

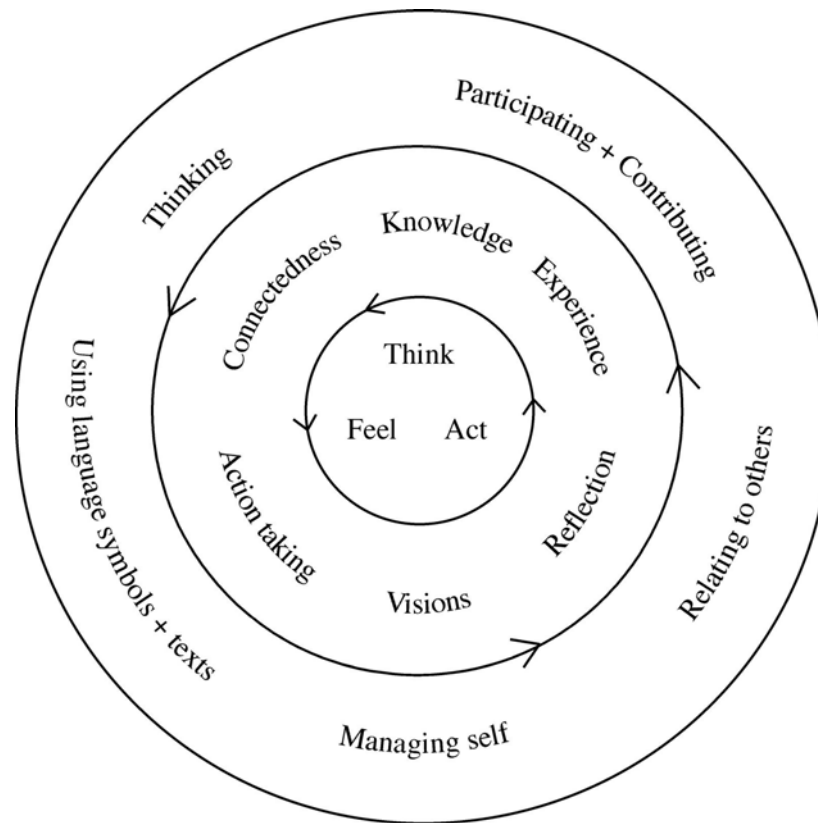


A framework for developing action competence in EfS

February 2009

This framework has been developed by a team of researchers who worked on a project funded by the Teaching and Learning Research Initiative: Investigating the Impact of Whole-school Approaches to Education for Sustainability on Student Learning. If you have any feedback or questions about the framework, please contact the Research director, Dr Chris Eames (Email c.eames@waikato.ac.nz).

The diagram below attempts to show that the development of action competence (the middle ring) is linked to international conceptions of education for sustainability (inner ring) and the key competencies of the New Zealand Curriculum (outer ring).



Note: Within the learner sections in the Framework below, the letters in brackets refer to the key competencies (T = thinking, U = using language, symbols and text, MS = managing self, R = relating to others, PC = participating and contributing).

Action Competence in EFS

Aspect			
<p>Experience</p> <p>Experience refers to a state, condition (feelings) or an event that has happened. The interpretation of this experience may be personal and/or collective.</p>	<p>Learner</p> <p>A learner has experiences of the world which they interpret through the following:</p>	<p>Teacher</p> <p>A teacher supports students to experience and interpret the world in order to develop personal understanding in authentic settings through the following:</p>	<p>Possible evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should have a range of experiences to develop their understanding, commitment and engagement with sustainability issues. This includes learning <i>in</i> the environment and <i>about</i> the environment to connect the learner to the environment that the issue is situated in and engage their motivation and passion as in the motto 'head, hearts and hands' or 'think, feel, act'. This component develops the 'heart/feel' aspect.</p>	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Visiting and knowing about local places and habitats and show emotion related to a particular place and/or situation (e.g. T & MS) • Knowing local places of significance and their relationship to them (such as whakapapa, connections to livelihood) • Doing things in and about the environment such as observe nature, gather data, play games (e.g. R, PC & MS) • Showing commitment and desire for a place and/or issue (e.g. MS) • Being interested in and inquiring about the world beyond the local environment (e.g. PC) • Adapting and developing their ideas as a result of experience (e.g. T) • Initiating and planning experiences for themselves and/or others (e.g. PC) 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Planning and implementing experiences that are active and reflective in and beyond the classroom • Using experiential learning processes • Using cooperative learning processes • Providing opportunities for students to interact with others in the community • Supporting students to connect ideas between and across experiences • Supporting students to examine their feelings related to an experience • Collaborating with students to co-construct learning experiences • Encouraging emotional responses and connections to environments and places 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Photographs of students engaged in learning beyond the classroom • Photographs of students engaged in experiential learning • Students talking about learning in the environment • Students' conversations and descriptions • Student work that expresses their views of an experience and what they have learnt • Plans that indicate learning experiences beyond the classroom • Plans that indicate learning is based on experiences not just pre-provided information

Aspect			
<p>Reflection</p> <p>Reflection is the ability to enquire into your experiences through a process of critical thinking.</p>	<p>Learner</p> <p>A learner reflects by thinking deeply and critically about their experiences through the following:</p>	<p>Teacher</p> <p>A teacher supports student reflection by using tools that encourage deep and critical thinking through the following:</p>	<p>Possible evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should know how, when and why to reflect. Learners will reflect in and on action, be critically reflective of themselves their actions, and also what they read and hear. Learners will also reflect on their own learning. Reflection is essential to make the connections between thinking, feeling and acting.</p>	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Thinking about and articulate what they have learnt, what they would do differently and what they want to improve on (e.g. T) • Being able to reflect for a range of purposes and ways e.g. as part of a group in and on action and by themselves for their own learning (e.g. PC, T, MS & R) • Being able to give feedback appropriately to others when taking action (e.g. R) • Taking initiative in a range of ways such as seeking help, helping others, identifying next steps, modifying ideas, attitudes, behaviours and actions (e.g. MS, R, PC & T) • Being willing to share their failures and successes (e.g. PC) 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Providing regular times for reflection individually, in groups, and as a class with the teacher • Providing multiple models for reflection • Assisting students to change, adapt and modify their ideas, plans and actions on reflection • Reflecting on their own practice and model this to students • Encouraging students to connect their prior knowledge with new experiences. • Encouraging students to make connections between their thinking, feelings and actions. 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Opportunities for formal reflection, written in journals, shared charts • Anecdotal comments • Examples from students work • Teacher Plans showing time for reflection • Student voice in an interview or video clip

Aspect			
<p style="text-align: center;">Knowledge</p> <p>Knowledge relates to both conceptual and practical understanding of sustainability and the processes through which knowledge is gained and used.</p>	<p style="text-align: center;">Learner</p> <p>A learner creates, seeks and uses knowledge for sustainability through the following:</p>	<p style="text-align: center;">Teacher</p> <p>A teacher supports students to become creators, seekers and users of knowledge for sustainability by providing a range of contexts and opportunities for learners through the following:</p>	<p>Possible evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should develop knowledge and understanding of sustainability issues as they are found in everyday life, and the impact they have on all living things. Therefore, knowledge should be developed in an integrated approach. It should include finding and analysing factual/scientific information, social, cultural and historical views and exploring multiple ways of knowing. It includes the learner knowing themselves and others. Learners should be developing their ability to use such information and findings to inform decisions and actions that lead to a more sustainable future.</p>	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Asking and investigating a range of questions, both their own and others (e.g. T & R) • Adapting, modifying and asking new questions as understanding of causes of sustainability issues develops (e.g. T) • Understanding a wide range of facts and concepts in EFS (e.g. T) • Using information to examine, explore and understand issues from a factual, historical and cultural point of view (e.g. U & T) • Using information to support decision making for action (e.g. U & T) • Using information to convince, persuade others and/or inform their own decision making (e.g. U) • Seeking answers, alternatives and solutions (e.g. T) • Communicating clearly in a range of ways (e.g. U) 	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Providing opportunities for learning about issues from multi-disciplinary perspectives including scientific; social; cultural; and historical. • Encouraging students to ask questions that inform • Teaching learners how to inquire and investigate their own questions • Using facilitative models and scaffolds to develop learner independence in inquiry, research and investigation • Empowering students to work together to find answers to their questions • Negotiating learning experiences and times with students • Working with students to ensure learning is focused on meaningful and relevant contexts for learning. 	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Students can talk about and show that they use an inquiry process of learning • Students' own questions being researched • Students working together on questions/investigations • Students demonstrate knowledge of sustainability concepts and issues • Student journals of their learning process and goals • Interview transcripts, video/recordings of interviews students have conducted • Photographs of students' process of learning • Brainstorms, mind maps, research outlines, other graphic organisers. • A learning process outline available to students such as an inquiry learning model • Unit and lesson plans • Resource availability

Aspect			
<p style="text-align: center;">Vision for a sustainable future</p> <p>Future visions for sustainability consider how we might like our future to be and what changes need to be made now for that future.</p>	<p style="text-align: center;">Learner</p> <p>A learner generates a vision for a sustainable future through innovative and holistic thinking through the following:</p>	<p style="text-align: center;">Teacher</p> <p>A teacher supports the development of students' visions for a sustainable future by providing tools and opportunities for holistic, creative thinking through the following:</p>	<p style="text-align: center;">Possible evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should develop a vision for a sustainable future. This involves understanding sustainability and exploring alternatives for change.</p>	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Having lots of different ideas • Sharing their ideas with others (e.g. R) • Being able to include big picture goals and ideas in their decision-making (e.g. T) • Being curious (e.g. T) • Being creative (e.g. T) • Showing courage and commitment (e.g. MS) • Recognising what is sustainable and not sustainable about the present • Considering and exploring alternatives for change (e.g. T) • Being analytical and methodical in considering alternatives and modifying when necessary 	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Enabling students to explore lots of different ideas and points of view • Supporting students to see how their goals/ideas support the school, community, society, nation, world in becoming more sustainable • Nurturing curiosity and creativity in students • Providing opportunities for students to explore alternative technologies and ways of doing things that are more sustainable • Providing opportunities to consider and re-consider ideas to seek solutions 	<p style="text-align: center;">(Suggestions)</p> <ul style="list-style-type: none"> • Students share multiple ideas in conversations/discussions • Students brainstorm a range of possible solutions/alternatives • Student drawings, maps, photographs, diagrams, plans • Teacher/student action plans connecting chosen actions to local, national and global issues • Shared action plans with students supporting them to connect their project/issue with local, national and global issues • Class structure that allows time for students to: <ul style="list-style-type: none"> – share ideas – consider alternatives – be creative e.g. brainstorm – challenge each other • Explicit teaching and encouragement of divergent thinking and use of thinking tools and strategies • Use of decision making grids/matrices

Aspect			
<p>Action-taking for sustainability</p> <p>Action is the intentional act of doing something. It is carefully-considered behaviour that promotes sustainability.</p>	<p>Learners</p> <p>A learner takes action for sustainability by developing the capability to make appropriate decisions and have the commitment to act on them through the following:</p>	<p>Teachers</p> <p>A teacher supports students to take action for sustainability by providing a student-centred learning environment to guide, mentor and support appropriate student action through the following:</p>	<p>Possible Evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should develop an ability to plan and a willingness take effective action for sustainability. The action could be direct or indirect and should be aimed at addressing the cause of a sustainability issue.</p>	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Having engaged in learning to better understand the sustainability issue before planning action • Learning about taking action through taking action (e.g. PC) • Taking action that is targeted at the solution of the root cause of the issue rather than the symptoms (e.g. T) • Setting achievable goals (e.g. MS) • Planning out steps to take • Being organised with time and resources (e.g. MS) • Working well with others to achieve a goal (e.g. R) • Considering possible consequences of planned actions (e.g. R) • Utilising sound decision-making processes based on knowledge (e.g. T) • Promoting possible actions to others (e.g. U) • Being engaged and motivated to take action (e.g. MS) 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Teaching students to understand sustainability issues • Supporting students to make appropriate decisions that target the solution of root causes of issues rather than the symptoms • Teaching students decision making processes • Teaching students how to plan and take action • Supporting students in setting achievable goals • Supporting students in taking action • Supporting innovation and creativity in solving issues/coming up with alternatives • Engaging and motivate students • Modelling suggestions for potential actions 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Before and after photos of action projects • Action planners • Decision making grids • Design planners • Students sharing their actions • Explanations of projects • Newsletters to parents • Information sheets prepared by students to inform others • Newspaper articles • Systems in operation within the school that lead to sustainability • Lessons that teach students how to use decision making grids, design planners, action planners • Teachers and learners modelling sustainable behaviours • Discussions around process in actions

Aspect			
<p>Connectedness</p> <p>It is the interconnectedness between people and all aspects of the environment: this includes making connections between thinking, feeling and acting (head, hearts, hands).</p>	<p>Learners</p> <p>A learner makes connections between their thinking, feeling and acting to develop coherence in their understanding of the world through the following:</p>	<p>Teachers</p> <p>A teacher supports students to make connections between their knowledge, attitudes and values, and actions to provide coherence and engagement in learning through the following:</p>	<p>Possible evidence of this</p> <p>Evidence could take the following forms:</p>
<p>Explanation</p> <p>To be action competent, a learner should understand that they are connected to other people and their environment. This connection should be evident in their attitudes and values, which in turn are linked to their behaviour. It includes understanding the interdependence of environment and societal aspects such as culture and social needs. It is the connectedness that leads to relevance, enthusiasm and interest because learning is participative.</p>	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Knowing there are many different relationships between people and their environments (e.g. R) • Knowing they are part of the web of life and can have positive and/or negative impacts on it through their actions (e.g. PC) • Seeing the connections between the natural and social worlds (e.g. PC) • Developing a care and concern for the natural and social worlds and those that inhabit them • Knowing their own connections to people, places and the whenua (land) (e.g. PC) • Knowing and explaining their attitudes and values regarding the environment • Understanding the connection between knowledge, attitudes, values and behaviour leading to action for sustainability (e.g. R) • Being able to consider the attitudes and values of others (e.g. R) • Being able to relate to and work with different groups of people (e.g. R) • Using knowledge and skills from one situation in another • Understanding the notion of action, reaction and consequences for behaviours (e.g. R) • Recognising their own and others' cultural identity and spiritual needs 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Helping students understand their connections to the environment and how they can impact upon it • Helping students understand the connections between the natural and social environments • Teaching connected thinking for concepts, knowledge and processes • Using <i>authentic contexts</i> for learning • Challenging students to use their learning and knowledge to make a difference • Presenting and discussing different points of view • Helping students to understand their attitudes and values and those of others • Helping students understand the links between attitudes, values and behaviour • Providing opportunities for students to work together and individually as appropriate • Providing opportunities for students to manage a variety of situations • Supporting students to learn about consequences • Provide opportunities to explore cultural and spiritual dimensions 	<p>(Suggestions)</p> <ul style="list-style-type: none"> • Evidence of contexts of study that enable students to explore interdependence • Conversations with students show that they; work with others regularly, are developing an understanding of interdependence and connections between people and their environment • Use of key concepts for learning and how these are referred to and developed in teaching and learning • May be evident in planning, displayed on the classroom wall, in students books, contracts for learning • Evidence of learning intentions and success criteria • Evidence of inclusion of attitudes and values in teaching, learning and action-taking • Evidence of appropriate cultural and spiritual dimensions • Evidence of acceptance of diversity