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Evaluation of ‘Enhancing Emotional Literacy through Visual Arts’

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‘Programs do not “work”, rather it is the action of stakeholders that makes them work, and the causal potential of an initiative takes the form of providing reasons and resources to enable participants to change.’

Ray Pawson and Nick Tilley¹ (1997, p. 215)

¹ Pawson, R., & Tilley, N. (1997). *Realistic evaluation*: London: Sage.

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Brad Astbury & Ruth Aston
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Executive Summary

In 2010 the Dax Centre received funding from a private philanthropic trust to develop a classroom-based model that teachers could use to enhance the emotional literacy of primary school children using visual art as a medium. This initiative has become known as 'Enhancing Emotional Literacy through Visual Arts' (ELVA).

What is ELVA?

ELVA is designed to address an important need: helping schools and teachers to support the development of student emotional literacy. There are many programs that focus on social and emotional well-being; few however explicitly link the role of visual arts in facilitating emotional awareness, connection and resilience. Another important distinguishing feature of ELVA is that it adopts an experiential rather than competency or skills-based approach.

The initiative was initially trialled in four schools, with positive results reported. In mid-2011, eight new pilot schools were recruited. Seven full-day training sessions were delivered over an 18 month period and classroom units of work delivered to approximately 2000 students in total. A second round of pilot schools commenced this year.

The Dax Centre commissioned the Centre for Program Evaluation at the University of Melbourne to undertake an independent evaluation of ELVA. This publication summarises key findings regarding design, implementation, and initial outcomes.

Findings in brief

- Teachers expressed high levels of overall satisfaction with ELVA and professional learning opportunities, including the quality of facilitators and follow-up support. Levels of attendance at training sessions were high.
- ELVA incorporates several critical features that are consistent with what is known about best practice in teacher professional learning. These include: (a) sufficient duration; (b) theory-practice mix; (c) active, experiential learning; (d) collective participation; and (e) ongoing support and materials.
- A range of factors affecting implementation were identified, including characteristics of the teacher-participants, facilitators, features of the training, and school context. In most cases schools were able to overcome obstacles, and found the approach easy to implement in the classroom.
- A 6-month follow-up survey found that teachers have changed classroom practice as a result of participating in the training. This is an important finding – research suggests that many teacher

professional learning initiatives rely on a 'train and hope' model. ELVA supports training transfer.

- Although provisional, there is also information to suggest that positive impacts on students, parents and the broader school community are beginning to occur across school sites. This is significant for just one year of involvement.

Summing up

On the basis of these findings, the Centre for Program Evaluation recommends that ELVA is continued beyond the pilot phase. To enhance quality, consistency, and sustainability a number of suggested areas for improvement have been identified, and these relate chiefly to securing alternative funding sources. Ongoing monitoring and evaluation is also essential so that better evidence of longer-term impacts on students can be obtained.

Introduction and Background

Over the past decade, educational authorities in the United Kingdom, the United States and Australia have become increasingly active in delivering emotional literacy programs in schools. Terminology in this area varies considerably, and these initiatives are often referred to as social and emotional learning (SEL), emotional intelligence training, or emotional well-being [For a recent review and meta-analysis see Durlak et al. (2011)]. The Victorian Department of Education and Early Childhood Development (DEECD) has also emphasised the important role that social and emotional competencies can play in improving student engagement, behaviour and learning outcomes.

One major driver of current initiatives focusing on emotional well-being in schools is recent knowledge from neuroscience². For example, the publication from the Institute of Medicine and National Research Council titled, *From Neurons to Neighborhoods: The Science of Early Childhood Development* is often cited by education authorities. A key contributor to this report, Shonkoff (2006), has stated that:

...if we really want to build a strong platform for healthy development and effective learning in the early childhood years, then we must pay as much attention to children's emotional wellbeing and social capacities as we do to their cognitive abilities and early literacy skills (p.2188).

This landmark study has had a significant influence on early childhood and education policy and discourse. In part, this is because of the way in which emerging evidence from the interface between neuroscience and psychology has rapidly captured the imagination of policy-makers, educators and the general public. Books on the brain, mind and emotions continue to top best-seller lists.

However, translating knowledge into effective educational practice has been challenging. Evaluators still know little about what kinds of emotional literacy programs work best, for whom and under what circumstances. Different traditions within psychology continue to compete for claims to 'hard' evidence from neuroscience; often simply to prop up favourite theories. Meanwhile, teachers struggle to find the time and support necessary for introducing and sustaining curriculum changes. Not surprisingly, implementation problems are widespread and these are exacerbated further by confusion surrounding the actual concept and measurement of emotional literacy.

² One should also not overlook the influence of research on 'resilience' from the field of developmental psychology (Howard, Dryden & Johnson, 1999) and growing interest in the positive psychology movement (Seligman, 1991, 2011). Further influences include the work of Salovey and Mayer (1990) who first coined the term emotional intelligence, and more controversially, Dan Goleman (1995), who despite genuine concerns about his popularisation of neuroscientific and psychological evidence in his book *Emotional Intelligence: Why it Can Matter More than IQ* certainly contributed significantly to raising public awareness. McLaughlin (2008) sums things up well: "The emphasis on emotional well-being has its roots in many different traditions and arguments. It is a network of research and thinking...driven by a set of social and policy concerns" (p. 355).

The Dax Centre

The Dax Centre is named after the founder, Dr. Eric Cunningham Dax (1908-2008), a British psychiatrist who during the 1940s pioneered the use of art to facilitate understanding, diagnosis and treatment of mental disorders. In 1953 Dax published findings of his research in *Experimental Studies in Psychiatric Art*, and began collecting artworks produced by psychiatric patients. He arrived in Melbourne in 1952, and up until the time of his death was a prominent leader in the psychiatric field. Over the years Dax amassed a large collection of art. During retirement, he spent much of his time cataloguing, preserving and exhibiting the art to a wide audience.

Today, the Dax Centre continues this tradition, maintaining the Cunningham Dax Collection, which consists of approximately 15,000 works created by people with an experience of mental illness and trauma. The Centre's primary mission is to 'promote mental health and wellbeing by fostering a greater understanding of the mind, mental illness and trauma through art and creativity' (Dax Centre, 2013). Five core values underpin the work of the centre - respect, empathy, equality, integrity, and creativity.

In recent years, the scope of Centre activities has expanded - 'from being a gallery with an education program, to being a central hub for all those interested in the relationship between the mind, mental illness, psychological trauma, art and creativity' (Dax Centre, 2013). In line with these developments, the Centre is currently undertaking a pilot initiative designed to improve student emotional literacy through the use of visual arts (2010-2014).

Origins of the Approach

In 2010 the Dax Centre received funding from a private philanthropic trust to develop a classroom-based model that teachers could use to enhance the emotional literacy of primary school children using visual art as a medium. This initiative has become known as the 'Enhancing Emotional Literacy through Visual Arts' Program (ELVA).

The project involves participation in a series of day-long teacher professional learning sessions, the development and trialling of classroom activities or 'units of work', and support from Dax staff to embed the approach in schools. ELVA has been informed by a multi-disciplinary working party and seeks to integrate psychodynamic theories with neuroscientific research, a developmental perspective on early intervention and prevention, and aspects of art therapy theory and practice. Six inter-related domains were considered as a framework around which to develop the approach:

1. The activity
2. The student
3. The teacher
4. The student-teacher relationship

5. The classroom environment
6. The broader system of school, parents, community.

The domain framework informs the planning of units of work – lessons that teachers can use in the classroom. These vary according to length of time to implement and student grade level, although all units incorporate four dimensions: the pre-activity teacher reflection, the activity, the experience, and teacher response.

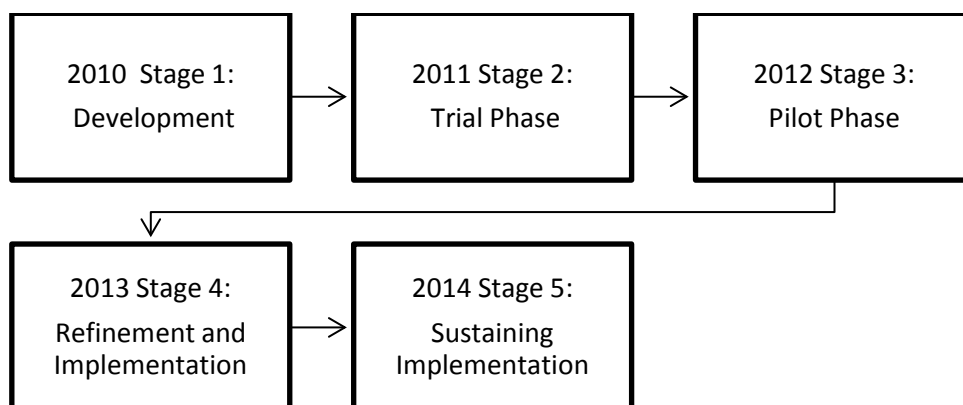
According to internal documents, the overall aim of ELVA is to improve 'the capacity for children to be emotionally alive, emotionally aware, and emotionally connected with themselves, others and with experiences and situations'. Emphasis is placed on the significance of 'creating time, space and place for children to reflect on themselves [and] their interactions with their social setting within a safe and supportive environment'. A key assumption is that:

A child who is capable of understanding their emotional experiences and their feelings associated with it, is better equipped to develop capacities to engage with and manage emotional difficulties they may encounter and are more resilient in the face of emotional challenges.

In early 2011 ELVA was trialled in four schools, with positive results reported in an internal review document. This included feedback from teachers that students were noticeably more engaged in their art work, there was a 'quieter atmosphere' in the classroom, and that more meaningful and individual work was being produced. Participants also reported that since implementing the approach they had become more reflective about their teaching practice and developed a stronger understanding of students.

In mid-2011, eight new 'pilot' schools were recruited following a call for expressions of interest. In total, seven full-day training sessions were delivered over an 18 month period; four in 2011 and three in 2012. A second round of pilot schools will commence this year, with recruitment expected to be finalised by the end of June 2013. A broad timeline listing key stages of the project is presented below.

Figure 1: Project timeline and stages



Evaluating the Approach

The Centre for Program Evaluation (CPE) was commissioned in 2012 by the Dax Centre to undertake an independent evaluation of ELVA. The terms of reference included, broadly, an assessment of the design, implementation and initial outcomes of the approach, and identification of ways in which this pilot initiative could be improved and sustained. As one of the Dax Centre's early ventures into teacher professional learning, the evaluation may also generate lessons for developing future school-based initiatives.

Aims and key evaluation questions

Considering the stage of program development it was determined that the evaluation should primarily be formative, rather than summative in nature. Formative evaluation asks the question 'How are we doing?' It focuses on generating information about program establishment and implementation. This information is then used by staff to inform decisions about program development and improvement.

The rationale here is that if the enhancing emotional literacy program is not well designed and delivered then it will fail to produce desired outcomes. Undertaking a summative study too soon could result in the premature termination of a potentially effective intervention. After the program has had time to settle and mature, it is anticipated that a summative evaluation will be undertaken to generate more robust estimates of impact.

Within this context, there were three linked aims of the evaluation. These were to:

1. Clarify ELVA design by articulating the relationship between program processes and intended short, medium and longer-term outcomes;
2. Document and examine a range of stakeholder perceptions and experiences regarding the implementation and effectiveness of the ELVA approach; and
3. To work with Dax Centre staff and other key stakeholders to develop their capacity to use evaluative information to inform future refinement and development of ELVA.

To achieve these aims, a theory-based approach was used to identify and prioritise key evaluation questions and structure data collection activities. The following questions were formulated and agreed upon by stakeholders (see Box 1).

Box 1: Key evaluation questions

1. Are teacher professional learning activities well-designed and delivered?
2. Are teachers satisfied with the professional learning activities and on-going support provided by the Dax Centre?
3. What effect does professional learning in emotional literacy, using the Dax Approach, have on teacher knowledge, attitudes, capacity, and confidence?
4. What changes occur in the classroom learning environment when teachers participate in the program?
5. How, and to what extent, does the approach contribute to enhanced student emotional literacy?
6. Are there any unintended outcomes associated with the approach (positive and/or negative)?
7. Are there particular conditions under which the approach works better than others (sustainability and potential transferability)?

The first four questions were prioritised in light of the stage of program development, stakeholder information needs and available time, resources and other feasibility constraints. A mixed-methods data collection approach was utilised to address evaluation questions, as described below:

- Ongoing discussions with members of the Dax working party to develop a preliminary logic model for ELVA and reach a common understanding of the purposes of the evaluation;
- Review of the existing evidence-base for the approach, including program documents as well as relevant literature on teacher professional development and student emotional literacy;
- Detailed observation of how teacher professional learning was delivered by attending all sessions throughout 2012;
- Semi-structured interviews with teachers and school principals. These interviews sought detailed information about:
 - levels of satisfaction with the professional learning sessions and on-going support provided by the Dax Centre;
 - the difference this has made in terms of knowledge, capacity, confidence, attitudes and beliefs;
 - the effect that the ELVA approach has had on classroom practice and associated impacts on student emotional literacy;

- what contributed to the success (or lack of success) of the approach;
- what could be done differently in order to maximise results
- Thematic analysis of existing data and documents collected by the Dax Centre and participating schools (e.g. training feedback sheets, school policy documents, photos, student artwork, etc).
- Descriptive analysis of data from a post-training survey of teachers to assess durability of knowledge gains and extent of training transfer.

The University of Melbourne, Graduate School of Education Human Research Ethics Committee, and the Victorian Department of Education and Early Childhood Development, Education Policy and Research Division approved the research components of the evaluation.

A summary list of methods and data sources and their relationship to key evaluation questions is presented in Table 1 below.

Reading the Report

Section 2 provides an overview of a provisional model that specifies how ELVA works to generate desired outcomes. This model guided the development of evaluation questions and data collection activities. The next two sections constitute the main findings of the study, and draw on multiple data to assess implementation quality and provide provisional findings of effects on teachers, students and the broader school community. The final section summarises the main messages of the study and identifies several implications for future research and development efforts.

Table 1: Evaluation schedule

<i>Evaluation questions</i>	<i>Data source</i>	<i>Method</i>	<i>Timing</i>
1. Are teacher professional learning activities well-designed and delivered?	Program documents Observation Teachers Existing literature	Semi-structured interviews Observation of training Research synthesis	End of term 4 28 Feb, 9 May, 23 July, 25 Oct Ongoing
2. Are teachers satisfied with the learning activities and on-going support provided by the Dax Centre?	Teachers	Semi-structured interviews	Term 4
3. What effect does professional learning in emotional literacy, using the Dax approach, have on teacher knowledge, attitudes, skills and confidence?	Teachers Principal Students	Semi-structured interviews Student focus groups	Term 4
4. What changes occur in the classroom learning environment when teachers participate in the program?	Teachers Students	Semi-structured interviews Student focus groups Site visits Post-training survey	End of Term 4
5. How, and to what extent, does the approach contribute to enhanced student emotional literacy?	Students Teachers Principal	Student focus groups Semi-structured interviews Program theory analysis	End of Term 4 Ongoing
6. Are there any unintended outcomes associated with the approach (positive and/or negative)?	Teachers Research literature	Interviews Program theory analysis	Ongoing
7. Are there particular conditions under which the approach works better than others (sustainability and potential transferability)?	All of the above	All methods	Ongoing

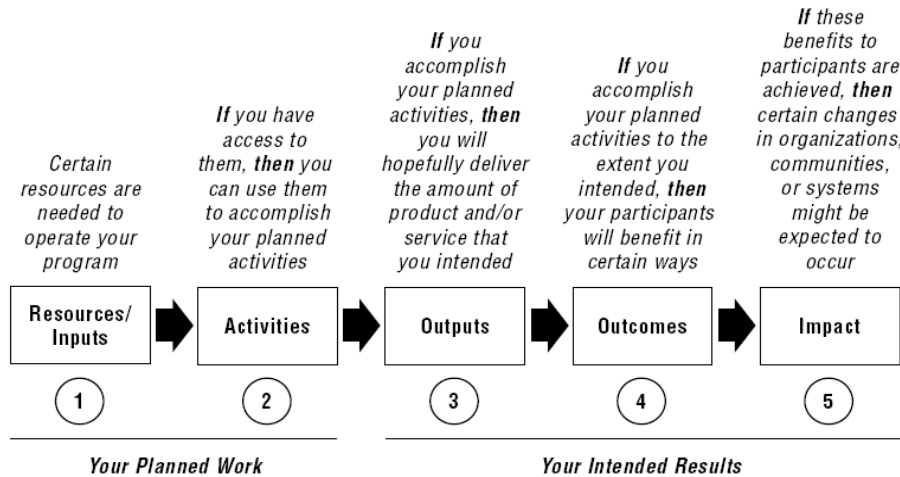
Understanding How the Approach Works

All programs³ are based on some sort of 'if/then' hypothesis which asserts that 'If we deliver a program in this way, then it will generate certain kinds of desired changes'. When evaluating a program it is often useful to start by asking a fundamental question: 'Is the change process presumed in program conceptualisation and design plausible and logically sound? Clarifying how and why a program is intended to work can assist program planners and evaluators to identify any critical flaws in the design of a new initiative, and support program improvement efforts.

One technique or tool for understanding the design and functioning of a program is logic modelling. A logic model is a 'plausible and sensible model of how a program is supposed to work' (Bickman, 1987, p. 5). Program logic models can be expressed in different ways – a graphic display of boxes and arrows, a table, a narrative description and so on. The level of detail and complexity can also vary significantly. Regardless of the way in which it is depicted, a logic model should clearly identify the underlying premises about the way in which the elements of a program fit together in a simple causal sequence.

The basic elements of a simple linear logic model are shown in Figure 2 below, although more elaborated logic models are sometimes preferable.

Figure 2: Basic elements of a logic model



Source: W. K. Kellogg Foundation (2004)

³ Evaluators use the term program in a broad sense to refer to any intentional and organised effort to bring about some kind of positive change in individuals, groups, organisations or communities. In educational settings the term 'program' is now increasingly replaced with 'approach', 'initiative' or 'philosophy'. One reason for this is to avoid narrow conceptions of the word program among some quarters of the education community (i.e. program = a top-down, highly scripted set of classroom instructional materials; and/or off-the shelf, prescribed practices that are imposed on local actors). As this section is written primarily from an evaluation perspective we retain the word program. Elsewhere we use the preferred nomenclature of the Dax Centre, referring to ELVA as an approach.

The model has the following key elements, which can be summarised briefly as follows:

- *Inputs* – human, financial and physical capital as well as other resources such as partnerships, infrastructure, materials, policy, and research knowledge that are invested in a program.
- *Activities* – all the actions, procedures and processes that are necessary to produce program outputs.
- *Outputs* – are the immediate results of activities and are often stated as specific and measurable process indicators, such as participant numbers, materials produced and disseminated, number of programs delivered, and so on.
- *Outcomes* – are the changes you expect will occur as a result of activities and outputs. These are often broken down further into a structured sequence or outcomes hierarchy (e.g. short, medium, long-term outcomes).

Programs are not isolated interventions. They are always introduced into a larger organisational and social system. Consequently, logic models should also identify important features of the broader context in which the program operates. Contextual issues might include variations in participant demographics and motivation, social, political and economic considerations, time and so on. These factors are often outside the direct control of the program, but are important nevertheless because they can affect implementation processes and outcomes.

A Working Model of the Program

This section articulates a logic model for the ELVA approach (see Figure 3, p. 19). The model offers a visual depiction of the hypothesised relationship between activities and intended outcomes. Key contextual features that may influence the generation of outcomes are also identified.

As a starting point, a rudimentary logic for the program can be stated in narrative form as follows:

If teachers experience effective training in the 'Dax approach' then they will acquire new insights, knowledge, attitudes and skills regarding emotional literacy. If teachers are motivated and provided with support to apply this learning appropriately in the classroom, then student emotional literacy will be enhanced.

The model was developed initially by examining key documents and talking with program architects' to surface their assumptions about the logic underlying the approach. This was supplemented by examining relevant literature, including Kirkpatrick's (1959/1977) four level framework for evaluating training programs as well as various theories of adult experiential learning and training transfer (see for example, Knowles, 1989; Kolb, 1984; McKeough, Lupart, & Marini, 1995; Mezirow, 1991; Prawat, 1989; Schon, 1988).

The model was subsequently refined as data was collected and iteratively 'tested' against the conceptual ideas and presumed causal linkages identified in the original schematic model.

Explaining the Model

The model should be read from left to right - starting with the components of the *program process theory*, then to the outcomes grouped under *program impact theory*. Examples of contextual factors that may influence the operation and effectiveness of the program are not depicted in the diagram, but are discussed below. The arrows indicate the hypothesised linkages between the various elements of the program. In many cases these may not necessarily be linear, as suggested by the model, but could possibly interact in a reciprocal fashion or also 'feedback' into other components of the model.

For example, when a change in teachers' classroom practice impacts positively on student emotional literacy, this may result in a virtuous 'feedback loop', leading to reinforcement of these changes among individual teachers (i.e. continued and/or greater application of Dax emotional literacy lesson plans).

Program process theory

Four major components are identified in the model. First, a key process is the development and maintenance of an effective model for delivering teacher professional learning. A second important step is careful selection and recruitment of schools and teachers who are motivated to learn. The next stage involves delivering the training sessions. A key enabler of these three components of the implementation chain is the ongoing support and direction for pilot schools provided by the Dax Centre.

In future versions of this model it may become important to include the following items: (a) details of ongoing operational costs associated with training, (b) delivery mode and format (e.g. online, intensive, on-site) (c) new information on training needs of teachers regarding student emotional literacy, as well as other inputs that may be required to support development and sustainability of the program, such as new partnerships.

While not explicitly identified in the model, outputs are implicit in the activities themselves. Examples of outputs derived from program activities include: manuals and documents, number and types of training hours/sessions conducted, number and types of participants who attend, number of site visits to pilot schools, and so on.

Program impact theory

A commonly used framework for evaluating the effectiveness of training programs has been developed by Donald Kirkpatrick. His idea of a four-level model was first published in 1959 in an article for the *American Training and Development Journal*. Since then, Kirkpatrick's model has been used extensively in industrial/organisational psychology and

management-oriented evaluation to cluster training program outcomes according to four levels:

1. Reaction: how those who participate in the training program respond to it (i.e. a measure of satisfaction).
2. Learning – the extent to which participants change attitudes, improve knowledge and/or increase skill as a result of attending the training program.
3. Behaviour – the extent to which change in behaviour has occurred (i.e. integration of new learning into everyday practice).
4. Results – the final results that occurred because the participants attended the program. These are usually long-term outcomes and constitute the reason for having the training program (e.g. enhanced student emotional literacy).

According to Kirkpatrick, the four levels are sequential and should be evaluated progressively. The rationale behind this is that incorrect conclusions about program performance and effectiveness may be drawn if information about reactions, motivations and learning are not obtained prior to assessment of behaviour and results. Kirkpatrick and Kirkpatrick (2006) explain this point well, offering the following advice:

My suggestion is to start at level 1 and proceed through the other levels as time and opportunity allow. Some trainers are anxious to get to level 3 or 4 right away because they think the first two aren't as important. Don't do it. Suppose, for example, that you evaluate at level 3 and discover that little or no change in behaviour has occurred. What conclusions can you draw? The first conclusion is probably that the training program was no good and we had better discontinue it or at least modify it. This conclusion may be entirely wrong...the reason for no change in job behaviour may be that the climate prevents it. Supervisors may have gone back to the job with the necessary knowledge, skills, and attitudes, but the boss wouldn't allow change to take place (p. 71)

Evidence relating to outcomes at level 1 and 2 is often easier to measure and collect than for level 3 and 4 outcomes. This is because it is usually very difficult to determine if it was the training program that led to results. Typically there are a range of plausible alternative explanations that may account for why changes in behaviour and results may, or may not, occur. For example, an increase in student emotional literacy may be the result of other interventions or policy changes at the school, rather than something to do with the actual training program.

Kirkpatrick's notion of sequentially evaluating outcomes at four levels has been incorporated into the preliminary logic model. According to the causal sequence described in the model a chain of positive outcomes should flow from implementation of activities. At level 1, it can be seen that the dispositions and reactions of participants are an important precursor in the chain of program outcomes. It is critical to be clear here that it is not programs *per se* that work. The people who participate in them are active players who have the volition to determine if they will participate in the training (or not); take on board knowledge that the trainers are attempting to impart (or not); consciously reflect on what

they have learnt and apply new knowledge and skills in their workplaces (or not) and so forth. Consequently, it is important to document participant reactions to training and not assume that improved learning, behaviour and results will occur automatically.

If training is successfully implemented, participants are motivated to learn, and react favourably to the training, then there should be some form of learning enhancement (Level 2). The next two levels in the outcomes hierarchy are more difficult to evaluate, as there are many factors outside the direct control of the program that can affect the achievement of 'teacher practice change' (Level 3) and 'enhanced student emotional literacy' (Level 4). In these circumstances, evaluators sometimes introduce some form of experimental control design, to quantitatively estimate what happened with the program in place, compared to what would have happened to an equivalent group who did not receive the program (i.e. a counterfactual). This was not appropriate or feasible for this study given the stage of program development.

Contextual influences

As noted previously, programs do not operate in a vacuum. There are a wide range of potential factors that may facilitate or inhibit program processes and generation of desired outcomes. These are not presented in the diagram to reduce visual complexity. As a tentative taxonomy, we have grouped the main contextual influences into the following categories: (a) teacher and student characteristics; (b) school level-factors; (c) home environment; and (d) the broader policy context.

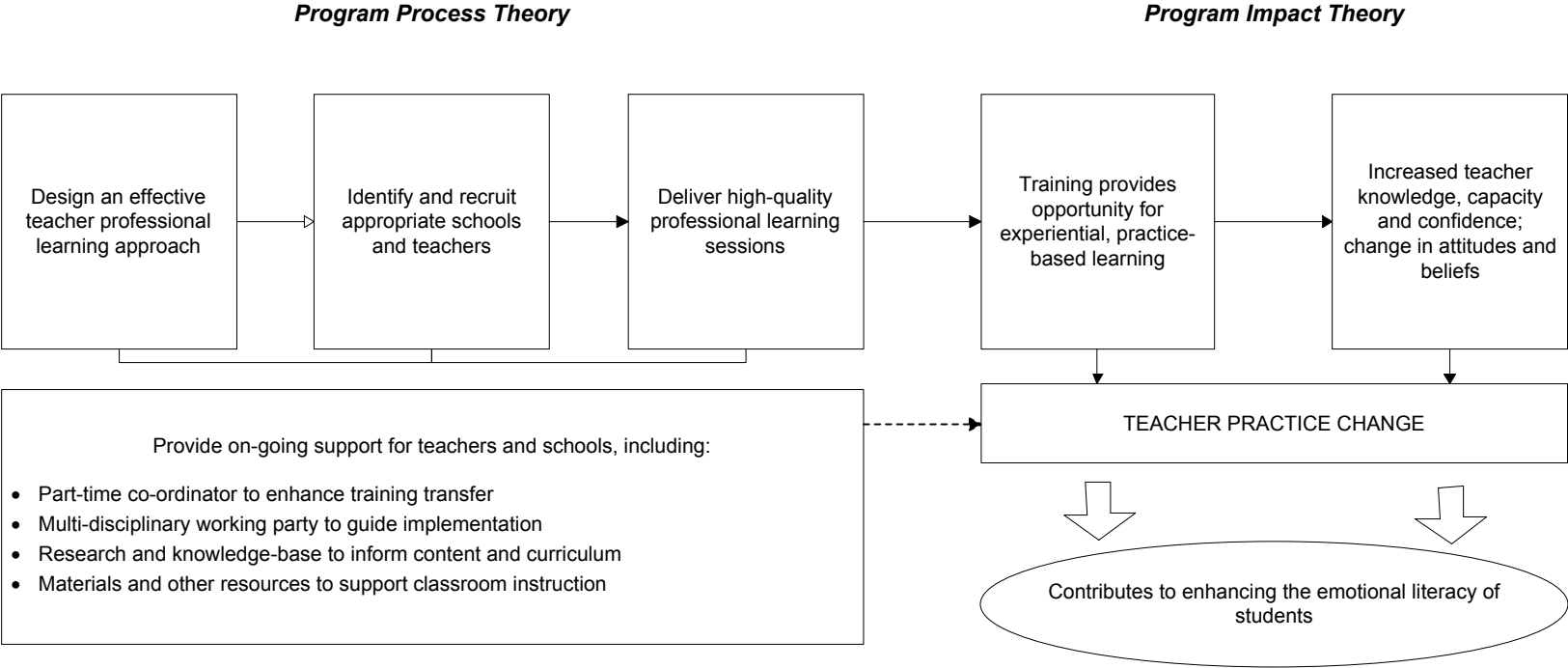
These capture, broadly, the main *levels* of external enablers and constraints that we believe shape implementation and co-determine the type and magnitude of effects on students, teachers and the broader school community. As knowledge of the program develops, these categories could be usefully unpacked to understand specific configurations of contextual influence in different school settings.

Using the Model to Guide the Evaluation

The model of the ELVA approach that has been developed here should be viewed as a tentative attempt to explain how the program works to achieve desired outcomes. A more nuanced understanding of the program and its operation is likely to emerge over time, and with successive evaluations that build, test and refine the model further.

It is important to reiterate that the model is not intended as some kind of fixed 'blueprint'; rather it is a simplification of reality that is designed to facilitate communication and common understanding about how the program, in an ideal sense, is supposed to work. In a more practical sense, the model provided an organising structure and framework to guide the evaluation. For example the model was used to facilitate identification of key evaluation questions and critical program functions that then became the focus of data collection efforts.

Figure 3: A working model of the emotional literacy pilot initiative



Implementation and Early Evidence of Effects

This section integrates findings from observations of training sessions and post-training interviews with teacher participants and school principals. Originally, we had also anticipated obtaining feedback from students via a series of small group discussions at each of the eight pilot schools. Despite our best efforts, this was only possible at one of the pilot school sites. The results are organised as follows:

- Overview of the schools
- Perceptions of the training
- Critical features of the training
- Implementation strategies and challenges
- Effects on teachers' learning and classroom practice
- Suggested areas for improvement

Overview of the Pilot Schools

Table 2 provides a summary of the pilot schools. Schools varied quite substantially in terms of sector, type, size and socio-economic profile. However, they did share a common reason for being involved in the ELVA pilot. Essentially, they see in ELVA a complementary fit with the ethos of the school, especially as this relates to existing well-being policy and programs. The novelty of ELVA was also cited as a factor affecting the decision to participate in the trial: 'It was something completely different that we wanted to try'.

Table 2: Summary of participating schools

	<i>School sector</i>	<i>School type</i>	<i>Total Enrolments</i>	<i>ICSEA</i>	<i>Location</i>
A	Government	Combined	2143	916	Metropolitan
B	Government	Primary	165	991	Rural
C	Government	Primary	523	1127	Metropolitan
D	Government	Primary	381	992	Metropolitan
E	Government	Special	344	-	Metropolitan
F	Government	Primary	133	1088	Rural
G	Independent	Primary	33	1174	Metropolitan
H	Government	Primary	543	938	Rural

Perceptions of the Training

Reflecting on the simple 'causal' sequence outlined in our logic model, we hypothesised that *if* teachers respond favourably to the training *then* changes in knowledge and practice are more likely to occur. In turn, these changes may contribute to improvements in student emotional literacy. This is really nothing more than common sense. Teachers usually attend professional development sessions with high hopes of learning something new. However, if they are not satisfied with the training, and this could occur for a number of reasons, then it is very unlikely that changes will be implemented in the classroom. Effectively, we were interested in progressively answering four basic questions:

- Did participants like the training?
- Did they learn something from the training?
- Did they change their teaching practice as a result of the training?
- Did this contribute to positive effects on students?

Gathering evidence of training satisfaction is usually achieved by simply 'asking participants' informally - during and at the end of sessions. Often this is supplemented by post-training 'feedback sheets' that record participants' reactions and provide an opportunity for immediate response to facilitators. As an initial step in evaluating levels of satisfaction we analysed post-training feedback sheets from each of the seven professional development sessions (including four sessions that occurred prior to the commencement of the evaluation). Box 2 below provides a representative summary of participant responses, organised by session.

Box 2: Post-training participant feedback by session

Session 1: Introduction to the Dax approach

"Thanks for a really useful, stimulating and interesting day. I'm looking forward to the rest of the sessions"

"A very effective day – balanced theory/philosophy well with practical activities. Today gave a sound starting point."

"The smoke/fire analogy to explain the psychodynamic approach was really helpful"

"Carefully thought-out process/agenda for the day"

"The information about adolescent brains and neurons was very interesting"

Session 2: Experience, relationships and reflection

"I really enjoyed the passion and enthusiasm of the facilitators"

"Liked hearing the 'real life' examples of how it is working in other schools"

"I have a deeper understanding of the process and implications [but] would like to know more about how to successfully implement such a valuable program"

"Demystified psychoanalysis – a thorough and easy to understand presentation"

"Great sense of collegiality across everyone and the sense of learning together"

Session 3: Understanding relationships

"Wealth of experience here, honesty and sense of mutual purpose"

"Thank you very much for another valuable day!"

"I enjoyed hearing about how the activities can be used in an art class. This was a practical example that helped to bring the information together"

"It was a really interesting day. Congratulations! I am getting excited about implementing program."

"How to support the implementation of the program – so that it fits with the rest of what we do at our school?"

Session 4: Creating a safe and supportive environment

"It's a rare and delightful joy to attend a training program where there are as many, or more, personal developments and benefits as there are for my teaching practice"

"Beautiful, happy presenters"

"Amazed by the fantastic presentation of practical units of work"

"The experience of other teachers – always great for gaining new ideas"

"Really loved all the presentations today. Can now really see a path to how I can implement in our school (me), although my 'deep end' continues to be the whole schools aspect"

Session 5: Implementation and Support

"Helpful learning how to explain/promote program to other staff in a way that 'guarantees' support/success"

"At this time in place a little overloaded with information and need to read over resources"

"Great to get a clear group understanding of the Dax approach"

"The importance of boundaries, and 'acceptable flexibility/adaptation' of the units of work"

"Was looking forward to coming again. Usually can't stand PD's"

Session 6: Implementation and Support

"Great to get handouts re: notices to parents/newsletter"

"Greater maturing of thinking and understanding was shown. I certainly will go away with greater knowledge and understanding of what is useful and required for effective implementation"

"Going through the planning for units of work. Discussion led to several Ah-ha moments."

Box 2: Post-training participant feedback by session

Session 7: Show and tell

"I have so enjoyed this opportunity. It has not only enhanced my teaching and the experiences I am able to make possible for our children, but what I've learnt and seen with myself, my journey, my teaching, parenting, etc"

"This approach must be central to all teacher training at every level"

"At the beginning of the project the 'how' was a big question. The lesson plans were very helpful in giving us a 'safe' starting point'. The neuroscience aspect at the beginning was crucial"

"Deepest gratitude and thanks for the opportunity to be inspired and trained by 'amazing' teachers...their expertise, endeavour, passion, knowledge and warmth made the PD a 'top class' learning experience for us all"

"Very helpful listening to others share what they have done - what worked and what didn't"

"Variations on previous units covered - great how many different ways of using the same 'unit'. Simple hints, practical applications"

"Thoroughly enjoyable PD. I have learnt and experienced growth in my teaching"

"Thank you! It's been so inspiring. Truly a positive life-changing experience"

These responses have not been deliberately selected. Several specific comments were made about the quality of the two facilitators, as well as guest speakers. There were very few negative remarks, and these related mainly to: (a) logistical aspects of the training, such as 'uncomfortable' chairs, parking facilities, etc, and (b) some uncertainty and lack of clarity about the 'Dax approach' and how it might be practically implemented in schools and classrooms. There was a noticeable decline in comments regarding implementation feasibility as the training progressed.

While these findings are promising, and suggest high levels of satisfaction, it is important to acknowledge the problem of 'grateful testimonials' – which is linked to social desirability bias. Campbell (1969) defines the difficulty as follows:

Human courtesy and gratitude being what it is, the most dependable means of assuring a favourable evaluation is to use voluntary testimonials from those who have had the treatment...The rosy glow resulting is analogous to the professor's impression of his teaching success when it is based solely upon the comments of those students who come up and talk with him after class. In many programs, as in psychotherapy, the recipient, as well as the agency, has devoted much time and effort to the program and it is dissonance reducing for himself, as well as common courtesy to his therapist, to report improvement... (p. 426)

This may strike some as unduly harsh, but in our experience it is common for training programs to assume success based on grateful testimonials. To dig deeper we observed a number of training sessions and conducted interviews with teachers at the end of the seven sessions. We stressed the importance of honest appraisal, reminded interviewees that this was an independent evaluation and reinforced that responses were confidential and anonymous.

What did we find? The interviews and our observation of training quality corroborate the positive testimonials provided by teachers on post-training feedback sheets. Selection bias cannot be ruled out completely, but it seems improbable. While the majority of teachers appeared motivated to learn and held prior beliefs that were consistent with the ethos of the training, these characteristics and predispositions do not account for high levels of reported satisfaction. There was no evidence to suggest that participants were telling us what we wanted to hear. Teachers are generally not reluctant to share criticism of poor quality training, especially when there are financial costs, such as the need to provide causal relief staff.

In short, participants were authentic and effusive in their praise; with several stating that this was the best professional development they had attended. As one school principal reflected:

"Professional development is often about what we teach, about how we teach, about when we teach it. But, we leave out the who's teaching it and I think it's the "who" that is the most important thing...the most powerful tool that we have as teachers - so we really need to know who we are, and know our own emotional capacity"

Critical Features of the Training

Why did participants react so favourably to the training? The above quote provides a glimpse of one critical overarching feature – recognition that teacher emotional literacy is an important precursor for enhancing student emotional literacy. Certainly, it would be difficult for teachers to foster students' ability to understand the significance of emotions if they are not aware of how their own thoughts and feelings impact the classroom. This concept of 'knowing me, knowing you' emerged as a pithy summary of the program among facilitators and participants.

During interviews we asked a range of probing questions to further explore successful features of the training, such as: 'What was it exactly about the training that you liked?' 'You must have attended a lot of teacher professional development programs, how does this compare?' 'Why do you say that this training was much better?'

From these responses emerged a useful catalogue of program design and delivery features that facilitated teacher engagement and learning: (a) duration; (b) theory-practice mix; (c) experiential learning; (d) characteristics of the facilitators; (e) collective participation, and (f) ongoing support and materials. These critical features are explained in more detail below with the support of illustrative comments from the interview transcripts.

Duration

Participants frequently mentioned that in contrast to other professional development experiences, the length of the training (7 sessions over 18 months) encouraged deeper learning and practice change that could be sustained over time. One teacher summarised this well: "I think I rate it highly compared to other training that I've received mainly because the training was ongoing". Another echoed these sentiments, reinforcing the point that: "It's not like you go to a PD and come away and think that's really good, and that's the end of it. It was ongoing and great that they implemented it over that period of time".

Sequential learning was important because it allowed teachers to trial classroom practices, obtain feedback, reflect and apply what was learnt to new situations. One teacher explained the importance of this cycle of do-reflect-apply as follows:

"You had the opportunity to take everything away after the session, think about the information that you've been given and how it would work in your school, try it out, and then go back within that certain timeframe and revisit at the next training".

A few teachers reported that some of the early sessions were "very heavy going", especially for those new to the content. Thus, pacing of the sessions over school terms, with time to digest the readings and training helped to minimise cognitive overload - "it's not something that you could condense into a week-long training - you need time to download."

Theory-practice mix

Another positive feature of the training, as reported by several participants, was the blend between theory and practice. As noted in the introduction, the program is informed by various psychodynamic theories, neuroscientific research and a developmental perspective on early intervention and prevention. The facilitators provided participants with a reading list of book chapters and articles that reflect this multidisciplinary foundation. The training itself is facilitated by a teacher-clinician dyad – allowing for a bridge between educational and psychodynamic perspectives on emotional literacy. Throughout the training, guest speakers were utilised, including Dax Centre staff, members of the working party, and classroom teachers who had previously developed and tested classroom units of work during the trial phase.

Due to the timing of the evaluation, we were not able to observe the first four sessions, which leaned more toward psychodynamic theory in terms of content. However, our observation of later sessions, review of curriculum materials and teacher interviews suggest that the majority of participants felt that possessing some knowledge, or at least a basic ‘awareness’ of psychodynamic theory, was important for effectively implementing units of work in the classroom.

In fact, appreciation or theory-awareness may have been the actual learning outcome, rather than deeper abstract knowledge. At the time of the interviews, few participants could elaborate specific theories, concepts or ideas from the knowledge-base of the program, beyond perhaps a general familiarity and recognition of the potential significance of say, Freud’s notion of the unconscious mind; as in the ‘smoke/fire’ metaphor often cited by participants as informative. Teachers conveyed the sense that the theory and evidence-base “legitimated existing beliefs” and provided a strong rationale for visual arts as a medium for fostering emotional literacy and student well-being.

Experiential learning

Training sessions were deliberately organised to facilitate active, experiential learning – usually through a non-didactic process of reflection via some direct, concrete experience. In the context of the training, teachers were involved in ‘making art’, following the approach that would later be adapted in the classroom. For example, in one session participants completed the ‘inside/outside’ feelings activity. This involves, among other things, developing a representational container or box depicting how others perceive you and how you perceive yourself; usually in relation to a specific context. Inner thoughts/emotions may or may not be shared with the group.

The importance of creating a safe and supportive environment is also emphasised. Discussion and reflection on the activity often leads to greater insight into teachers’ emotional space. It also enables teachers to understand how the activity may look or feel like for students (including potential anxieties about whether their art will be ‘good enough’ or ‘right’). Comments provided during interviews demonstrate the significant insights for teachers that this ‘learning by doing’ approach achieved. For instance:

“One of the important parts of the Dax training was that we were actually involved in doing the units of work, so it puts you in the situation of the student, and I think in particular, for classroom teachers that’s really valuable – putting yourself in the students shoes and seeing things through their eyes”

And:

“Being put in that position of making the art, you realise what emotions you are sitting on yourself, so yeah it can have a really big impact”

A related benefit of active learning is that it provides teachers with an opportunity to rehearse lessons and see how the units of work might be transferred to the classroom. The role of the facilitators in modelling the lessons was regularly cited as important for implementing the training materials effectively. One participant recalled that ‘seeing [the facilitator] model how to teach those units, you would hear the little gems that she would throw in and just watching that and learning from that was invaluable’.

Characteristics of the facilitators

It seems almost a truism to say that quality of facilitation is a key ingredient for training success. It is perhaps surprising then, that much of the research in education does not explicitly identify facilitator characteristics as predictors of the effectiveness of teacher professional learning. Instead, the focus is often on training content, school and policy factors and individual learner variables such as motivation (Penuel, Fishman, Yamaguchi & Gallagher, 2007).

There is much discussion, however, in the extant literature on training transfer about the importance of trainers. Good trainers are knowledgeable about the subject matter, display professionalism, recognise the needs of individual learners, and understand the principles of adult learning. Effective trainers involve participants in the learning process; using techniques such as role plays, small group exercises and collaborative activities (Burke & Hutchins, 2007).

In the sessions that we observed, facilitators displayed all of the above attributes. Furthermore, they prepared well for the sessions and showed empathy, patience and honesty – including an ability to place themselves in the situation of teachers, recognising uncertainties and anxieties when learning a new way of thinking about classroom practice. They used humour and personal anecdotes to put participants at ease and convey difficulties they had encountered in their teaching.

Participants regarded the facilitators as leaders. During interviews, teachers spoke positively about their capacity to listen and show respect for the experience of teacher participants. We noted several instances where the facilitators fostered the development of a safe learning environment and modelled what it looks like to be an emotionally literate teacher. In our view, the facilitators are a key factor in understanding positive reactions to the training.

Collective participation

Another critical aspect of the training was that it supported the development of a community of learners. Collective approaches to professional development were widely regarded by teachers as "a great way to learn, because you're all learning about something together". One precondition for participation was that schools were required to involve, at a minimum, two teachers from the school in training sessions (and ideally the principal). In practice this was not possible for all sessions, but the majority of pilot schools were able to maintain regular group attendance of teaching staff.

There were a number of advantages associated with this design feature. First, it resulted in opportunities for teachers to share and discuss concepts, practices, and problems – both within and across schools.

"It's just been so rewarding...the networks made with the other teachers and talking with them extensively about what they do at their school. They shared lots of examples of how they dealt with certain kids and the outcomes that they got so then it kind of gave us ideas...that's been something that I've really taken away, the ideas from others."

Another benefit of joint professional learning is that teachers who work together in the same school can share knowledge about students' needs across classes. Teachers can also provide each other with mutual support to address implementation challenges such as securing 'buy-in', dealing with staff turnover and sustaining changes in practice over time. Travelling to and from the training provided an avenue for some teachers to consolidate learning's and collaboratively plan strategies to implement the approach within the particular context of their school.

Ongoing support and materials

There was strong agreement among the pilot schools that a significant success factor was the ongoing technical support provided to teachers outside training days. In addition to delivering the training sessions, the lead facilitator communicated regularly with participants via email and phone conversations. Individual 'coaching' was provided in some instances, for example when a new participant commenced mid-way through the training.

To develop a better understanding of the school implementation context and promote awareness of the approach, site visits and presentations were also offered to pilot schools. The response from participants was that this support was invaluable. It helped raise the profile of ELVA at their school and addressed any misunderstandings or concerns that other staff may have held about the purpose of the approach.

Various resource materials were provided, such as sample letters to send parents, items for newsletters, a list of frequently asked questions, and practical tips for adapting lesson plans to suit classroom needs. This level of involvement from the lead facilitator also served an important quality assurance function, as any new materials developed for use in the classroom were reviewed to ensure consistency with the principles underlying ELVA.

It is worth ending our discussion with a direct quote from one of the participants. The comment captures in narrative form the way in which the training successfully combined several critical features of effective teacher professional development to assist engagement and learning:

“It’s the best PD, best training I’ve ever done on so many levels. From a teaching perspective I like the way it was spaced out, I loved the way it had the balance between the theory but also the practical, being able to network with other teachers and learn together over that time, and every session you’d end with I don’t think I quite get this. But everyone else felt the same, and it was great having the time to go away, absorb it, try a few different things and then come back at that next level of understanding and challenge yourself a bit more. And then, doing the practical activities, it taught you how to do it but then personally it was also great to process your own feelings that way, so you learnt through doing, it was really good.”

The next section describes some of the ways in which teachers’ implemented knowledge from the training and applied it within the context of their school and classroom. We also examine factors that were seen to support successful implementation and identify common challenges raised by teachers and principals.

Implementation Strategies and Challenges

Delivering ELVA in each of the eight pilot schools required different strategies, due to differences in school context (e.g. size, location, student characteristics, and available facilities). During interviews we asked participants to describe key steps they had undertaken over the past 12 months, individually and at the broader school level, to implement the approach. We also asked teachers to identify any challenges encountered and how they had managed these. This enabled us to learn more about contextual factors that influenced training transfer.

Involved and committed leadership was seen by all schools to be a critical factor for ensuring effective implementation. In the majority of cases this precondition was established as part of the selection of pilot schools, but for some schools maintaining active involvement was problematic. A number of school principals, however, regularly attended training, and could articulate how they saw the approach contributing to student well-being:

“I am 100% behind it. We’ve always been aware of the need to provide good support and program development for students around well-being. Emotional literacy is an important part of what we’ve been doing, but to see this program operate within the visual arts program, that was the key for us, from my point of view, how it added to the programs that we were already running at the school. How it gave the vehicle of visual arts as an operating way of improving students’ emotional literacy and it just makes sense to us that that’s what visual arts is all about. It fits in with the other programs and the philosophy that we’re trying to implement.”

Another important initial step was to find ways to secure the support of the whole school community. This was seen as a continual process, rather than a one-off event. Existing workload commitments and competing demands were often mentioned as obstacles. Finding time to co-ordinate planning and promotional activities and inform staff was challenging; especially for teachers working in larger schools and where ELVA was being introduced as a 'whole-of-school' rather than individual classroom approach. Some teachers mentioned that particularly at the beginning they did not feel confident enough to explain the approach to other staff.

One common strategy for raising visibility and support for ELVA among teachers, parents and the broader school was to use visual displays or 'exhibitions' of student artwork that were produced as a result of trialling the classroom units of work:

"The comments that people gave, visiting principals from other schools, parents, people delivering things, people selling educational resources, everybody who walked past it [referring to students' artwork using the Dax approach] stopped and looked and commented and that's remarkable. They always say how nice our displays look but this one stopped people in their tracks and they talked about them. I've never seen that level of interest and comment from people who are visiting our school."

Another strategy, noted earlier, was to draw on existing samples of promotional materials, disseminate a 'frequently asked' questions and answer list to parents, and encourage staff to attend a presentation by the lead Dax facilitator. The background presence of the Dax Centre, as the agency responsible for the training, should not be underestimated. It provided a useful way to establish credibility, particularly in a context where staff or parents may devalue visual arts, view emotional literacy as 'wishy-washy', or express a misunderstanding that the approach will encourage teachers to 'pseudo-analyse' students, generating unnecessary distress.

"Some staff were afraid at the beginning of what might come out from students but I think with the way that we've approached this, the communication with teachers and with parents that it's set them all at ease. Also putting things up on display and constantly letting them know visually and verbally what was happening".

For some schools, implementation challenges related to personnel and infrastructure issues. For example, they could not afford to send more staff to the training, did not have a specialist arts teacher or there were limited facilities, space and materials to support delivery of the classroom units of work. This presented some difficulties, as described by one teacher:

"For me probably the most challenging thing was that we didn't have an art room here so it was done within the classroom. So it was travelling from class to class and I couldn't use all the materials that I may have used if I was in an art room."

In a similar vein, another participant felt that "it was tricky, because I am a generalist teacher with no art background, so having the time and

skills to incorporate the lessons...it would be wonderful to have a specific art person, I could see that really working well”.

A perceived need for ELVA and compatibility with existing teacher beliefs, school mission, priorities and values were also important overall factors affecting the implementation process. The approach was congruent and ‘fit’ with preferred ways of working with students:

“I believe that the emotions drive the learning process not the cognitive stuff. So, if students are emotionally ready to learn, they’re feeling comfortable and so on, they will learn easier than if they’re distressed or anxious.”

A number of participants felt that the ELVA approach might struggle in a school ‘obsessed with NAPLAN scores’ or where ‘measuring literacy and numeracy outcomes’ were paramount. Other important factors for supporting uptake in schools were flexibility and ease of use. The specific units of classroom work could be integrated into existing practices and routines at the school, rather than being seen as a time-consuming and difficult add-on.

Teachers were able to develop and appropriately modify lesson plans to suit their local context. For example, one school completed the ‘inside/outside feelings box’ but incorporated it as part of an immigration unit where the box was a suitcase, and the reflection involved considering the process of migrating to a new country – what you would feel on the inside and what you would show on the outside.

By way of summary, Table 3 provides an overview of critical features identified through this evaluation as important factors for enabling successful implementation of ELVA in pilot schools.

Table 1: Factors affecting the implementation process

Teacher characteristics	<ul style="list-style-type: none">• Academic background/discipline• Motivation and self-efficacy• Beliefs about teaching• Time constraints• Openness to change
Facilitator characteristics	<ul style="list-style-type: none">• Empathy• Expertise and qualifications• Patience• Knowledge of adult learning principles
Features of the training	<ul style="list-style-type: none">• Duration• Content• Experiential/collegial learning• Ongoing support and materials• Leadership support• Teachers' workload• Availability of funding for teacher release
School context	<ul style="list-style-type: none">• Perceived need and levels of support• Compatibility or 'fit'• Ease of implementation• Evidence of a culture that reflects prioritisation of student well-being

Effects on Teachers' Learning and Classroom Practice

The main perceived benefits that emerged from the experience of pilot schools are discussed below, from the perspective of teachers, students and the broader school community. The positive effects reported by teachers, in relation to their own learning and classroom practice, are consistent with the outcomes hierarchy identified in the initial logic model.

Reflecting back on the logic model, we hypothesised that teacher learning and practice change are mediators for improvement in student emotional literacy, the ultimate long-term goal of the program. In other words, we regard the development of teacher emotional literacy as an important precondition for enhancing student emotional literacy. You cannot teach what you do not have yourself.

Following this logic, we started from the premise that the training component of the program is only useful if, in fact, teachers acquire a deeper understanding of their own emotions and are able to transfer learning from the training to classroom situations. A range of factors can affect training transfer, as documented earlier. Often there simply is not enough time or support for teachers to put what they have learnt into practice.

In relation to ELVA, one observable indicator of training transfer is implementation of the Dax units of work. These units are 'lessons plans' that outline different art experiences that teachers can utilise to enhance students' capacity to understand their own and others emotions. There are approximately 17 units that have been developed, and these vary in terms of grade level (P-6) and length of time (3 weeks to full term). The units comprise four components: The pre-activity teacher reflection, the activity, the experience, reflection and observation of teacher and child response.

There is considerable evidence to demonstrate that all teachers who participated in the training had implemented at least one classroom unit of work. Some teachers had trialled more than one unit in their classroom, and a few had exclusively used the Dax units to replace existing art lessons. Teachers reported that they intended to continue implementing the units of work after the completion of the training. The most typical units were 'inside/outside feelings', 'self-portraits' and the 'rainbow of feelings'.

Many teachers felt that as a result of the knowledge acquired during training and implementation of classroom units of work, they had developed greater emotional self-awareness. That is, they were more conscious of how their own thoughts, feelings, emotions and actions can influence students. As one teacher reflected:

"It was actually through doing the training and units of work in the training that I realised what emotions I was feeling as a classroom teacher and how these might be projected onto students...quite overwhelming. I don't understand how people cannot even consider it [your own emotions]. It absolutely baffles me – you need to know who you are, feel like, and who I am as a teacher and how that really does influence things."

The training also provided teachers with a greater understanding of the importance of creating a safe environment for expressing emotions, and emphasising the notion of respect for the students' choice in sharing their work with others. This can take time to develop, but was considered essential for enabling students to feel comfortable sharing and talking about feelings associated with their art work, without fear of being judged. The teachers own experience in completing units of work during the training helped illustrate the importance of a supportive context.

Several teachers emphasised that the training had 'changed the way they teach, and think about teaching' and reinforced their beliefs about the significance of emotions within daily classroom life. During interviews teachers spoke about being more reflective, empathetic and mindful of how they communicate and relate to students. For example, a number of teachers indicated that they were more 'tuned in' - aware of the language they used in the classroom and confident in their capacity to perceive student emotions accurately:

"I realised that now I'm not just looking at their artwork and saying, oh this is great or beautiful' I am now asking them questions – tell me about your artwork and why did you do that. I'm noticing things about them that I didn't see before."

Many teachers elaborated that as a result of implementing the units of work they 'think more about the kids and their needs', have 'gotten to know students much more deeply' and are 'a lot more clued in to dealing with individual students'. This has been extremely beneficial for student engagement, relationship development and the overall learning and teaching process (including outside the art curriculum). For example, one teacher described that following implementation of the 'inside/outside feelings' unit a number of students 'described feelings on their inside that I thought' "oh wow, I didn't realise that's the way they were feeling until then'.

Others described that previously disengaged students would now often approach them outside class and during recess to talk about how they were feeling, often articulating their emotions through colours and symbols that they had learnt through completing the units of work. According to one teacher, who ran a visual arts session with 'kids who are quite troubled' the response was 'amazing' and 'so many of those kids have maintained a relationship with me, and actually seek me out to talk about things'.

Benefits for students

The effects on teachers described above are logically connected to student outcomes. An improvement in teacher self-awareness, knowledge about how to build safe and supportive classroom environments and increased understanding of students are likely to have a positive flow-on effect. Although we were only able to speak directly to a small sample of students at one of the pilot schools, a provisional, qualitative assessment of impacts was attempted by asking teachers to provide examples and evidence of changes they had observed in students.

The stories conveyed by teachers illustrate that one of the significant benefits they observed were greater levels of emotional awareness and expression among students, especially those students who previously were very reserved. For example:

"Students who don't have the words, who don't have the literacy and numeracy to express their knowing and their understandings about the world around them and their own position in their world, the artwork was amazing. I've got amazing things from a student with Asperger's who normally doesn't give any emotion."

This observation was supported by students who participated in a group discussion. When asked: 'What did you learn when making the artwork', one student commented: "I learnt that it's okay to express myself, and you don't have to share something you don't want to'. Another commented that he 'learnt how artwork can represent your feelings and emotions'.

A more positive, gentle classroom atmosphere was also linked to implementation of the Dax units of work. The activities were seen to have facilitated teacher-student and student-to-student engagement, trust and rapport. Students were visibly more enthusiastic about their art work and creating more thoughtful art, rather than the 'uniform and

bland pieces of work that were produced in the past'. One teacher explained that:

"It has given students who would never participate in art or even appreciate the work an opportunity to engage. They are now loving art because there's not that fear...those kids are producing things they're really proud of. You can definitely see a change. Student who would never talk and share are coming out of their shell and are a lot more confident."

And,

"...the kids in my room feel a safety about their well-being and their emotional well-being, not judged. They're very open and they do talk and they do communicate. I know my grade can be quite difficult, but within the room they are very supportive of one another and they actually as a team get on really, really well."

Moreover, involvement in the Dax units of work was seen to have helped students 'appreciate why somebody made that artwork' and to understand the power and 'meaning of art, not just producing it because they have to'. Teachers reported that as a consequence students were learning more about each other and developing a greater capacity to empathise – 'just seeing how concerned and connected they were when sharing feelings about their artwork was incredible' Another teacher commented that 'when I was implementing the units, the calming effect on them was amazing...previously it would be 'your work is dumb' or 'stupid' and so on. Now, kids were sharing feelings and finding things in common with other kids that they didn't have a lot of contact with".

This claim was substantiated by students who commented that as a result of participating in the Dax units of work, they 'learnt things about some other people, not just my friends that I didn't know before'. Other positive reactions from students were that the experience was 'something different from what we normally do...it was really fun and we looked forward to it each week. Sometimes we were so eager we reminded the teacher a lot'. Another student, a grade 3 boy, felt that the artwork he produced was more individual and meaningful – 'it's something that represents you, not what the teacher has told you to do, to paint".

Wider effects

Teachers reported some initial changes within the school community. Primarily, this was linked with efforts to promote visibility of ELVA in school newsletters, meetings and other forums. Often this was achieved by inviting the Dax Centre lead facilitator to attend briefing sessions for staff. This helped raise awareness, address any potential concerns and misunderstandings, and legitimise the approach.

Many schools also experimented with the use of visual displays of student artwork in reception areas, classrooms and at parent-teacher nights. This proved to be a useful strategy for 'creating conversations' about the value of visual arts and the relationship to emotional literacy. For example, one principal spoke at length about the unusually high

number of unsolicited comments he received from visitors, who almost invariably remarked on the uniqueness of student work – “it’s not like traditional primary school art; it didn’t look all the same. I’ve never seen that level of interest and comment from people who are visiting our school”.

When asked about parent responses to ELVA, several teachers described examples of favourable reactions, noting that support for the innovation was strong. At events, some parents recounted to teachers that their child had spoken positively at home about their experiences of creating and talking about art, and were astonished with the depth of insight, understanding and sophistication of language used to describe emotions and feelings. One pilot school, in a rather unique situation, was able to successfully apply their learning about the Dax approach to support students, teachers and parents who were dealing with the stress, anxiety and heightened emotions associated with impending school closure.

Innovations produce a variety of effects, some of which are unintended. One foreseeable negative outcome of ELVA is ‘leakage’. This involves teachers sharing materials with colleagues who have not participated in the training, thus potentially undermining implementation integrity. Related to this, is the idea that teachers may misunderstand the philosophy underlying the program, and come to view their role as akin to an ‘art therapist’. We did not find any evidence to suggest this had occurred, but note that the training facilitators spent considerable time within the curriculum discussing these matters.

Areas for Improvement

During the interviews, teachers were invited to provide suggestions for ways in which ELVA could be improved. Comments were focused mainly on practical matters such as the desirability of having a consolidated package of training materials and lesson plans, including online resources to support implementation. Some commented that they would have liked to focus less on theory and more on practice, while others felt that conceptual underpinnings could have been elaborated, possibly involving the use of more expert ‘guest’ speakers.

Many teachers struggled with how best to ‘sell’ the approach in their particular school, and would like more guidance and resources to enable this to happen. Sharing practice-based examples of how the innovation had been applied in different settings, and with different student groups, were frequently mentioned as good ways to enhance adoption. Videotaping of classroom sessions and opportunities to ‘see’ how experienced teachers run Dax lessons with their students were also highlighted as effective strategies to enhance learning and uptake. To support practice change, many respondents expressed an interest in developing structures to maintain communication and knowledge sharing between the growing network of participating schools and teachers.

Training Transfer: Results from a Six Month Follow-Up

In this component of the evaluation we obtained, amongst other things, follow-up evidence to help determine whether and to what extent transfer of learning occurred, six months following participation in the pilot. Three key questions guided data collection efforts: Do teachers continue to use ELVA in their daily practice? What factors in the school setting help or hinder practice change? Are teachers observing any benefits of practice change on students?

Method and Data Source

Participants

In total, 13 teachers participated in the follow-up questionnaire, representing an acceptable response rate of 62%⁴. However, given the low sample size caution needs to be exercised when interpreting results. Of this group, 12 were female. The majority (50%) were aged between 50-59 years, with the second most common age category 30-39 years (21.5%). Most participants reported having 20 or more years of teaching experience (57%), followed by equal proportions of 1-5 and 6-10 years (14%).

All respondents were located in the government school sector, and a little over two-thirds of the sample reported working in large schools with 300+ students. In terms of job position, most described themselves as classroom teachers (46%), followed by art teachers (38%) and 15% indicated they were part of the leadership group at their school. There was an even spread of grade level taught, from prep to year six.

Measures

The survey instrument was a modified version of the tool developed by the Australian Council of Educational Research (ACER) to measure the impact of teacher professional development programs on knowledge, practice, self-efficacy and student learning outcomes (Ingvarson, Meiers, & Beavis, 2004). Teachers provided demographic information as indicated above. The survey also contained indicators of participant satisfaction with the quality of the training and structured self-report data on levels of use and barriers to implementing Dax units of work.

⁴ One respondent was removed from the analysis due to a high number of missing data/skipped responses. Note that with a sample size of 13 and population of 21, the confidence interval or margin of error is 18%.

Procedures

An online survey method was selected to obtain feedback from participants. Questions were developed in collaboration with Dax facilitators and pilot tested on a sample of teachers familiar with the ELVA approach. The survey was designed and administered through SurveyMonkey®. The principal evaluator sent email requests to all 21 eligible teachers requesting their participation in the survey. The email contained a link to the survey. Two rounds of reminder emails were sent, roughly two weeks apart.

Key Findings from the Survey

Descriptive results are reported below for measures relating to five key domains of the survey: (a) school support, (b) perceptions of training quality, (c) impact on teacher knowledge and practice change, (d) levels of use and barriers to training transfer, and (e) student outcomes. Although we see potential relationships among these domains, given the small number of respondents it was not possible to investigate these in this study. For example, to analyse possible associations between variables such as level of school support and teacher knowledge and practice change.

School support

School support for professional development was measured by asking respondents to indicate the extent of agreement with the following statements:

- The leaders at my school actively support and encourage all staff to take part in professional development
- Insufficient time is available in my school to support teachers' professional learning
- Follow up support for professional development is available within my school
- Teachers at my school work collaboratively to resolve teaching and learning issues
- The arts are valued and supported at my school

According to Ingvarson et al (2004) these factors constitute control variables that might account for variance in the impact of professional development on teacher outcomes. The responses to these items were positive overall. This suggests that at most pilot schools there were good levels of support for teachers to implement knowledge and insights gained through participation in ELVA.

Perceptions of training quality

Previous sections of this report present findings regarding training satisfaction, drawing on post-training feedback forms and participant interviews. These data indicate that immediately following completion of professional learning, teachers were very positive about the quality of ELVA. To investigate this finding further, teachers were asked to provide an overall rating on a scale with response options of 'excellent', 'good', 'average', 'poor' or 'very poor'. All 13 respondents rated the professional learning as excellent.

Additional data were obtained by asking teachers to report on the extent they disagreed or agreed with a series of statements regarding the training (1=strongly disagree, 5= strongly agree). Table 4 reports these results.

Table 2: To what extent to you disagree or agree with the following statements:

	N	Mode	Range	Sparkbar
The training met my expectations	13	5	1-5	
I am able to apply the knowledge learned	12	5	1-5	
The content was organised and easy to follow	13	5	1-5	
The materials distributed were pertinent and useful	13	5	1-5	
The facilitators were knowledgeable	13	5	1-5	
The quality of instruction was excellent	13	5	1-5	
Participation and interaction were encouraged	13	5	1-5	
Adequate time was provided for questions and discussion	13	5	1-5	
				1 2 3 4 5

Impact on teachers

To estimate the impact of ELVA on different dimensions of teacher learning we asked participants to rate their level of knowledge (low, medium, high) before then after the training. Table 5 provides retrospective pre-post mean scores. These show positive gains for all learning dimensions. This suggests that teachers feel there has been significant knowledge gains associated with the training, especially in their understanding of the importance of emotional literacy for student development and the role of art-making experiences for enhancing emotional literacy.

Table 3: Teachers' retrospective pre-post rating of knowledge

	Pre Mean	Post Mean	Change
Emotional literacy and its importance for child development	8	13	+5
Teacher-student relationships in the process of providing a safe and supportive environment	11.7	13	+1.3
The role of art making in enhancing emotional literacy in children.	7.3	12.3	+5
Creating an emotionally safe and supportive environment	9.3	12.3	+3
The role of experiences in enhancing emotional literacy	7.7	13	+5.3
The implications of a teacher reflecting on their own emotional life	7.7	12	+4.3

Participants in the survey were also invited to indicate the extent to which professional learning through ELVA had made a difference to the way they teach, using the following five-point scale:

1. No difference
2. Slight difference
3. Some difference
4. A great difference
5. Tremendous difference

Almost one-third (31%) stated that the training made a 'tremendous difference', 62 percent noted a 'great difference' in their teaching following ELVA and 8 percent 'some difference'. No-one felt that the training had made 'no' or only a 'slight' difference.

Levels and barriers to use

The vast majority of teachers indicated they had trialled at least one of the seventeen Dax units of work in their classroom (92%). The most frequently mentioned units implemented after the training were inside-outside containers, rainbow of feelings, self-portraits and body maps. All thirteen participants indicated an intention to use one or more units of work in the future.

Over half of the respondents reported experiencing barriers to implementing the Dax units of work, with the most common issues being disrupted working conditions at the school (83%) and lack of time (67%). Few respondents reported lack of support from leadership or peers as a barrier, although some noted challenges associated with space and/or materials to run art activities. These findings are consistent with positive results from the school support measures described earlier.

Student outcomes

Indirect measures of student and related teacher outcomes were obtained by asking teachers to respond to a series of statements that convey important desired effects of the initiative. Figure 4 suggests that teachers believe their participation in ELVA has helped them to create a classroom environment that better supports the development of student emotional literacy. Many also reported feeling more confident in their teaching practice.

All participants agreed that overall, students are more engaged, have a greater awareness of the emotional world of other students, and are more reflective about the impact of their emotions and behaviours on others.

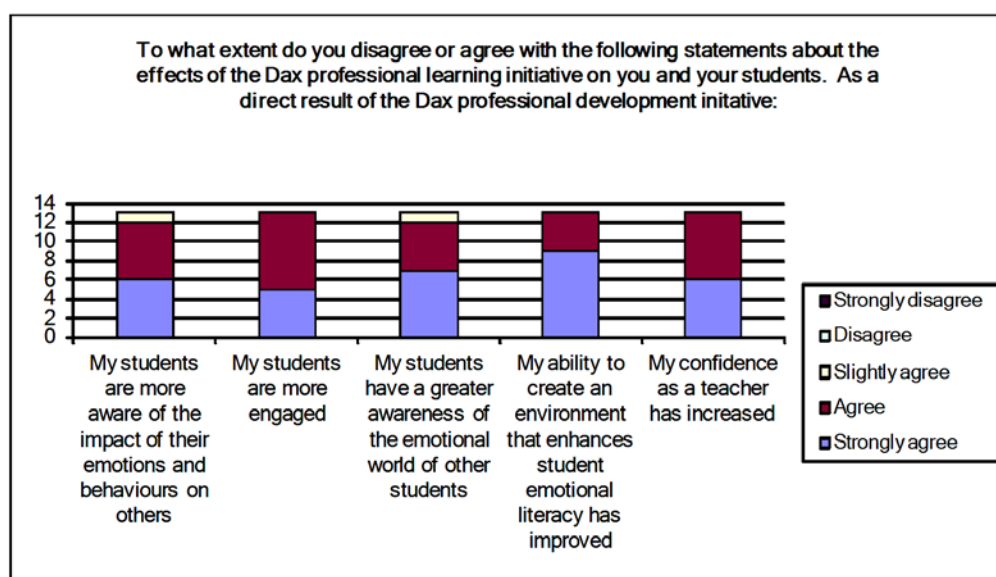


Figure 4: Teacher perceptions of student outcomes and related effects on classroom environment and teaching confidence

Discussion and Limitations of the Analysis

Professional learning and development programs are a ubiquitous feature of the Victorian school sector. Considerable amounts of funding are provided each year to support teacher participation in a wide variety of training programs. Although professional development is recognised as a key factor in supporting learning and student outcomes, the assumption that knowledge is automatically applied back at school and in the classroom is questionable. Teacher practice change is hard to achieve and often even harder to maintain.

Training transfer research indicates that when participants return to the workplace, many struggle to implement what they have learnt, despite high reported levels of satisfaction and gains in pre-post knowledge levels (Burke & Hutchins, 2007). In fact, some studies estimate that as little as 10% of training leads to practice change, with others suggesting that around half of training investments do not result in *any* noticeable improvements in the workplace (Georgenson, 1982; Saks, 2002).

This can occur for a variety of reasons, but most commonly there is an absence of a supportive environment and/or insurmountable time and resource constraints. Work practices continue as before, with limited opportunities to introduce and embed new innovations.

Given the difficulty of achieving training transfer, we believe the results contained in this section constitute an important aspect of understanding the effectiveness of ELVA⁵. A number of summary interpretations can be drawn from results of the post-training follow-up survey:

- Supportive context: School leadership, advocacy and commitment is necessary for enabling ongoing implementation and routinisation;
- Training quality: Teacher judgements of training quality have not changed half a year post-training, remaining very positive, thus reducing the plausibility of initial halo or recency effects;
- Teacher knowledge and practice change: Teachers report that they are still using what they have learnt, both directly in terms of the Dax units of work, and conceptually, with respect to changes in teaching attitudes, confidence and practice; and
- Student impacts: There is partial evidence to suggest that as a result of changes in classroom practice, students are experiencing more opportunities to reflect on the significance of their own and other's emotions.

Overall, the survey findings are promising and triangulate well with data reported in earlier sections of this report. Even so, it is important to emphasise that the sample of respondents is small (n=13), and may not be representative of the population of teachers who participated in the ELVA pilot (n=21). Larger sample sizes are also needed to draw clearer causal inferences about effects on teacher practice, tease out possible sub-group differences, and explore the impact of individual and school context factors on training transfer.

⁵ Certainly in terms of teacher practice change, which according to the program model is an important link in the causal chain that contributes to improved student emotional literacy outcomes.

Conclusions and Implications

This section examines a number of implications for the ongoing development of ELVA that have arisen during the course of this project. Strategic priorities are grouped according to the following key themes: (1) improving design and delivery; (2) strengthening the research and evidence-base; and (3) planning for sustainability. The Dax Centre is already actioning plans to respond to each of these developmental priorities, although several areas require funding to be generated before meaningful progress can be made.

Suggestions to Improve Design and Delivery

An important initial step in the evaluation of ELVA was to engage stakeholders in a process of clarifying how and why the initiative is assumed to work. A logic model was developed as a way to capture and 'represent', albeit in a simplified way, the basic links between inputs, processes and outcomes. In the real-world things are never so simple. Nevertheless, the model provides a useful frame of reference for guiding practice and development to ensure that outcomes are maximised.

For example, the findings suggest that the *processes* involved in the implementation of ELVA are more likely to produce the desired outcomes when teachers are located in supportive school contexts. If this is not the case then transfer of training to the classroom is more difficult to achieve. This has clear implications for selection criteria, and supports the importance of Dax maintaining current protocols for identifying schools and recruiting teachers.

We were also able to confirm and elaborate the logic model component that specifies the design of teacher professional development as an integral aspect of ELVA. We now know that there are several non-negotiable core elements to 'protect' and strengthen as the initiative moves forward:

- Appropriate duration
- Theory-practice mix
- Experiential learning
- High-quality facilitators
- Collective participation; and
- Ongoing support and materials⁶.

There is also evidence to suggest there are various factors associated with teachers and the broader school context that are important and potentially modifiable influences on effective implementation (see Table 2, p. 32).

⁶ These elements are largely consistent with findings from research on core features associated with effective teacher professional development (see for example, Desimone, 2009).

Our impression is that Dax Centre staff involved in this pilot were intuitively aware of these elements and features of effective teacher professional learning, and this explains in part the favourable response from teachers and schools.

We recommend that more explicit attention now be provided to each of the above aspects of the training, and that this is used to inform future training sessions⁷.

Suggested Actions

1. Consolidate teaching materials and resources, including the development of a training manual for use by current and future facilitators
2. Initiate an e-learning platform to support demand for a community of practice site for ELVA teachers
3. Consider moving toward a more formalised system for 'qualifying' teachers in the Dax approach
4. Support continued professional development of teachers through conferences, master classes and other learning opportunities

Strengthening the Research and Evidence-Base

The information on program outcomes and impacts that have been put forward in this report should be viewed as a provisional attempt to strengthen the empirical evidence-base of ELVA. More detailed description and statistical measurement of causal links, as well as deeper explanatory knowledge of how the initiative works to generate outcomes, will emerge over time as successive research and evaluation efforts are conducted.

The findings of our investigation suggest that there would be considerable value to be gained by improving the way in which outcomes are measured and monitored. One way of achieving this would be to enhance data collection systems so that they were able to more readily capture information on the kinds of outcomes we have identified in this evaluation. At present, there is no dedicated database for tracking teacher outcomes over time, nor is there an agreed upon instrument for measuring change in students.

There is also clear scope for improvement in terms of quantitative impact evaluation, as these techniques offer a comparative advantage in terms of formally addressing the counterfactual. For example, what would have happened if teachers did not participate in ELVA? Do students who experience Dax lessons differ from those who do not? Given the circumstances, there would seem to be too many difficulties associated with using a randomised control design. Prospective studies would most likely need to consider a variety of quasi-experimental options, tailored to different components of the initiative.

⁷ For example, Kolb's (1984) four-stage model of experiential learning could help to inform the theory and practice underlying this feature of effective professional development.

For example, evaluators might be able to use non-equivalent matched comparison groups of students to estimate effects on those who receive Dax units of work versus a comparable group who do not (assuming of course, that a valid instrument to assess student outcomes is identifiable, or can be developed). Similarly, although simple pre-post designs are subject to several validity threats, they provide one way of assessing whether there have been gains in teacher knowledge before and after participation in ELVA professional learning.

It is important to caution that there will always be an element of ambiguity when attempting to measure, in a quantitative sense, the impact of ELVA. This is unavoidable as the initiative deals with complex, multi-dimensional outcomes such as teacher practice change and student emotional literacy. Therefore, there is also a need to diversify future measurement efforts through the use of multiple qualitative methods, as this would compensate for the weaknesses of statistical performance measures. As Patton (1997) reminds us: '[It is better to have] soft or rough measures of important goals rather than highly precise, quantitative measures of goals that no one much cares about' (p. 161).

Suggested Actions

1. Develop internal data collection systems, quantitative and qualitative, that enable ongoing and regular monitoring of ELVA
2. As part of the above, specify criteria and standards that can be used to make judgements about the merit and worth of ELVA performance and impact (e.g. 70% of teachers' report using at least one Dax unit of work 6 months post training)
3. Undertake a scoping study to determine the suitability of using or adapting existing measures of student emotional literacy, and/or the need for developing a purpose-built tool

Pathways to Sustainability: Some General Considerations

Although sustainability is a common concern among program stakeholders, many innovations, even those that have demonstrated effectiveness, terminate within a relatively short time after start-up resources are expended. Conservative estimates suggest that as many as 40% of pilot initiatives are not sustained (Elsworth & Astbury, 2005).

Moving forward, a critical question for ELVA is: 'What happens after the initial 5-year funding ends? There are some general lessons that have been learnt about ways of enhancing sustainability that can be incorporated into ELVA forward planning. Some of the key factors include:

- Build support by developing and maintaining a diverse and effective range of networks and partnerships
- Initiate broad-based marketing and promotion to disseminate early achievements

- Establish regular internal monitoring and evaluation processes
- Stabilise the funding base and where possible diversify funding streams (i.e. not relying on a single source of funding)
- Develop a closer 'fit' between the initiative and the organisational context in which it operates
- Leverage from existing and complementary initiatives and identify organisations that could support ELVA activities into the future

ELVA is not expensive to run. The major costs for the Dax Centre are staff time to co-ordinate the initiative and deliver professional development activities. Recently, a new business model has been trialled to ascertain the feasibility of a user-pays system. This will need to be reviewed, but could offer one option to (partially) cover staff expenditure. Additional revenue streams may need to be considered, including one-off funding proposals, provision of modified/customised ELVA training activities for professionals working in other sectors, and corporate fund-raising events.

To date, almost all of the teacher professional learning, and indeed conceptual development and co-ordination of the entire ELVA approach, has been undertaken by one part-time lead facilitator, with support from a clinical co-facilitator. There is a clear need to build training capacity and 'spread the knowledge' to ensure sustainability of the initiative.

Suggested Actions

1. Develop a 3-year strategic plan and funding proposal for ELVA, with links to current and future Dax Centre directions
2. Allocate additional staff resources (0.4 EFT) to manage and further develop ELVA
3. Maintain the EVLA working group
4. Provide follow-up support to schools and teachers that participated in the pilot
5. Develop a dedicated EVLA website presence, including a space for schools to disseminate good practice examples, case studies, literature and other resources

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