

Testing Application Form Versions

Improving rates of accuracy and completion

Agency: Pennsylvania Department of Labor and Industry

Project Duration: December 2019–January 2020

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Context

Many businesses rely on information from consumers and clients to provide optimum service. User-friendly, attractive forms may help to ensure accuracy and completeness of information gathered.

Key Finding

The number of total errors decreased for those using the new form; however, the distribution of the form versions was not random. Results may reflect experience in using the original form as a function of user type.

*BetaGov provides ongoing training to agency personnel to become research-savvy “Pracademics” who can lead trials.

Why BetaGov Spark?

Background

Guidance for generating paper questionnaires addresses wording and item definition, layout, privacy, and question structure, but there is little on how to design optimal application forms. Forms should be well-structured, be easy to complete without much assistance, and collect accurate information. Extraneous information should not be collected as it increases application length and may deter completion. To increase readability and comprehension, forms should be attractive, and uncluttered.

Because the form itself may influence errors and completion rates, the Pennsylvania Department of Labor and Industry launched a pilot project to compare the error rates of a revised worker’s compensation insurance-application form with the current form. The aim was to determine whether the new form reduced form errors, specifically accuracy and completeness.

Design

This was a quasi-experimental pilot trial in which two versions of an application for worker’s compensation insurance were compared for accuracy and completeness. The feasibility of testing different versions of a form was also examined to determine if this pilot might be a useful testing model for revisions of other forms.

The form was revised by BetaGov team members who were unfamiliar with the application, on the premise that increasing the user-friendliness of the form for new applicants required fresh eyes seeing the form for the first time. The revised version included varied font size and bold/italic, enumerated directions, and re-organized content. Some items were eliminated or combined with others to improve the flow of the questions. The

revised form was posted on the agency’s website; however, existing clients and insurance agents could opt to use the previous version. All applications submitted during December 2019 and January 2020 were compared for number of errors, which included accuracy of responses and item completeness.

Lessons Learned

The total number of form errors decreased from 213 to 177, suggesting that the new form increased accuracy and completeness. This difference, however, was not statistically significant. Ten items had more errors in the old form, eight had more errors in the new form, and four had the same number of errors in both forms. The items with the most errors in the original form remained the items with the most in the revised form. Since both versions were available (the older version may still have been used by existing clients and insurance agents), it is possible that the differences in error rates relate to other unmeasured characteristics of respondents who selected one form over the other. For future research, randomization of application version to each applicant would provide more reliable results.

Next Steps

This pilot test showed that the study team was able to generate a revised form that passed initial review by other staff. This was important for determining the usefulness of this testing procedure for possible future form revisions. This pilot, however, also highlights the need to randomly distribute the forms to ensure that experience in completing the original form did not contribute to errors when using the revised form. It may be helpful to test a hybrid version of this application form, retaining the items with the fewest errors from both versions, combined with a plan for random distribution.

Sometimes a rigorous trial of an innovative idea just isn’t possible, but with a Spark project a practitioner can learn important information about the idea, the agency, and the sample. What’s more, a positive signal may inform a future randomized controlled trial and more definitive results. Spark projects meet Pracademics where they are comfortable—giving them the opportunity to learn about research and apply that learning to internal research projects.