private bodies independent of government. Their income in Wales, however, comes mainly from Welsh Government funding and student fees, supplemented by research funding and business income. Government funding is distributed to universities in Wales since 1992 by the Cyngor Cyllido Addysg Uwch Cymru (Higher Education Funding Council for Wales; hereafter: HEFCW). Higher education is an area devolved to the National Assembly for Wales, and the Welsh Government now sets the level of student fees, the financial framework, and strategic development. A variety of degrees and diplomas are offered at Welsh universities.

HEFCW was established by the Further and Higher Education Act 1992, which established funding councils in England and Wales to regulate and fund HEIs, and also defined the powers and duties of HEIs. This has since been amended by The Welsh language in education in the UK means of the Further and Higher Education (Governance and Information) (Wales) Act 2014. HEFCW’s responsibilities for initial teacher training are covered under the Rheoliadau Addysg (Cymwysterau Athrawon Ysgol) (Cymru) 2004 (Education (School Teachers’ Qualifications) (Wales) Regulations 2004) and the Education Act 2005 [7].

Historically, Welsh-medium provision in higher education tended to develop in certain institutions as a result of the commitment of individuals within them; this commitment was limited until comparatively recently. There are increasing opportunities to study through the medium of Welsh for all or part of a degree course. Excluding Welsh

Thirteenth International Scientific Conference  
THE TEACHER OF THE FUTURE  
25-28.5.2017, Budva, Montenegro

---

language and literature, the subjects of study with most teaching through the medium of Welsh by 2011 were education, creative arts, and subjects allied to medicine.

From the 1950s, the University of Wales was under pressure to establish a Welsh-medium college within the University. Some Welsh-medium lecturing posts were established, but in real terms there was very little progress by the mid-1990s. Bwrdd Dysgu drwy'r Gymraeg Prifysgol Cymru (The University Board for Welsh-medium Teaching), re-launched in 1997, recognised the need to act as a catalyst for change. Since 2000, when an officer was appointed to undertake the development of Welsh medium or bilingual provision in this sector, there has been growth [9].

The University of Wales was founded in 1893 as a federal university, and for most of the twentieth century, the University of Wales provided most degree courses in Wales. It was a focal point for university education in Wales as it was considered the national intellectual forum for Wales, promoting scholarship which had a distinctively Welsh outlook through its academic press, the University of Wales Press, and its specialist research centres, in particular its Centre for Advanced Welsh and Celtic Studies. CAWCS is a research institute, located alongside the National Library of Wales in Aberystwyth that carries out collaborative research projects into the language, literature and history of Wales and the other Celtic nations. The operation of and services provided by CAWCS are fully bilingual, and over 95% of the Centre's staff are Welsh speakers. The Geiriadur Prifysgol Cymru – A Dictionary of the Welsh Language was established in 1922 and maintaining and refreshing the Geiriadur Prifysgol Cymru is CAWCS longest standing research project. Under Adduned Cymru – The Wales Pledge, the University of Wales will re-establish CAWCS as a charitable company, as part of the University's long term commitment to the development of the Welsh language and culture and associated academic excellence [4].

Under Section 5 of the Welsh Language Act 1993, the University of Wales, as a publicly funded body, is required to prepare a Welsh Language Scheme. The starting point for all schemes is the principle of equality that is embedded in the Act. The University of Wales has adopted the principle that it will treat the Welsh and English languages equally. This Scheme sets out how we will put this principle into practice when providing services to the staff, students and the public in Wales. The University's revised Welsh Language Scheme was approved by the Welsh Language Board on 27 July 2005. This document includes details of the measures which the University has committed itself to undertake so as to give effect to the requirements set out in the Welsh Language Act that, "as far as is both appropriate in the circumstances and reasonably practicable, to the principle that in the conduct of public business in Wales the English and Welsh languages should be treated on the basis of equality" [11].

In 2007 the University of Wales changed from a federal structure to a confederation of independent institutions and then separate universities awarding their own degrees. The higher education landscape changed again by 2014 following mergers and the withdrawal of some universities from the University of Wales, with the result that there are now 8 universities in Wales: Aberystwyth, Bangor, Cardiff, Glyndŵr, Swansea, University of Wales Trinity St David, Cardiff Metropolitan, and the University of South Wales.

The Coleg Cymraeg Cenedlaethol (National Welsh Language College) was established by the Welsh Government in 2011. Prior to its establishment, there was little or no planning of Welsh-medium higher education (HE) across Wales. While Welsh-medium education in schools had expanded significantly since the 1960s, there had been no parallel development in HE. Provision was largely limited to a relatively small range of subjects (arts, humanities, education and some social sciences) and was often dependent on individuals. In 1994, the Higher Education Funding Council for Wales had introduced a Welsh-medium premium, which provided a small additional funding stream where modules were taught in Welsh. While this helped address the additional costs of Welsh-medium provision (including the smaller numbers of students), the provision was not cohesively planned at a national level.

The Coleg works with universities across Wales to develop Welsh language medium opportunities for students. It funds Welsh medium lecturers and offers undergraduate and postgraduate scholarships for students to study higher education courses through the medium of Welsh. The Centre for Welsh Medium Higher Education was incorporated into the Coleg. Some of the Coleg's major programmes are:

- Scholarships for students studying through the medium of Welsh
- Research scholarships
- Academic Staffing Scheme
- Y Porth website
- Strategic Development and Projects Fund

All HEIs in Wales are members of this federal 'virtual' Coleg. This is the first time any organisation has planned Welsh-medium provision nationally for students in higher education. By working with all universities in Wales, the

Thirteenth International Scientific Conference  
THE TEACHER OF THE FUTURE  
25-28.5.2017, Budva, Montenegro

---

Coleg aims to strengthen existing courses and develop new degrees in new locations and disciplines across the country. The Coleg has established a branch within each HEI which plays a key role in planning and promoting the activities of the Coleg at local level. The Coleg's Academic Strategy was launched in 2012 to form a sustainable basis for extensive Welsh-medium provision of the highest quality across Welsh HEIs. The Academic Staffing Scheme provides substantial funding to Welsh HEIs to employ Welsh-speaking academic staff. The main on-line platform for delivering Welsh medium provision is Y Porth, the Coleg's national e-learning system. The platform, which has over 2,000 registered users, hosts hundreds of university modules in Welsh. At the same time a scholarship scheme was established in 2011/2012 with the aim of encouraging more students to study through the medium of Welsh. The Coleg also launched a new Welsh Language Skills Certificate in 2012 to establish a common, recognised method of demonstrating graduates' language skills in Welsh, both orally and in writing; the aim is to increase the employability of graduates and encourage employers to make use of their language skills. The first certificates were awarded in 2013 to 34 successful students, of whom 6 achieved an excellence award (Welsh Government, 2014b). In June 2013, the Welsh Government issued a Policy Statement on Higher Education (Welsh Government, 2013b) in which it is stated that, through the Coleg Cymraeg Cenedlaethol, the Welsh Government will continue to support the development of the Welsh language in education in the UK of Welsh-medium higher education and a confident bilingual Wales [5].

Welsh is available as a degree course in various forms at most Welsh universities, in particular at Cardiff, Swansea, Aberystwyth, and Bangor. In these universities it is possible to combine the study of Welsh with another language or subject in a joint honours degree. Bangor is set in a Welsh speaking community and students can choose to study through the medium of Welsh. Bangor offers more courses through the medium of Welsh compared to other universities in Wales. The University of South Wales offers a number of degrees in subjects combined with Professional Welsh. Welsh medium provision is in subjects such as Surveying and Land and Property Studies and Business Management. The University of Wales Trinity St David offers a degree course in Applied Bilingualism in Welsh and English.

Aberystwyth University has implemented a Welsh Language Scheme since December 2003. In adopting the Scheme the University accepts the principle of treating Welsh and English on the basis of equality. The Scheme states how the University will implement this principle in the provision of services to the public, namely staff, students, prospective students and the general public in Wales. The key development included in the Revised Scheme is the Bilingual Skills Strategy. Clause 6.2(11) of the current Welsh Language Scheme notes that the University will implement a Bilingual Skills Strategy as part of its human resources planning. The University's Translation Unit, which is part of the Centre for Welsh Language Services, supports the University in recognising the equal linguistic status of both languages, by translating from one language to the other as required [12].

Cardiff University is fully committed to the developments in relation to Welsh medium provision. It offers over 170 modules which can be studied through the medium of Welsh across a wide range of subjects from Law to Medicine. Students can ask for a Welsh-speaking personal tutor, provided there are Welsh-speaking members of the teaching staff in the subject area. If there are no Welsh-speaking members in the teaching staff, an appropriate member of staff from another School will be asked to tutor the students. In the School of Welsh and Cardiff and the Vale of Glamorgan Welsh for Adults Centre, all students have Welsh speaking tutors. Students are offered the opportunity to sit their exams through the medium of Welsh, irrespective of whether they have received tutoring in Welsh. The most striking developments can be seen in the Law School. Previously, only a small number of students studied a few modules in the Welsh medium. The Coleg Cymraeg has also funded lectureships in other fields to develop Welsh medium provision. The Cardiff School of Journalism, Media and Cultural Studies, the School of Pharmacy and Pharmaceutical Sciences and the Cardiff School of English, Communication and Philosophy have recently welcomed new Welsh medium lecturers. These Schools will be developing national Welsh medium provision on the Coleg's behalf in their respective fields. Welsh medium students can also study a new joint honours degree in Journalism and Welsh. A free Welsh-medium online learning site has been launched by The Open University in Wales, offering people the opportunity to study for free through the medium of Welsh. The aim of OpenLearn Cymru is to expand the number of resources available for Welsh speaking learners who may wish to use online learning resources to try something new, increase their skills or sample a Higher Education course [13].

Swansea University offers courses in Geography, Biology, Zoology and Marine Biology, which are eligible for the Ysgoloriaeth Cymhelliant, as it offers 40 credits through Welsh at all levels. The ability to communicate scientific topics in the biological sciences through Welsh is a key skill required by increasing numbers of employers, and Swansea University is perfectly situated to take advantage of this. The range of subjects taught in Welsh include

Thirteenth International Scientific Conference  
THE TEACHER OF THE FUTURE  
25-28.5.2017, Budva, Montenegro

---

core topics such as Animal Diversity and Physiology, Ecology and Behaviour and Vertebrate biology. Modules such as these are central to understanding the natural world; being taught via the medium of Welsh will enhance students' degree and career prospects in the natural sciences. In the Mathematics Department a variety of modules can be studied with a Welsh medium component. This provision takes the form of weekly Welsh medium small-group tutorials. In addition to this there are extensive teaching resources available for calculus and geometry. Final year mathematics students can take advantage of having their project supervision through the medium of Welsh. In the Physics Department a variety of modules can be studied with a Welsh medium component [14].

During this academic year 67 students at University of Wales Trinity Saint David and Coleg Sir Gâr have received one of the Coleg's scholarships. In conjunction with the Coleg the university and Coleg Sir Gâr have invested extensively in recent years in creating new Welsh medium provision in fields such as Art & Design, Agriculture, Sport Studies, Business, Early Years, Youth and Community Work, and Religious Studies. By now the majority of Welsh-medium courses at UWTSU qualify for Coleg Scholarships [15].

Wrexham Glyndŵr University is dedicated to expanding its education provision through the medium of Welsh. The university is proud of its Welsh roots and recognises the importance of reflecting the language and culture of north east Wales.

### CONCLUSION

Welsh has been spoken continuously in Wales throughout recorded history, but by 1911 it had become a minority language, spoken by 43.5% of the population. Although this decline continued over the following decades, by the start of the twenty-first century, numbers had begun to increase again. For Welsh language to be revitalised, language planning is essential. Acquisition planning is particularly concerned with language reproduction in the family but also about language production at an educational institution. The transmission of a language from parents onto their children and second language learning in education is an essential but insufficient foundation for language survival and maintenance. The implied inferior status afforded to the Welsh language in the past had an adverse psychological effect on the speakers of the language. Many came to regard Welsh as inadequate and unrefined for the demands of the modern period. It had rural connotations and was not really suitable for urban and suburban living. Changes in education provision, however, have gone a long way to redress this imbalance [3].

### REFERENCES

- [1] Baker C. (1985). Aspects of Bilingualism in Wales. Clevedon: Multilingual Matters Ltd.
- [2] Baker C. (2006). Foundations of Bilingual Education and Bilingualism. Clevedon: Multilingual Matters Ltd.
- [3] Ball M. J. ; Fife J. (1993) The Celtic languages. London: Routledge
- [4] Centre for Advanced Welsh and Celtic Studies available at:  
<http://www.wales.ac.uk/en/CentreforAdvancedWelshCelticStudies/IntroductiontotheCentre.aspx>
- [5] Coleg Cymraeg Cenedlaethol available at: <http://www.colegcymraeg.ac.uk/en/>
- [6] Fishman J. A. (1999). Handbook of Language and Ethnic Identity Oxford: Oxford University Press
- [7] HEFCW available at: <https://www.hefcw.ac.uk/home/home.aspx>
- [8] Jones M. (2016). Welsh-medium education and Welsh as a subject. Retrieved from:  
<http://www.assembly.wales/research%20documents/rs16-048/16-048-english-web.pdf>
- [9] MERCATOR (2014). The Welsh Language in education in the UK/2<sup>nd</sup> edition/. Retrieved from: [https://www.mercator-research.eu/fileadmin/mercator/documents/regional\\_dossiers/welsh\\_in\\_the\\_uk\\_2nd.pdf](https://www.mercator-research.eu/fileadmin/mercator/documents/regional_dossiers/welsh_in_the_uk_2nd.pdf)
- [10] Welsh Government available at: <http://gov.wales/?lang=en>
- [11] Welsh Language Act (1993). Retrieved from: <http://www.legislation.gov.uk/ukpga/1993/38/contents>
- [12] Welsh-medium education at Aberystwyth University. Available at: <https://www.aber.ac.uk/en/>
- [13] Welsh-medium education at Cardiff University. Available at: <https://www.cardiff.ac.uk/>
- [14] Welsh-medium education at Swansea University. Available at: <http://www.swansea.ac.uk/academi-hywel-teifi/learn/whystudythroughthemediumofwelsh/>
- [15] Welsh-medium education at University of Wales Trinity Saint David. Available at: <http://www.uwtsd.ac.uk/>