From Paper to Pixels: Revolutionizing Nursing Education through a Digital Learning Management System

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Introduction

Traditional paper-based educational systems posed significant challenges in centralizing institutional education resources, tracking completions, and referencing back to education presentations, thereby inhibiting seamless access, collaboration, and completion.

Identification of the Problem

Our project aimed to improve nursing education by transitioning from paper-based educational items to implementing a digital Learning Management System (LMS) to enhance accessibility, completion, and tracking of all types of educational requirements.

Baseline Data

- **Satisfaction:** Only 24% of staff express satisfaction with paper education format
- **Timeliness:** A limited 41% manage to complete the education on time
- **User Experience:** Just 14% find it easy to locate after returning from time off
- **Digital Transition:** 36% show interest in a digital solution for all education items
- **Overwhelmed:** 22% feel overwhelmed by the amount of education materials overall
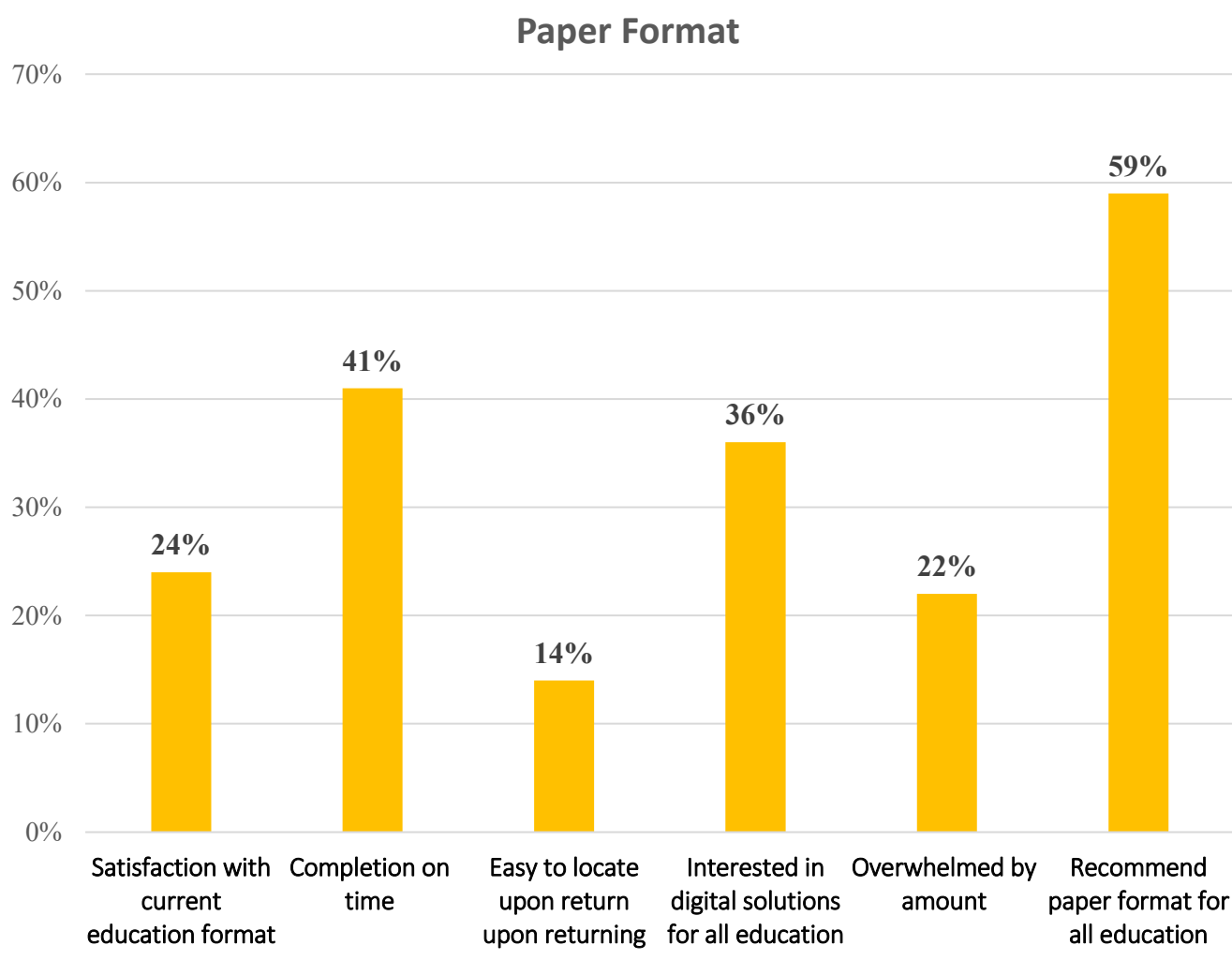- **Paper Preference:** only 59% would recommend the paper education format

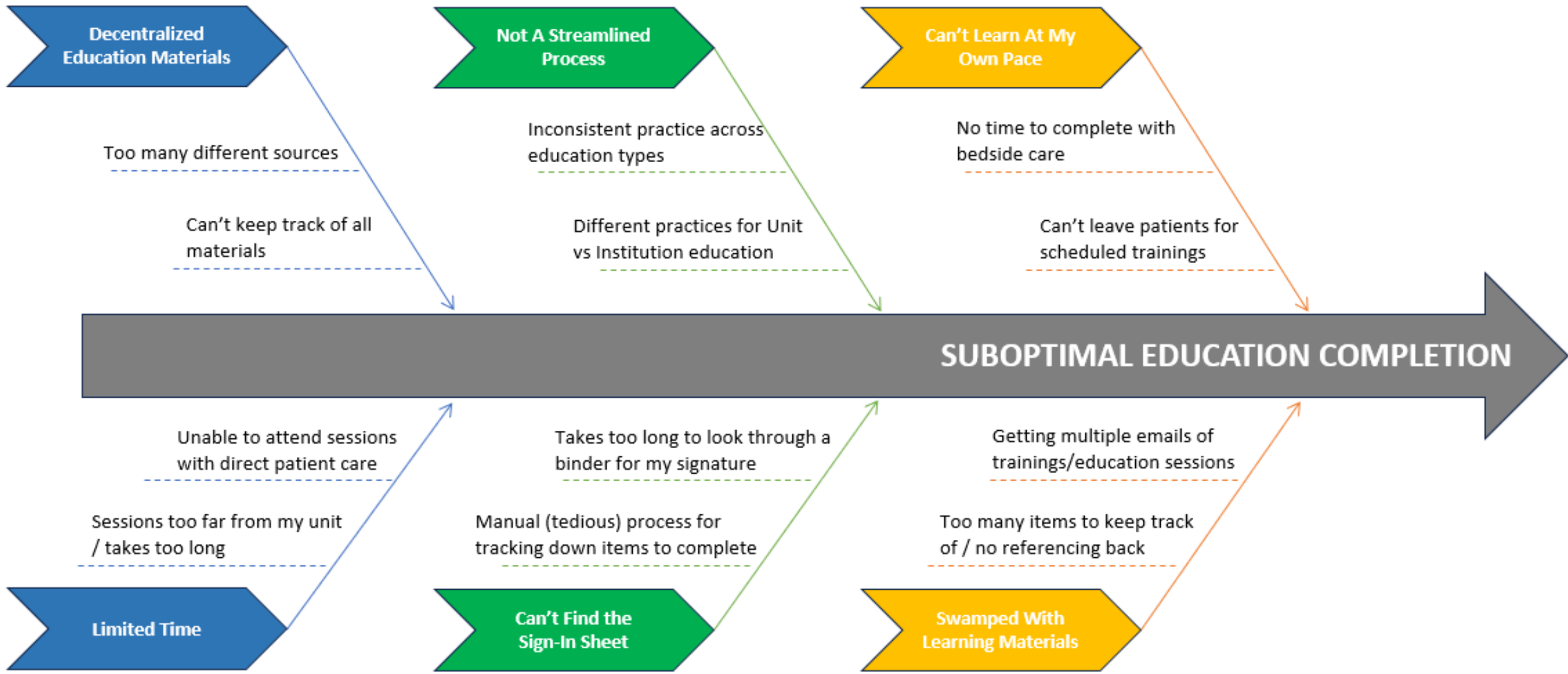Fig. 1 Baseline data from PACU nurses about education items in Paper Format

Fig. 2 Fishbone diagram of findings from PACU nursing staff complaints

QI Question/Purpose of the Study

Our primary objective was to examine the process and workflows of the education practices in the PACU areas for all our nurses, patient care technicians, and patient services coordinators. Our aim was to restructure the process and consolidate all education materials in to one comprehensive digital LMS – a centralized platform of all educational resources from multiple sites, applications, and in all formats to give staff easy access to each of the educational materials for easy reference and tracking.
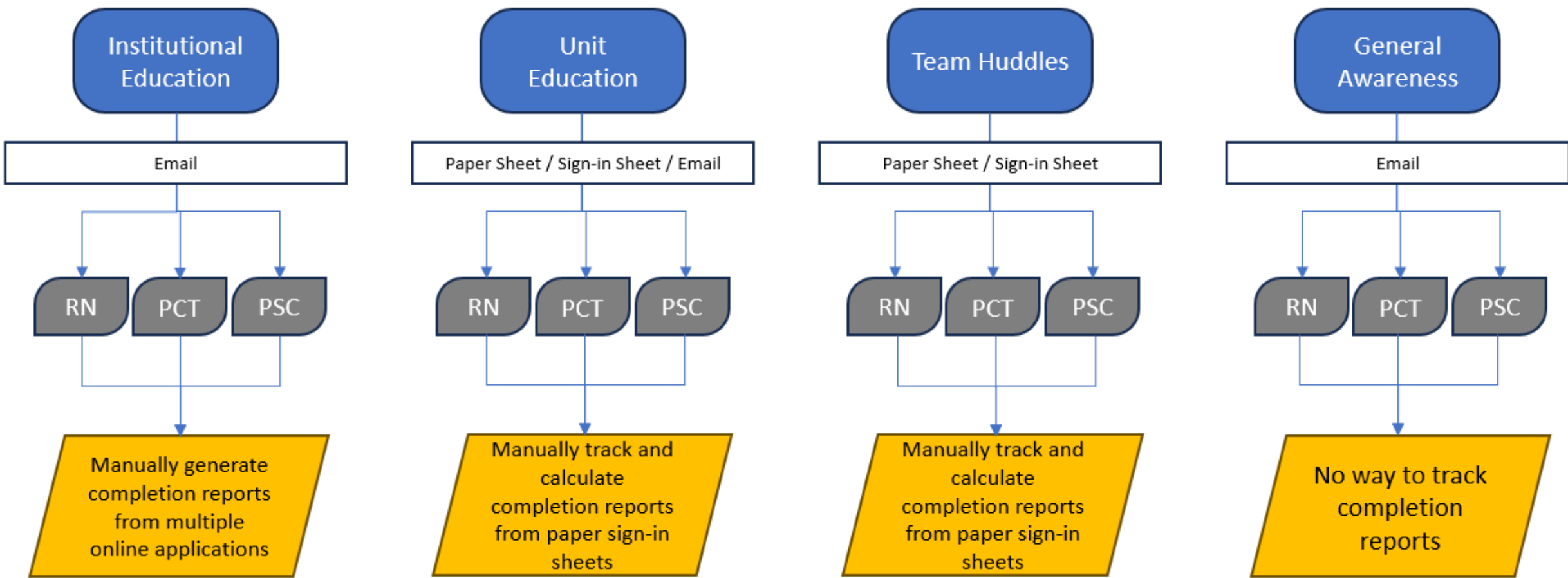

Fig. 3 Original Educational Workflows (RN-Nurse, PCT-Nursing Assistant, PSC-Unit Secretary)

Methods

We surveyed nurses on previous-existing paper-based educational items and how it affected their overall satisfaction. A fishbone diagram showed us areas of improvement for institutional and unit-based education items that all led to sub-optimal education completion. We collaborated with the PACU Leadership and Education Committee nursing teams to identify a suitable LMS platform and organize the educational content and process. We conducted group and individual training sessions to familiarize staff with the new digital system, to ensure a smooth transition. Continuous feedback loops were placed to enhance user experiences and evolving needs.

Results

We sought to improve the ability of staff to complete education items by their due dates by 15% but reached 21% improvement. There was also a significant jump in the ease of locating education items upon returning from time off by 35%. Also, the level of feeling overwhelmed was also reduced by 7%.
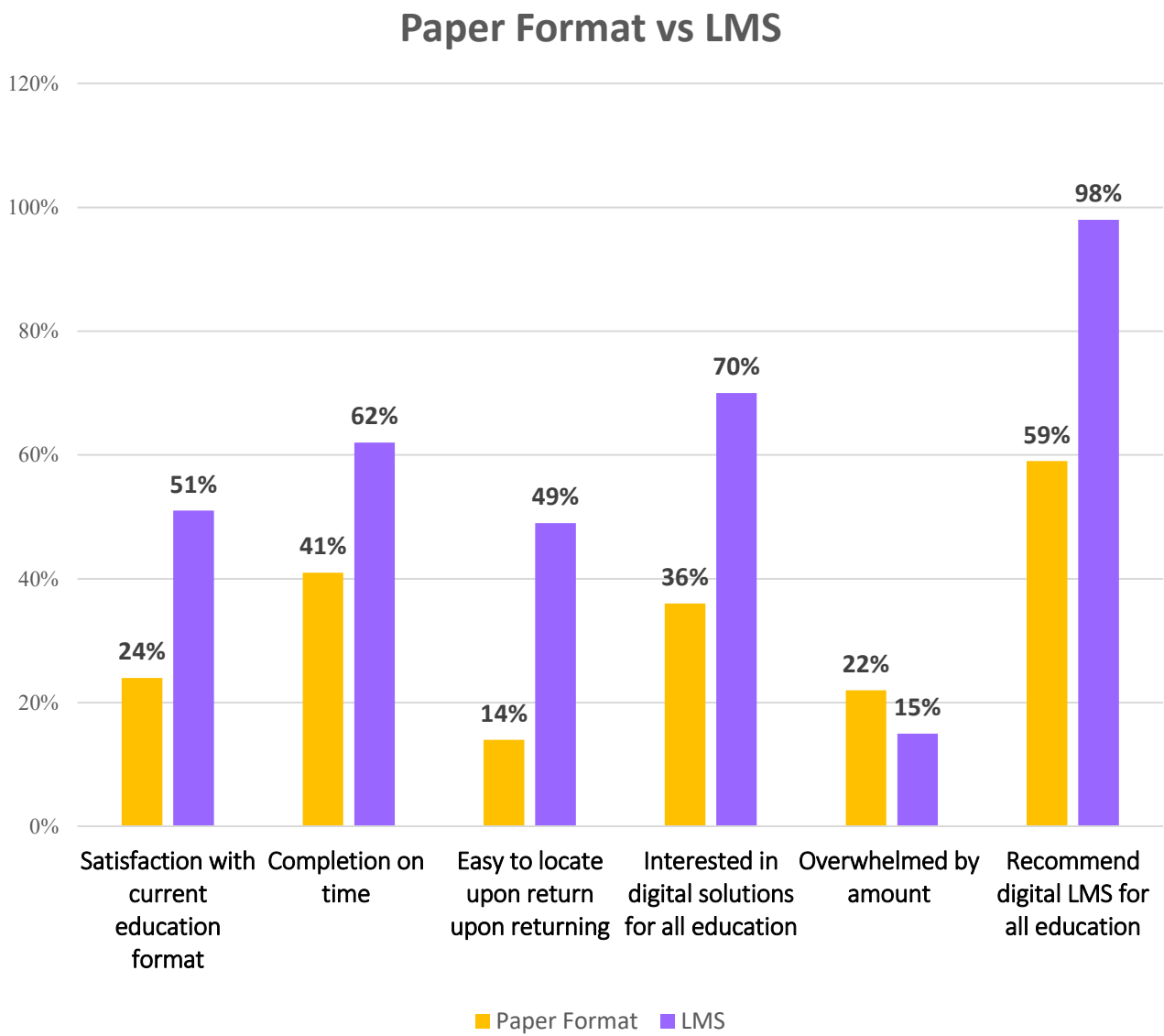

Fig. 4 Immediate Post-implementation of LMS Data as compared to Pre-Implementation Paper Format Data
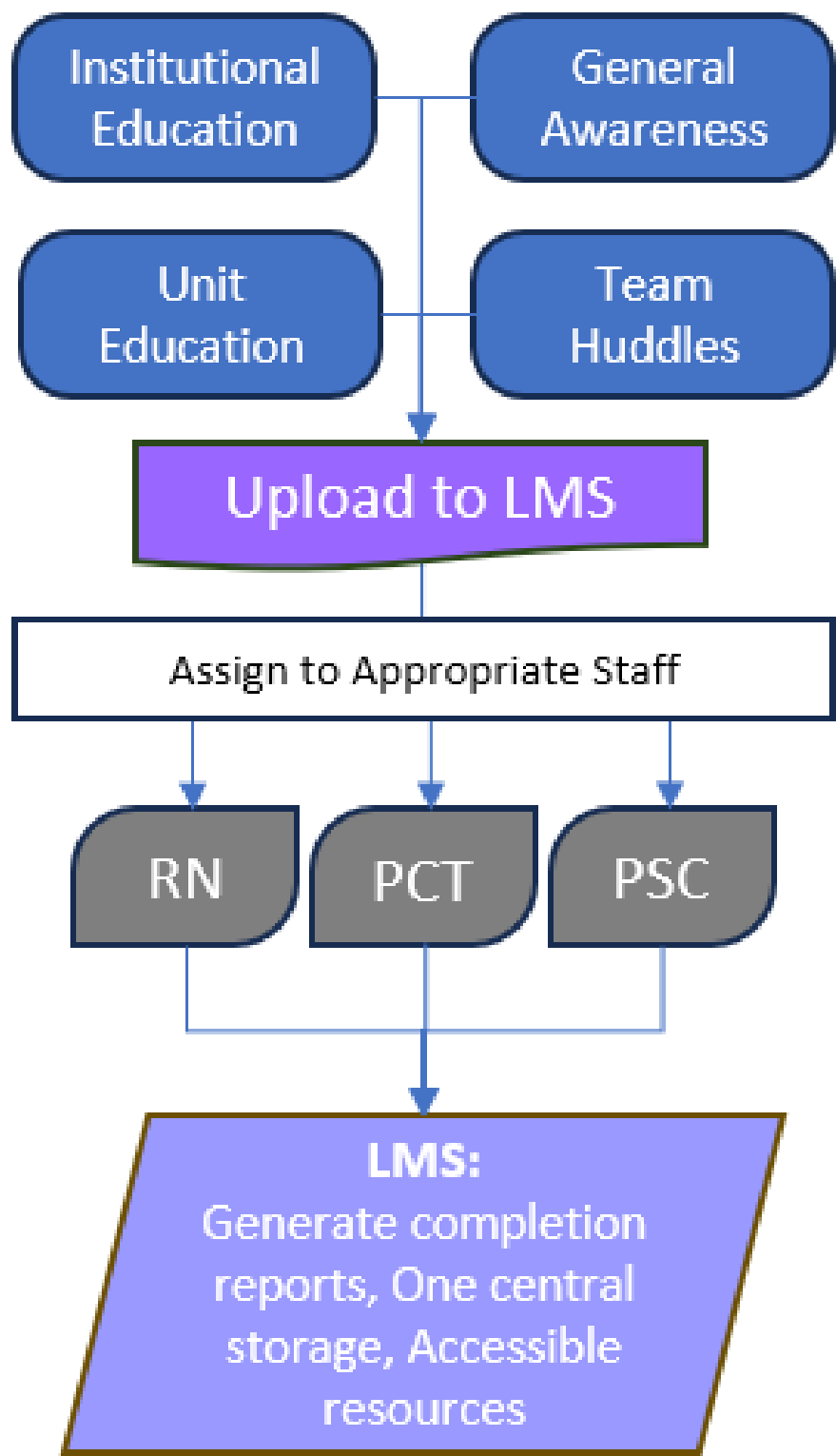

Fig. 5 New Re-designed Educational Workflow

Discussion

The successful implementation of the digital LMS resulted in a centralized hub for all nursing education resources, seamless access to assignments, and serves as a tracking system for members and leadership that can ultimately improve patient care outcomes.

Conclusion

The digital LMS has significantly reduced time spent searching for paper materials and increased engagement in learning activities, leading to improved efficiency and productivity.

Implications for Perianesthesia Nurses and Future Research

The digital LMS has foundationally created a way to leverage advanced technologies and foster a culture of continuous learning, which contributes to improved patient care, enhanced patient safety, and overall advancement of the perianesthesia nursing practice. The success of this transformation highlights the importance of embracing digital solutions to optimize education communication in healthcare.

Acknowledgements

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