**Designing 5-Minute eLearning that actually works for Busy Staff: The Take 5 story**

**Abstract**

**Introduction**

Educators have reported increasing difficulties with established modalities of education, including eLearning. Staff cited increasing work volume and being too time-poor for education. To address this a new five minute education format (Take 5) was developed.

**Methods**

A descriptive study was undertaken to evaluate interprofessional healthcare staffs’ assessment of a new concise online educational format.

**Results**

The Take 5 education format was developed and evaluated across six major hospitals over a 3.8 year period. To date, the Take 5 web page has received a total of 26,623 hits averaging of 19.3 visits per day. The Take 5 library consists of over 100 education subjects, which have been downloaded 45,611 times. Medication discrepancies (n= 1,326) and personal protective equipment (PPE) conservation (n=1,115) the most frequently downloaded topics.

Over 2,000 Take 5 evaluation surveys were received, with nursing and medicine having the highest survey participation. The majority (n=1,895; 94.4%) of staff rated the Take 5 education as having “good” to “high” quality content. Qualitative data showed that the Take 5 subjects were informative, easy to access and understand and helped to change clinical practice.

**Conclusion**

The concept of Take 5 education is not designed to replace formal education but to act as an adjunct for providing key education content that meets staffs’ demands. It provides immediacy of information, maintains quality evidence based content and directs the learner to more formal learning content and resources.

**Key Words**

Take 5, five-minute education, instructional design, online clinical education, continuing education, inter-professional education, eLearning.

This project was undertaken with approval from the Clinical Safety and Quality Governance Committee at XXXX Tertiary Hospital.

**Introduction**

Rapid utilisation of eLearning has occurred as it allows users to self-manage their education needs, obtain automatic feedback/assessment, is cost effective and allows for wide spread distribution (Stevanovic, Atanasijevic, Atanasijevic, Zhar, 2019; [Vaona](https://www.ncbi.nlm.nih.gov/pubmed/?term=Vaona%20A%5BAuthor%5D&cauthor=true&cauthor_uid=29355907), et al. 2018; Lewis, Cidon, Seto, Chen, Mahan, 2014; Dankbaar & de Jong, 2014). For many years, eLearning has been utilised for professional development and mandatory skills training of post-graduate nursing, medicine and allied health staff (Lewis, et al. 2014; Taveira-Gomes et al 2016; Brooks, et al. 2016).

A review of the literature identified a variety of problems associated with eLearning uptake, which includes content relevancy, length of time required to complete, insufficient work time to learn, lack of awareness that the eLearning module was available and poor instructional design (Stevanovic, et al. 2019; Kim, Kang, Kim, 2017; Rohwer, Motaze, Rehfuess, Young, 2017; Lewis, et al. 2014). These type of issues have been shown to greatly impact on eLearning engagement (Rohwer, et al. 2017; McNamara, Rafferty, & Fitzpatrick, 2016; Lewis, et al. 2014).

In recent years, educators at a major tertiary hospital in XXXXX reported increasing difficulties engaging the learner. Face-to-face education was failing to attract viable audiences, resulting in substantial numbers of staff missing key clinical, corporate and safety education (May, 2019). The difficulties with traditional modalities resulted in the need to offer clinical and mandatory skills education online to try and ensure staff learning continued (May, 2019).

**Aims:**

* To design an innovative education format to address the learning needs of interprofessional staff.
* To evaluate the new learning format with regard to usability, accessibility and satisfaction with resource content and delivery.

**Methods**

***Design***

A descriptive study was undertaken to evaluate interprofessional healthcare staffs’ assessment of concise online educational resources.

***Sample and Setting***

Interprofessional healthcare staff working in six tertiary and secondary hospitals across XX, XX were surveyed following their review of the Take Five resource.

**Intervention Development and Process**

***Identifying the Solution***

An appraisal of local online education at XXX showed that content was often invisible – hidden in an electronic labyrinth or was still considered too long by end users (May, 2019). Furthermore, Subramanian, (2017) acknowledged the shrinking attention span of the users, explaining that poor attention span is often accompanied by short, intermittent bursts of high audience attention.

Based on this premise, the Take 5 format was designed, and governing rules developed which included that:

1. Content should be concise, using no more than five education PowerPoint slides.

2. High quality evidence-based content had to be distilled into digestible portions. This meant including only core information with links to supporting resources for further information.

3. Content was subject to peer review, utilising existing clinical and education governance structures prior to publishing (Subramanian, 2017).

Development of Take 5 educational content was initially undertaken by the primary author based on organisational priority areas. However, with the rapid uptake of the Take 5 concept, it became necessary to coach and support clinical content experts to write and develop their own Take 5 education. Prior to publication all Take 5 subjects are subject to a peer review process to ensure the accuracy of information and the currency of evidence.

***Marketing the Solution***

The name Take 5 was chosen to increase the appeal, with the tagline: “*5-Minute education for busy people”* to assist with promotion. Marketing strategies favoured by the advertising industry formed the basis for the campaign to deliver Take 5 and utilised existing communication portals including intranet news feeds, organisation wide email, an electronic organisation wide newsletter and word of mouth. Brand identity was a critical factor, with in-house graphic artists designing the now recognisable Take 5 logo which featured prominently in all promotions (see Figure 1).

**Figure 1. Take 5 Logo**

***Education Accessibility***

To facilitate easy access of education by staff, the Take 5 content was accessed from the main page of the hospital intranet portal or via a smartphone application to accommodate the mobile end user enabling information to be accessible at the point of care.

To encourage inter-professional engagement, the Take 5 Library content was not categorised based on professional group. A non-clinical subject, *Difficult Conversations with Colleagues* was chosen as the launch topic in order to facilitate inter-professional ownership.

***Promotion Strategies***

To enhance uptake, the Take 5 education was promoted and launched in March 2017, as learning for busy people. Take 5 education began with only six subjects in the online library chosen to address specific organisational requirements and included:

* Difficult Conversations with Colleagues
* Managing Adverse Drug Reactions
* Goal Setting
* Freedom of Information
* Risk Assessment for Intravenous Cannulation
* Vancomycin Administration.

At regular intervals, a single Take 5 topic was promoted across the organisation via email to staff and publicised in the hospital’s electronic newsletter.

***Survey Tool***

Each Take 5 subject included an optional online 60 second multiple choice end-user evaluation consisting of five questions. Items included professional group, subject accessed, satisfaction with content, the chosen mode of delivery and opportunity to provide free text comments.

***Data Analysis***

Data have been analysed using descriptive statistics and thematic analysis using SPSS version 24.

**Results**

The results are presented in two sections. The first section shows data obtained from the intranet site while the second section presents data taken from the 2,001 Take 5 education evaluation surveys. Please note that data are presented using a multiple response format where the same person may have accessed the Take 5 subjects or site on more than one occasion.

***Online Data Analytics***

Results showed that in the first 18 months there were 14,079 visits to the Take 5 education site.

To date a total of 26,623 hits have been received with an average of 19.3 visits per day. Staff were shown to download 45,611 Take 5 education subjects. Eleven subjects were identified as the most frequently downloaded Take 5 education and accounted for 22.4% (n=10, 206) of downloads (see Table 1). Medication Discrepancies, PPE Conservation, Personal Safety and Difficult Conversations accounted for 10.1% (n=4,598) of all downloads.

**Table 1: Frequency of the Top Ten Take 5 Subjects Download by Staff**

***Take 5 Evaluation Results***

The majority of staff who complete the evaluation survey were nurses (n=1,307) followed by medical staff (n=215; See Figure 2). Other staff included project staff, technicians, managers, patient support staff).

**Figure 2: Frequency of Respondents who Submitted an Evaluation by Professional Group**

The ten Take 5 subjects listed in Table 2 accounted for 41.3% (n=827) of all evaluation received.

The Take 5 education on Vancomycin Administration (n=116) followed by Difficult Conversations with Colleagues (n=106) were the most frequently evaluated subjects.

**Table 2: Frequency of Top Ten Take 5 Subjects Based on Evaluation Responses**

Staff were asked to rate their satisfaction with the Take 5 education content that they reviewed.

Results showed that of the 2,001 evaluations completed, the majority (94.4%) of staff rated the Take 5 education as having good quality content (n=1,110; 55%) or high quality content (n=785; 39.2%; See Figure 3).

**Figure 3: Frequency of Respondents who Rated Take 5 Education Subjects**

Hospital staff were informed via email, hospital newsletter, SMS or by simply accessing the Take 5 Intranet page when a new Take 5 education subject was available. Findings showed that 95% (n=1,277) of staff were informed via email followed by accessing the Intranet page (n=619) with the smartphone app only being used by five people.

One evaluation item asked staff to provide comments regarding the Take 5 education they had reviewed. A total of 369 comments were received and were categorised into the following four themes ease of access, enabling practice change, additional information required or suggested new topics. Examples of comments are captured under each heading.

1. Ease of access and usability which allowed staff to quickly download and share Take 5 content.

“Concise, quick and very useful. I’m pregnant and will have the flu vaccine now [that I am] more reassured. Thanks for this information.” **Medicin**e – Take 5: Surviving the Flu Season.

“Clear information on penicillin allergy. Good to see inter-hospital collaboration.” **Pharmacy –** Penicillin Allergies.

“The Detecting Delirium topic was very helpful. It helps to quickly explain the needs of the patient.” **Patient Support Services** - Detecting Delirium.

1. Effective education that enabled practice change with staff stating they were provided with new knowledge, instruction on correct procedures or information that reinforced their knowledge and understanding.

“This has been one of the most informative and relevant Take 5’s to date! On the day of the Take 5 release our ward had two blood transfusion incidents (one blood wastage, and a transfusion reaction) both of which were not handled well. This information was implemented immediately by sharing the Take 5 at handover and by displaying some laminated pages for all staff to see. The information was essential and to the point which was valuable when delivered in such a concentrated session. Thank You!”

 **Nursing -** Patient Transfusion Reactions.

“It’s important not to just assume that all cognitive impairment is always due to dementia **Medicine** – Take 5: Detecting Delirium.

1. Additional information was requested such as adding more specific content, using more photos or tailoring the information to different professions.

 “Useful general advice but would perhaps be more useful tailored to specific groups (e.g. one for nurses, clerical staff, doctors).” **Medicine** – Take 5: Time Management Tips

“The content was very good. However, I feel that an image of the stages of pressure injury would have been beneficial.” **Nursing** – Take 5: Pressure Injury Stickers

1. New topics for future Take 5 education were also identified by staff and included topics such as understanding depression or anxiety, professional conduct, discharge lounge access, new IV pump management etc.

“Understanding depression or mood disorders is needed.” **Nursing** – Take 5: Understanding anxiety disorders

“A topic [that] would be suited for the Take 5 format is professional conduct, accountability and responsibility by senior staff.” **Nursing** – Take 5: Difficult Conversations with Colleagues

**Discussion**

The Take 5 education concept has been found to be quick and useful model for the delivery of education, which has now been adopted by all six participating hospitals. There are several factors that have contributed to the successful uptake of the Take 5 concept. Firstly, accepting staff criticism of existing online learning and interpreting this as an opportunity to improve was critical for the development of the Take 5 concept. This understanding led to the development of a sustainable, voluntary eLearning model, which allowed educators to connect and deliver education content to time poor staff in a new delivery format.

When trying to identify an alternative educational engagement strategy, an online UK education site was found that utilised the concept of short, concise eLearning (Garside, Fisher, Blundell, & Gordon, 2018). This site championed clinical subjects called ‘Mini GEMs’ promoting Geriatric Medicine subjects which were uploaded to YouTube. Mini Gems also offered distilled PowerPoint content limited to approximately 5 minutes. Accessible. The “Mini GEMs” were accessed via YouTube and provided global reach to both health professionals and the general public. The “Mini GEMs” education has achieved over 10,000 voluntary views over an 18-month period (Garside, et al, 2018). While, the Take 5 site was shown to receive a higher volume of 14,079 visits for this same period it should be noted that the Take 5 subject area is much broader than the “Mini Gems” which focussed only on geriatric medicine.

Secondly, the imaginative solution of this educational product was shown to resonate with our staff, as evidenced by their visits and downloads from the Take 5 site but also in their evaluation comments. This coupled with a strong promotional campaign ensured that staff were made aware of the 5-minute learning format. This is an important point as it encourages educators to be more proactive in promoting educational opportunities and resources to achieve higher engagement.

A third factor was ensuring that learners were willing and motivated to engage with online learning. We opted not to declare Take 5 as mandatory, instead focusing on providing content that end users requested, and ensuring the format met their needs. Allocating mandatory status alone will never improve poor educational uptake (Brooks et al, 2016). Theaudience will only engage willingly if the eLearning product is perceived as relevant, flexible, high quality and meeting their needs (Guiney, 2015). Interestingly, the uptake via the smartphone app for this sample was found to be negligible.

Like Garside et al., (2018), providing editorial support and coaching for emerging internal Take 5 authors and external education leads was found be an important component. This helped with the uptake of the Take 5 education and ensured that content quality was maintained. In addition, staff evaluations also included suggestions for new Take 5 subjects. These requests were then sent to content experts who were invited to provide Take 5 education, thus addressing staffs’ needs.

Finally, when local external organisations learnt of the Take 5 concept they requested access and assistance in implementing this education format across their hospital sites. The Take 5 education team willing shared all aspect of the model including the logo, templates and subject content that was already developed. Sharing eliminated competition, and fostered active collaboration, leading to four additional hospitals and the State Department of Health developing new content, available to all via linked Take 5 online libraries. The Take 5 library was further expanded nationally and internationally with requests accepted from eastern states hospitals as well New Zealand hospitals (Zaman, Broggi, King, Hunter, Meads, Mortiboy, 2018; Paull, 2017)

**Conclusion**

The concept of Take 5 education is not designed to replace formal education but to act as an adjunct for providing key education content that meets staffs’ demands. It provides immediacy of information, maintains quality evidence based content and directs the learner to more formal learning content and resources.

 **Lessons for Practice**

* Time-poor staff can still create short periods of intense attention.
* 5-minute education can deliver high quality content.
* Design the solution tailored to the needs of the target audience.
* Making Take 5 easy to find was critical to success.
* Share the concept: The more we gave Take 5 away, the stronger it became.

 **Competing Interests:** None identified.

2603 words

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**Figure 1. Take 5 Logo**



**Table 1: Frequency of the Top Ten Take 5 Subjects Download by Staff**

|  |  |  |
| --- | --- | --- |
| **Topic** | **(n)** | **%** |
| 1. Medication Discrepancies
 | 1,326 | 2.9 |
| 1. Conserving PPE Supplies
 | 1,150 | 2.5 |
| 1. Personal Safety
 | 1,111 | 2.4 |
| 1. Difficult Conversations
 | 1,011 | 2.2 |
| 1. Managing Drug Reactions
 |  916 | 2.0 |
| 1. Goal Setting
 |  864 | 1.9 |
| 1. Understanding Anxiety Disorders
 |  859 | 1.9 |
|  Code Blue (MET) |  859 | 1.9 |
| 1. IV Cannula Risk Assessment
 |  727 | 1.6 |
| 1. Code Black (violence and aggression)
 |  702 | 1.5 |
| 1. Poor Clinical Documentation
 |  681 | 1.5 |
| TOTAL  |  10,206 |  22.4 |

**Figure 2: Frequency of Respondents who Submitted an Evaluation by Professional Group**

**Table 2: Frequency of Top Ten Take 5 Subjects Based on Evaluation Responses**

|  |  |  |
| --- | --- | --- |
| **Topic** | **(n)** | **%** |
| 1. Vancomycin
 | 116 | 5.8 |
| 1. Difficult Conversations
 | 106 | 5.3 |
| 1. Personal Safety
 |  98 | 4.9 |
| 1. Code Blue (MET)
 |  94 | 4.7 |
| 1. Managing Drug Reactions
 |  91 | 4.5 |
| 1. Understanding Anxiety Disorders
 | 88 | 4.4 |
| 1. Detecting Delirium
 | 67 | 3.3 |
| 1. IV Cannula Risk Assessment
 | 57 | 2.8 |
| 1. CPAP BiPAP Patient Assessment
 | 55 | 2.7 |
| 1. Needle Stick Injury
 | 55 | 2.7 |
| TOTAL  |  827 | 41.3 |

**Figure 3: Frequency of Respondents who Rated Take 5 Education Subjects**