ALL-IRELAND CONFERENCE
FOR UNDERGRADUATE RESEARCH (AICUR)

UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

Centre for Transformative Learning

Book of Abstracts 2024

Contents

Welcome to the 11th All-Ireland Conference for Undergraduate Research (AICUR)

University of Limerick, 2024

The AICUR conference is hosted by the Centre for Transformative Learning (CTL) in collaboration with internal and external stakeholders.

What is AICUR?

AICUR is designed in a similar way to other academic conferences, but its uniqueness is that the research contributions are delivered by undergraduate students showcasing research output that has been part of their undergraduate studies. The main aim of AICUR is to promote and applaud the fascinating and worthwhile research that is produced at undergraduate level in Ireland.

In multi-faceted ways, AICUR recognises and supports the development of graduate attributes, with a specific focus on the UL Graduate Attributes: agile, articulate, courageous, curious, and responsible.

The conference is designed to give undergraduate students (from first to final year) from Higher Education Institutions (HEIs) across Ireland the opportunity to present their research and discuss their creative accomplishments through oral presentations, performances, and posters. The goal is to give undergraduate students the opportunity to present their research work at an academic conference.

This year's participants exhibit the highest standards of undergraduate research in Ireland and should feel like pioneers, exploring the parameters of what undergraduate research in higher education can achieve. The AICUR programme is structured to create interdisciplinary and cross disciplinary themes so that papers from different fields of study can come together allowing for, and encouraging students, and attendees alike, to interact with and learn from their peers across the academy.

Apart from creating academic opportunities, we want to provide opportunities for a dynamic exchange of ideas as this is really at the core of AICUR and in turn, will provide an insight into how other disciplines approach research problems.

'By heightening awareness and creating dialogue, it is hoped research can lead to better understanding of the way things appear to someone else and through this insight lead to improvements in practice.'

Barritt (1986: 20)

A note from the AICUR Chair 2024

The 11th All-Ireland Conference for Undergraduate Research (AICUR) is being hosted as an online conference by the University of Limerick in April 2024.

Students from Higher Education Institutions (HEIs) in Ireland were invited to participate in this conference and they responded with an enthusiasm clearly reflected in this *Book of Abstracts*. In addition to the live conference, there will also be a repository of conference contributions hosted on this year's AICUR webpage.

Student engagement and *student success* are terms used across the Higher Education sector, but how these broad terms apply to an individual student is complex. The creation and annual hosting of AICUR provides a platform for students to share their undergraduate research and experience the setting of an academic conference. The feedback from students about the developmental opportunity AICUR affords them makes this conference continually worthwhile. Being a delegate of AICUR facilitates a feeling of success for each student who is dedicated and brave enough to put themselves forward. Ideally, this sense of success is one all students should experience throughout their undergraduate programmes.

"Enabling student success is critical to our national ambitions at an economic, societal and sectoral level…it is fundamental to maximising the transformative impact of higher education for our students."

(*Understanding and Enabling Student Success in Irish Higher Education*, National Forum, 2019, p.1)

Many people make a conference happen, and to organise and host a conference online required the assistance of great colleagues. Special thanks to Jack Kavanagh who kindly agreed to participate as our keynote speaker. Thanks also to the AICUR Committee who contributed to the planning and recruiting for the conference; the ongoing support from the Head of CTL, Dr Mary Fitzpatrick, and the CTL administrative team, particularly Karen McGrath and Joan Imray.

Without the support of our student and staff advocates within UL, and extended networks in HEIs beyond UL, we wouldn't have such successful conferences.

Final recognition goes to all the students who took the time, and made the effort, often in time-pressured circumstances to present their work, a very well done to you all.

We look forward to AICUR 2025.

Sarah Gibbons and Jill Pearson,
AICUR Co-Chairs, 2024

AICUR Committee 2024

Many thanks to the AICUR Committee 2024 for their valuable contribution and support.

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Keynote Speaker

Jack Kavanagh
Pharmacist and Speaker

Jack Kavanagh acquired a spinal cord injury in 2012 aged 20 leaving him with 15% muscle function. Choosing to see the injury as an opportunity to grow, learn and reset his view on life, in the following years Jack has challenged the limits of his situation.

As a Pharmacist and Speaker, Jack builds awareness of the value of health and wellbeing as drivers for performance coupled with cultivating diverse and inclusive environments where people belong and are valued.

Jack sits on the board of directors of the National Disability Authority and Center for Excellence in Universal Design. He hosts the 'Only Human Podcast' and is well-known for his acclaimed TEDx talk 'Fearless Like A Child, Overcoming Adversity' and award-winning documentaries Breaking Boundaries.

He is actively engaged as an advisor to the World Health Organisation in relation to digital and assistive technologies and progressing the delivery of health outcomes for people with disabilities.

Jack loves an adventure, is a keen hand cyclist, budding sailor and can be found sit skiing down snowy mountains at speed.

Student Contributions

Live & Recorded Presentations

What Factors Influence Music Preference: A Literature Review

Róisín Barry, University of Limerick

Abstract

This research explores which psychological factors influence an individual's preference of music. Previous literature highlights a possible relationship between music preference and factors such as personality traits, identity, age; in addition to mood management, the importance of context, and an individual's exposure to music. These factors identify different elements of music psychology, in particular the role of music and its influence on aspects of behaviour such as social, developmental and cognitive responses.

The research format is structured as a literature review. This methodology involves an extensive search of selected databases, to enhance the understanding between music preferences and choice of music. Suitable databases were utilised, in particular Scopus, PsycINFO and Google Scholar. Within each search, a list of keywords was established to produce relevant material. Keywords included music preference, influence, psychological process, listening behaviour and each of the chosen factors.

The literature review provided great insight into the influence between music preference and the psychological factors of an individual. From the analysis of previous studies, it is evident an individual's personality traits coincide with their listening behaviour and preferred genres of music. An individual's social identity can be influenced by their music preferences, therefore influencing the groups and places in which they socialise. Especially, during different stages of an individual's life, music can serve as a badge of identity. Several factors effect music preferences, including the time and place an individual chooses to listen to music and their state of mood. For example, driving in the car, exercising in the gym, or socializing with friends will encourage an individual to choose different music.

This presentation will outline the key themes arising from this literature review and the audience will learn which psychological factors influence an individual's preference of music.

Lessons in stress management: Student teachers' perceptions of stressors and coping strategies associated with professional placement

Sophie Bartlett, Mary Immaculate College

Abstract

The present study investigates the stressors and coping strategies associated with professional placement from the perspective of primary teaching student teachers. This study fills gaps in the research by providing qualitative data in the form of semi-structured interviews directly from student teachers in an Irish context. Seven pre-service teachers enrolled in different teaching programmes in the Republic of Ireland participated. Questions were posed through the lenses of Lazarus and Folkman's Transactional Model of Stress and Coping, and Self Determination Theory. Using thematic analysis, the participants were found to experience a plethora of stressors throughout placements. These included balancing time and workload, meeting expectations set out by tutors and experiencing social isolation. These were combatted by seeking help, improving organisation and creating time for mental breaks. Participants shed light on their professional growth, noting that their ability to cope with the stressors proved an invaluable benefit to their teaching capabilities, building resilience and confidence. Recommendations to educational institutions regarding improving the existing placement system through increasing supports and standardising grading processes are outlined. Though beneficial, placement is overly stressful and in need of modification.

Pre-service Teachers' Self-Efficacy and Attitudes Towards Gifted Students

Kim Bradfield, Mary Immaculate College

Abstract

The unique learning needs of gifted students are not typically met in Irish primary schools as initial teacher education (ITE) does not prepare educators to identify or support such individuals. However, in line with Bandura's (1986) Social Cognitive Theory and Ajzen's (1991) Theory of Planned Behaviour, high self-efficacy for gifted education and positive attitudes towards gifted students positively impact on educators' behaviours towards these pupils. Therefore, the present study explores pre-service teachers' self-efficacy towards gifted students and their attitudes towards these individuals. A cross-sectional, correlational design was employed to investigate whether these variables are related. Ninety-one pre-service primary teachers in the Republic of Ireland completed Tortop's (2014) Gifted Education Self-Efficacy Scale for Teachers and Gagné's (1991) Opinions of the Gifted and Their Education Scale. Results confirmed that self-efficacy levels were moderate and attitudes were ambivalent towards gifted learners. Furthermore, Pearson's correlation suggested that a small positive relationship exists between these variables. These findings indicate that pre-service teachers may not adequately meet the needs of gifted pupils. It is recommended that gifted education modules be introduced into ITE to foster self-efficacy as this may positively impact teachers' in-class behaviours towards gifted learners, directly and indirectly through its effect on attitudes.

The Promotion of Global Citizenship Through Music

Liam Brul, University of Limerick

Abstract

Interconnectedness among humans relates to one of the key objectives of global citizenship. This can be further exemplified by the aftermath of the Covid-19 pandemic when the need for communication in search of safety and security was near its peak. This study will delve into the significance of being a global citizen, investigating how this could be attained through a medium which deals with connectedness profoundly – music, and evaluating the efficacy of using music as a means of addressing global citizenship. This will involve using mixed methodological approaches to gain stronger insights into the current perception of this field of study in a multicultural context. Data collection was achieved via an online questionnaire which was then analysed in extensive detail through Microsoft Excel. As a corollary of thematic analyses, conclusions were inferred upon discovering the viability of using music as a tool for promoting global citizenship, provided that precautions are taken to avoid tainting public perception of either music or global citizenship.

Healthy/Diseased Tubular Tissue Pressure Diameter Apparatus

Gavin Byrne, University of Limerick

Abstract

Tubular tissue disease is a common occurrence and is heavily investigated due to the high number of surgeries carried out annually for these tissues. Ureter, urethral and vascular disease are some of the most commonly found diseases in our society today. In 2023, coronary atherosclerosis is the leading cause of morbidity in the Western World, with 370,000 annual deaths in the U.S. alone. Therefore, the priority of heart and peripheral blood vessel research is extremely high. The behaviour of diseased tubular tissue is still not fully understood. The increasing number of deaths each year due to these diseases requires a mechanical test to allow for the development of solutions with an increased understanding of healthy and diseased tubular tissue biomechanics. This project outlines the development of a benchtop ex vivo apparatus and test method to provide biomimetic mechanical properties for such tissues. This method is called pressure diameter testing and looks at the diametric response of tubular tissue to supplied pressures. The project looks at standardizing this method and developing a protocol for its set-up and use. The apparatus uses commonly found laboratory equipment and intuitive software to allow for meaningful data acquisition. The hardware and software allow the user to apply cyclical loading conditions, variable constant strains and variable constant stresses. This provides common mechanical responses such as hysteresis, compliance, distension and preconditioning, stress relaxation, and creep, respectively. These mechanical properties, mimetic of the type of load experienced in vivo, can be used in understanding the differences between diseased and healthy tissue to aid in the development of biomedical devices.

Strategies for Teaching English to Japanese Preschoolers

Julie Cizek, University of Limerick

Abstract

Globally, English education is becoming more prominent and Japan in particular, has struggled with successful English proficiency despite continued reforms. In recent years, attempts have been made to bring English education to a younger audience in Japan in hopes of helping students develop fluency while they still are at the prime developmental age for language acquisition. This paper, Strategies for Teaching English to Japanese Preschoolers, addresses English education in Japanese preschools and aims to highlight useful strategies for teaching English to this demographic. There are three main sections which will in turn discuss the Japanese preschool education system, English in Japanese preschools, and a comparison of teaching strategies in Japan and other countries. A combination of academic sources on the topics as well as informal reports through blogs and personal experience will be cross-examined to highlight practical teaching strategies. Many of the strategies already in practice in Japanese preschools are both theoretically and functionally effective but there is still room for improvement, especially in terms of teacher professional development. More on-site research needs to be done going forward, including more in-depth research into cross-cultural comparisons between preschool English education.

The Historical Evolution of the Cowboy as a Mythological Figure

Conor Cleary, University of Limerick

Abstract

Public perception of the American frontier has been influenced by film and other media leading to a disconnect between the real, and mythologised cowboy. This presentation will look at the factors that lead to the creation of the mythologised cowboy, how it evolved in film from the kinetoscope days to the 'Golden Age' of westerns and analyses how personal biases from Buffalo Bill, John Ford and other directors influenced public perception of the Wild West.

Preservice teacher perceptions of their ability to work with young children suffering from trauma in school settings

Grace Cronin, Mary Immaculate College

Abstract

Negative psychological and school-related impacts of childhood trauma are recognised worldwide. However, teachers display uncertainty when providing optimal support to traumatised students as they struggle with their role as a teacher, the emotional burden of working with such students, and a need for more professional knowledge. As little attention has been paid to trauma practices throughout national policies, there is a significant lack of direct instruction, support and guidance for teachers regarding how traumatic events can be addressed and identified within school environments. Addressing a gap in current literature, the present study used a qualitative research design to explore how confident, prepared and supported preservice teachers feel when working with traumatised children in school settings. Thematic analysis of eight semi-structured interviews identified three main themes with the main finding suggesting that participants required more professional knowledge and trauma-awareness training throughout their initial teacher-training program. Participants felt that their role as a teacher in supporting traumatised students was complex as they tried to address different environmental factors and interactions within a child's life, in order to best support the child. Findings indicated that parental involvement and student behaviour were strong factors in either helping or hindering their ability to provide optimal support to traumatised students. Finally, participants were concerned for their personal wellbeing when working with traumatised students. Implications for future research, policy development and the inclusion of trauma-awareness training throughout initial teacher-training programs are discussed.

Psychedelics in End-of-Life Care: A Review

Philip d'Entremont, University of Limerick

Abstract

Background: This literature review examines the utility of psychedelic-assisted therapy (PAT) in end-of-life care, exploring its historical context, clinical breakthroughs, mechanistic actions, and therapeutic outcomes. The integration of historical insights and contemporary clinical trials underscores PAT's potential role in treating mood symptoms in end-of-life patients.

Objectives: To assess the application of PAT specifically for end-of-life care, focusing on its impact on patient mood, anxiety, and depression, while considering the safety and clinical significance of observed effects.

Methods: A comprehensive literature search was conducted through PubMed, Medline, and Google Scholar using terms related to psychedelics and end-of-life care. The review focuses on peer-reviewed articles published in the last twenty-five years and seminal works, emphasizing classical psychedelics' impact on serotonin receptors.

Results: Recent studies underscore a resurgence in psychedelic research, particularly in end-of-life care, revealing significant reductions in anxiety and depression among patients. These benefits persist in follow-up assessments, with no clinically significant adverse events reported. Despite these promising outcomes, challenges such as cost, therapist training, and integration into healthcare systems remain.

Discussion: The application of PAT in end-of-life care shows considerable promise in treating mood symptoms, with existing trials demonstrating significant clinical benefits. However, further research is necessary to support these findings and explore the optimal therapeutic conditions for PAT's efficacy. Importantly, this review identifies a need for comprehensive studies to determine optimal therapeutic settings, dosages, and the impact of patient-set and setting on treatment outcomes.

Conclusion: PAT presents a promising avenue for addressing mood disturbances in end-of-life care, with notable reductions in negative mood parameters. Future studies are essential to refine our understanding of PAT's optimal conditions and protocols before considering its integration into broader healthcare practices.

Wrinkles in a Thin Elastic Sheet Floating on a Liquid

Oscar Ekelund, University of Limerick

Abstract

We examine the shape of wrinkles in a thin elastic sheet that is placed on a liquid and affected by a compressive load. We also examine how the compressive load, a force per unit width, depends on the new confinement length. The result was that the wrinkle pattern will either be symmetric and follow a superposition of two cosines or be antisymmetric and follow a superposition of two sines. In rare cases the pattern will neither be symmetric nor antisymmetric and follow a superposition of both the displacement functions. Numerical methods can be used to extract the dependence of the compressive load on the confinement length, represented by the function $T^*(\alpha^*)$.

Structural mutations in conferring thermal and drying stability to therapeutic proteins: A look at Aldehyde Dehydrogenase

Keeping Fit and Staying Safe

Maria Kazimierczak, University of Limerick

Abstract

Social media has transformed the ways users create, share and consume health and fitness content, with each new iteration resulting in new forms of digital interaction. Recently, social media platforms have garnered criticism around surveillance capitalism, gendered harassment and targeted unethical marketing via popular content creators. Research has shown that women are often vulnerable to such threats, as women's health information is often stigmatised and/or subject to unethical marketing, and women are frequently party to online sexual harassment.

The focus of this research was to use provocative tensions of the field of female health and fitness content within the social media wireframe as 'jumping-off points' to ideate new social media features, functions and designs that may help users stay safe online when they are sharing and consuming fitness and health media. The main focus being on female social media users. This topic is presented through a series of design scenarios, features, and functions to help us work towards safer, more equitable futures for the sharing of digital health information online.

Timeless Music: The Use of Caregiver-led Music Intervention in the Context of Residential Nursing Homes

Fiona Kelly, University College Cork

Abstract

The purpose of this study is to design and implement a six-week music intervention to be delivered by caregivers in a Cork City nursing home. Caregivers and staff of nursing homes allow the provision of 24-hour care to meet the various range of their resident's health needs, including both physical and cognitive support. Beyond the basic needs of care, engagement in social and leisure activities are indicators of quality of life and well-being in nursing homes. HIQA states that residents must have "a choice of interesting activities that meet their needs and preferences" as well as activities that support their physical, behavioural and psychological well-being (Health Information and Quality Authority). The lack of provision of activities in nursing homes can have profound implications on residents' cognitive maintenance, physical health and ability to develop relationships with their peers and carers. The activities in the intervention have been designed with cognitive, fine motor, gross motor, physical and mental health maintenance in mind, while providing an accessible, engaging and enjoyable activity for residents of the nursing home. The intervention has been divided into cohorts to examine the effects of various rates of music intervention, as well as specific results from a cohort of residents with dementia. The results of the music intervention will be studied via pre and post-intervention questionnaires, as well as a weekly questionnaire to be completed by caregivers with observations, opinions and resident testimonies. These questionnaires will be analysed for changes or development in resident health, thus, also determining the optimum amount of music intervention.

An Sionnach Dubh: An ethnographic research paper exploring the artistic practice of traditional singer Dàibhidh Stiùbhard, with a view to investigating the relationship between his identity and his music

Jordan Lively, University of Limerick

Abstract

Dàibhidh Stiùbhard, a traditional singer from a Church of Ireland background in Northern Ireland, inhabits a unique position in today's traditional music community as being a member of the 'Protestant' community interacting with what is stereotypically seen as a 'Catholic' community cultural activity. Whilst these binary views of identity seem sensical at a first glance, a deeper look into how traditional music intertwines with identity amongst people reveals that such black-and-white views of who interacts with traditional music (and wider Irish culture) elementary and deceiving.

Through interviewing Stiùbhard on his music, identity, and factors that contribute to his formation of ideas as to what his music and identity are, followed by a critical analysis of this interview, a clearer picture of how Stiùbhard perceives his identity and music is formed. Analysis of a selection of Stiùbhard's recorded musical output through his debut album 'An Sionnach Dubh' and his social media platform also contribute to better understanding the place of a member of the 'Protestant' community in today's traditional music community.

Revelations of the simplistic and unsatisfactory nature of the binary 'two communities' of Northern Ireland uncovers thoughts of hybrid and fluid identity that allows for collaboration unfettered by the chains of separation and difference. As Northern Ireland moves away from the Troubles in a changing, globalist world, Stiùbhard represents one possible outlook for how ideas of identity can be altered to better suit a peace-time environment.

Production and Optimization of Drug-Polymer Nanocomposites Using Nanoprecipitation Technique

Eva McMahon, University of Limerick

Abstract

This research is based in the field of nanotechnology and is driven by the poor aqueous solubility of many new and in-development drugs, which is a major challenge within the pharmaceutical industry. Developments in nanotechnology allow for the improvement of the therapeutic index and pharmacokinetics of drugs under systemic settings. This prevents the need to increase drug concentration or dosage, which often leads to adverse reactions and varying patient responses. The aim of the research was to produce stable drug-polymer nanoparticles of celecoxib with narrow particle size distribution. Celecoxib is a non-steroidal anti-inflammatory drug of BCS class 2, meaning that it has high permeability but low solubility. The drug-polymer nanoparticles were produced using liquid antisolvent precipitation and ultrasonication approaches. Various combinations of polymer stabilisers

were trialled. The ZetaSizer Nano ZSP was used to characterise results in terms of particle size and zeta potential. The findings of these experiments highlighted optimal experimental conditions. They also indicated the most promising polymer combinations in terms of particle size and stability, including 0.5% HPMC and 0.5% HPMC & 0.5% PVP. This greatly contributed towards the ongoing investigation into this topic in the University of Limerick.

Investigation of manufacturers market strategies influenced consumers purchasing decisions

Megan McCartney, University of Limerick

Abstract

This thesis is about the various marketing strategies that manufacturers use to influence the purchasing decisions of consumers when purchasing vehicles. Throughout this thesis, there is various stages. First of all, the introduction to what is going to be discussed will be completed. Market Segmentation will be discussed and explained. There will be three various themes in the literature review. These themes will be split into sections.

The Experience of Rolling Out a Nurture-Room in a Community National School

Jill Moynan, Mary Immaculate College

Abstract

The principal objective of my undergraduate dissertation was to analyse teachers' critical evaluations related to the journey of implementing the nurture approach in a nurture room in the context of a primary education in Ireland. The potential impact of this study is informing educational nurturing practices, providing insights that may guide the future implementation of nurture rooms, teacher training programmes and continual professional development specific to the roll-out of nurture rooms and the nurture approach. Additionally, the research findings can contribute valuable knowledge to academia, adding to the depth and breadth of knowledge on the nurture approach and nurture rooms and enhancing policy and practice specifically on how best to put theory into practice in relation to the establishment of nurture rooms for successful outcomes.

A Rapid Review of Good Practice in the Provision of Care for People with Dementia in Nursing Homes

Michael O'Brien, University of Limerick

Abstract

The number of people living with dementia across the world is rising, and there is a high and ever increasing proportion of people with dementia living in nursing homes. It is increasingly important that care provision in these services accounts for the specific needs of this cohort. Manifestations of dementia are modifiable with high quality dementia specific care, as such, we need to understand what good practice looks like specifically in these settings.

The aim of this work was to synthesise empirical research to identify the characteristics of quality in the provision of care for people living with dementia in nursing homes.
Four electronic academic databases were searched: Business Complete, CINAHL, MEDLINE and APA PsychInfo. Qualitative, quantitative or mixed-methods studies published between the years of 2020-2023, that aimed to identify determinants of high quality care for people with dementia living in nursing homes, were included. Themes relating to good practices were identified and narratively summarised. Vignettes illustrating good practice were constructed from the perspective of a provider, a staff member, a resident and a family member.

After screening of 3,356 records, 30 articles were included. This included 16 qualitative descriptive studies, 11 cross-sectional studies, 2 mixed methods studies, and 1 cohort study. Sixteen themes were identified: determinants of care quality, outcomes, person-centred care, cultural impact, care planning, meaningful engagement, eating and meals, the role of family members, restrictive practices, psychotropic medications, activities, materials, health care, end of life care, staffing and staff training.

In conclusion, the literature identifies what constitutes high quality care for residents with dementia in nursing homes. These findings will guide those delivering care in nursing homes in their daily work and in the implementation of quality improvement processes. It will also direct regulators, policymakers and researchers when conducting future work in this important area.

The Performative and Cognitive effects of Virtual Reality on Language Learning

Conor O'Flaherty, University of Limerick

Abstract

VR's effects on language learning can be placed into two categories, these being the performative effects and the cognitive effects. These two types of effects each have their own subcategories which have been extensively researched by the literature, with studies finding numerous VR software to be capable of promoting these effects amongst language learners. These effects have been identified amongst learners of varied languages, ages, and VR software usage. with some studies finding the effects of VR on language learners to be greater than the effects experienced through traditional learning. VR proves to be a mode of learning that should be considered by language teachers to improve learners' language acquisition whilst also being able to provide learners with beneficial cognitive effects in the process.

Looking at ¿Qué PASO?

Amy O'Leary, University of Limerick

Abstract

This essay explores the relationship between the PASO (primary) and General Election during presidential campaigns in Argentina. The purpose for this study was to examine if current criticisms of the PASO's process for acting as a mock election hold weight. To conduct this research, the results from each of the PASOs and General Elections of 2011, 2015, 2019 and 2023 were compared and analysed to see if there was a correlation between them. This resulted in the finding of a trend which would suggest that it has been possible to predict the winner of the General Election based on the PASO. This holds the implication that the PASO vote is of greater benefit to candidates than to voters and raises further questions as to whether or not it is achieving its purpose of further democratising the presidential election process. It also supports claims that the PASO acts as a poll for the General Election as opposed to a preliminary round.

Elite women, philanthropy and influence during the Great Famine: A case study of Caroline, 2nd Countess of Dunraven

Rebecca O'Regan, University of Limerick

Abstract

This presentation is based on my undergraduate dissertation (FYP) which examined the pivotal role of elite Irish women in philanthropy during the Great Famine (1845-50) and the influence they accrued in their communities as a result. It argues that through their empowering charitable works they were able to expand their sphere of influence, experience a sense of their own agency and steer the direction of change and tolerance in their localities. As women of the time were restricted by societal pressures and the belief that women were by nature maternal and domestic, their philanthropic work enabled them to enter the wider world and effect change.

This presentation takes the form of a case study of Caroline, the second countess of Dunraven, who upon her marriage to Windham-Henry Wyndham-Quin in 1810 became involved in aiding the poorest and most vulnerable people in her local village of Adare, Co. Limerick. During the famine years, Caroline's dedication to her role supporting and helping the most susceptible in the community afforded a degree of relief to those suffering the worst effects of deprivation. This study drew on archival materials in the Dunraven Collection, which includes diaries, letters and annual reflections written by Caroline, housed in Special Collections in the University of Limerick. These sources offer an insight into Caroline's character, actions and motivations and provide context for her life at this time. Newspapers, contemporary publications and parliamentary papers are also used to corroborate information and to show how Caroline's beliefs and actions fit within the philanthropic landscape of the period.

Investigation of Power as a Method of Cache Data Provenance Validation

Oisin O'Sullivan, University of Limerick

Abstract

This paper explores the threat of Microarchitectural Data Sampling (MDS) attacks, focusing on Cache Data Provenance Validation in Intel processors, with Platypus and Spectre as primary use cases. Beyond temporal constraints, the study investigates the untapped potential of power for Cache Data Provenance Validation, extending its scope to AMD and RISC-V architectures. Evaluating Intel's Running Average Power Limit (RAPL), AMD's power management framework, and RISC-V's power control options, the research reveals the feasibility of using power measurements to break Kernel Address Space Layout Randomization (KASLR) on three architectures. Analysing speculative execution across Intel, AMD, and RISC-V, the paper highlights their varied approaches. Leveraging Intel RAPL for Cache Data Provenance Validation, the study demonstrates applicability to previous MDS attacks, particularly Spectre, emphasizing the importance of mitigating side-channel vulnerabilities and investigating power as a method of cache data provenance validation.

Keywords: Microarchitectural Data Sampling, Cache Data Provenance Validation, Intel RAPL, AMD, RISC-V, Kernel Address Space Layout Randomization, Speculative Execution, Side-Channel Vulnerabilities.

The First Translation into English of "La Nuit des Pères", by Gaëlle Josse: an analysis of the processes and challenges often found in literary translation

Oisín O'Sullivan, University of Limerick

Abstract

This Final Year Project highlights the most frequent difficulties and challenges that a translator must resolve when working with a literary text. It is based on an original English translation of the novel La Nuit des Pères, by Gaëlle Josse, that up until now had never been translated into this language. After a brief overview of the literature in the field of literary translation, some translation techniques will be analysed in context, including transposition, chassé-croisé, modulation and deactualisation, in order to see how they can be used to improve the quality of a translation. After that, the translation of form will be commented on: the role of punctuation (especially comma splices), and the mixing of the passé compose and passé simple in the same text, to see the adjustments that must be taken into account when translating related passages. The novel quotes a lot of poetry, and therefore the main differences between the translation of poetry and prose will be covered, as well as a few strategies used to avoid repetition. In addition, a section from each chapter of the translation can be found in the annotated appendix, with comments on the techniques used, justifications, or other translation options in order to allow for a more detailed analysis.

RNA Analysis of Diet-Modulated FGF21 Expression in Mice

Zoha Panezai, University of Limerick

Abstract

Genetic analysis of fibroblast growth hormone 21 (FGF21) from murine epididymal adipose tissue samples investigates the relationship between diet composition and gene regulation in adipose tissue. C57/BL6 mice were subject to novel sweeteners, traditional sweeteners, and fat-controlled diets for 14 weeks. The tissue samples were analysed using quantitative real-time polymerase chain reaction (qPCR).

FGF21 is produced primarily in the liver, and in lesser amounts in adipose tissue. It plays a role in regulating lipid and glucose metabolism by contributing to the browning of white adipose tissue. Consequently, brown adipose tissue (BAT) contains greater amounts of FGF21 than white adipose tissue (WAT). Epididymal adipose tissue expression of this hormone is metabolically induced. Metabolic activity of the mice varied by diet and sweetener intake – priming the tissue as a study target.

Upregulation of FGF21 is associated with lower total adipose tissue mass and is a noted result of low-carbohydrate diets. FGF21 ribonucleic acid (RNA) expression is downregulated under opposing conditions along with peroxisome proliferator-activated receptor γ (PPAR-γ), decreasing downstream insulin sensitivity.

This study (thesis subject of Greg Kerin, MSc; 2023) investigated variation in gene expression subsequent to dietary interventions. In particular, this study focused on the effect of the novel sweetener allulose upon mice fed a high-fat diet. RNA expression was compared against that of mice subject to a lean diet with unsweetened water and that of mice subject to a high-fat diet with either fructose-sweetened water or unsweetened water.

Mice given allulose-sweetened water and a high-fat diet experienced comparatively higher serum FGF21 expression and lower total adipose deposition than either of the other high-fat diet groups. Correlation of decreased FGF21 hormone levels in epididymal adipose tissue with lower WAT deposition relative to the dietary conditions of the mice could demonstrate potential to expand the use of novel sweeteners.

The Effects of Censorship on Translation: A Comparative Analysis of Spanish Translations of Nineteen Eighty-Four

Elisa Pinesich, University of Limerick

Abstract

George Orwell's Nineteen Eighty-Four was first published in Spain in 1952, having undergone

a series of alterations imposed by the Spanish 'censura' institution. The purpose of my Final Year Project is to compare the text of the first translation published in Spain with a Spanish translation that was published in 2022. The aim of this is to research the possible factors that affected the censorship of the text when it was first translated and to compare them with those that could have affected the retranslation of the novel in modern times. For this purpose, the methodology employed in this dissertation is known as 'close reading'. Other relevant aspects such as the 'leyes de censura' and the political difficulties that Spain was experiencing were analysed, in order to offer a comprehensive overview of the time in which the first translation of Nineteen Eighty-Four was published. An introduction to the character of George Orwell and to the censorship he experienced in Spain was provided. The analysis helps to understand the different factors that could have influenced both translations.

The Development of a Functional Food Product Using the Natural Sweetener Stevia

Marek Pogorzalek, University of Limerick

Abstract

In this study, we aimed to create a healthy alternative to traditional sugar cookies by developing gluten-free cookies using oats and quinoa, sweetened with the natural sweetener stevia. Our research focused on several key aspects to evaluate the quality and feasibility of these stevia-based cookies.

Ingredients and Formulation: We formulated cookies by substituting sugar with stevia powder, ensuring a healthier option for consumers. The base ingredients included oats flour, quinoa flour, sugar, stevia, sunflower oil, baking powder, salt, water. The stevia cookies were compared to traditional sugar cookies in terms of taste, texture, and overall acceptability.

Texture Analysis: To assess the physical properties of our cookies, we employed a texture analyser. By doing so, we gained insights into how replacing sugar by stevia affected cookie texture.

Water Activity (aw): We determined the water activity of both stevia and sugar cookies to understand their shelf life and potential microbial growth.

Cost Comparison: We calculated the cost per cookie for both types: 20g of sugar cookie versus 20g of stevia cookie. We acknowledged the rising demand for healthier alternatives, but also wanted to consider the cost-effectiveness of Stevia cookies.

Sensory Analysis: Our team conducted sensory tests over three days. We assessed attributes such as taste, aroma, appearance, and overall preference. Stevia cookies were evaluated alongside sugar cookies to understand consumer preferences.

Statistical Data Analysis: We used a statistical software called SPSS to analyse the collected data. By applying appropriate statistical tests, we drew meaningful conclusions regarding the sensory attributes and overall acceptance of stevia cookies.

Arthur and Merlin: Through Age and The Ages

Laura Purcell, University of Limerick

Abstract

Thomas Malory's Le Morte Darthur (c. 1470) has served as a significant inspiration for the many adaptations of Arthurian literature, cinema and art from the Middle Ages to modernity. The stability of the characters Arthur and Merlin in these various adaptations has also remained strong through the centuries. This dissertation examines the relationship between these two men in three pivotal scenes in the common narrative of Arthurian legend. It will also examine the changes made to the narrative when considering the creation process as well as the role the audience plays in the interpretation of said narrative. By using adaptations from the fifteenth, nineteenth, twentieth and twenty-first centuries we can conclude that Arthur and Merlin's relevance adapts to the changing times and audiences, which allows the common narrative to be recognisable in each adaptation.

Bilingual Literary Texts in Translation - Spanish and Galician to English: The Challenges of the Foreignization Approach in Carlos Montero's 'El desorden que dejas'

Brian Ronayne, University of Limerick

Abstract

Literary translation is a translation type which has been paid considerable attention by scholars given the abundant stylistic and linguistic idiosyncrasies of the target text author, the meanings of which must be transferred into the source language. Unique challenges arise when the text is bilingual, given that Spain has transformed from a prescriptive, monolingual state since the Transition to Democracy in the 1970s to a plurilingual state with four co-official languages. Most recently, in the July 2023 election, Prime Minister Pedro Sánchez vowed to have Galician, as well as the other co-official languages, recognised as official European Union working languages. Considering these facts, the primary translation challenge of this source text, El desorden que dejas (2016) by Carlos Montero, is multilingualism, given that its setting is a bilingual town in the province of Galicia with constant code-switching from Galician to Spanish and vice versa whilst culture-bound references to Galicia are plentiful.

Central to this study will be the benefits and limitations of Venuti's (2018) foreignization approach in bilingual texts, particularly the restrictions of his dichotomous approach to foreignizing translations and the decisions the translator must make. It will discuss this in the context of the 'Catch-22' (Grutman 2006) situation that translators find themselves in during their work for publishing houses. It will point to useful and/or alternative approaches that can be applied in bilingual textual contexts which are appearing to become the norm in an ever-

globalising world. This begs the question if, given the increasingly globalised world where readers and viewers alike enjoy international content thanks to the advent of widespread popularity of international books and series, new perspectives are needed on literary translation and the place of foreignization-domestication.

Key words: Spanish fiction in translation, bilingualism, foreignization-domestication theory.

The Troublesome P's: Investigating the relationship between academic procrastination and perfectionism among Irish college students – Do conscientiousness and achievement goal orientation play a role?

Sarah Ryan-Purcell, Mary Immaculate College

Abstract

Procrastination and perfectionism are two troublesome yet prevalent psychological tendencies in academic settings, negatively impacting academic performance, subjective wellbeing, and self-reported stress. The present study draws on temporal motivation theory and achievement goal theory to understand the relationship between these two variables and to determine whether achievement goal orientation plays a mediating role. Undergraduate students attending Irish higher level institutions (N = 200) completed an online questionnaire, providing self-report measures of perfectionism, achievement goal orientation, conscientiousness, and academic procrastination. The results support a multidimensional view of perfectionism as perfectionistic strivings (excessively high personal standards), perfectionistic concerns (concern over mistakes and doubts about actions), and a concern with precision, order, and organisation exhibit differential relationships with academic procrastination. A mediational analysis using PROCESS macro software revealed that the mastery approach goal orientation mediates the relationship between perfectionistic tendencies and academic procrastination. While perfectionistic strivings and concerns positively predict academic procrastination, mastery approach goals can help to reduce this effect. Furthermore, the mediation models in this study support the shift away from Baron and Kenny's (1986) causal steps approach to mediational analysis. The implications of this study for research and practice are discussed.

Exploring people with Substance Use Disorders (SUD) and their experiences with healthcare professionals: a review

Natasha Sheehy, University of Limerick

Abstract

Background
There has been extensive research done on substance abuse disorders (SUD) and the high rates of mortality and morbidity attached to these. However, there is a gap in the literature on

patients who abuse such substances and their experiences with healthcare professionals. Gaining an insight into the lived experiences of people with SUD with healthcare professionals will allow for a better quality of care and experiences of care for this marginalized population.

Aim
The review aims to explore the experiences of people with substance use disorders with healthcare professionals and how this affects their care.

Method
The review approach used for this research is a Focused Mapping Review and Synthesis (FMRS) as outlined by Bradbury-Jones et al. (2019). Eight articles (n=8) from six peer-reviewed journals (n=6) were identified via a search from January 2018- September 2023.

Findings
There were several key themes identified: stigma and discrimination from healthcare professionals leading to negative experiences and unwillingness to access care; service users wanting to be treated the same as other service users; under treatment of pain; and positive experiences with healthcare professionals.

Conclusion and Implications
The findings suggest an overall negative experience for people with SUD with healthcare professionals except for specialist addiction services and suggest a need for improved training and education of healthcare professionals. Services for this marginalized population also need to be augmented with the inclusion of trauma-informed care and harm-reduction strategies. Improving interactions between people with SUD and healthcare professionals will allow for an overall better relationship between professionals and patients, improve their access, reduce confrontation, and contribute to the development of care pathways for these vulnerable patients.

Reference:
Bradbury-Jones, C., Breckenridge, J.P., Clark, M.T., Herber, O.R., Jones, C. and Taylor, J. (2019) 'Advancing the science of literature reviewing in social research: the focused mapping review and synthesis', International Journal of Social Research Methodology, 22(5), 451-462, available: https://www.tandfonline.com/doi/full/10.1080/13645579.2019.1576328

Algorithmic Bias in Healthcare Tools: A Mixed-Methods Investigation

Marjia Siddik, Dublin City University

Abstract

The increasing reliance on algorithms and machine learning models within healthcare decision-making promises efficiency and data-driven insights. However, a critical concern lies in the potential for these algorithms to perpetuate or even amplify existing biases present in healthcare data. These biases can stem from historical inequities, incomplete datasets, or implicit assumptions embedded within model design. As a result, algorithmic bias risks exacerbating health disparities for marginalized populations.

This research investigates the prevalence and impact of algorithmic bias within healthcare tools. It employs a mixed-methods approach, combining a comprehensive literature review with in-depth case studies. The literature review analyzes existing research on algorithmic bias in healthcare, exploring its various forms and potential consequences. The case studies delve into specific healthcare applications, including risk assessment tools for disease prediction, heart disease diagnosis systems, and algorithms used for skin cancer detection.

Initial findings highlight the presence of biases related to race, ethnicity, socioeconomic status, and gender in several commonly used healthcare algorithms. These biases manifest in disparate outcomes, including underdiagnosis of certain conditions within minority groups, misclassification of symptoms, and unequal recommendations for treatment or interventions.

This research emphasizes the urgent need for rigorous evaluation of algorithmic bias within healthcare. It advocates for the development of bias mitigation strategies, increased transparency in algorithm development, and the inclusion of diverse stakeholders in the design process. The ultimate goal is to ensure that algorithmic tools in healthcare promote equity and improve outcomes for all patients, regardless of background.

Keywords: algorithmic bias, healthcare, machine learning, health disparities, equity

Stranded at the crossroads? Ulster Unionist mentalités and British party politics 1886-1969

Paul Stevens, University of Limerick

Abstract

The 1960s proved a pivotal decade for Ulster Unionism in both Northern Ireland and in the British body politic. The emergence of the Civil Rights Movement (CRM) provided a question for Northern Ireland Prime Minister Terence O'Neill - Could the Unionist dominated state be reformed to offer equal citizenship to the Catholic population? O'Neill's rhetoric was one of conciliation, however, his reforms were piecemeal and belated. It was only after the disturbances of October 5, 1968, and under pressure from the British government, that he decided to pursue genuine reforms. However, these did not include 'one man, one vote' which further alienated the minority community. O'Neill's proposals were, however, too much for recalcitrant Unionists who, relying on attitudes from the Home Rule crises of 1886 and 1912, thought they could ignore threats from the British Government and overthrow O'Neill. The third aspect was that of the British Government. Harold Wilson, although sympathetic to the Nationalist cause, and with the support of the opposition Conservative Party - something lacking in the 1886 and 1912 - refused to face down Unionist die-hards with his government's reserved powers. This presentation will analyse Ulster Unionist mentalités from the first Home Rule crises until O'Neill's resignation in 1969.

Healthcare professional's perceptions on the effect of risk management on childbirth: An integrative review

Khayla Timothy, University of Limerick

Abstract

Background: Risk management is an essential part of clinical governance which revolves around improving the safety and quality of care provided to women and their babies. However, there is a well-documented concern that risk management processes are exposing women to more intervention than is necessary in pregnancy and childbirth.

Aim of review: To evaluate healthcare professional's (HCPs) perceptions of the effect of risk management on pregnancy and childbirth.

Methods: A five-stage methodological framework was used to guide this review (Whittemore and Knafl 2005). A computer-assisted database search was conducted using CINAHL, EMBASE, MEDLINE (Pubmed), PsycINFO and Scopus, limited to publication from 2013-2023. Initially, 214 papers were retrieved and using a systematic process five papers met the inclusion criteria for this review.

Findings: Three themes were generated from the included studies. These were: (1) Influence of the model of care on HCP's perspectives of risk management; (2) Overall significance of risk management effect on childbirth and (3) How HCP's perceptions of risk management influence decision-making in pregnancy and childbirth.

Conclusion: The findings suggest that complex factors influence risk management in maternity care with the dominant model of care within the maternity arena having the most influence. This review has significant implications for practice in that risk management is affecting how all HCPs provide care. Risk management in itself has been considered to be an intervention, which unintentionally contributes to pathologising childbirth which is contrary to the philosophy of midwifery care and leads to unnecessary interventions. Further research is recommended to better understand perceptions of risk management in maternity care. Additionally, risk management guidelines should be generated for HCPs, with a focus on woman-centred individualised care as opposed to service-centred care with a change in nomenclature to safe management rather than risk management.

Neurodevelopmental implications of Carbamate Pesticide Exposure: A systematic review

Arany Umasuthan, University of Limerick

Abstract

Pesticide use has been increasingly recognized for their significant neurological impact on human health, raising global concerns. Current research explores consequences of exposure to organophosphates and carbamates on cognitive function and neurobehavioral changes in children. The challenge lies in comprehensively understanding both the combined effects of pesticides and their individual impacts, taking into account the duration of exposure and the developmental stage of the child. The aim of this article is to provide a cohesive report of the available evidence of the potential neurodevelopmental and neurobehavioural consequences of carbamate pesticides and fungicides. The data search engines used in this article include MEDLINE, EMBASE and CINAHL and further gray literature was also explored. Evidence of neurological deficits associated with exposure to carbamates and its subclasses are still expanding. The studies reviewed support the hypothesis that exposure to carbamates induce neurotoxic changes. Additional research is necessary for a comprehensive understanding of the individual effects associated with exposure to carbamate pesticides during critical developmental windows.

What are the effects of learning through music on the retention of English vocabulary?

Annemarie van Dongen, University of Limerick

Abstract

In the field of second language acquisition, the search for the best method to teach a second language is prevalent and ongoing. This Bachelor Thesis aims to explore the effects of using music for learning English vocabulary, aiming to decipher whether learning with songs enhances retention compared to learning without a melody. This thesis aims to measure and validate the efficiency of enjoyable learning experiences by using the song Happy by Pharell Williams to learn new vocabulary. Participants are split into two groups: one group sings terms and definitions of the song Happy, whereas the second group says these lyrics as if reading out a poem. The average scores of both groups will be calculated and analysed to see if music is indeed a valid factor in vocabulary learning.

Bereavement care provided within the maternity services during the Covid-19 pandemic: A focus mapping review and synthesis

Ashling Walsh, University of Limerick

Abstract

Background: Perinatal bereavement is defined as the experience of parents after the death of an infant due to miscarriage, stillbirth, neonatal death, or elective termination of pregnancy for fetal anomaly. Perinatal loss is a traumatic event for parents and the quality of care provided to parents by healthcare professionals (HCPs) can impact their grief process. Covid 19 was declared as a global pandemic in March 2020 (World Health Organisation 2023), which had significant consequences on bereavement services within maternity services.

Aim: To explore parents and health care professionals' experiences of perinatal bereavement care during the Covid-19 pandemic.

Methods: A focused mapping review and synthesis was used to identify papers which focused on perinatal bereavement care provided within maternity services during the Covid-19 pandemic. Articles meeting the criteria in relevant peer reviewed midwifery, obstetric and healthcare journals (n=5), published between 2020-2023 were descriptively analysed, providing a topography and synthesis of the key trends identified.

Findings: Of the fifteen articles published during the review period, five met the inclusion criteria, with two themes identified: maternity service reconfiguration due to Covid-19 restrictions and loneliness and anxiety inducing experiences among parents.

Conclusion: The maternity service reconfiguration due to Covid-19 restrictions significantly impacted on bereavement care within maternity services. Both HCPs and bereaved parents identified that safety precautions such as PPE as a barrier to compassionate and adequate bereavement care. The Covid-19 pandemic resulted in a second, uncontrollable event in bereaved parents' lives, and heightened feelings of loneliness and anxiety, linked to the exclusion of partners from maternity units. Consequently, national perinatal bereavement guidelines need to accentuate the importance of partner inclusion when providing care to women requiring isolation or barrier nursing. Bereavement training should be reinstated across maternity services and updated to include evidence gained from the Covid-19 pandemic.

From "La Nalgota" to "La Bichota": A Spanish-English Translation and Feminist Interpretation of Reggaeton Songs

Wiktoria Wojciechowska, University of Limerick

Abstract

This project aims to conduct a literal and feminist translation of four songs within the reggaeton genre and explore the cultural significance of the reggaeton genre through translation and feminist interpretation. Focusing on En La Cama, Quiero Bailar, Safaera and TQG as a varied case study, this project examines how the process of translation can highlight the impact of cultural contexts on source and target texts.

Various translation methods and techniques are used to achieve this, such as domestication, foreignization and cultural theories. The translation process strives for maintaining critical awareness to prevent post-colonial superiority ideologies from affecting the target text. It carefully examines how seemingly small decisions can have a significant impact on the meaning and potentially perpetuate ignorance.

Through the application of feminist translation techniques of footnotes and hijacking, the process of translation exposes how the music genre constructs gender identities that can be damaging to its listeners as it can perpetrate machismo and objectification of women.

This project contributes to ever-growing feminist discourse surrounding reggaeton, challenging sexist ideologies that feature within its culture and emphasises the potential of feminist translation strategies in empowering female narratives.

Keywords: reggaeton, translation, feminism, machismo

Posters

An audit of prescriptions of short-acting beta-agonist inhalers among asthma patients in an Irish GP setting

Eleanor Dawson, University of Limerick

Abstract

Introduction: Global Initiative for Asthma (GINA) 2023 guidelines1 stress that that short acting beta agonists (SABA) inhalers should not be prescribed more than three times a year in those with well controlled asthma. Over use of SABAs (<3 x 200 dose canister per year) is associated with an increased risk of severe exacerbations and dispensing of >12 SABA canisters is associated with increased risk of asthma related deaths. SABA treatment as a monotherapy for asthma is no longer recommended as safe practice. Airway inflammation and its risks are substantially reduced by using ICS (inhaled corticosteroids) as first line treatment. A quality improvement audit was identified as a priority to review general practice (GP) prescribing was in line with national guidelines.

Aim: The aim was to identify GP patients with asthma who had been prescribed >3 SABA inhalers in the preceding year and to investigate over prescription and use. Additionally, patients were highlighted for chronic disease management (CDM) review to optimise future management.

Methods: A search run in an Irish GP setting highlighted patients with a diagnosis of asthma and their prescriptions of SABA inhalers during the period 1st September 2022 to 31st August 2023. Data collected also included age, sex, smoking status, and enrolment in CDM. This audit did not require ethical approval.

Results: 229 patients were coded as having an asthma diagnosis, 84 were excluded due to duplication of patient details, deceased or no longer a registered patient. Data from 145 patients (mean age 42.5) were analysed. Most patients were male (53%), 59 (41%) had never smoked, 66 (46%) had unknown smoking status and 20 (14%) were active or former smokers.

62 (43%) patients with asthma were identified as being issued with > 3 SABAs in the preceding 12 months, no patient was prescribed more than 6.
79 (52%) patients were enrolled in CDM and had a review in the past year.
Several themes were highlighted in the review which included lack of monitoring of SABA prescriptions, absence of smoking status documentation and CDM enrolment.

Discussion: This is a working audit which aims to implement a system change by using medical software to flag excessive SABA prescriptions offering the opportunity to review and provide education on inhaler technique. Furthermore, the audit aims to improve GP management of patients with asthma in line with national guidelines. Following the implementation of necessary changes, a twelve-month implementation period would be required to re-audit.

Implementation of a Patient Portal at a large, public mental health specialty hospital

Madunisha Sivasritharan, University of Limerick

Abstract

Background: A patient portal is a web-based software application that offers patients a secure and convenient means of accessing their health information and medical records including self-assessments, appointment details, and lab results. This tool empowers patients with greater control and insights into their own care. While patient portals have demonstrated increasing benefits within primary healthcare, their integration and utilization in mental health settings remain limited. Objectives: This study aims to achieve two key objectives: 1) the implementation of a patient portal within an inpatient unit at a mental health hospital in Penetanguishene, Ontario, and subsequent observation of its execution; 2) the exploration of staff perceptions and attitudes towards the utilization of a patient portal in a mental health care context. Methods: Conducting seven focused interviews with staff members involved in the implementation of the patient portal, this study sought to comprehend their personal experiences with the portal and gather suggestions for future implementations. Additionally, a cross-sectional survey was distributed across inpatient and outpatient units to gain insights into staff members' general perceptions of the patient portal, its impact on their work, and patient care. Results: The implementation of the patient portal in the inpatient unit proved successful,

facilitating patient access to health information such as medication lists and lab results, alongside the ability to complete depression and anxiety screeners. Challenges emerged, including patients frequently forgetting usernames or passwords, possibly due to cognitive impairments. Survey results (n=63) revealed significant staff interest in acquiring more knowledge about the patient portal and its potential integration into their program units. Interviews and the survey underscored the benefits of the portal, including heightened patient autonomy and control over treatment plans, as well as direct and timely access to health information. However, concerns were expressed regarding patients' access to clinical notes through the portal, particularly due to the nuanced interpretation required for certain elements of mental health conditions. Clinicians' inclination to withhold certain details from clinical notes to maintain therapeutic relationships may lead to increased workloads due to meticulous note crafting, potentially hindering the care team's ability to assist clients effectively. Conclusion: In the realm of mental healthcare, patient portals possess the capacity to elevate patient care by furnishing patients with a more profound understanding of their diagnosis and the means to monitor their progress. Future implementations necessitate collaborative discussions with program units to ascertain the features to be made available on the portal, maximizing patient care while safeguarding therapeutic relationships.

Investigating The Relationships Between Time Spent on Social Media, Cyberbullying, and Cybervictimisation

Emma Hastings, University of Limerick

Abstract

Cyberbullying research has consistently shown that the frequency with which people utilise social media is a significant predictor of Cyberbullying and Cybervictimisation. The current study addresses this research further by investigating the relationships between time spent on specific social media platforms (Instagram, Snapchat, Tik Tok, and Facebook), Cyberbullying, and Cybervictimisation. We were also interested in examining on which platforms Cyberbullying and Cybervictimisation are most prevalent and which features of these platforms are used the most. We hypothesised that the use of each social media platform would correlate positively and significantly with more Cyberbullying and Cybervictimisation. Two hundred and twenty-six participants were recruited using convenience sampling. A cross-sectional study was conducted online. Participants completed surveys on social media use, Cyberbullying, and Cybervictimisation anonymously. The results showed that time spent on Instagram, Snapchat, and Tik Tok correlated significantly and positively with Cyberbullying and Cybervictimisation (although marginally for Snapchat and Cyberbullying). Time spent on Facebook revealed a non-significant positive association with Cyberbullying and Cybervictimisation.

When considering each platform's unique features, we consider why Cyberbullying and Cybervictimisation are more prevalent on some apps than others. Cyberbullying prevention and intervention initiatives should focus on how social media is used rather than how often it is utilised. This can help app developers create, test, and program new approaches to tackle cyberbullying to ensure a safer online environment.

Relationship between Self-Concept Clarity and The Awareness of Narrative Identity

Franciszek Rojecki, University of Limerick

Abstract

The way people perceive themself affects them and their surroundings deeply, it impacts their thoughts, judgements, emotions and behaviors. That's why it is important to understand what constitutes one's self image. In this study, we aim to better understand a relationship between two concepts: self-concept clarity and narrative identity. We believe that this study will expand findings done by current studies regarding both topics: self-concept clarity and awareness of narrative identity.

People who possess strong Self-Concept clarity better understand who they are, know their abilities as well as their weaknesses, thus making them better adjustable to the world surrounding them. Currently available research shows that high levels of self-concept clarity corresponds with lower levels of anxiety, neuroticism, depression and perceived stress.

Narrative identity is a self-made story about oneself that is used to understand the surrounding world and our role in it. The tale is based on how we perceive our autobiographical past as well as our expectations for the future; narrative is also changing over time. The narrative identity starts developing around adolescent years and matures with age.

The question that we are asking is: how ability to understand ourselves corresponds with awareness of narrative identity? The poster, based on findings of our study, aims to give an answer for that question.

The impact of zinc status and bioavailability in enterocytes as model for the gastrointestinal tract to understand gut-brain signaling in health and disease

Clara Vitense, University of Limerick

Abstract

In the past decades, the prevalence of autism spectrum disorders (ASD) in children has increased significantly. ASD are not only a challenge to families but also socio-economically. Interestingly, apart from their core behavioural symptoms, many individuals with ASD show symptoms associated with abnormalities in the gastrointestinal (GI) tract, such as leaky gut syndrome, inflammatory bowel diseases, and constipation/diarrhoea. Recently, the maternal zinc status has been proposed as ASD risk factor, contributing disruptions in central nervous system but also the GI system, including compromised gut lining integrity.

Here, the effect of different zinc supplements and concentrations on the growth of immortalized Colorectal Adenocarcinoma cells (CaCo-2) as model for the GI system was evaluated to investigate the impact of zinc status. To that end, fluorescent labelling of cells and high-resolution imaging was performed, to understand cell health and zinc uptake. The results showed that zinc supplementation is feasible using a broad range of concentrations and treatment durations, but too high concentrations of zinc can lead to toxicity and cell death.

The results will feed into further research to determine potentially beneficial effects using the optimal concentrations for zinc supplementation, and using more complex cell systems such as intestinal organoids. Furthermore, there is the prospect of developing nutritional supplements to support maternal zinc adequacy during pregnancy.

The Intersection of Cognitive Load Theory and Practical Demonstrations in the Wood Technology Classroom: An Action Research Study

Matilda Anderson, Atlantic Technological University Galway

Abstract

Cognitive load theory, developed by John Sweller, relates to the impact that instruction and presentation design may have on a student's working memory. The main aim of this study is to alleviate cognitive overload in a practical Wood Technology classroom. Using an action research methodology, this qualitative research explores a variety of aids and strategies that aim to increase students' memory retention and engagement with the learning of practical woodworking. This research was conducted by a final-year pre-service teacher of Wood Technology over 11 weeks of School Placement. The data is

gathered in a cyclical and reformative manner, utilising weekly action research critical reflection journals, observations by a professional teacher, and an expert interview, all of which are supplemented by and drawn from robust literary evidence. The data is analysed using the ATU-adapted model Braun & Clark's (2013) thematic analysis framework. Evidence from this research suggests that visual presentation, the number of key learnings presented in an instance, media input and later retrieval from memory, all impact a student's learning. However, the effectiveness is limited by student attention and motivation factors. Recommendations for further research include the creation of a flexible framework for teachers when giving practical demonstrations.

Keywords; action research; attention; Braun & Clarke; cognitive load theory; instructional design; John Sweller; motivation; practical demonstrations; psychomotor skill building; student memory; visual presentation; wood technology

A Critical Examination of Oracy in the Graphics Classroom: An Action Research Study

Cian Howley, Atlantic Technological University Galway

Abstract

Oracy may generally be regarded as the development and use of oral communication skills. It refers to the ability to successfully communicate using spoken language, which includes the capacity to engage in meaningful conversations, listen actively, speak clearly, and adapt one's communication style to suit different audiences and situations. This study pertains to oracy skills development in the subject Graphics in post-primary education in Ireland. There is limited literature in relation to oracy skills development in technical subjects at post-primary level. This study is addressing that gap, hence contributing to knowledge. The main aim of this study is to critically examine the effective promotion of oracy skills, in the Graphics classroom. The selected teaching strategies to enhance oracy skills development include peer teaching activities, inquiry- based learning poster presentations, and a 'circle of learning' discussion. The study employs a qualitative action research methodology, and its data analysis involves a thematic analysis approach, adapted from the Braun and Clarke model (2023). The three data gathering methods included in this study are: 1) journaling in the form of action research critical reflections, 2) teacher observations, and 3) one interview with a professional teacher, in a host placement school. The key findings of this study, which mirror the dominant themes that were generated in the study, are 1) the effectiveness of the three selected teaching strategies in promoting oracy in the classroom, 2) the importance of oracy training for teachers and students alike, and 3) the correlation between oracy development and student wellbeing. The study recommends more explicit training in oracy skills

development in initial teacher education nationally.