

The logo for the British Occupational Hygiene Society (BOHS) features the letters 'BOHS' in a bold, blue, sans-serif font. The letter 'O' is stylized with a white circle inside it.

British Occupational
Hygiene Society



IOHA



OCCUPATIONAL
HYGIENE SOCIETY
OF IRELAND

13th IOHA International Scientific Conference

Dublin, Ireland
June 2024

The Occupational Hygiene Society of Ireland (OHSI) and the British Occupational Hygiene Society (BOHS) are privileged to jointly host this conference and to contribute to its successful outcome.

The conference theme has been confirmed as - 'Protecting workers from health hazards: Advancing in this changing world'.

The conference aims to promote occupational hygiene and worker health protection by the minimisation of worker exposure to hazardous agents globally through plenary sessions, keynote lectures, parallel talks, workshops, poster presentations and

professional development as well as networking opportunities and social functions.

A strong Global media campaign will publicise the main causes of occupational disease throughout the conference.

More information including venue, dates and abstract submission arrangements will be announced very soon. Please mark your diaries for June 2024 in Dublin, Ireland!

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Application of virtual gamification in the training of workers in health and safety at work in Guatemala, El Salvador and Nicaragua

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Introduction

In the field of occupational health and safety (OHS), many control measures that are implemented to improve worker health and safety must be supported by administrative measures, induction programmes, training, information, and/or education. Since the start of the COVID-19 pandemic in 2020, social distancing, short interactions between people, and avoidance of meetings in poorly ventilated spaces were promoted to reduce risk of exposure to the virus. This introduced a need to innovate teaching/learning techniques aimed at workers, moving from face-to-face to virtual teaching platforms. During the Pandemic, OHS managers needed to consider the latest job trends: 1) work was done via the internet, 2) training became digital, 3) most of the attention, in the user's experience, was focused on the virtual, and 4) there was a video revolution in micro-learning and online gaming. Therefore, the implementation of digital gamification platforms was developed as a means to set a new trend of success in virtual training sessions in place of face-to-face training.

Gamification

Gamification is a learning technique that uses game mechanics in the educational-professional field to achieve better results – to absorb better knowledge, improve skills, or reward specific actions, among other goals.¹ The global trend of gamification applied at work shows that:

- 83% of workers feel more motivated when training is gamified
- 90% of workers feel more productive when using gamification
- 97% of workers older than 45 years consider that gamified activities improve the quality of their work
- 89% of workers say that gamified tasks make them more competitive

Ludification

Ludification is the concept that, when applying virtual gamification, it is essential to conduct the activities in a playful way.² Using special techniques, the game's own dynamic and elements, and leisure in recreational activities with the goal to enhance motivation, as well as to reinforce behaviour to problem-solve, can: improve productivity, help develop and clarify goals, and activate learning. When in a virtual session, one must entertain the audience to keep its attention.

Andragogy

Andragogy is the practice of teaching adult learners. As OSH training targets adults, it must adopt teaching techniques aimed at educating adults.³ Active, experiential learning based on collaboration, cooperation, and competition is important.

Application of virtual gamification

In virtual training, workers have various levels of knowledge about the use of digital devices, are of different ages, and have different cultures, customs, and professions or occupations. A company needs to create a gamification culture to unify these factors. Combining virtual gamification, ludification, and andragogy positively influences the training of workers in OSH.

In April 2020, this method began to be applied in some companies in Guatemala in Central America. Initial indicators showed less than 40% attendance and participation by workers. Adapting to change is not easy. By December 2021, progress with this innovation had improved, and virtual platforms were applied in companies in Guatemala, El Salvador, and Nicaragua. Surveys conducted after the sessions showed:

- > 90% attendance and participation
- > 97% satisfaction in the application of virtual gamified platforms
- > 95% of workers enjoyed competitive virtual gamified tasks

Introducing and innovating virtual training methods results in challenges, difficulties, and adversities. The following advice can help achieve the innovation and produce positive teaching and learning outcomes:

1. Academic competence and periodic training in gamification platform application updates should be sought; this field is evolving rapidly.
2. Prevention starts with top management. Involving the employer in the gamification application should be the first goal. Management must experience the use of the tool.
3. Start with the application of practical and easy-to-use digital platforms. Workers should learn gamification from the OSH instructor. When the workers gain confidence and experience, they can use complex platforms.
4. Find the platform that best suits the target group of workers. Sometimes, the use of a platform does not achieve the expected success.
5. Personalise the training session with the company's identity and with the OHS topic to be taught.
6. Many platforms allow one to analyse the results obtained after the execution, which is useful for continuous improvement in the application and measuring of indicators.
7. Limit sessions to 45 minutes; set session goals and focus directly on them.
8. The instructor should have fun and enjoy the application being used.

GLOBAL EXPOSURE MANAGER

It is not easy to achieve a culture of occupational risk prevention but, with this type of innovation, significant advances will surely be made in OSH management.

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AIHA Emerging Economies Microgrant Programme

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The American Industrial Hygiene Association (AIHA) prides itself on having a robust community of volunteers, altruistically minded and focused on helping communities worldwide to achieve worker health, safety, and wellbeing. In 2018, the AIHA Board of Directors formally requested that the AIHA International Affairs Committee form an Emerging Economies Microgrant Programme subcommittee. Its purpose is to provide a fair, structured, transparent, and consistent mechanism for funding education and research projects that promote occupational hygiene in economically developing nations. Reflective of the Association's vision, the AIHA Microgrants Programme promotes global occupational hygiene awareness and capacity to reduce the risk of injury, illness, and fatality to workers in nations with limited resources.

The importance of the Microgrant Programme reflects part of the [AIHA 2022–24 Strategic Plan](#) under the domain of Advancement and Dissemination of Knowledge. Earlier this year, the AIHA Board approved elevating the subcommittee to the status of a national-level advisory group, namely the [Emerging Economies Microgrant Advisory Group](#). This move ensures that there are no conflicts of interest amongst those reviewing funding proposals. The advisory group structure also helps provide better stability and means to track the organisational history of the programme, which is not done for a subcommittee.

The AIHA will soon announce the [open call](#) for microgrant applications. Occupational hygiene non-profit organisations from developing countries are encouraged to submit educational and research project proposals. The advisory group will review the submissions and recommend allocating funds according to various criteria, which include:

- Organisation eligibility: a preference for projects led by non-profit entities, such as charities, and non-government, academic, and philanthropic organisations. Corporations and individuals are not excluded from applying, but the benefits to the project recipients should outweigh the benefits to the individual or the company providing the services.
- A stand-alone project, addressing primary prevention, consistent with the AIHA's mission and strategic priorities. The project promotes occupational hygiene through education, research, training, and development.
- The proposed project potentially advances the development and promotion of the occupational hygiene profession. It supports



research and development efforts to solve occupational health problems and improve working conditions/environments. Capacity building is evident through education, research, training, and outreach.

- The project addresses known or potential worker health issues. It demonstrates research on hazardous workplace exposures, outcomes, and emerging problems of control methods to minimise associated workplace risks. It may address any emerging or ongoing occupational health and safety concerns.
- The support requested does not exceed US\$3 500. The project can achieve its goals with smaller overall budgets and still significantly impact regions of greatest need.
- The needs to make the project viable and successful are adequately described. The project is likely to achieve its stated objectives within the required project timeframe limits (one year from receiving funding).
- Sources of proposal support, technical assistance, and collaboration are described. The proposal illustrates how the project may fit into a larger picture of regional or host country development through other support and organisations.
- An ability to improve public and environmental health, and achieve results must be demonstrated. Feasibility and practicality must be evident. A project submission or sponsoring organisation can show past experience and success in goal-oriented tasks through prior AIHA microgrant programmes or other means.

Looking ahead, the advisory group intends to create a permanent fund to finance a greater number of projects over time. Individuals and companies are encouraged to contribute; they will be recognised on the microgrants webpage.

The AIHA is pleased to provide a funding mechanism that helps further awareness and provide critical training and research where needed most – to create healthier workplaces, worldwide. Please direct questions about this initiative to AIHA staff member, Gouhar Nayeem gnayneem@aiha.org.