BUSINESS EXPENSES SEARCH TOOL (B.E.S.T)

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ABSTRACT

Business Expenses Search Tool (BEST), an innovative teaching aid designed to simplify the intricate process of categorizing business expenses in the context of taxation. Addressing the challenge of numerous expenses and their varying tax treatments, BEST is a user-friendly, Excel-based tool equipped with a quick search function that allows users to instantly identify whether an expense is allowable, non-allowable, or qualifies for double deduction. This tool was conceptualized to overcome the inefficiencies of traditional methods, where students manually search through bulky textbooks, which are cumbersome to carry and impractical for on-the-go study. BEST offers a structured and interactive database where users can search for expenses using keywords. Each entry is classified and color-coded for easy reference, with explanations provided for deeper understanding. Its design ensures adaptability for updates as tax laws evolve. This tool's novelty lies in its ability to enhance the efficiency, accuracy, and comprehension of taxation computations, bridging the gap between theoretical learning and practical application. By significantly reducing cognitive load, students can focus on critical problem-solving skills, ultimately improving their academic performance and readiness for real-world scenarios. The benefits of BEST extend beyond education, offering commercial potential as a quick-reference resource for tax professionals and small business owners. It embodies a practical approach to leveraging technology in education, promoting a more engaging and effective learning experience. In conclusion, BEST addresses a critical pedagogical need in taxation education by combining functionality, accessibility, and innovation, making it an indispensable tool for both students and educators in the pursuit of excellence in the field of taxation.

KEYWORDS: *business expenses, efficiency, quick search, taxation, teaching aids*

PROBLEM AND OBJECTIVE

Traditional taxation courses still require students to open bulky textbooks and read through notes to discover the right strategy for each company's expenses. This scenario highlights the ongoing inefficiency that hinders students' knowledge of taxes. Wagner et al., (2022) argue that manual searches are too static and time-consuming, and they propose replacing them with review tools that support continuous and dynamic information discovery and synthesis.

The second challenges is the high cognitive load caused by the volume and complexities of tax legislation that students must memorise. According to Cognitive Load Theory (CLT), learning becomes unstable when the number of interacting information fragments (known as "element interactivity") surpasses the limited capacity of working memory (Sweller, 1988). Each legislative threshold rule, exemption, or double deduction represents a distinct element that must be integrated with others to accomplish accurate classification; hence, categorising business expenses in taxes is a high-element interaction problem that may rapidly overflow students' working memory.

To address these interdependent challenges, the Business expenses Search Tool (BEST) embeds a colour-coded rapid search database in Excel, providing immediate and accurate business expenditure classifications with a few clicks instead of lengthy page flipping. The main objective is to simplify and speed up the expense classification process for tax purposes by combining keyword filters, colour signals, and brief explanatory notes into a single interface; this design reduces errors, improves calculation efficiency, and allows for seamless legislative updates, ensuring the tool remains relevant for students, lecturers, and practitioners.

The second objective is to improve learning by reducing cognitive burden for students and encouraging deeper analytical involvement. BEST frees up working memory resources by delegating memorisation rule retrieval to a tool, allowing students to concentrate on comprehending business situations, evaluating tax implications and improving their professional competencies. For example, Mulle (2023) demonstrates that when first-year college students learn data management using spreadsheet tools related to real-world situations, their unnecessary cognitive load drops dramatically, and their overall performance increases from "good" to "excellent" on post-tests.

DESIGN DESCRIPTION

The Business Expenses Search Tool (BEST) is an Excel-based tool that simplifies the process of categorising business expenses for Malaysian tax purposes. At its foundation, the spreadsheet contains a structured database of expense items that can be searched using any keyword entered a single search bar; results display instantaneously, with each expense labelled Allowed, Not Allowed, or Double Deduction. Colour signals such as green for allowable, red for non-allowable and amber for double deductions, provide instant visual clues, while the notes column contains concise explanations in clear language that connect each item to the appropriate tax legislation.

BEST initially was created for accounting and taxation students at the diploma, degree, and master's levels, yet it also serves educators who prefer dependable classroom demonstrations and practitioners or small company owners who require rapid references during real tax work. Its unique advantages stem from the combination of Excel familiarity with a search engine-like interface: users proceed from page turning to actions, and from memorising data to problem solving. BEST converts a cognitively demanding subject into an interactive, student-centered learning experience that is constantly updated as tax rules change.

VISUALS

Figure 1 displays the BEST interface featuring a quick-search bar, colour-coded categories, and built-in explanations. The visual style is anchored by a high-contrast banner, which has four geometric icons (B, E, S, and T) that form the tool's name and represent spreadsheet grid logic, highlighting Excel BEST's base. The keyword search box, located directly under the banner, directs users to a quick search for expenditure items. The status table shows explanations of expenses with traffic light status chips - green for Allowed, red for Not Allowed, and amber for Double Deduction, along with brief notes referencing applicable tax rules to ensure instant understanding. The call-out labels highlight the quick search feature, colour-coded categorisation structures, and integrated explanations, demonstrating how each visual aspect facilitates rapid and reliable learning. The presentation of a single-frame search bar and tiered results conveys the entire workflow to search, classify, and validate, which immediately, underscoring BEST's promise of clarity and reducing cognitive load.

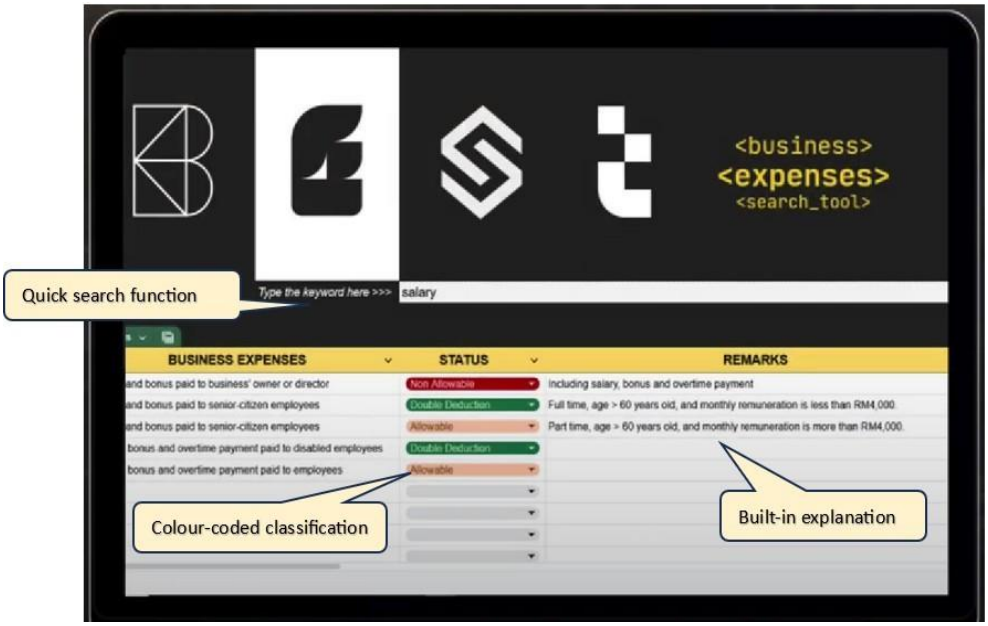

Figure 1: BEST interface.

NOVELTY AND UNIQUENESS

BEST is unique because it converts static and text-heavy subjects into an interactive experience provided natively in a tool that students are already familiar with—Microsoft Excel—without the need for additional plugins or internet connectivity. Kelly et al. (2023) revealed that an integrated learning strategy, in which financial accounting and Excel are taught concurrently, greatly increases students' confidence and perceived proficiency with the tool while reinforcing accounting principles.

Unlike standard spreadsheet templates or PDF checklists that simply list regulations, BEST functions as a form of search engine: a single phrase quickly shows the right tax treatment, which is reinforced by traffic light colours and clear legal notes. The combination of real-time search, visual signals, and embedded explanations reduces the need to memorize or read through lengthy texts, which is not supported by current teaching aids. Weathers & Swain (2024) demonstrate that incorporating direct instructional assistance in Excel greatly lowers students' dependence on memorising formulas or studying thick textbooks. The database is totally adaptable, allowing instructors to add or amend information when legislation changes, guaranteeing that the resource remains updated.

BENEFITS TO MANKIND

BEST reduces cognitive strain and frees up time for deeper learning by transforming hours of page-turning into a few seconds of guided search, improving both students' academic well-being and lecturers' teaching efficiency. Its original Excel version is paperless, which minimises dependence on printed tax instructions, saving money and waste. Colour-coded straightforward language lowers the possibility of misclassification and fines, enabling fair tax compliance among micro-entrepreneurs and community accountants. In a nutshell, BEST fosters educational fairness, professional confidence, and environmental sustainability via a single, easily available tool.

COMMERCIAL POTENTIAL

BEST serves an expansive and underserved market that includes universities, professional training centres, and Malaysia's SME sector. Because it runs on common Excel without any add-ons, distribution costs are modest, and user friction is low. The tiered business strategy (free basic files for students, site licensing for institutions, and yearly update subscriptions for accounting businesses) creates recurring income while maintaining a low entry price. Continuous database updates and localisation for new tax jurisdictions provide obvious scalability, and the tool's traffic light interface maintains an attractive competitive edge over more costly proprietary tax software.

CONCLUSION

BEST simplifies the difficult work of categorising business expenses into rapid searches and colour-coded instruction in common Excel, reducing students' cognitive burden and allowing instructors to teach more effectively. The keyword engine, traffic light coding, and updatable database reduce human search time from hours to seconds, lower the likelihood of mistakes, and keep up with new regulations. In the future, this tool might be developed to include cloud synchronisation for automated regulatory changes, exporting findings to e-filing software, and customising the database for different tax countries.

REFERENCES

Kelly, O., Hall, T., & Connolly, C. (2023). Digital workplace skills: Designing the integrated learning of accounting and Microsoft Excel. Accounting, Finance & Governance Review, 30. https://doi.org/10.52399/001c.77593

Mulle, R. L. (2023). Spreadsheets Application in Teaching Data Management in Mathematics of the Modern World: Effects on Students' Performance. Sprin Journal of Arts, Humanities and Social Sciences, 2(6), 11–18. https://doi.org/10.55559/sjahss.v2i06.117

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257-285. https://doi.org/10.1207/s15516709cog1202_4

Wagner, G., Lukyanenko, R., & Paré, G. (2021). Artificial intelligence and the conduct of literature reviews. Journal of Information Technology, 37(2), 209- 226. https://doi.org/10.1177/02683962211048201

Weathers, D., & Swain, S. D. (2024). A scaffolded learning approach to increasing student comfort with Microsoft Excel. Journal of Marketing Analytics, 12, 198–208. https://doi.org/10.1057/s41270-024-00306-1