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THE WEB-BASED LEARNING ENVIRONMENTS AFFET THE LEARNING OUTCOMES: WEBSITE DESIGN FOR THE INTERNATIONAL JOURNAL OF MEDICINE

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Aims and Objectives

- To describe the development and preliminary evaluation of a website design for the International Journal of Medicine (IJM)
- To access healthcare information to enhance evidence-based patient care and personal professional development
- To evaluate if the attitude and learning experience of using information technology would be more positive in the web-based learning environment

Design

- The Journal website was designed by the Editor in Chief, Professor Comfort Osonnaya in collaboration of the Editorial and Production Team of the Journal and in collaboration with the various organisations linked to the Journal.

- All production, editing, review, commissioning, legal and ethical issues, details of Editorial Board Members and other relevant information and links were included in the website

Methods

- The initial designed website would be tested and first evaluated by the Editorial and Production Team, together with a small sample of other potential users of the website (healthcare professionals and members of the public).

- The manuscript of the website book would also be available at the IJM Editorial Board Meeting for further comments from the Editorial Board Members.

Results (1)

- The web-based learning environments affect the learning outcomes differently according to the pedagogy (traditional instruction versus constructive), the design of website (linear versus hypertext), and the interaction possibilities provided by the learning platforms (interaction only with the learning materials versus interaction with peer review and the instructor).

Results (2)

- There would be a website in a designed learning environment with special learning and communication tools when using the Internet for medical education and practice purposes.

- The majority of the respondents indicated that the website met the users' requirements to a very good extent and the website promotes efficient information delivery to the healthcare professionals and students in research, medical practice and education.

Advantages

- being available 24 hours a day, seven days a week
- it is convenient to browse the website and check the information whenever they want [1]
- the website can also allow students and healthcare professionals to collect information and allows them to sign up and order journals and related products and services
- the need for administration is reduced [2]
- an on-line website which is quick, easy and inexpensive to modify [3]
- providing answers to frequently asked questions thus saving staff time
- improved communication by email which is professional and convenient [2]
- it is significantly better than leaving messages on answering machines [1]

Discussion (1)

- The study had a pre-/post-text control group design. The different learning styles for healthcare professionals and medical students can be generated in the following:
  - a didactic style where texts and tutorials were offered in a structured way
  - a problem-solving style, where the material was presented in the context of the case and the computer asked appropriate questions in a series of multiple-choice tests,
  - a free text style, which allowed the user to respond to open-ended questions by typing in natural language responses.

Discussion (2)

- The website environment was designed for healthcare professionals and medical students in two different forms:
  - Journal materials offered through conventional www-technology and by engaging in an e-mail discussion with an instructor for a non-interactive web-based learning, and
  - Journal materials offered using the web-based learning for self-direct learning as well as interactive forums with an instructor and peer review for a shared learning process.

Conclusions

- The more interactive computer-learning environment improved learning outcomes.
- Information technology (IT) is there to be used and website and electronic communication provide competitive advantage.
- Properly planned, designed and implemented website should pay for itself and providing a return on investment. Website provides convenience to the healthcare.

References

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- [3] Tierney W.M. Improving Clinical Decisions and Outcomes with information: a review. International Journal of Medical Informatics 2002; 65:1-8

Acknowledgement

- Association of Health Care Professionals (AHCP), the owners of the Journal
- International Medical Publishing Group (IMPG), the publisher of the Journal
- Lowcost Services Group (LSG)
- Infotex Internet Providers of Sussex,
- Typesetting, production, distribution, administrative and website coordinating Managers of the Journal.