

A Critical Analysis of Student Perceptions of Teaching Excellence at Heriot Watt University.

Jamie Smith,
Learning and Teaching Oscars Intern
Heriot-Watt University Student Union
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Introduction

Teaching excellence is a topical issue within the world of academia, with the notion of teaching excellence being extensively debated from a variety of different perspectives. This has consequently led to many questions about what constitutes teaching excellence within higher education (Lubicz-Nawrockaa and Bunting, 2018). Therefore there is now demand to determine teaching excellence from the viewpoint of learners themselves; the university students.

Heriot Watt University's Student Union began to host Student-Led Teaching Awards (SLTAs) known as the Learning and Teaching Oscars (LTO) awards during the 2009/2010 academic year, and are now held on an annual basis. Each award has specific criteria and students nominate staff based on how well their teaching coincides with this criteria. Nominations are written by students and are analysed by a judging panel within the Student Union, consisting of School Officers from each department. Nominations are assessed based on quality rather than quantity to ensure fairness across all departments of the university. All awards since 2011 include: Department of the Year, Feedback award, Global award, Graduates award, Guiding Hand award, Refreshing award, Support Staff award, Switched On award, Thinkers award and Vision award. This research will focus on data gathered from the LTO nominations to gain an insight into teaching excellence from Heriot Watt students' viewpoint.

There has been a significant lack of research conducted on student perceptions of teaching excellence, in contrast to the wide ranging learning and teaching literature from an academic perspective, which is one of the key reasons for conducting this project (Lubicz-Nawrockaa and Bunting, 2018). Universities always thrive for excellence, however learning and teaching excellence from the perspectives of students is often forgotten within the 'neoliberal university', with the drive for competition and higher league table positions arguably diverting focus away from student learning, which should be at the core of higher education (Gourlay and Stevenson, 2017; Saunders and Blanco Ramírez, 2017). Therefore this project aims to critically analyse teaching excellence at Heriot Watt based on the Learning and Teaching Oscars student nominations. Conclusions will be drawn, establishing the best teaching practices based on the nomination data, with students' viewpoint being at the forefront of research conducted.

Methodology

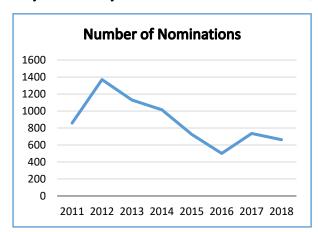
This project will analyse qualitative data from the Learning and Teaching Oscars nominations at Heriot Watt UK campuses from years 2011-2018, examining a total of 6988 student nominations gathered since 2011. Nominations analysed were all from UK campuses as data was not available from the Dubai campus, and the Malaysia Campus do not host LTO awards. Nominations for every award from each year will be read thoroughly, with the criteria for each award being different to one another. Comments for each award will be synthesised, allowing key themes to be identified throughout the data. Results for each award will then be critically analysed, thus ensuring student perspectives are at the core of the project. Statistics will also be analysed using features of Excel, with variables such as the number of nominations for each year and average word count for each year being utilised to show change over time, providing a more thorough examination of awards.

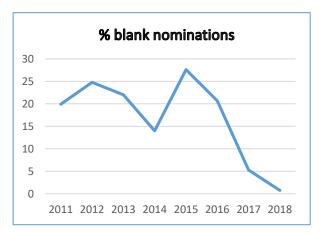
Semi-structured interviews will also be carried out with previous winners of LTO awards, asking questions related to their role within the university, why they believe students nominated them for specific awards and their overall opinion on teaching excellence at Heriot Watt. Interviewees were Paul Dalgarno, Susan Dewar, Jennie Hansen, Brian Hutton and Mo Sherif. Therefore research conducted has benefitted from an academic perspective on teaching excellence, with a useful insight into the award winners' teaching techniques which students appear to enjoy and be stimulated by.

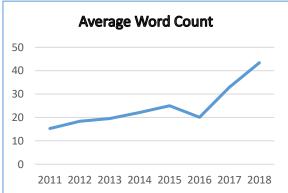
Results

Overview of Statistics

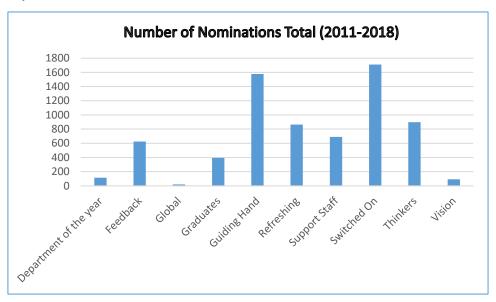
Nominations for the Learning and Teaching Oscars originate primarily from Undergraduate and Postgraduate Taught students. However nominations were also received for PhD student supervisors, implying that PhD students also nominate staff through the LTOs. LTO nominations have evolved significantly since 2011. The number of nominations reached peak amount in 2012, but have gradually decreased in quantity since then. However, the percentage of blank nominations has gradually decreased from 2015, and the average word count has increased significantly over the years. These statistics imply an increase in quality of nominations over time, with nominations evolving from either blank nominations or 2-3 words of appreciation to detailed extensive paragraphs that effectively explain the key reasons for nominating a staff member. In addition, the switch from paper to electronic nominations has potentially played a key role in improving the quality of nominations. This is why data is only available from 2011 onwards, and not during the early years of the awards.







Each LTO award has had varying amounts of nominations over the years, with the Switched On and Guiding Hand awards being the most popular awards by a significant margin. One would argue this could be because the criteria of these awards effectively align with the criteria students look for within learning and teaching. The Department of the year, Global and Vision awards have the least nominations, largely due to each award having only 1 year of data analysed.



Department of the Year Award

Brought to the LTO in 2018, the Department of the Year award has only been part of the Oscars for 1 year. Student nominations recognise departments that have gone above and beyond expectation to support students academically and in some cases personally. Departments nominated also had a community atmosphere, with strong relationships built between staff and students, making students feel they can easily approach staff members with wide-ranging problems. Departments were acknowledged for being well organised in terms of course structures and resources, supporting students with learning facilities such as out of hours study hubs. Nominations also recognised schools that supported students through challenging periods such as during the industrial action, finding solutions to issues caused by the action.

Overall departments that always look to improve learning and teaching, allowing students to be well equipped for life after university are recognised. With this award being in its infancy, it could be interesting to see the impact of the award in years to come on other departments of the university, with departments potentially sharing good practice.

Feedback Award

The Feedback award became part of the Learning and Teaching Oscars in 2012 and ran until 2017. The quality of feedback and use of virtual learning as a source of feedback were core elements of the nomination criteria.

Throughout comments, students valued the comprehensive nature of feedback, with large amounts of detail issued by lecturers, providing students with areas they can improve on, delivered in an honest but constructive manner. The personal nature of feedback is also

highly regarded, with staff being able to effectively identify areas of strengths or weaknesses specific to one student. Staff nominated also welcomed feedback from their students, effectively utilising this feedback to improve students' learning experience. In addition, effective use of Vision features to issue feedback are similarly recognised by students, for example the use of Turnitin and e-assignments. Throughout nomination comments, students appear to recognise the importance of comprehensive feedback to their learning, helping advance their skills and knowledge within their subject area.

The nature of nomination comments over time for this award have evolved, arguably because of increasing use of technology and the virtual learning environment. During the award's early years, students appeared to look for swift, detailed feedback, giving them an opportunity to improve on existing skillset and knowledge. However students' criteria for this award has progressed to use of Vision tools and technology, with innovative teaching methods such as discussion boards addressing frequently asked questions and the use of Turnitin providing detailed online feedback. On the other hand, whilst students acknowledge staff who embrace innovative teaching technologies, more traditional feedback methods such as one-to-one feedback and lecturers' availability for additional feedback out of hours are filtered throughout nominations for all award years, implying that they should not change.

Global Award

This award first featured in the LTOs in 2018, with the core criteria being cross-campus collaboration, cross-cultural study and global examples. Student comments for this award included recognition of cross-campus collaboration integrated within material, for example utilisation of the Dubai campus for a case study. Global examples effectively enhanced understanding of course concepts, thus efficiently relating material to industry and enabling students to use these examples within their industry post university. Furthermore cross-cultural study has helped international students of the university to understand and relate to material. These features of learning and teaching acknowledged by students have arguably helped Heriot Watt receive global recognition, with the university winning International University of the year by the Times and Sunday Times Good University Guide 2018 (HWU, 2018). However, most importantly, students appear to be stimulated by staff who take a global approach.

Graduates Award

This is an award specific to final year students, with the award being presented to staff members at graduation ceremonies. Final year students are given the opportunity to commend members of staff who have had the biggest impact on their Heriot Watt experience.

Nominations for this award are wide-ranging, with students acknowledging staff members for a variety of reasons. Many found teaching methods from staff innovative and challenging, inspiring students and potentially unlocking their untapped potential. Nominated staff also effectively engaged with students, and the enthusiasm staff showed towards their discipline made students' learning experience more enjoyable. Furthermore other staff were nominated due to their support, approachability and general desire to go above and beyond for students, with support out of hours and an open door policy adopted by many. These support mechanisms boosted students' confidence and helped guide them through their studies. For example, one nomination for James Cameron of Engineering and Physical Sciences (EPS)

stated; "Without Dr Cameron I would not be graduating this year. He has encouraged me to keep going, that I do deserve to be here, that I can make it to the end". Students also appreciate when staff make the effort to build a rapport with them, for example by learning their name and engaging with them. Despite the criteria for the Graduates award being broad, staff who show genuine care for student wellbeing tend to be nominated.

Guiding Hand Award

Nomination criteria for the Guiding Hand award include staff approachability and ability to give useful support and advice academically and personally, thus guiding them in the right direction. The award also looks for lecturers who are able to understand students' viewpoint and adapt accordingly.

Nomination comments remarked on lecturers who provide support and advice when required, listening to both academic and personal problems and subsequently offering relevant support. The ability to put themselves in the shoes of the students, drawing on their experience as a student to understand their perspective is also important, as it could be that academic or moral support that gives students the springboard they require to succeed. One nomination for Caroline Brown of the school of Energy, Geoscience, Infrastructure and Society (EGIS) said; "really easy to approach about any issue you're having. She responds straight away - which can't be said for every lecturer. She takes on board what you have to say and will do anything she can to help". Approachability was a key theme throughout data gathered, with lecturers being praised for adopting an open-door policy and simply being a listening ear for students with any issues.

Academic guidance is also mentioned throughout student comments. Nominees showed patience when students struggled to grasp course concepts, enabling understanding that would otherwise have been difficult. Lecturers also made sure students understood material before proceeding with further content, by for example providing helpful material, additional tutorials and power hours. This award also acknowledges lecturers who can guide students' thinking towards a different perspective when studying a course, thus stimulating further learning and understanding. Moreover staff who guide students towards the answer rather than simply giving them a worked answer is recognised positively, effectively ensuring understanding of potentially difficult concepts. Winner of the award in 2010 and Professor within the school of Mathematical and Computer Science (MACS), Jennie Hansen, spoke of the importance of acting as the students' 'coach', where students work independently but are guided in the correct direction by their coach. This pushes students out of their comfort zone into a different way of thinking, which is beneficial for their learning. This approach is particularly effective within Jennie's field, where understanding of theories and concepts is so important.

Refreshing Award

This award focuses on innovation shown by staff. Reasons for nomination include innovative delivery of course material, creative teaching methods that make learning enjoyable for students and effective methods of assessment, for example the use of virtual learning.

Lecturers were commended by students for their creative teaching methods. Examples included sparking debate within the classroom and integrating problem solving into course delivery. Lecturers also effectively linked material to current affairs, expressing the impact of

contemporary issues on their discipline. These techniques divert teaching away from simply listening to presentations. Additionally different methods of assessment were welcomed by students, for example small assessed tutorials as opposed to a final exam. One nomination for David Townsend of EPS spoke of an refreshing teaching method; "the way Dr Townsend lectures is far more engaging, with the concept questions in the middle of the hour slot and the skeleton notes keep you more focused throughout". Susan Dewar, winner of the award in 2018, also spoke of an innovative approach to assessment different to standard assessment methods. To determine the pathogens that grow within certain foods, a fictional scenario was created where foods were accidently left at room temperature, and students had to analyse the subsequent pathogen growth within these foods. This approach to assessment received positive feedback, with students able to apply a relatable scenario to course content, encouraging them to think differently thus feeling stimulated and inspired to go above and beyond.

Students also felt refreshed by the effective use of virtual learning and technology, with Vision being acknowledged by staff as a method of teaching creatively using virtual features such as discussion boards and online tests. Additionally social media groups also helped lecturers engage with students out of the classroom, giving students a different learning perspective and encouraged them to extend learning to out-with the class.

Support Staff Award

The Support Staff award acknowledges all members of staff across the university, including different professions such as librarians, careers advisors and laboratory technicians. PhD/PGR students are also nominated within the support staff section for their work as tutorial or lab helpers. The award criteria includes approachability, going the extra mile for students and giving students important advice that supports their studies.

Student feedback for this award was wide-ranging, with staff being nominated for providing support in a variety of ways that has enabled students to succeed at University. Staff nominated adopted an open-door policy and availability out of hours for additional help and support. They also went above and beyond by, for example, providing extra classes for students and general guidance during peak times within the semester. One nomination comment for Stuart Telford of EGIS stated; "Extremely helpful with my projects and is caring and friendly to all students, will always help and go the extra mile if he has the time". Additionally students appreciated staff who provided support despite not being their mentor or being out-with their subject area. Care and support shown by staff helped build rapport with students, making them feel able to ask for additional help when required.

Students acknowledged the work of all staff across the university who have provided them with relevant support, ensuring their hard work and dedication does not go unnoticed. Nominations commended the work of the Heriot Watt careers service in going above and beyond to support students for life after university, by assisting with drafting CVs, helping with job applications and issuing advice on finding internships and graduate jobs. Students also appreciated the work of library staff in helping find appropriate learning materials for students and general support with small matters whilst studying. Furthermore the work of laboratory technicians is not overlooked. Students recognise the importance of their support and expertise, as those nominated ensured students knew how to work machines and different equipment around the laboratories. Brian Hutton, winner of this award in 2017, is a

laboratory technician for the Chemistry department at the university, and spoke of his appreciation that his work had been recognised by students. Brian is proactive within the laboratory, consistently ensuring students have the support required to carry out work competently, whilst pointing any struggling students in the correct direction. Students recognise and value this, with multiple students believing they would have struggled to succeed without Brian's technical support.

Switched On Award

This award has had the most nominations throughout all the LTO awards. For nominations, students were expected to look for staff who make learning exciting and dynamic, and are able to deliver difficult material in a way that is understandable for students. Those who relate material by, for example, providing practical examples also fit the award criteria.

Students acknowledged lecturers who teach enthusiastically, allowing students to enjoy their learning experience. In addition lectures that were delivered efficiently keep students engaged with the course, for example the regular revising of material to ensure up-to-date information was being presented were appreciated. Lectures were also delivered in small chunks by some staff nominated, thus ensuring maximum attentiveness. Students consequently felt motivated to make the most of lectures and go the extra mile. Students similarly felt motivated during potentially dry and boring subjects by a lecturers' enthusiasm. Some lecturers would adapt their teaching style during a lecture to regather audience attention. One nomination for the Switched On award said; "an innovative lecturer, who always delivers information in an enthusiastic and exciting manner. Engages with students and lets them engage with each other that allows us to think better and critically".

Staff nominated are commended for their delivery of academic material and ability to explain concepts to students. They were also able to identify ways of simplifying material to enhance understanding. Examples included the use of real life examples and current affairs to underpin academic content, creative tasks such as filling in textbook blanks to ensure maximum attentiveness and tailoring explanation of material if students are unable to grasp. Paul Dalgarno, winner of the award in 2017, emphasised the importance of preparation when teaching, ensuring lectures have a specific structure. Each lecture subsequently told a story which heightened students' interest and ensured learning objectives were met. Furthermore winner of the award in 2018, Jennie Hansen, uses lecture capture software to support student's learning. Because she captures the lectures that she delivers, students are able to go online after the lecture and revisit parts of the lecture they want to think more about. The online videos capture simultaneously the lecturer writing and talking through worked examples. This approach is effective within the field of mathematics, where the style of communicating examples is particularly important, so that students can understand complex concepts.

Thinkers Award

This award gave students the opportunity to reward lecturers for academic work they found challenging and stimulating. Students nominated staff who encourage self-learning and critical thinking, sparking debate within the classroom and stimulating students' interest in the subject, encouraging them to further their learning.

Staff were nominated for a wide range of teaching techniques that encouraged students to think above and beyond the classroom. Informative lectures with strict teaching helped drive students on to engage with course content and further their learning. Lecturers also promoted independent learning, which encouraged students to prepare for lectures beforehand and do further reading out-with course material. This independent approach was taken by Mo Sherif of the School of Social Sciences (SoSS), winner of the award in 2018. For coursework tasks, students were instructed to organise themselves into groups and obtain a topic independently. This enabled students to think about ongoing issues within the field by researching different topics. Students responded well to Mo's intellectually stimulating approach, with one nomination stating; "he is very supportive in terms of knowledge. He does a lot of efforts for the university and students to get knowledge as much as possible". Other teaching techniques noted throughout nominations included group discussion style tutorials, which encouraged students to share and develop ideas from each other.

In addition, staff were recognised for challenging students to seek further understandings of their field by thinking from a different perspective. Students subsequently gained a more rounded understanding of course concepts rather than simply learning material for assessment. Nominees were also noted for promoting critical thinking by encouraging students to challenge their own personal views and think outside of the box. These teaching techniques challenged students, helping them to push boundaries and reach their full academic potential. Overall, nominated lecturers were effective in creating a challenging but rewarding learning experience for students.

Vision Award

The Vision award was introduced when the LTO awards began but only one year of this award data has been analysed due to availability of data. The main criteria for nomination was effective use of virtual learning tools such as Vision/Blackboard as a means of communication between staff and student and a method of issuing feedback.

Students acknowledged swift email responses and feedback for assessment, alongside a competent level of communication outside the classroom through Vision and email. Additionally the effective use of academic material on Vision appeared important, for example providing additional material such as past papers and summary notes, alongside posting of material after lectures, enabling further analysis and learning out-with the classroom. Students also appreciated staff use of Vision as a platform for keeping well-informed with potential course changes, for example altering of material or changing of coursework deadlines. This award was potentially effective in encouraging staff to engage with the virtual learning environment. However the award has since been replaced, with the use of Vision becoming a common expectation of staff from students and the university.

Overall Analysis

Comments across the Learning and Teaching Oscars nomination data vary significantly, with different criteria for each award and arguably varying expectations of students. However overlapping does occur between different awards, for example both the Guiding Hand and Support Staff awards' comments focused on support academically and wide-ranging issues personally or within the university. Additionally the Refreshing, Switched On and Thinkers

awards produced similar results related to how students felt intellectually stimulated by effective approaches to teaching.

It was interesting to see the differing teaching expectations across different schools in terms of lecturers' approaches to teaching. Schools such as EPS and MACS place emphasis on being taught theories and concepts effectively through, for example, worked examples and adaptable and thorough explanations. However schools such as EGIS and SoSS tend to focus on the quality of course material and feedback, potentially due to the subjective nature of their disciplines.

Whilst nomination comments are wide-ranging, there are themes recognised throughout analysis of the data. Key themes identified are approachability, quality of feedback, challenging and stimulating teaching techniques and devotion to supporting students. It is no surprise that students value staff being approachable and providing them with support, with some staff acting as a personal mentor for students. This helps students build a strong working relationship with staff, thus enhancing their learning. This outlook is mirrored by Lubicz-Nawrockaa and Bunting (2018), where the importance of staff endeavouring to engage with students is acknowledged. However, one theme at Heriot Watt that is perhaps surprising and not so common in other literature is students feeling challenged and stimulated by approaches to teaching. This feeling of being challenged tends to stem from enjoyment of lecturers' teaching techniques, which creates a desire among students to test themselves. Students at Heriot Watt appear to value being intellectually challenged by staff, realising the importance of being challenged in their learning and development, which creates an employable skillset for life post-university.

Discussion

Based on qualitative analysis of the Learning and Teaching Oscars nominations at Heriot Watt, it is clear the potential that LTO data can have in understanding students' perceptions of teaching excellence. The Quality Assurance Agency (QAA) Scotland recognise the role Student-Led Teaching Awards have in showing students' views on learning and teaching (QAA Scotland, 2018). SLTAs such as Heriot Watt's Learning and Teaching Oscars create a strong working relationship between student unions and the university, with positive work of university staff being recognised and appreciated by students. Student recognition in the form of SLTAs can be morale boosting and motivating for staff, with their hard work and dedication to their profession being worthwhile (Lubicz-Nawrockaa and Bunting, 2018).

In comparison to literature from other institutions, the Learning and Teaching Oscars student comments recognise both learning and teaching, allowing this research to analyse not only successful teaching techniques, but the success of these techniques in terms of student learning. This allows for a more rounded, interconnected analysis of both learning and teaching at the university. One of the key themes, challenging and stimulating teaching techniques, underpins this view, with students recognising the positive impact of effective approaches to teaching on their learning.

Results from this research challenge teaching excellence from an academic perspective, with students placing emphasis on themes such as support, approachability and feedback. A research project carried out by the University of Glasgow concluded that based on the results of their Student-led teaching awards, students expect staff to be personal mentors with

emphasis on personal help and support, which in turn has 'resource implications' for the university and promotes a work-intensive lifestyle for staff members. However, students believe such teaching attributes enhance their learning outcomes, providing them with the support required to succeed. It is also important to note that by nominating staff who go above and beyond regular duties, students do not expect staff to work extensively out of hours, and they are simply recognising lecturers' hard work and devotion to supporting them. Therefore student comments of this nature should not be easily dismissed by universities.

Research outcomes did also support aspects of teaching excellence from an academic perspective. One of the key themes extracted from the nomination data, challenging and stimulating teaching techniques, is a key element of academic teaching excellence. This is also underpinned by the QAA for higher education in the UK, with teaching quality being central to their framework (QAA, 2015). Quality of teaching and good teaching practice must therefore be protected within the realms of the neoliberal university outlined by Gourlay and Stevenson (2017) and Saunders and Blanco Ramirez (2017). Neoliberalism has caused a drive for competition within higher education, with universities striving for high enrolment numbers, attainment levels and league table rankings. These notions may appear positive, however they often divert focus away from what is best for students' learning in terms of being academically challenged, as students tend to be treated as customers rather than learners. This can also have a subsequent impact on students' attitude to study, as they want to simply attain the best grade rather than achieve meaningful learning (Saunders and Blanco Ramirez, 2017). Therefore staff at Heriot Watt must strive to protect higher educational standards and teaching quality, and continue to challenge students to further their academic learning. Students and the Student Union also play a key role in aspiring for excellent teaching practice across the university, recognising the importance of being academically challenged rather focussing solely on grades. Paul Dalgarno shares this view, as he believes the Learning and Teaching Oscars should be the catalyst in pushing for teaching excellence at Heriot Watt.

Conclusion

Overall this research project has been valuable in determining the most effective learning and teaching methods specific to Heriot Watt from the perspectives of the students of the university. With a lack of research on student-led teaching awards, and this project being the first critical analysis of learning and teaching at Heriot Watt using student data, this project has offered a fresh perspective on what constitutes teaching excellence at the university.

Qualitative analysis of Learning and Teaching Oscars nominations has outlined teaching qualities students find beneficial, with conclusions from nomination comments for each award being collated, thus allowing themes to be identified. Additionally interviews with previous award winners provided an insight into effective approaches to learning and teaching straight from the staff themselves. Based on research findings, students at Heriot Watt appear to value lecturers who support students in a number of ways, helping them enhance their learning and excel academically. Students also hold being intellectually challenged in high regard, with innovative teaching methods motivating and inspiring students to expand their knowledge within the field and achieve meaningful learning.

From an academic perspective, Paul Dalgarno simplified the notion of teaching excellence, believing it to be the extent to which students have met learning objectives for a specific

course, the extent to which students enjoy their learning experience and the overall level of genuine care shown by staff to student wellbeing. From a students' perspective, this appears to be a fair assessment of what constitutes teaching excellence.

Moving forward, it is important that conclusions derived from this project are taken on board by staff themselves and the university. Whilst students may not be fully informed on what constitutes teaching excellence, it is clear the potential the student voice has in improving learning and teaching across Heriot Watt. The university, students and the student union must therefore continue to collaborate to ensure high quality learning and teaching is delivered to students of Heriot Watt.

References

Gourlay, L. and Stevenson, J. (2017). *Teaching excellence in higher education: critical perspectives*. Teaching in Higher Education, 22(4), pp.391-395.

Gunn, V., Fischbacher-Smith, M., Jenkins, A., Stack, N., Tierney, A., Friel, N. and Owen, C. (2014). *Recognising Teaching Excellence at the University of Glasgow*. Glasgow: University of Glasgow.

HWU. (2018). *Heriot-Watt University named International University of the Year*. [online]. Hw.ac.uk. Available at: https://www.hw.ac.uk/about/news/heriot-watt-international-university-of-the-year.htm [Accessed 6 Sep. 2018].

Lubicz-Nawrocka, T. and Bunting, K. (2018). *Student perceptions of teaching excellence: an analysis of student-led teaching award nomination data*. Teaching in Higher Education, pp.1-18.

QAA. (2015). *The Quality Code: A Brief Guide*. [online]. Gloucester: The Quality Assurrance Agency for Higher Education. Available at: http://www.qaa.ac.uk/docs/qaa/quality-code/quality-code-brief-guide.pdf?sfvrsn=fb09f781_6 [Accessed 6 Sep. 2018].

QAA Scotland (2018). What does Student-Led Teaching Award nomination data tell us about student perceptions of 'good' feedback? Glasgow: The Quality Assurance Agency for Higher Education.

Saunders, D. and Blanco Ramírez, G. (2017). *Against 'teaching excellence': ideology, commodification, and enabling the neoliberalization of postsecondary education.* Teaching in Higher Education, 22(4), pp.396-407.