

WORKERS COMPENSATION BOARD OF MANITOBA

**CRITERIA FOR PEER REVIEW OF  
SCIENTIFIC RESEARCH  
APPLICATIONS**

RESEARCH AND WORKPLACE INNOVATION PROGRAM

*Funding occupational health research, training and education  
and innovative workplace solutions*

Criteria	Descriptor
<b>DIMENSION 1</b>	<b>SCIENTIFIC MERIT</b>
<ul style="list-style-type: none"> <li>• The proposed study is well thought-out, original, clearly presented and embodies leading edge approaches and technology.</li> <li>• Relevant literature is critically appraised, evaluated and includes a thorough explanation of strengths, weaknesses or limitations of the existing literature and data.</li> <li>• The proposed study does not duplicate on-going and/or completed research by Canadian researchers and workers compensation boards.</li> <li>• The proposed study is relevant to workers compensation and provides a clear explanation of key issues that will be addressed.</li> <li>• Research objectives are clearly described and demonstrate the practical significance of the proposed research.</li> </ul>	<p><b>High to Outstanding: Score 3.0-4.0</b></p> <p>The proposed study is original, <b>exceptionally</b> well thought out and includes <b>very clear</b> explanations of key issues that will be addressed.</p> <p>The proposed study embodies <b>leading edge</b> approaches and technology demonstrating the <b>extremely high</b> caliber and excellence of the researcher/s.</p> <p>The literature review is <b>remarkably exhaustive</b> and includes a <b>very detailed scan</b> of on-going and completed Canadian research in this area of study.</p> <p>The proposed study <b>significantly adds to and does not duplicate</b> on-going and completed research by Canadian researchers and workers compensation boards.</p> <p>The proposed study is <b>extremely relevant</b> to workers compensation.</p> <p>Study results would <b>strongly impact</b> areas of concern important to workers compensation and <b>substantially advance</b> knowledge and understanding in this area.</p> <p><b>Adequate to Good: Score 2.0-2.9</b></p> <p>The proposed study is <b>original, well thought out</b> and includes explanations of key issues that will be addressed.</p> <p>The proposed study embodies <b>up-to-date</b> approaches and technology demonstrating the <b>high</b> caliber of the researcher/s.</p>

Criteria	Descriptor
	<p>The literature review is <b>thorough</b> and includes a <b>scan</b> of on-going and completed Canadian research in this area of study.</p> <p>The proposed study <b>adds to and does not duplicate</b> on-going and completed research by Canadian researchers and workers compensation boards.</p> <p>The proposed study is <b>relevant</b> to workers compensation.</p> <p>Study results would have <b>impact</b> on areas of concern important to workers compensation and <b>contribute</b> to the body of knowledge and understanding in this area.</p> <p><b>Needs Revision: Score 1.0-1.9</b></p> <p>The proposed study is <b>not thoroughly thought out</b> and <b>lacks clarity</b> in the explanations of key issues that will be addressed. The approaches and technology for the proposed study are <b>appropriate</b>.</p> <p>The literature review is <b>incomplete</b> and <b>does not include a scan</b> of on-going and completed Canadian research in this area of study or demonstrate knowledge of the area of study.</p> <p>The proposed study <b>minimally adds to and somewhat duplicates</b> on-going and completed research by Canadian researchers and workers compensation boards.</p> <p>The proposed study is <b>somewhat relevant</b> to workers compensation.</p> <p>Study results would have <b>limited impact</b> in areas of concern important to workers compensation or add to knowledge and understanding in this area.</p>

Criteria	Descriptor
	<p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The proposed study is <b>poorly thought out</b> and <b>seriously limited</b> in its explanation of key issues that the study will address.</p> <p>The literature review is <b>very poor, does not include a scan</b> of on-going and completed Canadian research in this area of study <b>and</b> demonstrates a lack of core knowledge in this area of study.</p> <p>The proposed study <b>does not add to and clearly duplicates</b> on-going and completed research by Canadian researchers and workers compensation boards.</p> <p>The proposed study is <b>not relevant</b> to workers compensation.</p> <p>It is <b>highly conceivable</b> that the results of the study would <b>not impact</b> areas of concern important to workers compensation.</p>
<b>DIMENSION 2</b>	<b>RESEARCH DESIGN AND METHODOLOGY</b>
<ul style="list-style-type: none"> <li>• The methodology and study disciplines are clearly described and parallel the objectives of the proposed study.</li> <li>• The proposed study presents a coherent and comprehensive set of activities that lead to the expected results/outcomes.</li> <li>• The data acquisition methods are practical and free of bias.</li> </ul>	<p><b>High to Outstanding: Score 3.0-4.0</b></p> <p>The research design and methodology is <b>extremely well grounded scientifically, very clearly</b> described and <b>aligns</b> with the objectives of the study.</p> <p>The research design is comprehensive and will <b>definitely</b> lead to the results planned for this study.</p> <p>The methods specified for data collection and analysis are <b>highly appropriate</b> and free of bias.</p> <p>The sampling will yield <b>very reliable and valid</b> results.</p> <p>Very potential ethical issues related to the study</p>

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<ul style="list-style-type: none"> <li>• The measures specified for the analysis of the data are appropriate.</li> <li>• The proposed study sample is well-defined and the numbers of subjects in the study are sufficient to answer the research question unambiguously.</li> <li>• The proposed study is ethically sound.</li> </ul>	<p>are identified and resolved.</p> <p><b>Adequate to Good: Score 2.0-2.9</b></p> <p>The research design and methodology is scientifically <b>acceptable and aligns</b> with the objectives of the study.</p> <p>The research design is <b>quite</b> comprehensive and will <b>generally</b> lead to the results planned for this study.</p> <p>The methods specified for data collection and analysis are <b>appropriate</b>.</p> <p>The sampling will yield <b>reliable and reasonably valid</b> results.</p> <p>Ethical issues related to the study are identified and resolved.</p> <p><b>Needs Revision: Score 1.0-1.9</b></p> <p>The research design and methodology <b>have limitations and should be revised and corrected</b> to align with the objectives of the study.</p> <p>The research design is <b>somewhat</b> comprehensive and <b>quite unlikely to</b> lead to the results planned for this study.</p> <p>The methods specified for data collection <b>are weak and limits accurate</b> or verifiable analysis.</p> <p>The sampling is <b>not sufficiently representative</b> of the study population and most likely affect the reliability and validity of the study results.</p> <p>The ethical issues related to the study are <b>not clearly</b> identified or resolved.</p> <p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The research design and methodology are <b>not scientifically acceptable</b> and <b>do not</b> synchronize</p>

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	<p>with the objectives of the study.</p> <p>The research design is <b>not</b> comprehensive and <b>very unlikely will</b> lead to the results planned for this study.</p> <p>The methods specified for data collection <b>are very weak</b> and <b>will not</b> permit accurate or verifiable analysis.</p> <p>The sampling is <b>not representative</b> of the study population and <b>will not yield</b> reliable results.</p> <p>The ethical issues related to the study are <b>not</b> identified or resolved.</p>
<b>DIMENSION 3</b>	<b>KNOWLEDGE TRANSFER AND EXCHANGE</b>
<ul style="list-style-type: none"> <li>• There is an integrated knowledge transfer and exchange (KTE) plan from the start of the project to its completion.</li> <li>• The KTE plan is grounded in proven KTE models, practices and strategies.</li> <li>• There is a strategy for stakeholder engagement from the start of the project to its completion.</li> <li>• Target Audiences for the project are identified and messaging outlined in anticipation of expected project outcomes.</li> <li>• Information dissemination strategies are described in the KTE plan.</li> </ul>	<p><b>High to Outstanding: 3.0-4.0</b></p> <p>The KTE plan is <b>very clearly</b> developed and identifies <b>very definite</b> activities that will be undertaken at <b>all key stages</b> of the research and knowledge creation process.</p> <p>The KTE plan is <b>very solidly grounded in proven</b> KTE models, practices and strategies.</p> <p>The KTE plan <b>engages</b> an <b>excellent array</b> of stakeholders and user-groups at <b>all key stages</b> of knowledge creation and dissemination of research findings.</p> <p>The KTE plan <b>very clearly</b> identifies target audiences and messaging and is an <b>excellent fit</b> with the purpose, goals and core study areas.</p> <p>There is an <b>excellent and detailed plan</b> for the dissemination of research findings at the end of the study.</p> <p><b>Adequate to Good: 2.0-2.9</b></p>

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	<p>The KTE plan proposed for the study is <b>clear</b> and <b>identifies</b> activities that will be undertaken at <b>key stages</b> of the research and knowledge creation process.</p> <p>The KTE plan is <b>grounded in proven</b> KTE models, practices and strategies.</p> <p>The KTE plan <b>engages</b> an <b>acceptable array</b> of users and user-groups at <b>each stage</b> of knowledge creation and dissemination of research findings.</p> <p>The KTE plan <b>clearly</b> identifies target audiences and messaging and is a <b>good fit</b> with the purpose, goals and core study areas.</p> <p>There is a <b>detailed plan</b> for the dissemination of research findings at the end of the study.</p> <p><b>Needs Revision: 1.0-1.9</b></p> <p>The KTE plan proposed for the study is <b>unclear and vague about</b> the activities that will be undertaken at key stages of the research and knowledge creation process.</p> <p>The KTE plan is <b>somewhat grounded in proven</b> KTE models, practices and strategies.</p> <p>The KTE plan <b>in a limited way engages</b> users and user-groups at the knowledge creation and dissemination of research findings.</p> <p>The KTE plan is <b>somewhat unclear</b> about identifying target audiences and messaging and is <b>vaguely connected</b> to the purpose, goals and</p>

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	<p>core study areas.</p> <p>The plan for the dissemination of research findings at the end of the study is <b>unclear and vague</b>.</p> <p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The KTE plan proposed for the study is <b>extremely unclear and vague about</b> the activities that will be undertaken at key stages of the research and knowledge creation process.</p> <p>The KTE plan is <b>very weakly grounded in proven</b> KTE models, practices and strategies.</p> <p>The KTE plan <b>in a very limited way engages</b> users and user-groups at the knowledge creation and dissemination of research findings.</p> <p>The KTE plan is <b>unclear</b> about identifying target audiences and messaging and there is <b>no connection</b> to the purpose, goals and core study areas.</p> <p>The plan for the dissemination of research findings at the end of the study is <b>extremely unclear and vague</b>.</p>
<b>DIMENSION 4</b>	<b>MANAGEMENT OF PROPOSED RESEARCH AND RISK ASSESSMENT</b>
<ul style="list-style-type: none"> <li>• There is a comprehensive and realistic work-plan that covers all phases to achieve research goals.</li> <li>• The plan’s proposed timeline is achievable as critical milestones are identified to ensure</li> </ul>	<p><b>High to Outstanding: 3.0-4.0</b></p> <p>The work-plan is <b>extremely well</b> developed, goals are clearly defined and critical milestones identified within a <b>very realistic</b> timeframe.</p> <p>It appears to be <b>extremely likely</b> that the study <b>will successfully achieve</b> its goals and be completed on time.</p>

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<p>completion within the specified time.</p> <ul style="list-style-type: none"> <li>• The estimated costs related to key research activities are specified.</li> <li>• The risk assessment identifies and describes potential risks, adequately assesses each risk and provides measures to mitigate each risk.</li> <li>• The proposed alternative approaches are practical and achievable and will not derail the study.</li> </ul>	<p>The proponents have <b>thoughtfully and critically considered every possible risk</b> to the project and propose <b>very realistic and practical solutions</b> to mitigate potential risks.</p> <p><b>Adequate to Good: 2.0-2.9</b></p> <p>The work-plan is <b>fairly well</b> developed, goals are defined and milestones identified within a <b>realistic</b> timeframe.</p> <p>It is <b>likely</b> that the study <b>will achieve</b> its goals and be completed within the proposed timeframe.</p> <p>The proponents have identified <b>some</b> potential obstacles and propose <b>workable alternatives</b> to mitigate potential risks.</p> <p><b>Needs Revision: 1.0-1.9</b></p> <p>The work-plan is <b>reasonably</b> developed but goals and key milestones are poorly defined. The time frame may not be realistic.</p> <p>It is <b>uncertain whether</b> the project will be completed within a realistic time frame.</p> <p>The proponents <b>do not demonstrate that they have given adequate consideration</b> to potential obstacles and solutions to mitigate risks.</p> <p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The work-plan is <b>vague and inadequate</b>. The proposed work-plan would need to be <b>reconsidered and redeveloped</b>.</p> <p>It is <b>unlikely</b> that the study will achieve its purposes or be completed within a realistic time frame.</p>

Criteria	Descriptor
	The researchers <b>have not undertaken</b> a risk assessment.
<b>DIMENSION 5</b>	<b>PROJECT BUDGET</b>
<ul style="list-style-type: none"> <li>• The project’s resource requirements are well thought out and thoroughly described with clear justification for each budget item.</li> </ul> <p><i>(Resources include human, physical, financial, and technological)</i></p> <ul style="list-style-type: none"> <li>• Administrative costs are reasonable and do not include blanket surcharges for institutional overheads.</li> <li>• There is no duplication or overlap in funding.</li> <li>• There is a clear link between budget line items and the study’s work-plan.</li> </ul>	<p><b>High to Outstanding: 3.0-4.0</b></p> <p>The budget justification is <b>thorough and very clear</b>. The overall budget is <b>within an acceptable range</b> for studies of this scope and type.</p> <p>Administrative costs are <b>very fair</b> and do not include blanket percentage administrative surcharges charged by academic institutions.</p> <p>Budget expenditures and the study’s milestones are <b>very closely linked</b>.</p> <p>There is <b>no duplication</b> of resources or funding from other sources.</p> <p><b>Adequate to Good: 2.0-2.9</b></p> <p>The budget justification is <b>complete and clear</b>. The overall budget is <b>somewhat higher or lower</b> than would normally be seen for studies of this scope and type.</p> <p>Administrative costs are <b>reasonably fair</b> and do not include blanket percentage administrative surcharges charged by academic institutions.</p> <p>Budget expenditures and the study’s milestones are <b>linked</b>.</p> <p>There is <b>no duplication</b> of resources or funding from other sources.</p> <p><b>Needs Revision: 1.0-1.9</b></p> <p>The budget justification is weak and incomplete. The overall budget is <b>much higher or lower</b> than would normally be seen for studies of this scope</p>

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	<p>and type.</p> <p>Administrative costs <b>and/or blanket administrative surcharges</b> charged by academic institutions are somewhat <b>higher than expected</b>.</p> <p>The link between budget expenditures and the study's milestones are <b>vague or undefined</b>.</p> <p><b>There may be some duplication</b> of resources or funding from other sources.</p> <p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The budget justification is <b>extremely weak</b> or missing. The overall budget is <b>unacceptably high or significantly lower</b> than would normally be seen for studies of this scope and type.</p> <p>Administrative costs <b>and/or blanket administrative surcharges</b> charged by academic institutions are <b>much higher than expected</b>.</p> <p>The link between budget expenditures and the study's milestones is <b>quite unclear</b>.</p> <p><b>It is very likely</b> that duplication of resources or funding from other sources may occur.</p>
<b>DIMENSION 6</b>	<b>EXPERTISE</b>
<ul style="list-style-type: none"> <li>• There is a clear fit in the knowledge, expertise and experience of the research team with the disciplines required for undertaking the proposed study.</li> <li>• The Principal Investigator (PI) has made significant contributions to research in this area and is capable of</li> </ul>	<p><b>High to Outstanding: 3.0-4.0</b></p> <p>There is an <b>excellent</b> representation of relevant disciplines.</p> <p>The PI is a <b>nationally or internationally-recognized leader in his or her field</b> and has <b>exceptional knowledge</b> in all areas of the study.</p> <p>The researchers have access to <b>first class facilities</b> and resources.</p> <p>Given their documented experience and</p>

Criteria	Descriptor
<p>coordinating and managing the proposed project.</p> <ul style="list-style-type: none"> <li>The team has sufficient access to resources and the scientific environment in which the work will be done will support the successful completion of the proposed study.</li> </ul>	<p>expertise, the reviewer is <b>highly confident</b> that the applicants can do the work proposed.</p> <p><b>Adequate to Good: 2.0-2.9</b></p> <p>There is an <b>adequate</b> representation of relevant disciplines.</p> <p>The PI is known to have a <b>strong background</b> in the discipline related to the proposed study and has undertaken <b>well-regarded</b> studies in this field.</p> <p>The researchers <b>have access to good</b> facilities and resources.</p> <p>Given their documented experience and expertise, the reviewer is <b>confident</b> that the applicants can do the work proposed.</p> <p><b>Needs Revision: 1.0-1.9</b></p> <p>There is an <b>inadequate</b> representation of relevant disciplines.</p> <p>The researchers have <b>limited knowledge</b> in the study area and have had <b>limited previous involvement</b> in research activities related to the current proposed study.</p> <p>The researchers' access to appropriate facilities and resources is limited.</p> <p>Given their documented experience and expertise, the reviewer is <b>not confident</b> about the capability and expertise of the applicants to do the work proposed.</p> <p><b>Seriously Flawed: 0.0-0.9</b></p> <p>The relevant disciplines are <b>poorly represented</b>.</p> <p>The researchers <b>do not have acceptable</b></p>

Criteria for Peer Review of Scientific Research Applications

Criteria	Descriptor
	<p><b>knowledge</b> in the study area with <b>little or no involvement</b> in research activities related to the current proposed study.</p> <p>There is <b>some</b> access to facilities and resources.</p> <p>Given their documented experience and expertise, the reviewer is <b>reasonably certain</b> that the applicants <b>do not have</b> the capability and expertise to do the work proposed.</p>