Core

IPU: Improving productivity using IT

This is the ability to plan, evaluate and improve procedures involving the use of IT tools and systems to improve the productivity and efficiency of tasks and activities.

A. A foundation user can plan and review their use of predefined or commonly used IT tools for activities that are straightforward or routine. As a result of reviewing their work, they will be able to identify and use automated methods or alternative ways of working to improve productivity. Any aspect that is unfamiliar will require support and advice from other people.

An activity will typically be ‘straightforward or routine’ because:
- the task or context will be familiar and involve few factors (for example, time available, audience needs, message, structure); and
- the techniques used will be familiar or commonly undertaken.

Examples of context: Using keyboard shortcuts for common tasks.

B. An intermediate user can plan and review their use of predefined or commonly used IT tools for activities that are at times non-routine or unfamiliar. As a result of reviewing their work, they will be able to devise solutions to use IT tools to improve productivity. Any aspect that is unfamiliar will require support and advice from other people.

An activity will typically be ‘non-routine or unfamiliar’ because:
- the task or context is likely to require some preparation, clarification or research (to separate the components and to identify what factors need to be considered, for example, time available, audience needs, accessibility of source, types of content, message and meaning) before an approach can be planned; and
- the techniques required will involve a number of steps and at times be non-routine or unfamiliar.

Examples of context: An improvement may be creating spreadsheets to automate price list updates in a sales or accounts business context using office software.

C. An advanced user can plan and review their use of predefined or commonly used IT tools for activities most of which are complex and non-routine. As a result of reviewing their work, they will be able to devise solutions in the use of IT tools in order to improve productivity. They will take considerable responsibility and autonomy, and be prepared to offer support and advice to others.

An activity will typically be ‘complex and non-routine’ because:
- the task or context is likely to require research, analysis and interpretation;
- the work may be undertaken by others; and
- the techniques required will be complex, and the selection process may involve analysis, research, identification and application.

Examples of context: An improvement may be adapting an off-the-shelf solution to create a bespoke database to manage customer relationships in a marketing context.
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| **IPU:A1** Plan the use of appropriate IT systems and software to meet requirements | A1.3 **Plan how to carry out the task** using IT to achieve the required purpose and outcome  
A1.5 Select IT systems and software applications as appropriate for the purpose | A1.1 Identify the **purpose for using IT**  
A1.2 Identify the methods, skills and resources required to complete the task successfully  
A1.4 Identify **reasons for choosing particular** IT systems and software applications for the task  
A1.6 Identify **any legal or local guidelines or constraints** that may affect the task or activity | **Purpose for using IT:** Who and what the information is for, when it must be finished, what information needs to be included, where it will be used (on screen, sent to others, printed)  
**Plan task:** What information sources are needed, how they will be found and evaluated, what application software will be used, what skills and resources are needed to complete the task successfully, requirements for content, structure and layout  
**Reasons for choosing IT:** Time, convenience, cost; benefits of IT or manual methods of preparing, processing and presenting the same information; own views on convenience and effectiveness at meeting needs, quality, accuracy; how IT can make tasks easier than other methods, streamline business processes, increase productivity  
**Legal or local guidelines or constraints:** May include data protection, copyright, software licensing, security; organisational house-style or brand guidelines |
| **IPU:A2** Use IT systems and software efficiently to complete planned tasks | A2.2 **Use automated routines** that aid efficient processing or presentation  
A2.3 Complete planned tasks using IT | A2.1 Identify automated routines to improve productivity | **Automated routines:** Short cuts, customised menus and tool bars, run pre-set macros, templates |
| **IPU:A3** Review the selection and use of IT tools to make sure that tasks are successful | A3.1 **Review outcomes** to make sure they meet the requirements of the task and are fit for purpose | A3.2 Decide whether the **IT tools selected** were appropriate for the task and purpose  
A3.3 Identify the **strengths and weaknesses** of the completed task  
A3.4 Identify ways to make further **improvements to work** | **Review outcomes:** Quality of information used, produce drafts, review against initial plans, check with intended audience  
**IT tools selection:** Time taken, convenience, cost, quality, accuracy  
**Strengths and weaknesses:** Format, layout, accuracy, clarity for audience  
**Improvements to work:** Correct mistakes, avoid affecting other people’s work, better ways of doing things, learning new techniques |
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| **IPU:B1** Plan, select and use appropriate IT systems and software for different purposes | B1.3 Plan how to carry out tasks using IT to achieve the required purpose and outcome  
B1.5 Select and use IT systems and software applications to complete planned tasks and produce effective outcomes | B1.1 Describe the purpose for using IT  
B1.2 Describe the methods, skills and resources required to complete the task successfully  
B1.4 Describe any factors that may affect the task  
B1.6 Describe how the purpose and outcomes have been met by the chosen IT systems and software applications  
B1.7 Describe any legal or local guidelines or constraints that may apply to the task or activity | **Purposes for using IT:** Who and what the information is for, when it must be finished, what information needs to be included, where it will be used (on screen, sent to others, printed)  
**Plan task:** What information sources are needed, how they will be found and evaluated, what application software will be used, what skills and resources are needed to complete the task successfully, requirements for content, structure and layout, priorities  
**Factors that may affect the task:** Access to information, steps that need to be taken in advance, availability of time, budget and resources; audience need  
**Reasons for choosing IT:** Time, convenience, cost; benefits of IT or manual methods of preparing, processing and presenting the same information; own views on convenience and effectiveness at meeting needs, quality, accuracy; how IT can make tasks easier than other methods, streamline business processes, increase productivity, any difficulties people have in using IT,  
**Legal or local guidelines or constraints:** May include data protection, copyright, software licensing; security; organisational house-style or brand guidelines |
| **IPU:B2** Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful | B2.1 Review ongoing use of IT tools and techniques and change the approach as needed  
B2.5 Review outcomes to make sure they match requirements and are fit for purpose | B2.2 Describe whether the IT tools selected were appropriate for the task and purpose  
B2.3 Assess the strengths and weaknesses of final work  
B2.4 Describe ways to make further improvements to work | **Review use of IT tools:** Gather information to help make judgements, analyse information about whether the IT tools and techniques are appropriate to the task and intended outcome  
**IT tools selection:** Time taken, convenience, cost, quality, accuracy, range of facilities, versatility, transferability of information into other formats, speed of Internet connection, time constraints of downloading large files  
**Strengths and weaknesses of final work:** Format, layout, accuracy, clarity for audience, structure, style, quality  
**Improvements to work:** Correct mistakes, avoid affecting other people’s work, more efficient and effective ways of doing things, learning new techniques  
**Review outcomes:** Evaluate the quality of the information used, produce drafts, review against initial plans, check with intended audience, effect of own mistakes on others |
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| IPU:B3  | Develop and test solutions to improve the ongoing use of IT tools and systems | B3.3 Develop solutions to improve own productivity in using IT  
B3.4 Test solutions to ensure that they work as intended | B3.1 Review the benefits and drawbacks of IT tools and systems used, in terms of productivity and efficiency  
B3.2 Describe ways to improve productivity and efficiency | Ways to improve productivity and efficiency: Save time, save money, streamline work processes, increase output, improve quality of outputs; cost of solution  
Develop solutions: Set up short cuts, customise interface, record macros |
| IPU:C1  | Plan, select and use appropriate IT systems and software for different purposes | C1.5 Develop plans for using IT for different tasks and purposes, including contingencies  
C1.6 Select and use appropriate IT systems and software applications to produce effective outcomes | C1.1 Explain the purpose for using IT  
C1.2 Analyse the methods, skills and resources required to complete the task successfully  
C1.3 Analyse any factors that may affect the task  
C1.4 Critically compare alternative methods to produce the intended outcome  
C1.7 Explain why different software applications could be chosen to suit different tasks, purposes and outcomes  
C1.8 Explain any legal or local guidelines or constraints which apply to the task or activity | Purposes for using IT: Who and what the information is for, when it must be finished, what information needs to be included, where it will be used (on screen, sent to others, printed)  
Plan task: What information sources are needed, how they will be found and evaluated, what application software will be used, what skills and resources are needed to complete the task successfully, requirements for content, structure and layout; priorities, potential problems  
Factors that may affect the task: Access to information, steps that need to be taken in advance, availability of time, budget and resources; audience need  
Reasons for choosing IT: Time, convenience, cost; benefits of IT or manual methods of preparing, processing, presenting and managing information; convenience and effectiveness at meeting needs, quality, accuracy; how IT can make tasks easier than other methods, streamline business processes, increase productivity, any difficulties people have in using IT, ROI Legal or local guidelines or constraints: May include data protection, copyright, software licensing; security; organisational house-style or brand guidelines |
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<td><strong>IPU:C2</strong> Evaluate the selection and use of IT tools to make sure that activities are successful</td>
<td>C2.2 <strong>Review ongoing use</strong> of IT tools and techniques and change the approach as needed  &lt;br&gt; C2.3 <strong>Evaluate and test solutions</strong> to make sure they match requirements and are fit for purpose  &lt;br&gt; C2.4 Be prepared to <strong>give feedback</strong> on other people’s selection and use of IT tools</td>
<td>C2.1 Critically compare the <strong>strengths and weaknesses</strong> of own and other people’s final work  &lt;br&gt; C2.5 Explain different ways to make further <strong>improvements to work</strong></td>
<td><strong>Strengths and weaknesses of final work</strong>: Format, layout, accuracy, clarity for audience, structure, style, quality, efficiency  &lt;br&gt; <strong>Review use of IT tools</strong>: Evaluate whether the IT tools and techniques are appropriate to the task and intended outcome, run user tests, compare with other IT tools and techniques, find ways to optimise the choice and approach  &lt;br&gt; <strong>Review outcomes</strong>: Evaluate the quality of the information used, produce drafts, review against initial plans, check with intended audience, impact of work on others  &lt;br&gt; <strong>Improvements to work</strong>: Correct mistakes, avoid affecting other people’s work, more efficient and effective ways of doing things, learning new techniques; ways to improve others’ or organisational efficiency  &lt;br&gt; <strong>Give feedback</strong>: Strengths, weaknesses, potential improvements</td>
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<td><strong>IPU:C3</strong> Devise solutions to improve the use of IT tools and systems for self and others</td>
<td>C3.3 <strong>Develop solutions</strong> that make a demonstrable improvement to the use of IT tools and systems  &lt;br&gt; C3.4 Test solutions to make sure that they work as intended  &lt;br&gt; C3.5 Recommend improvements to IT systems and procedures that increase productivity</td>
<td>C3.1 Evaluate the productivity and efficiency of IT systems and procedures used by self and others  &lt;br&gt; C3.2 Research and advise on <strong>ways to improve productivity and efficiency</strong></td>
<td><strong>Ways to improve productivity and efficiency</strong>: Save time, save money, streamline work processes, increase output, improve quality of outputs; total cost of solution; business benefit  &lt;br&gt; <strong>Develop solutions</strong>: Set up short cuts, customise interface, record macros, create templates, create style guides; streamline business processes</td>
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